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Rural Prosperity for Development: Understandings, Determinants and Strategies Derived from Case Studies in Seven Countries

Ph.D. Thesis
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B.Sc. Applied Environmental Sciences and International Relations
M.Sc. Project Planning for Rural Development and Sustainable
Management

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EL PRESIDENTE

LOS VOCALES

EL SECRETARIO

*Natura semina nobis scientiae dedit,
scientiam non dedit*

Séneca, Ep. 120, 4

To my father

Always

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Abstract

This Ph.D. Thesis has been developed within the framework of a European project called “Rethinking the links between farm modernisation, rural development and resilience in a world of increasing demands and finite resources”. It is a transdisciplinary research project supported by the European Commission and funding bodies in 14 countries under the umbrella of FP7 and the RURAGRI ERA-NET. The project has examined 4 main themes: resilience, prosperity, governance and knowledge and learning. The chapters that comprise this Ph.D. Thesis and that are summarized below are the result of the analysis of one of these themes: rural prosperity. The overall objective of the Thesis is to comprehend what is rural prosperity and what does it imply in terms of strategies and actions to reach it. For this, a global idea around the theoretical aspects of rural prosperity was obtained, as well as the specific meaning and characteristics that it acquires in rural environments taking into account the endogenous visions and opinions of the local stakeholders.

The concept of prosperity is a target area for the 2030 Sustainable Development Goals (SDG) and as such is present in the discourse and agenda of nations all around the world. Both the definition and quantification of the different dimensions of prosperity is currently a much-discussed issue and a living reality. The concept of rural prosperity has in the past mainly been associated with the modernization of agriculture and the economic benefits that appeared to originate from it. The common assumption was that rationalization in farming, scale enlargement, specialization and mechanization contribute to higher farm incomes and, eventually, to rural prosperity. Today we know that this simple logic is not correct in several respects: the increasing capital intensity in farming tends to be connected with debt and (path) dependency, and farm incomes seem to be under continuous economic pressure. Regionally, farm structural change and the modernization of a few farms have not always contributed to prosperous rural areas and the concentration of production in some regions and on some farms, can be directly linked with the marginalization of other regions and farms.

Chapter 1 presents a qualitative empirically grounded analysis of these questions based on in-depth case studies in seven countries (Spain, Italy, Lithuania, Latvia, Israel, Germany and Denmark) that represent a broad spectrum of socio-economic and agricultural contexts. The study is based on a total of 369 interviews and 11 focus groups. During this analysis, it was found that many rural people, including many farm households, search for models where people thrive, find well-being and live in sustainable ways. New understandings of rural prosperity as well as the determinants, strategies and mechanisms supporting it are examined. Personal well-being, maintaining vibrant rural areas, sense of community, knowledge and the environment amongst others are key according to stakeholders to reach prosperous rural areas, for which, enabling factors such as accommodating policies that aim at finding the balance between the old and the new, R&D and innovation for management, cooperation or trust are needed. The fact that there are many valid alternative development trajectories was also observed.

Building on this, chapter 2 analyses more in depth the Spanish case study, which obtained its data from 38 face to face interviews. The focus is mainly on the strategies used by the

cooperative's farming partners to achieve success without following the traditional conventions of economic growth and farm-efficiency. Experience lessons in this chapter demonstrate that the "technical-economic" approach of rural prosperity is not sufficient and results emphasize the important role of individuals' behaviour as well as the contexts in which they are involved.

Chapter 3 develops from the results obtained in chapters 1 and 2, where four social capital elements emerge as key to achieve prosperity and sustainable development in rural areas. The objective was therefore to explore the importance of social capital in rural development. In this chapter, data from the 7 Rethink case studies is again used for the analysis. The chapter explores how social capital materialises in the context of rural areas and what nuances it acquires in the different rural environments. The case studies are used to better understand and to illustrate the different expressions of social capital in different situations. Within the broad notion of social capital, we pay particular attention to trust, cooperation, sense of community and culture and tradition. All these different dimensions have shown to play a critical role in rural areas as they affect how people relate to each other, organise themselves and interact for development.

Chapter 4 summarizes the main conclusions derived from the Doctoral Thesis and describes the key elements and strategies to be taken into account for the analysis of prosperity in rural contexts. The different results are presented through illustrative figures in which the main conclusions of each chapter and of the thesis in general are represented. Firstly, the view that rural prosperity is obtained only as a result of large-scale agriculture, mechanization and specialization is discussed, and the limitations of this approach are presented by emphasizing a number of aspects that are not clearly reflected in GDP, but that according to this research play a very important role in rural prosperity. This new vision is reflected in the strategies implemented by the farmers that are part of this research. These strategies are also described in this chapter. In addition, it argues that these strategies should be strengthened and supported by policies that: embrace and support different development models, provide a space to grow and to experience, and recognize the different roles farmers play in rural prosperity. The conclusions also highlight the importance of social capital, in its different elements, for the prosperity and development of rural areas. Finally, the relationship between the different learnings on how to understand prosperity in rural territories and the different elements and strategies that define and promote it are established in order to institute the basis on which to build models and indicators that allow the development and measurement of prosperity in rural areas.

Resumen

Esta Tesis Doctoral ha sido desarrollada dentro de un Proyecto Europeo denominado RETHINK (Repensando los vínculos entre la modernización de las explotaciones, el desarrollo rural y la resiliencia, en un mundo con crecientes demandas y recursos finitos). Es un proyecto de investigación transdisciplinar de la Comisión Europea, apoyado por organismos de financiación de 14 países dentro del 7º Programa Marco y ERA-NET RURAGRI. El proyecto investiga cuatro temas principales: resiliencia, prosperidad, gobernanza y, conocimiento y aprendizaje. Los capítulos que forman esta Tesis Doctoral y que se resumen a continuación son el resultado del análisis de uno de estos temas: la prosperidad rural. El objetivo general de la tesis es comprender la prosperidad rural y qué implica en términos de estrategias y acciones. Para ello, se realizó una investigación en torno a los aspectos teóricos de la prosperidad rural, y posteriormente se estudió su significado y las características específicas que adquiere en el medio rural, teniendo en cuenta la visión endógena y opiniones de las partes locales interesadas.

La prosperidad es una de las áreas claves dentro de los Objetivos de Desarrollo Sostenible 2030 (SDG) y por tanto está presente en el discurso y la agenda de las naciones de todo el mundo. Tanto la definición como la cuantificación de las distintas dimensiones que conforman el concepto de prosperidad son actualmente temas recurrentemente discutidos y una realidad viva. En el pasado, el concepto de prosperidad en el medio rural ha sido principalmente asociado con la modernización de la agricultura y los beneficios económicos que parecen originar de ella. La suposición más común era que la racionalización de la agricultura, las ampliaciones a gran escala, la especialización y la mecanización contribuyen a la obtención de grandes ingresos en agricultura y eventualmente, a alcanzar prosperidad rural. Hoy en día se sabe que esta simple lógica no es correcta pues el aumento de la intensidad de capital en agricultura tiende a estar relacionado con deudas y dependencia y las rentas agrarias parecen sufrir presión económica continua. A nivel regional, los cambios estructurales en agricultura y la modernización de unas pocas explotaciones no siempre han contribuido a tener áreas rurales prósperas, además de que la concentración de producción en algunas regiones y explotaciones, puede vincularse directamente con la marginalización de otras.

El capítulo 1 presenta un análisis cualitativo con una base empírica sobre estas cuestiones basado en casos de estudio de siete países (España, Italia, Lituania, Letonia, Israel, Alemania y Dinamarca) que presentan un amplio espectro de contextos agrícolas y socio-económicos. El estudio está basado en un total de 369 entrevistas y 11 grupos de discusión. Durante la investigación se entró en contacto con muchas personas procedentes de ámbitos rurales que buscan modelos en los que la gente pueda prosperar, encontrar bienestar y llevar un modo de vida sostenible. Se exploraron las nuevas concepciones del concepto de prosperidad rural, así como los factores determinantes, estrategias y mecanismos que lo soportan. Bienestar personal, mantener áreas rurales vivas, la existencia de un sentimiento comunitario, la adquisición de conocimiento y el cuidado del medio ambiente entre otros, son clave, de acuerdo con las partes interesadas, para poder obtener áreas rurales prósperas. Para ello, es necesario que existan políticas flexibles que busquen encontrar un equilibrio entre lo antiguo y lo nuevo, además de I+D+i, cooperación y confianza. Igualmente se observó la existencia de trayectorias de desarrollo alternativas e igualmente válidas.

A partir de estos datos, el capítulo 2 analiza en mayor profundidad el caso de estudio español, basado en 38 entrevistas personales. Este capítulo se centra principalmente en las estrategias utilizadas por los socios de la cooperativa agrícola para tener éxito sin seguir las convenciones tradicionales de crecimiento económico y eficiencia en agricultura. Las lecciones de experiencia de este capítulo demuestran que el enfoque “técnico-económico” en la prosperidad rural no es suficiente y los resultados destacan la importancia del papel que juega el comportamiento de las personas, así como los contextos en los que se encuentran. En definitiva, la importancia del capital social para desarrollar estrategias eficaces y sostenibles que incidan en la prosperidad rural.

El capítulo 3 se desarrolló basado en los resultados de los capítulos anteriores, donde cuatro elementos del capital social surgen como aspectos fundamentales para lograr prosperidad y desarrollo sostenible en áreas rurales. El objetivo, por lo tanto, es el de explorar la importancia del capital social para el desarrollo rural. En este capítulo, los datos de los 7 casos de estudio de Rethink se utilizan de nuevo para el análisis. El capítulo explora cómo el capital social se materializa en contextos rurales y cuáles son las características específicas que adquiere en los distintos entornos. Los casos de estudio se utilizan para entender e ilustrar las diferentes expresiones del capital social en las distintas situaciones encontradas. Dentro de la amplia noción de capital social, se presta atención particularmente a aquellos elementos que destacaron en los análisis de los capítulos 1 y 2, que son: confianza, cooperación, sentimiento comunitario y cultura y tradición. Todas estas dimensiones han demostrado jugar un papel crítico en áreas rurales ya que influyen en cómo las personas se relacionan entre sí, cómo se organizan y cómo interactúan para alcanzar desarrollo.

El capítulo 4 resume las principales conclusiones derivadas de la Tesis Doctoral y describe los elementos y estrategias clave a tener en cuenta para el análisis de la prosperidad en contextos rurales. Los distintos resultados se presentan a través de gráficos ilustrativos en los que están representadas las principales conclusiones de cada capítulo y de la Tesis en general. Primeramente, se discute la visión de que la prosperidad rural se obtiene únicamente como resultado de la agricultura a gran escala, de la mecanización y de la especialización, y se argumentan las limitaciones de este enfoque poniendo énfasis en una serie de aspectos que no se encuentran claramente reflejados en el PIB, pero que de acuerdo con esta investigación juegan un papel muy importante en la prosperidad rural. Esta nueva visión se ve reflejada en las estrategias puestas en marcha por los agricultores que forman parte de esta investigación y que también se detallan en este capítulo. Además, se argumenta que estas estrategias deberían verse reforzadas y apoyadas por políticas que abarquen y admitan los distintos modelos de desarrollo, que proporcionen un espacio donde crecer y experimentar y que reconozcan los distintos roles que juegan los agricultores en la prosperidad rural. Se elaboran también las conclusiones sobre la importancia del capital social, en sus diferentes elementos, para la prosperidad y el desarrollo de las zonas rurales. Finalmente se ponen en relación los distintos aprendizajes de la Tesis sobre el modo de entender la prosperidad en los territorios rurales, así como los diferentes elementos y estrategias que lo definen y fomentan, para establecer la base sobre la cual construir modelos e indicadores que permitan desarrollar y medir la prosperidad en las zonas rurales.

INTRODUCTION

1.1. Concepts and general framework

The present Ph.D. Thesis is part of a wider research field that explores the modernisation of rural areas and sustainable rural development. This thesis focuses on the study of the prosperity concept within rural areas; prosperity being the central element of the analysis and the glue that holds the 4 chapters that comprise this Thesis together.

Figure 1 below represents the different analytical purposes of each of the chapters as well as their position within the Thesis and analytical structure: The first chapter analyses the current characteristics of rural prosperity and builds on them to contribute to the developing of new understandings of the term according to stakeholders from seven different countries. It also examines the determinants that need to exist to reach rural prosperity as well as the current alternative development models and paths found within the case studies. The second chapter focuses on the particular strategies set up by an agricultural cooperative from one of the case studies that falls within one of these alternative models. The framework used for the analysis of the strategies is the Working With People model, which concludes with the important role played by social capital elements within these strategies. Chapter 3 builds on the results from the previous chapters, where social components seem to play a rather important role. Hence, it analyses the role and special nuances acquired by four social capital elements using the same seven case studies from chapter 1. Finally, chapter 4 discusses the main results and conclusions of the whole research process that makes up this Ph.D. Thesis.

Figure 1. Ph.D. analytical steps with a short overview of their focus and methodologies

1.1.1. Chapters 1 and 2: Understandings, determinants and strategies for rural prosperity

Nowadays, prosperity is a concept found at the top of the international global agenda, as it is one of the 5 main areas that comprise the goals and targets specified on the 2030 Agenda for Sustainable Development: people, planet, prosperity, peace and partnership (United Nations, 2016). The 17 Sustainable Development Goals that came into force on January 1st 2016 call for action to promote prosperity while protecting the planet (United Nations, 2015). World countries have therefore adopted a compromise to “ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature” (United Nations, 2015).

In order to initiate and facilitate an open dialogue platform, the European Economic and Social Committee (EESC), United Nations Environmental Program (UNEP) and the European Environmental Bureau (EEB) jointly organised a conference on the 12th-13th of November 2015 in order to discuss Europe’s contribution and responsibility to the full implementation of the agenda in its 5 main areas. The message that came up from the conference was clear: “Business-as-usual will not work because the 2030 Sustainable Development Agenda” “Transforming the World”, is also an agenda for “Transforming Europe” and much has to be done in order to comply with the 17 SDGs. Citizens have to be informed, listened to, involved and included in all necessary steps. Strategies and actions have to be set now, where the focus has to be redirected from a solely economic growth and jobs agenda towards well-being, conservation of nature, decreasing resource use and closing the inequality gap (European Environmental Bureau, 2015).

Chapter 1 builds on the multidimensionality of the concept of prosperity, but explores the past and current definitions that are part of academic discourses. The concept of prosperity does not yet count with a consensual definition in literature, as it has been used in different and diverse ways to serve different purposes. However, conventionally, the concept of prosperity has been associated to economic aspects and it has therefore been measured through the Gross Domestic Product (GDP). In fact, the Oxford Dictionary defines prosperity as “the state of being successful, especially in making money”. This assumption has been and still is challenged, as factors such as non-market services, negative externalities, changes in the asset base and the non-market dimensions of well-being are not taken into account (Jackson, 2009; Stiglitz *et al.*, 2009; De los Ríos *et al.*, 2016; Rivera *et al.*, 2017a; Rivera *et al.*, 2017b).

Both chapters 1 and 2 are framed under the current context of rural areas, which in the last decades has seen enormous structural changes in European agriculture and food production. Rural areas are currently having to respond to increasing scarcity and distributional issues, while facing uncertainty over future developments, mainly related to climate change and global markets. Additionally, food production is being driven away from natural processes and is becoming much more dependent on industrial production inputs such as fossil energy (European Environment Agency, 2010). This in turn has caused negative environmental and social outcomes (IAASTD, 2009; European Environment Agency, 2013, 2015; OECD, 2012) with very difficult remedies.

The emphasis on the virtues of economic efficiency and economies of scale has framed large, specialised farms as both inevitable and desirable, considering them the guarantors of rural prosperity, thus leading to fewer and larger farms. As a result, large farms (i.e.

100 hectares and above) while representing only 3% of the total number of farms, control 50% of all farmed land in the EU (Borras and Franco, 2013). This concentration has been (indirectly) supported by the CAP subsidy scheme which is (partly) paid per hectare of farm land. For example, in 2009 in Spain, 75% of subsidies were paid to only 16% of farmers, and in Hungary 72% of subsidies were paid to 8.6% of all farms (Borras and Franco, 2013).

Production intensification in some areas, has also caused other areas with less favourable conditions to get marginalised, causing a great list of problems that range from demographic loss to a reduction in quality of life and less governmental support (Knickel *et al.*, 2013). Nonetheless, the concentration of production also comes with environmental problems, work-related pressure, stress and indebtedness, resulting from the need to be competitive lowering production costs.

The desirability of large farms is also linked to framing the purpose of agriculture as primarily producing raw material for the agri-food (or energy) industry. As a result, the role of small-scale or part-time farming to rural economy and to the social fabric of rural areas is undervalued (Bryden *et al.*, 2011, Shucksmith and Rønningen, 2011, European Parliament, 2013). In globalised food chains, the position of small farmers has been degrading as they lose power, self-determination and benefits from the food chains is shifting towards transnational corporations who dominate these chains.

Similarly, reducing food production to the market value of the crops negates all benefits beyond market values, i.e. ignores – thus devalues – farming for example as an expression of cultural identity (van der Ploeg, 2008). Farmers are seen as entrepreneurs applying modern technologies, not as taking pride in autonomy, in being stewards of a self-controlled and self-managed resource base that includes land, labour, knowledge, and networks.

This conventional vision of agricultural production intensification as the only source of rural prosperity is what is being challenged in chapter 1, highlighting the importance of looking at a broader set of dimensions that represents people's vision of rural prosperity and the alternative paths that need to exist in order to promote the creation and development of flourishing rural areas. This research is based on the analysis of seven case studies that represent a broad spectrum of farming practices and contexts. Some of the concepts that appear in farmers' understandings of rural prosperity are: well-being which according to farmers' understandings includes aspects such as health, self-control, satisfaction and community values, knowledge and culture, the environment, employment and sense of community. When looking at the enablers, aspects such as multi-actor governance, innovation, cooperation, trust and society's solidarity with farming emerged as key to reach rural prosperity.

Chapter 2 builds on the results and vision of chapter 1 about rural prosperity, where social, economic and environmental factors are all taken into account and where human beings flourish, achieve greater social cohesion and find higher levels of well-being while reducing their material impact on the environment through effective alternative modernisation models. However, chapter 2 focuses just on 1 of the 7 case studies – the Spanish case study –, characterised by having “high reliance on the global market using innovation as main driving force”. This chapter digs deeper into the particular strategies they have developed to reach rural prosperity in its multidimensionality, as well as

exploring the roles played by the different spheres of the societal system in the attaining of rural prosperity. The framework that is used for this analysis is the “Working With People” (Cazorla *et al.*, 2013), so that the different strategies fall within one of the framework’s elements: technical-entrepreneurial, which integrates the key strategies that make Camposeven an investment unit capable of generating goods and services that comply with quality standards; political-contextual, gathering the strategies that facilitate the participation and the social dynamics of Camposeven with its context; and ethical-social, which covers all the strategies related to the behaviour, attitudes and values of the people within the social subsystem.

1.1.2. Chapter 3: The role of the social dimension in development and in reaching rural prosperity

During the research process that led to chapters 1 and 2, elements and strategies related to social issues stood out for playing a very important role in development. It was this realisation that pushed forward the specific analysis of Social Capital as a key concept for prosperity, and is therefore the main theme explored in this 4th chapter. Social Capital is a concept that has been used in many different disciplines, and has also become an important analytical concept and policy tool within rural development (Lin, 2001; Midgley, 2013). However, it does not count with a specific nor consensual definition yet.

There is consensus in considering social capital as an important, intangible and dynamic resource that exists in communities and that constitutes a social asset for collective efficacy (Bourdieu, 1986; Coleman, 1988; Putnam, 1993). But most importantly, the notion of social capital serves to describe the pattern and intensity of networks among people as well as the shared values which arise from those networks (Serageldin, 1998; Baker, 2000). In terms of its importance for rural prosperity and development, the ability rural communities have to organise themselves might be their most important asset for development.

Chapter 3 therefore explores the characteristics and special nuances acquired by social capital elements when contextualized in rural areas. This chapter is again based on the same seven case studies used for chapter 2 and presented in the next section. The elements analysed were those that emerged very clearly as essential during the research process of chapters 1 and 2: trust, understood as the firm belief in the reliability, truth, or ability of someone or something (Oxford Dictionary) and a key element for the creation of strong interpersonal relationships; cooperation, which is the action or process of working together to the same end (Oxford Dictionary) and that can either be informal and formal; sense of community, understood as the way individuals interact and relate to others in communities (Pooley, Cohen and Pike, 2005); and culture and tradition, which is based on shared norms and the use of these norms to achieve cooperative end (Fukuyama, 1999). These different dimensions play a critical role in rural areas as they affect how people relate to each other, organise themselves and interact for rural prosperity and development.

1.2. Methodological Approach and Case Studies

This section provides an overview of the main methodological processes followed for the attainment of this Ph.D. Thesis. Additionally, each separate chapter contains more detailed information on the specific methods and procedures carried out.

The two main methodological steps are an initial bibliographical review, which was useful in order to obtain a global idea on the use and interest of the “rural prosperity” concept by the scientific community. The main results from this analysis are briefly presented in subsection 1.4, however to see full results see annex 1.a.

The second step was the analysis of 7 case studies under the framework of an international research project called Rethink, which is a transdisciplinary research project supported by the European Commission and funding bodies in 14 countries under the umbrella of FP7 and the RURAGRI ERA-NET. Although the project’s scope consisted on the analysis of four main themes –prosperity, resilience, knowledge and learning and governance–, this Ph.D. Thesis focuses on just the prosperity theme.

As it has been pointed out before, this Ph.D. Thesis is framed within an international research project called Rethink. RETHINK is a transdisciplinary research project supported by the European Commission and funding bodies in 14 countries under the umbrella of FP7 and the RURAGRI ERA-NET. Its overall aim was to rethink the links between farm modernization, rural development and resilience in a world of increasing demands and finite resources. The project is based on the analysis of four main themes: Prosperity, Resilience, Knowledge and Learning and Governance. The analysis of this Thesis is exclusively focused on the Prosperity theme. The two main methodological steps are: (1) a literature review; and (2) case study analysis.

1.2.1. Bibliographical Review

The first step in the analysis was a literature review which mainly focused on the quantitative attributes that can be obtained from each of the reviewed papers. This first step involved two rigorously designed procedures: (A) article selection, (B) quantitative attribute analysis.

(A) Article Selection: A search within ISI Web of Science was performed. This search was restricted to the Science Citation Index Expanded and the Social Sciences Citation Index with the purpose of identifying high-impact articles published in indexed and peer-reviewed journals in the last decade.

As framework for the article selection, we used the 8 main pillars of prosperity established by the Legatum Institute (Legatum Institute, 2015): (i) economy, (ii) social capital, (iii) safety and security, (iv) personal freedom, (v) health, (vi) education, (vii) entrepreneurship and opportunity and (viii) governance. As our main focus was to analyse these concepts in rural areas, we added the word “rural” into the main article search (see Table 3 for more details). The objective was to obtain the first 100 most cited articles for each of the fields, when the article search resulted in a number a bit over 100, we selected the whole lot, when the number was smaller than

100 we looked for different search options in order to get the closer to 100 as possible. For that, we first looked for our key words in the title of the papers, for those cases when no articles were found, we looked for the key words in the topic or modified the search words within the titles.

Table 1. Article Selection

Pillar	Abbreviation	Key words	Field	N° Papers
Economy	REc	Rural Economy	Title	102
Social Capital	SC	Rural Social Capital	Title	54
Safety and Security	SS	Rural Safety	Title	46
		Rural Security	Title	55
Personal Freedom	PF	Rural person* free*	Topic	33
Health	RH	Rural Health	Title	100
Education	REd	Rural Education	Title	100
Entrepreneurship & Opportunity	REO	Rural Entrepreneurship	Title	33
		Rural Innovation	Title	33
		Rural Opportunity	Title	43
Governance	Rgo	Rural Governance	Title	72
Total				671

Source: Own elaboration

As a result, we obtained a data base of 671 papers with the main scientific literature on rural prosperity related fields for the last decade.

(B) Quantitative Analysis of the Data Material: Once the article selection was done, the articles got introduced into the tool selected as our information repository, which was Nvivo 10 software. The attributes selected for the analysis from each of the articles is shown in Table 4. Each attribute was analysed separately and in combination with the other attributes.

Table 2. Attributes for the analysis

Attributes obtained from ISI	Added Attributes
First Author	Studied Geographical Area of the paper
Title	Prosperity Pillar
Year of Publication	Country of the First Author's Affiliation Institution
Journal	Country of the Journal

Source: Own elaboration

The geographical dimension appears in three application areas: country of the journal, studied geographical area of the paper and country of the first author's affiliation institution.

The nomenclature of the geographical areas had to be consistent for all three areas and we therefore created these attributes according to the World Bank criteria. The continental groups are the following: Europe & Central Asia, North America, Latin America & Caribbean, Sub-Saharan Africa, Middle East & North Africa, East Asia & Pacific, South Asia and General.

In terms of the country grouping according to economic criteria, we used income level data classification from the World Bank for the year 2015: High income ($GNIpc \geq \$12746$), Upper middle income ($\$12746 > GNIpc \geq \4125), Lower middle income ($\$4125 > GNIpc \geq \1045), Low income ($GNIpc < \$1045$) and Not defined / General.

This way, each country got aggregated into two different pyramids, a geographical and an economical one for each of the geographical attributes. Once all these attributes and data got defined, we used both Nvivo10 and excel tables in order to cross the different attributes and obtain relevant quantitative data. This data was then analysed and contextualised into the actual situation of rural areas across the globe. Only the most relevant data and crossings are shown in the results.

1.2.2. Case Study Analysis

We base our analysis on seven case studies from RETHINK. The seven case studies were selected from a total of fourteen case studies carried out in this research programme. The key criteria used to select the fourteen case studies were:

- The relevance and richness of available information: the case study could help us answer the key research questions addressed in RETHINK.
- Maturity: the case studies are sufficiently developed and advanced to provide meaningful insights.
- Learning: these insights can, at least partly, be expressed in more generalisable terms.
- Feasibility: The case study could be comprehensively analysed from the available data and the national resources available for further data collection and analysis.

Each of the fourteen case studies provided a more profound data-based analysis for at least two of the four common cross-cutting themes in the programme: resilience, prosperity, governance, and knowledge and learning. The sub-set of seven case studies that provide the empirical basis for the exploratory analysis presented in this Thesis is formed from the case studies which analysed the prosperity and well-being topic in depth.

Overall, a flexible approach to data collection was adopted given that different kinds of knowledge and data was available in different forms in each of the case studies. Generally, the teams drew on primary and secondary data and expert discussions. A jointly developed conceptual and analytical framework (see annex 2.4), and common guidelines with key questions (see annex 2.5), criteria and indicators for each theme, ensured the comparability of case study findings. The same common research questions were applied to each case study and the comparative analysis between case studies allowed us to draw general conclusions while also highlighting the influence of contextual

factors. The questions were posed first at case study level, and later – through comparative analysis – at international level.

The common questions related to the prosperity theme for semi-standardised interviews, workshop and focus group discussions, were:

- How do you define 'prosperity', a 'flourishing farm' and a 'prosperous rural area'?
- What elements contribute to high levels of 'prosperity' and 'well-being'?
- How is your understanding of prosperity related to costs of production, cost-efficiency and input/output relations? How is it related to other factors like the adequacy to accomplish a purpose such as an improved quality of life?
- Which are the different strategies you follow to become more prosperous?
- Do the particular strategies you are pursuing contribute to the prosperity of your community and/or region?

The specific methodological approaches and informants of each case are shown in **Table 3**. The stakeholders interviewed represent various agriculture-related fields at local/regional, and national levels. They include farmers, who were the main focus of the analysis, representatives of farmers' associations, policy-makers, advisors, consultants, retailers, processors and transporters. Focus groups have been used to complement the individual interviews and to clarify different views and interpretations.

Table 3: Main actors and methodological structure for the analysis of the Case Studies

Country / Teams	No. inter views	Interviewees	No. of WS or FG	Participants in workshops and focus groups
Spain	38	Farmers in Camposeven; other Camposeven associates; Camposeven management team; key supplier and agents related to Camposeven's main activities; regional and local government representatives; Murcia's organic association representative	1	Farmers in Camposeven; Camposeven's management team; UPM researchers; 2 managers from other cooperatives; 1 regional government representative
Germany	7	Regional farmers' association; renewable energy consulting; regional agricultural office; LEADER team; representatives of H-O-T Bio-energy Region; Ministry of Agriculture of the Federal state; researchers involved in the research officially accompanying the Bio-energy Regions programme	1	Regional farmers' association; 2 agricultural offices (of both administrative districts studied); the representative of one of the two offices was at the same time responsible for LEADER; regional business development agency; organisation for farmers diversifying into on-farm holidays (participant being a farmer herself)

Denmark	51	Farmers and land owners that own more than 2 ha of land; stakeholder partnership group (OSB; inhabitants, farmers and municipal workers); an external municipal worker who has been crucial for the work and the constitution of the OSA	1	6 current board members, 1 former president and 1 municipal employee, 3 researchers
Israel	68	Farmers	4	'Returning sons/daughters', Arava R&D experts, regional Agricultural Committee, input companies operating in the Arava, various Council functions including the Head of the Regional Council, representatives of the Arava Development Company and other policy makers, innovative farmers
Italy	22	Pig farmers, processors, local officers, consortium inspectors, president of consortium, representatives of the Regional Breeder Association, professors from Florence University	1	All interviewees were present
Lithuania	180	Two groups of experts were selected (professional advisors and farmers); managers of successful farms, agricultural companies and consumers	0	
Latvia	20	Small farmers	3	2 regional: 16 participants in total: farmers, local agricultural advisors and local municipality representatives 1 national: 14 participants representing agricultural advisory services, research, farmer organisations, Ministry of Agriculture, and local and regional municipalities and administrations
Total	369		11	

Source: Own elaboration based on case studies

Throughout this Thesis, we quote stakeholders based on our interviews to support and illustrate our arguments, to clarify nuances and to comprehend the discussion.

The data obtained from the above information gathering methods was used to answer the main hypotheses of this Ph.D. Thesis in the following manner: data from the seven case studies was used for the analysis of **chapters 1 and 3**, and data from the Spanish cases study was used for **chapter 2**.

The diversity in farm structural, socio-economic and cultural contexts represented with the seven case studies analysed gives this Thesis a special richness in terms of representation of different realities, values and principles within Europe's rural areas.

1.2.3. Case studies analysed for this Ph.D. Thesis

Below, a brief introduction of each of the case studies used in this Thesis is given, however, more detail on their particularities can be found within the chapters themselves. Figure 2 shows the countries from the represented case studies. These case studies together represent a broad spectrum of socio-economic and agricultural contexts.

Figure 2. Case study countries

Germany (Chapters 1, 3)

The case study focuses on the role that rural areas and agriculture can play in the transition towards a low-carbon, resource-efficient economy. It examined cross-sectoral management, new territorial-level arrangements, new forms of governance and the valorisation of different kinds of knowledge. The analysis compares the key features of an eco-economy with those of a bio-economy

Lithuania (Chapters 1, 3)

The case study focuses on how farmers, local inhabitants and consumers strive to maintain local added-value in the food sector, especially through farmers' markets. The case study explores consumer preferences together with farmers' attitudes and changing behaviour

Israel (Chapters 1, 3)

The case study focuses on the Arava region, which is currently undergoing a major crisis that is making stakeholders reconsider some of their long-standing perceptions and motivations regarding the region, their sources of income and their own roles. The analyses examine the new directions for agricultural and rural innovation that individual farmers and regional institutions have begun developing

Latvia (Chapters 1, 3)

How modernisation influences the resilience and prosperity of farming systems. It identifies organisational innovations and initiatives that have been put in place to try to reshape the local agricultural and food markets. It also identifies diverse practices of market, territorial, social and political involvement that ensure farm development while at the same time contributing to viable and sustainable rural communities

Italy (Chapters 1, 3)

The case study analyses an outdoor pig farming system in Tuscany, which is based on a local pig breed, the Cinta Senese. The newly established high value-added food chain combines traditional artisanal methods with contemporary management and modern technologies and marketing. The products add to the region's gastronomic richness, and are a source of local prestige and pride

Denmark (Chapters 1, 3)

The case study focuses on the rural landscape as the spatial framework for agricultural and rural development. It explores how collaborative strategies can contribute to the design of agricultural landscapes that are more attractive and provide more services and how these landscapes can contribute to rural development

Spain (Chapters 1, 2, 3)

The case study analyses the evolution of the Camposeven cooperative. The cooperative emphasises the use of sustainable horticultural techniques, ways of working together that are based on trust and transparency, prioritising quality over quantity and using a diverse range of marketing channels and networks that have allowed them to be successful

1.3. Research Process: projects, lessons learnt, scientific contributions and hypotheses¹

Though this section, the process followed for the development and accomplishment of the Doctoral Thesis is presented. The links between the four different chapters that make up this Thesis and the rest of the scientific contributions derived from it, as well as the learnings and knowledge obtained from the project in which it was conducted, are also brought forward here. This section is characterised by a narrative writing style that eases its understanding.

Since I started my bachelor degree in the United Kingdom on Environmental Sciences and International Relations, my personal interest has always been to understand the dynamics and nuances that exist in the human-nature relationships, and how we can and must protect each other under the basis of respect and gratitude. Guided by these interests, my second year of undergrad I got the opportunity to travel to Ecuador and participate in the activities of a local NGO called Rikcharina, whose work focused on the rural communities around the city of Cuenca. This was my first physical encounter with local rural development and its practical side and implementation.

First trip to Ecuador (2007)

During the summer after my graduation I was an intern at the Geneva Head Quarters of the United Nations for three weeks. The work I performed was related to International Human Rights within CERD committee (Committee on the Elimination of Racial Discrimination). This experience showed me the existing disparities in terms of human rights across the globe and the urgent need of dealing with these inequalities through informed sustainable development.

Before the CERD session, 2008

¹ Note that a full list of the scientific contribution of this Ph.D. Thesis is found in the Supplement document and the full texts in Annex 1 of this document

When I finished my bachelor's degree I took a gap year to travel. I visited 3 continents and 18 different countries. This experience taught me more about life than anything else I had done before.

I travelled through and learnt from both developing and developed countries, and I had the chance to observe, learn and understand the differences and similarities between them. However, when I stop and think about which places I obtained my best experiences and learning from, I can confidently say that it was from rural areas and their communities.

Uro community, Peru

Rural communities around the world not only provide food for the whole humanity, which of course is an incredibly important task, but they also maintain attractive landscapes, protect local natural resources ensuring their sustainability and shelter ancient culture and knowledge. I always remember walking through the forest in Ecuador with the mother of my friend teaching me about all the medicinal plants that you can find growing wild in nature. And I could not help but to think how much knowledge was getting lost because of the rural to urban exodus. I come from a small village in the north of Spain called Cadavedo, but now I only visit on holidays. My grandparents are now long gone and I just wish I had exploited their knowledge to the maximum if only I had realised of its importance in time. The human-nature connection is so important; humans can really not afford to lose it.

Small village school where I taught, Honduras

Machu Picchu, 2009

Rural communities nowadays have to face many difficulties and challenges that are causing their disappearance and the abandonment of their traditional activities. However, this is not the case everywhere. There are still many vibrant rural communities that are able to live of their traditional activities. So, then I thought: there is hope! And I asked myself:

What are the current dynamics in rural areas? What exactly is causing people to leave? What makes some communities resilient and prosper even in these difficult times of globalisation and change? What needs to exist in order to attract and maintain rural demography?

Due to all of the above experiences and learnings and all these questions I had, I decided I should like to do my bit and enrolled in the Master Program "Project Planning for Rural Development and Sustainable Management" in September 2011.

The Masters introduced me to valuable knowledge that helped me understand more deeply the importance of rural areas and their development from a management point of view. I was also introduced to research through my master thesis, which was directed by Dr. José María Díaz Puente and co-directed by Dr. Pablo Vidueira. This research got me fully immersed in the analysis of ex-ante evaluations of European Rural Development Programs (RDP). All 88 RDPs from the 2007-2013 period were analysed. I gained knowledge on the role, mechanisms and procedures used by the European Union to promote rural development, as well as on their objectives and priorities in terms of

funding allocation. This research ended up being part of the Ph.D. Thesis of my colleague Pablo Vidueira, who got it published in 2014.

Vidueira, P.; Díaz-Puente, J.M. & **Rivera, M.** (2014). Socioeconomic Impact Assessment in Ex Ante Evaluations: A Case Study on the Rural Development Programs of the European Union. *Evaluation Review* 38 (4), 309-335.

With this research, new questions arose to which I wanted to find out the answer:

Are European Agricultural Funds for Rural Development well directed in order to fulfil all rural area's needs? Are they accessible to all those that may need them? Do they promote prosperity and well-being?

All the above questions played in my mind and motivated me to start a Ph.D. Program in September 2013. The year 2013 was very difficult for me as my father (to whom this Thesis is dedicated) passed away in January that year. In July, Dr. Pablo Vidueira and Dr. José María Díaz Puente called me to go for an interview with Professor Adolfo Cazorla, the director of Research Group Gesplan. Prof. Adolfo Cazorla offered me a scholarship to start a Ph.D. thesis and to work in a European Project that was going to start a few months later. This opportunity truly helped me through that difficult moment of my life.

The project under which this Ph.D. Thesis was developed was called Rethink and had a total duration of 3 years. It was a transdisciplinary research project supported by the European Commission and funding bodies in 14 countries, under the umbrella of the 7th Framework Programme and the RURAGRI ERA-NET.

RETHINK PROJECT

Rethinking the links between farm modernisation, rural development and resilience in a world of increasing demands and finite resources

<http://www.rethink-net.eu/home.html>

The director of the project, Karlheinz Knickel, together with some colleagues, came up with the idea of this project as a response to the current changes and challenges that agriculture and rural areas have to face. The agricultural sector nowadays has to be able to respond to increasing resource scarcity and distributional demands through a change in economies, production systems and lifestyles.

Being part of this project gave me the chance to try to find answers to all the questions that had taken me to that point in time, as its overall objective was to explore alternative development trajectories, highlighting innovation opportunities and identifying potential synergies between farm modernisation and sustainable rural development. This objective was met through the analysis of four different but inter-related themes: resilience, prosperity, governance and knowledge and learning.

Figure 1. Framework
Source: Rethink flyer (see Annex 3.1)

The project was organised in seven different work packages over a three years' period. The Spanish team that was led by Ignacio de los Ríos and coordinated by me, and we were responsible for the comparative analysis of the prosperity theme within WP4.

Figure 2. Project organisation and work packages
Source: Rethink flyer.

This was a perfect opportunity to orient the Thesis towards the analysis of this concept. This way, both the Thesis and the project complemented, supported and gained from each other.

Rethink Team

Nowadays the concept of prosperity does not count with a consensual definition, nor with indicators or measuring techniques. Therefore, in order to start understanding the concept of prosperity, we decided to do a bibliographical selection with the Web of Science based on the Legatum Prosperity Index and what they call the 8 pillars of prosperity (see concepts and general framework section).

We ended up with a total selection of 671 articles. For the analysis, we used the NVivo Software for qualitative studies as we wanted to explore the possibilities offered by these new types of technologies. We analysed and coded abstracts and attributes, and we ended up with a very interesting set of tables, matrices and graphs that could be crossed as desired and that produced very interesting results that answer the following questions:

Where do researchers come from? What geographical areas are most researched? Where are papers getting published? What does the geography of the research look like and how has it evolved? What themes are authors interested in?

This analysis resulted in two conference contributions and one scientific paper – corresponding to sub section 1.4 of this document–. The qualitative part of this analysis, in other words, coding the abstracts according to the subject areas, was done for two of the pillars of Rural Prosperity: Education and Economy. Each one of them was part of the Master thesis of two very good students of the Project Planning for Rural Development and Sustainable Management: Alina Seebacher and Gretel Rivera. These two Master Thesis were both published and presented in international conferences.

Presenting at the Rural Development Conference, Lithuania, 2015

Brief introduction to the geography of rural prosperity: Conference type contributions:

Contribution b:

Rivera, G., Rivera, M., & Diaz-Puente, J. M. (2015). **A Gaze on Rural Education According to Scientific Discourses during the Last Decade.** *Procedia-Social and Behavioral Sciences*, (197) 1684-1689.

Contribution c:

Rivera, M., Seebacher, A., & Puente, J. M. D. (2016). Rural Economy: A Geographical Distribution of Scientific Discourse. In *International Scientific*

The overall quantitative study of the 671 articles was complemented with the scrutiny of World Bank data sheets on rural population and rural GDP for all countries and geographical areas in the World. The analysis of the data, together with the results obtained from the article analysis in NVivo was put together to conform sub-section 1.4 of this Thesis' introduction. Doing this amount of work was possible thanks to the valuable help of María Sánchez, a student finishing her bachelor's dissertation.

Brief introduction to the geography of rural prosperity: Scientific paper type contributions:

Contribution a:

Rivera, M., Sánchez, M., Díaz-Puente, JM. (in peer-review). **A Geographical Distribution of International Research on Rural Prosperity.** Cuadernos de Desarrollo Rural.

This first research set the basis for the rest of the analysis, as it helped to see how the concept of rural prosperity was being used, who were the main authors interested in this concept, what they write about, as well as to get an overall image of the international situation of rural areas and the different interests they awake in the international scientific community. We observed that although research is a key part of development, some geographical areas receive much attention from researchers while others do not receive any. The interest on the different themes also varies with geography, and most research comes from Europe and North America.

Considering the lack of consensus around the concept of prosperity, the next step was to try to contextualise it and understand its meaning, implications and the special nuances it acquires within rural areas.

What is rural prosperity? What dimensions does it encompass? Which are the enabling elements that have to exist? How can farmer's actions and strategies achieve benefits not just for themselves but for the whole community? Are there different successful modernisation and developing models?

These questions are all addressed in **chapter 1** of this Doctoral Thesis, which counts with the analysis of 7 Rethink case studies from different countries. It consists of a comparative analysis between them that aims to shed light and help us understand the direction rural development should take in order to achieve shared rural prosperity. This chapter's corresponding scientific paper is part of a special issue that contains Rethink's main concluding papers.

Chapter 1: Scientific paper type contributions:

Rivera, M., Knickel, K., de los Rios, I., Ashkenazy, A., Pears, D., Chebach, T., Šūmane, S. (in peer review). **Rethinking the connections between agricultural change and rural prosperity: a discussion of insights derived from case studies in 7 countries.** Journal of Rural Studies

The comparative analysis was based on a set of common research questions that the different Rethink teams had to address when doing their empirical data gathering. The set of common guideline questions for the prosperity theme were prepared by Gesplan research group's members, building on the knowledge achieved from previous research processes.

This investigation also gave rise to a presentation at an international congress specialised in social issues in rural areas. It has also served, together with the other theme's

comparative papers, to inform a political piece led by Karlheinz Knickel and which is directed to the European Commission and a final concluding paper of the whole project that is also undergoing the Journal of Rural Studies peer review process within the special issue.

Rethink's Final Conference, 2015

Chapter 1: Conference and other contributions:

Contribution d:

De los Rios, I., **Rivera, M.**, Knickel, K., Chebach, T., Qvist, D., Ashkenazy, A., & Šūmane, S. **Rethinking rural prosperity: a discussion of empirical data derived in seven countries with the “Working with People” approach.** Proceedings of the XXVI Congress For Rural Sociology: Places of Possibility

Contribution e:

Knickel, K., Redman, M., Darnhofer, I., Ashkenazy, A., Calvão Chebach, T., Šūmane, S., Tisenkopfs, T., Zemeckis, R., Atkočiūnienė, V., Rivera, M., Strauss, A., Sørderkvist Kristensen, L., Schiller, S., Koopmans M.E., Rogge, E. (in peer review). Towards resilient agricultural and food systems and sustainable rural development. The policies needed to promote the required systemic changes. Journal of Rural Studies

All these results were presented at the final Conference for the Rethink project that was held in Brussels in December 2015, to which, important personalities from the European Commission and scientists from different countries attended to discuss the project's main findings and the future lines of action and research.

At this Conference, the poster found in annex 3.2 that we had prepared with the main results from our case study analysis won the 1st prize at the Poster Contest. However, there were still questions that needed answers and deeper analysis.

What are farmers doing to try to achieve the prosperity they described in chapter 1? What strategies, actions and characteristics play a role in making them resilient and prosper, or which cause the opposite reaction?

Chapter 2: Conference and other contributions:

Contribution f:

Rivera, M., Herrera, T., de los Ríos, I (2014). **Innovation and social learning in agricultural systems. Case study: Murcia, Spain.** 11th European IFSA Symposium (Berlin)

Chapter 2 resulted from trying to answer these questions. It is also the chapter with most related contributions. This is because this chapter focuses on the Spanish Rethink case study. As this was the case we worked mostly on and from which we obtained all our empirical raw data from, we counted with all the information needed to treat and analyse the data in a variety of ways.

The first contribution from chapter 2 is contribution e, which was presented at the 11th International IFSA Symposium. The results presented were an analysis of the problems farmers face in the Murcia Region, and the solutions adopted by cooperative Camposeven from our case study to overcome these problems and find prosperity. We also examined the characteristics of their internal structure and governance. We observed that the most relevant aspect that farmers highlighted was being able to commercialise their products and producing organic was their best bet. We therefore decided to look closer at the role of organic agriculture in product commercialisation and presented the results at the XVII International Congress of Engineering and Project Management. This research was further developed to become an article published in *Agrociencia*.

Chapter 3: Conference and other contributions:

Contribution g:

Becerril, H., **Rivera, M.** (2014). **El Comercio Agrícola y la Prosperidad Rural.** XVII Congreso Internacional de Dirección e Ingeniería de Proyectos

Contribution i:

De los Ríos, I., Becerril, H., **Rivera, M.** (2016). **La agricultura ecológica y su influencia en la prosperidad rural: visión desde una sociedad agraria (Murcia, España)** *Agrociencia*, 50(3), 375-389

Although organic production was one of Camposeven's strategies we observed that they had many other that seemed equally important and that had to be highlighted. Therefore, with all the results from the above contributions, plus a deeper and sounder analysis of the strategies, we came up with a congress communication and chapter 2.

Trabajo de campo en Camposeven, Murcia, 2014

Here we look at the strategies from a holistic point of view so that we could incorporate a social, technical and contextual point of view into the analysis. We also paid particular attention to the influence of the social system in rural prosperity according to all our stakeholders. All these contributions make up chapter 2 of this Ph.D. Thesis.

Chapter 2: Conference and other contributions:**Paper 3:**

De los Ríos, I., **Rivera, M., & García, C.** (2016). **Redefining rural prosperity through social learning in the cooperative sector: 25 years of experience from organic agriculture in Spain.** *Land Use Policy*, 54, 85-94.

Contribution h:

Rivera, M., De los Ríos, I., & García, C. (2015). **La prosperidad rural en una sociedad agraria: orientación por proyectos desde el modelo WWP.** XVIII Congreso Internacional de Dirección e Ingeniería de Proyectos.

And finally, chapter 3 came as a result of the observations made in chapters 1 and 2 and the related contributions. We saw that in chapter 1, some of the most important enablers of rural prosperity were social capital elements, trust and cooperation. And in chapter 2 we can see how many of the strategies aim at reinforcing and strengthening the social capital of the cooperative.

Ultimately, social capital was playing a key role in the development and prosperity of our case studies and we wanted to understand how.

What role does social capital play in the development and prosperity of rural areas? What special nuances does it acquire when contextualised? Which social capital elements seem most prominent?

This research counts with one contribution to an international conference on knowledge and learning, and particularly the importance of informal knowledge and learning to find and create alternative modernisation pathways in agriculture.

Chapter 3: Conference type contributions:**Contribution j:**

Šūmane, S., Knickel, K., Kunda, I., De Los Rios, I., Méndez, M. R., Strauss, A., & Tisenkopfs, T. Informal knowledge and learning for alternative modernisation pathways in agriculture. **Proceedings of the XXVI Congress For Rural Sociology: Places of Possibility**

Although knowledge and learning is not considered a social capital element as such, it is a transversal component that strengthens and positively affects social capital. In fact, in chapter 3, knowledge and learning play a central role in cooperation and trust, the two key social capital elements identified.

Chapter 3: Scientific paper contributions:**Paper 4:**

Rivera, M., Díaz-Puente, JM., Knickel, K., de los Ríos, I. (in peer review). **The role of social capital in rural development: lessons learnt from a set of varied case studies in seven countries.** *Rural Sociology*

Chapter 3 consists of a qualitative analysis of the seven case studies from Rethink. Here we aimed to highlight the role played by cooperation, trust, sense of community and culture and tradition in the development of rural area illustrating statements with real examples from the case studies. The social capital elements examined enable each other and interact in different ways depending on the particular rural context affecting development trajectories and thus, the prosperity of their respective communities.

Paper 4, which is part of chapter 3, was finalised during my mobility stay at Cornell University (U.S.A). The host department at Cornell was the Natural Resources

Field trip to an aquaculture farm, Ithaca, 2016

department and the Professor responsible, Patrick Sullivan and Carmen Moraru. I had the opportunity to work within this department and expand my knowledge on: sustainable management of natural resources, sustainability, socio-

ecological systems and human wellbeing. I was also invited to attend summer courses: *Green cities: creating the living city* and *Inspiring leadership*; as well as attending individual sessions with 19 professors from different departments where we discussed issues related to entrepreneurship, innovation, natural resources, climate change, rural development, genre, etc. All these activities and the new knowledge obtained from them has allowed me to reach very interesting general conclusions from this term I am now finalising. And although it is hard to decide when and where to stop a Ph.D. Thesis research, as more questions and research interests keep emerging, Cornell provided me with the experience I needed to get out from the details and look at everything that I had learnt from all the questions I had been asking myself from the distance, so that it could all make sense as a whole, and so, motivating me to keep exploring and diving into this field of knowledge in the near future.

Cornell University, 2016

Cornell team with Carmen Moraru, 2016

Out of all this process we can extract 5 main hypotheses that provide coherence to this Thesis.

H1. The concept of rural prosperity needs to be redefined according to the reality of rural actors

H2. There is not one single correct development pathway to achieve rural prosperity, it depends on the social context of the specific areas

H3. A balanced set of strategies that embrace social, economic and environmental issues is needed to reach rural prosperity

H4. Cooperation, trust, culture and tradition, and sense of belonging are social capital elements that play an important role in the development of rural areas.

1.4. Brief introduction to the geography of rural prosperity: *trends and patterns*

The below introduction to the geography of rural prosperity is based on a systematic bibliographical review which builds on the importance and multidimensional vision of prosperity to explore the current international situation of the concept through the analysis of top scientific papers (see section 1.2.1. –Methodological Approach– for a more details on the methodology followed for the analysis).

This research allowed to obtain important information on which themes are more relevant depending on the different geographical areas and authors. A good global idea about the geography of rural prosperity was therefore obtained and is briefly presented below. For a more detailed analysis on the results obtained, see annex 1.a, where the full analysis is provided (contribution a) (Rivera *et al.*, 2017a).

1.4.1. Measuring prosperity

The realization that non-economic aspects of prosperity are as important as economic ones encouraged the new goal of measuring prosperity in ways that recognize the multidimensionality of the concept (Chambers, 1997; Neff, 2007; Anand, Hunter and Smith, 2005). The related work aims at accounting for important socio-cultural aspects of people's life, such as psychological well-being, freedom of choice, opportunities and social capital (Stiglitz *et al.*, 2009, van der Ploeg *et al.*, 2008, Sen, 1984) as well as environmental aspects such as resource use and environmental degradation (Jackson, 2009; Diener and Suh, 1997, Daly, 2008).

In 2008, the French government established the *Commission of the Measurement of Economic Performance and Social Progress* (the so-called *Stiglitz-Sen-Fitoussi Commission*) to examine how to quantify wealth without relying solely on GDP (Stiglitz *et al.*, 2009); similarly, the government of Maryland in the USA (Maryland's Genuine Progress Indicator, s.a.) officially determines prosperity through the *Genuine Progress Indicator* (GPI, see Talberth *et al.*, 2007) which builds on the *Index of Sustainable Economic Welfare* (Daly, Cobb, Cobb, 1989). Already existing alternative indicators are mainly hosted by international organisations: the most prominent example is the *Human Development Index* (HDI) of the *United Nations Development Programme* (1990).

Nowadays, one of the most complete indexes that attempts to measure Prosperity at national level establishing clearly defined quantitative indicators is the *Legatum Prosperity Index*. This index is “the only global measurement of prosperity based on both income and wellbeing” (Legatum Institute, 2015) and bases its prosperity analysis on 89 variables divided into 8 sub-indices: economy, social capital, personal freedom, safety and security, health, education, governance and entrepreneurship and opportunity. These themes used by the Legatum Institute are the ones used as basis of this analysis.

1.4.2. Prosperity in rural areas

The above-mentioned indicators represent a real effort to try to capture all the dimensions of prosperity and their measurement. However, in order to meet the sustainable development goals, set for 2030, it is very important to take into account the particular

situation and role of rural areas around the world for a variety of reasons: half of the world's population live in rural areas; natural resources are managed in rural spaces; and agricultural activity constitutes the heart of the world's food production, among other reasons (Sibley, 1995; Murdoch and Pratt, 1993; Clark, 1982). Additionally, considering that most of the world's poor people live in rural areas (more than 800 million), many countries and development agencies focus special attention on these particular zones (Serageldin, 1998; FAO, 1998; United Nations, 2005).

Considering the importance of research activity for development (Griliches, 1979; Griffith, 2000; Greenstone, 2011), this introduction briefly presents the master lines of research activity on rural prosperity across the world. The main questions addressed are: Where do researchers come from? What geographical areas are most researched? What does the geography of the research look like and how has it evolved?

Figure 1 below shows the regional structure used for the analysis. It is based on the geographical classifications of the World Bank. For more detailed info on the methodology used for the analysis please refer to the Methodological Approach (Sub-section 1.2 of this Introduction).

Figure 1: Regional Structure used for the analysis

Source: Own elaboration based on World Bank regional distribution

1.4.3. What has been talked about through time?

Figure 2 illustrates the evolution of the main prosperity related themes (according to the Legatum Institute) through time in rural areas associated research. The most interesting conclusions that can be obtained from this graph is that the theme “Rural Entrepreneurship and Opportunity” has been the most researched from 2004 to 2014, and that it grew most in 2012. “Rural Health” has always been a very important theme and “Rural Personal Freedom” had a very significant growth in 2009. “Rural Education” and “Rural economy” have awakened a constant interest through time, making these themes some of the most researched. On the other hand, “Rural Social Capital” and “Rural Personal Freedom” do not show the same rate of interest through time, even though they do play a key role in Rural Prosperity, as will be shown throughout the analysis of this Thesis.

Figure 2: Number of articles per year and theme²

² Note that May 2014 was when this study started and as such only 4 months are represented

1.4.4. What is being talked about? Geographical areas of study

China and USA are the most studied countries, between the two they account for 27% of the total published articles. From a regional point of view, as can be observed in figure 3, East Asia & Pacific is the most researched region, followed by Europe & Central Asia and in third place Sub Saharan Africa.

In terms of researched theme, each region shows their own particular distribution. Research on China (East Asia & Pacific) shows preference for the “Rural Governance” and “Rural Education” themes; in North America, the themes with more weight are “Rural Health” and “Rural Safety and Security”. In South Asia, the “Rural Governance” theme stands out followed by “Rural Education” and “Rural Health”, partly coinciding with the above two. Europe & Central Asia are very concerned about the “Rural Entrepreneurship and Opportunity” theme as well as “Rural Economy” and “Social Capital”. The most prominent concern in Sub Saharan Africa is “Rural Health” and “Rural Safety and Security”, which is thematically similar to North America.

Figure 3: Main themes researched about each region

E CA: Europe & Central Asia
 NA: North America
 LA C: Latin America & Caribbean
 SSA: Sub Saharan Africa
 MENA: Middle East and North Africa
 EA P: East Asia & Pacific
 SA: South Asia

R Ec: Rural Economy
 SC: Social Capital
 SS: Safety & Security
 PF: Personal Freedom
 RH: Rural Health
 Ed: Education
 REO: Rural Entrepreneurship & Opportunity
 Rgo: Rural Governance

1.4.5. Who researched? Affiliation Institution of researchers

The distribution of the articles in terms of the affiliation institution of the author represents 70 countries, out of which, 4 concentrate 50% of the total number of publications: USA tops the list with 191 papers and 28.5% of the total activity, followed by the UK, Australia and China. The affiliation institutions of these 4 countries have generated 50% of the literature on rural prosperity between 2004 and 2014.

In terms of themes, we see very different preference profiles in the Top 4; while USA's affiliation institutions prefer "Rural Personal Freedom" and "Rural Health", the UK's affiliation institutions go for "Rural Economy" and "Rural Education".

Figure 4: Main themes researched in each region according to the author's affiliation institutions

E CA: Europe & Central Asia
 NA: North America
 LA C: Latin America & Caribbean
 SSA: Sub Saharan Africa
 MENA: Middle East and North Africa
 EA P: East Asia & Pacific
 SA: South Asia

R Ec: Rural Economy
 SC: Social Capital
 SS: Safety & Security
 PF: Personal Freedom
 RH: Rural Health
 Ed: Education
 REO: Rural Entrepreneurship & Opportunity
 Rgo: Rural Governance

Most publications, almost 70% have originated from institutions in Europe & Central Asia and North America. If we add East Asia & Pacific we reach 87%.

The preferred themes by regions, show different characters: while Europe & Central Asia prefer "Rural Entrepreneurship and Opportunity", "Social Capital" and "Rural Economy", North American affiliating institutions prefer "Rural Health" and East Asia and Pacific like "Rural Governance" and "Rural Education".

1.4.6. Patterns: European interests

Prosperity and its indicators deal with concepts that are considered essential to reach development: governance, social capital, education, health, economy, personal freedom, entrepreneurship and opportunity and safety and security. We have observed during our analysis that scientific interest in one theme or the other changes depending on the geography, and that some regions receive a lot of attention while others hardly receive any. Moreover, considering the key role research plays for development (R&D) improving and accompanying the quality of transformation (Griliches, 1979; Griffith, 2000; Greenstone, 2011) it becomes increasingly important that research should happen everywhere and for all.

This thesis is constructed upon case studies in European rural areas, and according to the findings above, the key themes related to prosperity that have awoken most interest within the scientific community up to now are “Rural Economy”, “Rural Entrepreneurship and Opportunity” and “Social Capital”. This Thesis, through the following 3 chapters will analyse and explore up to which point these themes play an important role in rural areas, through empirical research processes, where the realities of rural actors are taken into account. In overall terms, we can say that “Rural Economy”, “Rural Entrepreneurship and Opportunity” and “Social Capital” are also important elements according to rural actors, which could suggest, that European researchers are close and aware to the rural realities they are studying. Nonetheless, there are other elements that play an equally important role and that have not been acknowledged nor have received the attention they should from the scientific community so far, such as culture and tradition, the environment, or knowledge and learning. This Thesis will present and illustrate the importance of all these elements, as well as the different strategies that are being set up by farmers and their respective effect on the communities and rural prosperity.

1.5. References

- Anand, P., Hunter, G., and Smith, R. 2005. Capabilities and Well-being: Evidence based on the Sen-Nussbaum Approach to Welfare. *Social Indicators Research*, 74(1), 9-55.
- Baker, W. (2000). What is social capital and why should you care about it. *Achieving Success Through Social Capital*, 1-26.
- Borras, S. M., and Franco, J.C. 2013. Global land grabbing and political reactions from below. *Third World Quarterly*, 34(9), 1723-1747.
- Bourdieu, P. 1986. The forms of capital. In Richardson, J. (Ed.) *Handbook of Theory and Research for the Sociology of Education*. New York, Greenwood, 241-258.
- Bryden, J., Efstratoglou, S., Ferenczi, T., Knickel, K., Johnson, T., Refsgaard, K., and Thomson, K. (Eds.) 2011. *Towards sustainable rural regions in Europe. Exploring relationships between rural policies, farming, environment, demographics, regional economies and quality of life using system dynamics*. Taylor & Francis. New York.
- Cazorla, A., De los Ríos, I., and Salvo, M., 2013. Working With People (WWP) in Rural Development Projects: a Proposal from Social Learning. *Cuadernos de Desarrollo Rural*, 10(70), 131-157.
- Chambers, R. 1997. Responsible Well-being—a Personal Agenda for Development. *World Development* 25(11), 1743–1754.
- Clark, G. 1982. *Housing and Planning in the Countryside*. Wiley Chichester, London, UK, Vol.2.
- Coleman, J. 1988. Social Capital in the Creation of Human Capital. *The American Journal of Sociology*, 94, 95-120.
- Daly, H. 2008. A Steady-State Economy: A Failed Growth Economy and a Steady-State Economy are not the same thing; they are the very different alternatives we face. *Sustainable Development Commission*, London. U.K.
- Daly, H., Cobb, J., and Cobb, J.B. 1989. *For the Common Good—Redirecting the Economy towards Community, the environment and a sustainable future*. Green Print, London. Vol.73.
- De los Ríos, I., Rivera, M., and García, C. 2016. Redefining rural prosperity through social learning in the cooperative sector: 25 years of experience from organic agriculture in Spain. *Land Use Policy*, 54, 85-94.
- Diener, E., and Suh, E. 1997. Measuring quality of life: economic, social and subjective indicators. *Social Indicators Research*, 40(1-2), 189–216.
- European Environment Agency, 2015. *The European environment: state and outlook*. Accessed 11/01/2017 in <http://www.eea.europa.eu/soer>.

European Environment Agency, 2010. *10 messages for 2010 - Agricultural ecosystems*. Copenhagen.

European Environment Agency, 2013. *Natural resources and human well-being in a green economy*. Environmental indicator report 2013. Copenhagen.

European Environmental Bureau, 2015. *What is the EU doing*. Accessed 11/01/2017 in <http://www.eeb.org/index.cfm/activities/sustainability/sustainable-development/sustainable-development-what-is-the-eu-doing/>.

European Parliament, 2013. Regulation (EU) No 1305/2013 of the European Parliament and of the Council of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD). *Journal of the European Union*, L 347/487.

Food and Agriculture Organisation (FAO), 1998. *Rural Development Strategy as the Focus Towards the Reduction of Extreme Poverty in the Region*. Paper prepared for twenty-fifth FAO regional conference for Latin America and the Caribbean, Nassau, Bahamas, June 16-20.

Fukuyama, 1999. *Social Capital and Civil Society*. For IMF Conference on Second Generation Reforms. Institute of Public Policy, George Mason University, U.S.A.

Greenstone, M. 2011. *The Importance of Research and Development (R&D) for US Competitiveness and a Clean Energy Future*. MIT Center for Energy and Environmental Policy Research, Boston, U.S.A.

Griffith, R. 2000. How important is business R&D for economic growth and should the government subsidise it? *The Institute for Fiscal Studies (IFS)*, London. Briefing Note No. 12.

Griliches, Z. 1979. Issues in assessing the contribution of research and development to productivity growth. *The bell journal of economics*, 92-116.

IAASTD, 2009. *Agriculture at a crossroads. International Assessment of Agricultural Knowledge, Science and Technology for Development*. B. D. McIntyre, H. R. Herren, J. Wakhungu, R. T. Watson (eds.), Washington.

Jackson, T. 2009. *Prosperity Without Growth: Economics for a Finite Planet*. Earthscan, London, UK.

Jackson, T., and Anderson, V. 2009. Redefining Prosperity—Essays in Pursuit of a Sustainable Economy. *Sustainable Development Commission*. Earthscan, London, UK.

Kasser, T. 2007. A Vision of Prosperity. Think-piece for the Sdc's Redefining Prosperity Project. *Sustainable Development Commission*, Earthscan, London, UK.

Knickel, K., Zemeckis, R., and Tisenkopfs, T. 2013. A critical reflection of the meaning of agricultural modernization in a world of increasing demands and finite resources. *Proceedings*, 6(1), 561-567.

Legatum Institute. 2015. The 2015 Legatum Prosperity Index. Accessed 12/04/2016 in <http://www.li.com/activities/publications/2015-legatum-prosperity-index>.

- Lin, N. 2001. *Social capital: a theory of social structure and action*. Cambridge University Press, U.K. Vol. 19.
- Midgley, J. 2013. *Social development: theory and practice*. Sage, London, U.K.
- Murdoch, J. and Pratt, A. 1993. Rural studies: modernism: postmodernism and the post rural. *Journal of Rural Studies*, 9(4), 411–427.
- Neff, D.F. 2007. Subjective well-being, poverty and ethnicity in South Africa: insights from an exploratory analysis. *Social Indicators Research*, 80(2), 313–341.
- OECD, 2012. *OECD Environmental Outlook to 2050: The Consequences of Inaction*. OECD publishing, Paris, France.
- Pooley, J.A., Cohen, L., and Pike, L.T. 2005. Can sense of community inform social capital? *The Social Science Journal*, 42(1), 71–79.
- Putnam, R. 1993. *Making democracy work: civic traditions in modern Italy* Princeton University Press, Princeton, U.S.A.
- Rivera, M., Knickel, K., de los Ríos, I., Ashkenazy, A., Qvist, D., Chebach, T., and Šūmane, S. 2017a. Rethinking the connections between agricultural change and rural prosperity: a discussion of insights derived from case studies in seven countries. *Journal of Rural Studies*, (publication forthcoming).
- Rivera, M., Díaz-Puente, J.M., Knickel, K., and de los Ríos, I. 2017b. The role of social capital in rural development: lessons learnt from a set of varied case studies in seven countries. *Sociologia Ruralis*, (publication forthcoming).
- Rivera, M., Sánchez, M., and Díaz-Puente, J.M. 2017c. The Geography of Rural Prosperity: Trends and Patterns. *Cuadernos de Desarrollo Rural*, (publication forthcoming).
- Sen, A. 1984. The Living Standard. *Oxford Economic Papers*, 36, 74–90.
- Serageldin, I. 1998. The initiative on defining, monitoring and measuring social capital: overview and program description. *Social capital initiative. Papeles de trabajo N°1, Banco Mundial*.
- Shucksmith, M. and K. Rønningen., 2011. The Uplands after neoliberalism? The role of the small farm in rural sustainability. *Journal of Rural Studies*, 27(3), 275–287.
- Sibley, D. 1995. *Geographies of Exclusion: Society and Difference in the West*. Routledge, London, U.K.
- Stiglitz, J., Sen, A., and Fitoussi, J.P. 2009. The Measurement of Economic Performance and Social Progress Revisited. Reflections and Overview. *Commission on the Measurement of Economic Performance and Social Progress*, Paris, France.
- Talberth, J., Cobb, C., Slattery, N. 2007. The Genuine Progress Indicator 2006. *Redefining Progress*, Oakland, U.S.A. Vol.26.

United Nations. 2005. United Nations. Economic Commission for Latin America. 2005. *Aprender de la experiencia: el capital social en la superación de la pobreza*. Irma Arriagada (Ed.). United Nations Publications. Vol. 86.

United Nations. 2014. The Road to Dignity by 2030: Ending Poverty, Transforming All Lives and Protecting the Planet: Synthesis Report of the Secretary-General On the Post-2015 Agenda. New York. Accessed 17/06/2015 in: http://www.un.org/disabilities/documents/reports/SG_Synthesis_Report_Road_to_Dignity_by_2030.pdf.

United Nations. 2015. Sustainable Development Agenda. A/RES/70/1. Resolution adopted by the General Assembly. Accessed 26/10/2015 in http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E.

United Nations. 2016. Transforming our world: the 2030 agenda for sustainable development. A/RES/70/1. Accessed 07/04/2016 in <https://sustainabledevelopment.un.org/post2015/transformingourworld/publication>.

Van der Ploeg, J.D. and Marsden, T. 2008. *Unfolding webs. The dynamics of regional rural development*. Royal Van Gorcum, Assen (NL), 1–28.

Wall, D. 2008. *Prosperity without growth, economics after capitalism*. The first opinion piece for the Redefining Prosperity, third seminar “Confronting Structure—achieving economic sustainability”. *Sustainable Development Commission*. London, U.K.

CHAPTER 1:

Understandings and enablers of rural prosperity

As we have seen in the introduction, the concept of Prosperity is at the top of the international agenda, and therefore understanding its meaning and implications is crucial. The results also show that when talking about prosperity different elements stand out for being part of its definition. Each of these elements seem to awaken different levels of interest in the scientific community depending on the studied country or geographical area. Therefore, the meaning and understandings of prosperity are context dependent. Hence, chapter 1 below aims to analyse what elements are part of the prosperity concept in rural areas, taking into account local and endogenous points of view from 7 case studies. It also explores the general strategies followed by rural actors to reach prosperity and how can these be enabled and fostered. The empirical evidence presented in this chapter indicates that prosperity in rural contexts is increasingly understood as being multi-dimensional and that people seek to balance economic parameters with human, social and environmental well-being.

1. Introduction: From simple income parameters to a new understanding of prosperity

Up until now, we have already seen that the term prosperity has long been associated with economic aspects, however, this introduction further analyses the evolution of the concept as well as its importance and implications for rural areas.

According to the Oxford Dictionary, prosperity is "*the state of being successful, especially in making money*" and its key synonym is 'affluence'. Kasser *et al.*, (2007) defined prosperity as the "*capacity to generate economic growth through consumption*". This economic interpretation of prosperity has been influenced by the ideal of indefinite progress (Friedmann, 1987) based on the belief of the unlimited availability of natural resources and the promotion of consumption in modern societies. The promotion of consumption, in particular, has been linked to the economic interpretation of development in previous decades (Wolf, 1981) and remains a dominating paradigm still in the present day (Jackson, 2009).

However, since the 1970s, alternative definitions and measures of prosperity and progress have been developed that are more in line with the Latin origin of the term (Jackson, 2009; Stiglitz *et al.*, 2009), meaning "doing well", "according to expectation" or "according to one's hope". Simultaneously, there is an increasing consensus that growth in output does not accurately represent growth in human welfare. The use of Gross Domestic Product (GDP), in particular, fails as a key indicator of prosperity, as it does not account for non-market services, negative externalities and changes in the asset base as well as the non-market dimensions of well-being (Stiglitz *et al.*, 2009). Jackson (2009) in his book *Prosperity without growth: Economics for a finite planet* makes explicit the connections between consumption, growth, inequality and the rapid depletion of resources as well as the fact that the increasing levels of consumption do not make people happier once a certain point has been exceeded. This echoes with earlier work by Sen (1984) who emphasised that "*more is not always better*" and that prosperity can also be seen as the capability (or freedom to) function in a context (Sardar, 2007; Rapp, 2008).

As the predominantly economic, materialistic interpretation of prosperity and idea of indefinite progress failed (Toynbee, 1987; Stiglitz *et al.*, 2009), other approaches ascend which integrate social and environmental aspects of prosperity. These new multidimensional approaches claim to focus more on increasing the quality of lives

(qualitative development) instead of the amount of production and consumption (quantitative growth) (Daly, 2008). The basic idea is to provide an environment where people flourish, while at the same time ensuring social cohesion and well-being, and living in ecologically sustainable ways (SDC, 2003, 2009; Wall, 2008; Cazorla *et al.*, 2013).

These new developments in conceptualizing prosperity encouraged attempts to measure prosperity in ways that recognise the multidimensionality of the concept (Chambers, 1997; Anand *et al.*, 2005; Neff, 2007). Studies so far tended to account for the socio-cultural aspects of people's life, such as psychological well-being, freedom of choice, opportunities and social capital (Stiglitz *et al.*, 2009, van der Ploeg *et al.*, 2008, Sen, 1984; Nardone *et al.*, 2010) as well as environmental aspects such as responsible resource use and environmental conservation (Jackson, 2009; Diener *et al.*, 1993, Daly, 2008). This chapter presents an application of this new multidimensional approach to prosperity to agricultural and rural contexts. Our particular interest is in the perceptions of prosperity of farmers and other people who live in rural areas.

1.1. What does this new understanding mean for rural areas?

For rural areas, the new understanding of prosperity might well imply that economic efficiency at farm level is not necessarily contributing to economic growth at regional level, and that both might not even be suitable indicators for measuring the prosperity and well-being of farmers and others in rural areas. The new understanding puts into particular question those strategies that have driven farm modernisation since the 1960s. Large specialised and capital-intensive farms in search of efficiency and competitiveness, are less and less the unquestioned ideal. Other strategies such as a greater diversification of farming systems or organic farming involve different and broader values that can contribute to enhancing prosperity. More diverse farms, for example, are in many regions connected with valued cultural landscapes and mosaic-like field structures, that have an emotional or aesthetic value for the region's residents; and sometimes also with lower farming intensities and the use of high-nature-value farming systems (Knickel, 1990; Murdoch and Pratt, 1993; Philo, 1992, 1993; Cloke *et al.*, 1995; Shucksmith and Rønningen, 2011). Shucksmith and Rønningen (2011) point out that non-conventional farms might provide a base for rural households to sustain their livelihoods through pluriactivity, retaining populations in areas from which they would surely have been lost if farm amalgamation had proceeded. Bryden *et al.*, (1993, 2011) and Knickel *et al.*, (2011) point to the provision of rural amenities and their transformation in the rural economy, and the importance of this in fostering vibrant rural communities. These findings on alternative farming strategies and systems are not being reflected in rural policy (Darnhofer *et al.*, 2014b). Indeed, agricultural policy is often still geared towards an ideal of highly commercial full-time farms, treating other types of farms and strategies as obstacles to productivist agriculture (Van der Ploeg, 2008, 2009; Dwyer *et al.*, 2012; Knickel, 2016).

Of course, this does not mean that large-specialised farms do not have a role to play in rural prosperity. There is, however, an urging need to revisit the particular potentials and added value of alternative farming strategies and practices as well as the newly emerging agri-food networks that serve as platforms where farmers and consumers innovate and seek alternative development models. Darnhofer *et al.* (2014b), Long (2000) and others see such initiatives as laboratories for social change, thus, redefining what prosperity in rural areas implies.

The starting point for our analysis is that prosperity in rural areas acquires special characteristics that are much related to people's way of life and the context in which they are embedded. These special characteristics have been discussed by many different authors (Milbourne, 1997; Cresswell, 1996; Halfacree, 1993; Sibley, 1995; Van der Ploeg *et al.*, 2008; De los Ríos *et al.*, 2016). Some authors argue that prosperity in rural areas should include factors such as social cohesion and engagement, achieved through cooperation and trust; environmental sustainability, which is considered one of the most important elements through which income may be generated in these areas; knowledge, which increases the ability rural people have to increase their resilience; and quality of life (Dayton-Johnson, 2001; Easterly *et al.*, 2006; Benz and Meincke, 2007). Van der Ploeg *et al.*, (2008) link quality of life with a social life characterised by networks, shared norms and expectations that promote interactions and create a "*sense of community*". Aspects such as health, self-control, family well-being, personal satisfaction, community values and maintaining culture and tradition are also closely subsumed within what farmers consider quality of life to be.

1.2. Research questions

For all of the above, and taking into account that a consensual definition of rural prosperity and well-being does not yet exist, the three main research questions we will address in this chapter are the following:

- (1) How do rural actors understand rural prosperity? Which dimensions of rural prosperity, and well-being, are important for them?
- (2) What strategies do rural actors and communities use to improve their prosperity and well-being?
- (3) How can these strategies be enabled/fostered?

A more balanced socio-economic development of European regions and, in particular, more prosperous rural areas, is high on the political agenda (United Nations, 2016). We believe that the above research questions and related exploratory analysis can inform the identification of the different dimensions that ought to be taken into account when addressing prosperity in rural areas, and when developing associated policies.

2. Empirical basis

We base our analysis on seven case studies carried out in the international RETHINK³ research programme, which studied links between farm modernisation, rural development and resilience. The seven case studies were selected from a total of fourteen case studies carried out in this research programme. The key criteria used to select the fourteen case studies were:

- The relevance and richness of available information: the case study could help us answer the key research questions addressed in RETHINK.

³ RETHINK is a transdisciplinary research project supported by the European Commission and funding bodies in 14 countries under the umbrella of FP7 and the RURAGRI ERA-NET. Its aim has been to identify and better understand the conflicting goals and potential synergies facing rural areas, while explicitly recognising the complexity of the challenges and the diversity of different rural localities (Knickel *et al.*, 2017).

- **Maturity:** the case studies are sufficiently developed and advanced to provide meaningful insights.
- **Learning:** these insights can, at least partly, be expressed in more generalisable terms.
- **Feasibility:** The case study could be comprehensively analysed from the available data and the national resources available for further data collection and analysis.

Each of the fourteen case studies provided a more profound data-based analysis for at least two of the four common cross-cutting themes in the programme: resilience, prosperity, governance, and knowledge and learning. The sub-set of seven case studies that provide the empirical basis for the exploratory analysis presented in this chapter is formed from the case studies which analysed prosperity and well-being topic in depth.

Overall, a flexible approach to data collection was adopted given that different kinds of knowledge and data was available in different forms in each of the case studies. Generally, the teams drew on primary and secondary data and expert discussions. A jointly developed conceptual and analytical framework (Darnhofer *et al.*, 2014a,b), and common guidelines with key questions, criteria and indicators for each theme, ensured the comparability of case study findings. The same common research questions were applied to each case study and the comparative analysis between case studies allowed us to draw general conclusions while also highlighting the influence of contextual factors. The questions were posed first at case study level, and later – through comparative analysis – at international level.

The common questions related to the prosperity theme for semi-standardised interviews, workshop and focus group discussions, were:

- How do you define 'prosperity', a 'flourishing farm' and a 'prosperous rural area'?
- What elements contribute to high levels of 'prosperity' and 'well-being'?
- How is your understanding of prosperity related to costs of production, cost-efficiency and input/output relations? How is it related to other factors like the adequacy to accomplish a purpose such as an improved quality of life?
- Which are the different strategies you follow to become more prosperous?
- Do the particular strategies you are pursuing contribute to the prosperity of your community and/or region?

The specific methodological approaches and informants of each case are shown in section 1.2 of the introduction. The stakeholders interviewed represent various agriculture-related fields at local/regional, and national levels. They include farmers, who were the main focus of the analysis, representatives of farmers' associations, policy-makers, advisors, consultants, retailers, processors and transporters. Focus groups have been used to complement the individual interviews and to clarify different views and interpretations (Pratt, 2009; Fossey *et al.*, 2002).

Throughout this chapter, we quote stakeholders based on our interviews to support and illustrate our arguments, to clarify nuances and to comprehend the discussion.

Table 2 provides an overview of the case studies and their connection with the prosperity topic. The seven case studies represent a spectrum of socio-economic, cultural and farm structural conditions, and very different realities within Europe's rural areas. They also

cover a range of economic farm sizes which provides insights into different understandings of prosperity and well-being in different contexts and among different stakeholders.

Table 2
Short characterisation of the seven case studies examined in this chapter

Case study	Main content	Key prosperity-related features and issues
Germany (Peter <i>et al.</i> , 2015)	Focus is on two districts in southwestern Germany, and agriculture-based activities related to bio-energy.	The transition towards a low-carbon resource-efficient economy, the position of farmers in the related value chains, and the role new farm activities play.
Denmark (Pears <i>et al.</i> , 2015)	It explores and reflects upon how collaborative strategies for the design of future landscapes can contribute to the development of improved well-functioning agricultural landscapes.	How institutional capital, natural, environmental and economic values can be positively affected by collaborative landscape strategy making.
Spain (De los Ríos <i>et al.</i> , 2015, 2016)	How different strategies used by a small organic and biodynamic cooperative located in the south east of Spain (Murcia) have succeeded in making the organisation a success.	It explores how a small farm cooperative that uses organic and biodynamic farming is able to succeed outside the traditional conventions of economic growth and farm-efficiency.
Latvia (Šūmane <i>et al.</i> , 2015)	It explores small-scale farming as an alternative form of sustainable modern agriculture.	The case study reveals the multidimensionality of prosperity through small farm's place-specific development trajectories.
Lithuania (Atkočiūnienė <i>et al.</i> , 2015)	Focus is on the development of farmers' markets, current trends and farm development strategies.	How farming and food supply chain modernisation influences the resilience of farming systems, and the prosperity of farm households and rural areas.
Israel (Hurwitz, B. <i>et al.</i> , 2015)	The study focuses on a desert and semi-desert agricultural and rural community in Arava valley. The main stakeholders are high-tech vegetable producers.	The case study includes as many voices as possible in the analysis to reflect the diverging directions and views currently suggested as a way out of the crisis.
Italy (De Roest and Ferrari, 2015)	Focus is on the establishment of a new quality pork supply chain with a traditional pig breed, market development, opportunities and barriers.	Prosperity is analysed in terms of efficiency, profitability, product diversification and quality.

Source: Own elaboration based on case studies

3. Understandings, enablers and strategies

In the following section, we explore the different dimensions that, according to the rural stakeholders ought to be taken into account when addressing the question of prosperity in rural areas, and when developing related policies. For that purpose, we will use examples from the case studies.

The three main sub-sections correspond with the main research questions presented in the introduction:

- the ways rural actors understand rural prosperity;
- the strategies rural actors and communities use to improve their prosperity and well-being; and
- how these strategies can be enabled and fostered.

Each sub-section is divided further on the basis of our findings.

3.1. Rural actors understanding of rural prosperity

In this section, we explore the main elements of rural prosperity as reflected and conveyed by farmers and other rural stakeholders in the seven case studies.

3.1.1. *Quality of life and well-being*

When asked explicitly about which dimensions comprise their prosperity, farmers in all case studies answered with broad concepts of personal well-being and quality of life as key elements. Although farmers aspire for a certain level of income to ensure a decent life for their families, they believe that prosperity is not just about money.

"Money is not the main thing; the main thing is to do your work well ... You cannot get rich with farming but you can sustain your family". (Farmer) (Šūmane et al., 2015).

The notion of monetary 'wealth' was in particular not seen as central among small scale farmers (Latvia, Lithuania). We could see the same in other study areas: most farmers seemed well aware that farming does not normally provide high incomes. Generally, we found that it is the love and pride for what farmers do that brings them joy and satisfaction; and much less the thought that they will ever be wealthy.

"I went from working in a mechanical garage to the field. I am so happy with the change, even at health level. It is a very gratifying job. I am proud of my work, of what I grow. It is nice. (Farmer) (De los Ríos et al., 2015)

Farmer's work and the related personal satisfaction play a very important role in their happiness. Other important aspects are health, self-control, and family well-being. Maintaining tradition and autonomy, also contribute to farmer's and other rural actor's well-being, and are therefore part of what defines prosperity for them. Some local stakeholders pointed out that farms and rural businesses should be built upon social values such as integrity, respect, solidarity and trust as this supports the well-being of the people working within the region. At the same time, we must take care not to understate the importance of a sufficient monetary income. In the case study in Israel, for example,

growers did get rich from pepper production. When pepper prices fell, it created a serious economic crisis (Hurwitz *et al.*, 2015).

3.1.2. Maintaining vibrant rural areas

Maintenance of vibrant rural areas is high on the agenda of decision-makers, and it is a major preoccupation of most respondents. Generally, sound infrastructure and social services are seen as important factors in maintaining vibrant rural areas. However, there are different visions and solutions how to maintain them. Respondents recognised that some services are hard to provide in remote regions with large distances separating them from larger urban areas; other services, like activities for different age groups, shared celebrations and public events, are easier to maintain or even create within the region. Many respondents were aware of the tensions between the need and wish to maintain people in an area, and the costs of maintaining infrastructure and social services.

A high-quality education and health system, secure supply of clean water to irrigate land, roads that connect farms with urban areas and consumers, waste services that allow proper disposal of agricultural waste are basic prerequisites for thriving rural communities. They compete for resources with other measures including the investment support provided for a rather small number of farms. A case study in an isolated location in the Arava Valley illustrates well this problem. In order to provide proper educational services some teachers need to be flown in across the country, and patients need to be flown out for emergency care (Hurwitz *et al.*, 2015). Another example is the Spanish case study, where, due to tourism pressure on water and land, farmers meet political opposition to enlarge their warehouse facilities, seriously hindering further farm development (De los Ríos *et al.*, 2015).

3.1.3. Knowledge and culture

Rural actors tend to see knowledge in respect of its utilitarian value. To have knowledge about environmental, technical, economic and social issues and opportunities, allows farmers to be more effective, and increases their confidence in being able to cope with change, adapt, innovate and collaborate. Access to educational institutions, participation in knowledge networks and cultivation of social relationships that contribute to a wider pool of experiences, information and connections are therefore generally seen as important preconditions to improving one's well-being (see Šūmane *et al.*, 2015).

"As a common citizen, you generally don't have enough knowledge... we have had an excellent provider of the needed knowledge ... We have obliged ourselves to the role of sharing that knowledge on a personal plan" (former chairman of the OSB) (Pears et al., 2015).

Farmers engagement in diverse knowledge sharing activities, helps them to be more adaptive, to see new ways and to connect their own interests with those of the broader community.

Knowledge is also tightly linked to culture. First, as a way of differentiating the region and its traditions, for example allowing farmers to provide and market quality local products, which in turn also helps to protect local species and breeds, as well as farming traditions:

"Lidija and Arnolds have learned to use various local on-farm resources: land, forest, biodiversity in innovative ways. Through learning from other, old wisdom and own creativity they find new ways of application for those resources." (Farmer) (Šūmane et al., 2015)

Thus, culture can give farmers the opportunity to innovate through the uniqueness of their particular context. Second, it is important for residents to have access to cultural and recreational offers in an acceptable proximity. Having access to cultural events also reflects positively on the self and external image of the rural population, in contrast to the prejudice of 'provinciality' that is often associated with rural/agricultural-society and characterises rural-urban relations.

3.1.4. Quality of the natural environment and environmental sustainability

Farmers and other rural residents in most case studies mention the environment and landscape conservation as one of the top elements defining their prosperity. This is less surprising, as farmers are uniquely positioned within the economy to experience first-hand the effects of environmental degradation on their costs of production and immediate income-earning potential. Furthermore, despite the fact that many populated rural regions in Europe are in fact "managed" rather than "natural" (not unlike urban areas), "nature" has a tangible meaning to rural residents. This meaning is connected with regional identity, individual and collective memories and traditions. In particular, the case studies in the Baltic countries and Spain (Atkočiūnienė et al., 2015; Šūmane et al., 2015) illustrate that farmers appreciate environmental integrity not just for the gains it provides, but also in its own right – taking pride in the ecosystem which they are a part of, whether directly or through its manifestations as particular landscapes and organisms.

Landscapes make a region unique and are key in attracting potential visitors (Knickel, 2001; De Roest and Ferrari, 2015), as well as offering new ways to solve conflicts between farmers and other residents in rural areas. A good example of this is the Danish case study (Pears et al., 2015) where a land conflict between farmers and residents was resolved through an enhanced coordination of agricultural land uses, and interests, with other functions and interests such as outdoor recreation, residence and habitat management.

More closely related to farm production processes is the question of an efficient use of resources. With diminishing profit margins, the price of land, water, fuel and electricity, as well as packaging and agricultural inputs is a major determinant of farmers' profitability. Achieving a greater efficiency of the use of given (natural) resources translates into higher values for each ton of produce sold by farmers. What matters too for many respondents is the sustained productivity of the land, taking into consideration future generations' potential reliance on the same soil, water, and biodiversity. An example from the Spanish case study illustrates this:

"Taking care of the environment has always been a worry of mine but I had to produce a lot of quantity to bring money home, but now that I changed to organic production methods and I finally feel at peace as I know I am taking care of the environment and natural resources while understanding how much we can give and gain to and from each other" (farmer) (De los Ríos et al., 2015)

To ensure the sustainability of the land, the Camposeven cooperative embarked on the production of organic and biodynamic products which they sell through long, medium and short chains, thus diversifying not only the products but also their commercialisation techniques (De los Ríos *et al.*, 2015).

3.1.5. *Employment and entrepreneurship, profitability and income*

As agricultural production subsidies are reduced and food supply becomes ever more globalised, farmers are more and more exposed to changes in markets which puts them at higher levels of financial risk. In this situation farmers are looked at more and more as entrepreneurs – basically expected to be successful. Generating income, however, has become a much more dynamic challenge with the increasing pressures in agricultural markets, and it requires new skillsets that go beyond cultivation and a good knowledge of local conditions.

All seven case studies indicate that farmers' ability to sustain the livelihood of their families is critically important to prosperity, especially when the regional economy is not creating non-agricultural jobs and income alternatives. Many farmers argued that employment should be local and promoted by the local institutions and municipalities as well as individuals. One of the related expectations is that local institutions provide farmers with the necessary access to knowledge and learning that is crucial for creating new opportunities and fostering entrepreneurship.

3.1.6. *Sense of community*

Regional identity and a community-oriented mind-set are other important factors that contribute to a more prosperous development. A strong sense of community is seen as being closely connected with promoting culture and tradition, counteracting negative demographic changes, and supporting network building and participative decision-making processes. A community-oriented mind-set is even seen as essential for the ability to reimagine economic opportunities in the region, and to reconfigure resource uses for creating new and additional value.

The benefits of community life are referred to in all case studies: German case study farmers believe inclusion is not only an intangible advantage, but rather a *modus operandi* that they try to apply when facing both problems and opportunities. In this particular case, the village community started setting up a plant for wood chip production in order to be able to cover peaks in heat demand during winter. And more recently they became a zero-emission municipality that covers its demand 100% from renewable energy at a much lesser cost (Peter *et al.*, 2015).

For Spanish farmers, the feeling of working for a "*common project*" where everyone participates allows them to be more effective and innovative, also as they feel at ease and therefore motivated to work hard. They believe that all voices should be heard, both to increase the motivation of all, as well as believing new ideas will always in one way or another be beneficial.

"I always try to listen to my staff in the field and discuss with them the new actions to be taken" (Farmer) (De los Rios et al., 2015).

Tradition and culture are closely related factors contributing to inclusion and a sense of belonging. In the case of the Italian pork breeders the strengthening of the community through their work played a major role (De Roest and Ferrari, 2015). In the Arava region

in Israel – stakeholders and farmers emphasised that the relative isolation of the region may be a disadvantage in certain aspects, but it also presents great advantages for the creation of a very strong sense of community built upon mutual solidarity and responsibility (Hurwitz *et al.*, 2015).

"Even in non-agricultural matters – there's a lot of internal deliberation ... Our pool is open almost all year around. When we get together in the pool, what do we talk about? Our crops, the pepper. Things float, they come up."
(Director of the R&D centre) (Hurwitz, B. *et al.*, 2015)

In the Latvian and Lithuanian cases studies, it was seen as critically important among the remaining inhabitants to maintain this sense of community in particular in times when many younger people leave the area.

3.2. Strategies used by rural actors and communities improve prosperity and well-being

A widespread idea is still that the kind of farm modernisation that has dominated since the 1960s, driven by the search for gains in efficiency and competitiveness, is the key factor contributing to prosperity. Increasing the economic efficiency of farms has become a goal in itself, i.e. a more efficient farm or production method is always 'better'. In this section, we explore the strategies that farmers, other rural actors and rural communities use to improve their prosperity and well-being. Related to this we will ask whether economic efficiency as the main driver in agricultural development is still adequate in view of the overarching policy goals of a more balanced socio-economic development and prospering rural areas.

3.2.1. Production, processing and commercialisation strategies

The case studies show that farmers and farm households have a range of production, processing and commercialisation strategies. This section presents a brief overview that indicates that there are many more strategies implemented than the classical specialisation, increasing capital intensity and scale enlargement strategy.

The first notable strategy is make an effective and sustainable use of given natural resources. The main example would be the Italian case study, where pork breeders use traditional knowledge for production, as well as the locally available natural resources to reduce feeding costs and improve product quality while at the same time protecting local natural resources and landscape (De Roest and Ferrari, 2015).

Participating on research and innovation related activities and applying the results is another key strategy. A good example would be the Spanish cooperative Camposeven, which provides land for field trials that are carried out in cooperation with universities and other research institutes. The related cooperation increases the knowledge of all involved and opens up new opportunities for collaboration (De los Ríos *et al.*, 2015).

The diversification of both goods and services, which is done for example, in the Arava, where some farmers have started to establish tourism services on their farms to diversify their economic activities (Hurwitz *et al.*, 2015) or in the Spanish case study, where farmers offer a diverse range of high quality organic and biodynamic products through the cooperative (De los Ríos *et al.*, 2015) is another strategy that has shown to increase

the resilience of farm households and the creation of new job opportunities for the rural community.

“Through the cooperative, we are able to diversify products as a team, which gives us more flexibility to do so. We also diversify our commercialisation channels, for example through our own online shop, which distributes our food baskets to anypart of Spain whitin a day” (president of Camposeven) (De los Ríos et al., 2015)

Farmers who decide to process and market their own products, shortening food chains and connecting directly with consumers move up the value chain, target their clients more effectively and gain independence and adaptability (De los Ríos et al., 2015). Many farmers engage in developing market channels like farmer's markets, on-farm selling, mobile vans etc. These channels tend to provide higher prices, additional employment and strengthen the links between consumers and producers (Šūmane et al., 2015; Atkočiūnienė et al., 2015).

Another strategy is participating in joint activities and fostering cooperation, as it creates a platform from which new development initiatives for individual businesses and the community arise, which is an important factor and strategy within the German case study (Peter et al., 2015). Also, farmers in the Arava case study use joint packaging for their products so that they save costs, time and labour (Hurwitz et al., 2015).

Finally, acquiring a stronger position in the market through joint commercialisation and cooperation in marketing and in the purchasing of inputs is central as it gives farmers greater bargaining power and access to new markets and customers. In the German case study, farmers plan joint marketing of electricity from renewables also benefiting the community as a whole (Peter et al., 2015).

3.2.2. Reconsidering effectiveness in farm management

In the interviews with farmers and rural actors we also explored the relative importance of efficiency and effectiveness goals. The diverse strategies used by farmers referred to before are also indicative of a change of focus from efficiency – understood traditionally as technical efficiency and allocative efficiency (Darnhofer et al., 2014) – to the effectiveness of farming strategies to contribute to more diverse communal and even societal goals. Below we provide case study examples of the effectiveness of their particular strategies.

In the German case study, we observe that the joint actions have increased the diversity of farm-based activities, improving farmer's position in value chains, as well as fostering multi-farm cooperation in biogas and joint marketing. At community level, we can see closely related efforts in stimulating local employment through new rural activities while at the same time aiming to become (more) independent from mainstream energy providers, thus strengthening the sense of community and regional level integration (Peter et al., 2015).

Farm activities related to environmental and landscape management in the Danish case study contribute to diversification of farm income sources, realignment of farming with communal goals, and making farming more environmentally friendly. At community level, landscape coordination of different land use interests, more effective and proactive management of land use conflicts, joint planning for public goods and environmental services provision are observed (Pears et al., 2015).

In the Spanish case, the farm-level strategies applied by the farmers have increased the diversity of organic and biodynamic quality food products, having positive repercussions on the community's employment, contribute to maintaining people in the area, and to environmental and landscape care (De los Ríos *et al.*, 2015).

In the Latvian and Lithuanian case studies, farmers' less capital-intensive production systems, and their smaller scale processing to match the smaller production volumes allows farmers to also commercialise more independently through direct distribution channels. At community level, their actions contribute to environmental care, the health of consumers, the protection of their traditions and the building of stronger territorial bonds (Šūmane *et al.* 2015; Atkočiūnienė *et al.* 2015).

In Israel, farmers' advanced production systems and their in-depth knowledge of farming in extreme climatic conditions allows them to be flexible in terms of which special crops to grow so that they are more competitive. Their cooperation in research and development also strengthens the community's sense of belonging, and has become a cultural asset which more recently also contributes to tourism development (Hurwitz *et al.*, 2015).

The farmers in the Italian case study who maintain a traditional pig breed, develop practices that are environmentally friendly and use local resources respectfully, which have also contributed to strengthening at regional level the eno-gastronomic tourism, creating local job opportunities which helps maintaining the rural population of the area, while at the same time preserving local culture and traditions. At farm level, farmers have managed to market their products with their regional brand internationally, as well as increasing their local sales (Roest and Ferrari, 2015).

3.2.3. Farmer-driven innovations that valorise own resources

Many of the interviewed farmers think that prosperity requires continued innovation in farm management. Innovation is seen as particularly important in being informed and managing information, and in supply chain organisation, quality production and many other areas. But again, we find that innovation is wider than simply increasing production efficiency and competitiveness. New business models, some with a direct link to what farms are already doing, but others in a completely new realm, are being developed. They often require creating new partnerships at a regional level.

"We should continue investing in agriculture but not just one crop at a time. We should promote "crazy" ideas – seaweeds, grouper fish, seeds, fruit trees with moist walls ... We should support the crazy entrepreneurs and divide into lots of different niches." (Farmers in workshop) (Hurwitz, B. et al., 2015)

Farmer-driven innovation is referred to as key to adaptation and diversification. For example, in the Arava region in Israel, some residents are turning to non-traditional business initiatives, including tourism, aquaculture, and even "ordinary" freelance professions (Hurwitz, B. *et al.*, 2015). In Latvia, small-scale farmers are diversifying their on-farm economic activities and developing processing, direct marketing and various services (Šūmane *et al.*, 2015).

In almost all cases, technological, and even more importantly, social and organisational innovations seemed to play a major role in rural renewal. Related to this, stakeholders find it problematic if advisory services and information providers focus mainly on technological and efficiency issues.

3.2.4. Building trust, fostering cooperation

Building trust, and fostering partnerships and cooperation are other strategies that contribute to prosperous rural areas. A municipal worker in the Danish case study has problematized the widespread preoccupation with competition and competitiveness, and its tension with the more collaborative attitudes and approaches that seem to play an increasing role:

"In spite of the general farm modernisation trend, which implies that you individually have to compete [as businesses]; you do not really seem to care much for the competition. It seems that you would rather cooperate anyway" (Municipal worker) (Pears et al., 2015).

However, cooperation is not always easy to attain, especially in contexts where competition is very high. Nonetheless, farmers do acknowledge the importance of cooperation and the benefits that originate from it. They try to find ways in which they can cooperate without compromising their individual strategies and work. Cooperation through networks can occur naturally with farmers exchanging information among neighbours, friends and peers. An important condition to stimulate collaborative attitudes seems to be to have a good governance structure. A telling example is the Spanish case study, where the establishment of the producer cooperative increased trust within the group (though perhaps at the detriment of those who are not a member of the cooperative):

"Amongst the farmers in Camposeven, we share all knowledge, information, experiences etc., so we can all benefit. This is possible because we trust each other, which does not happen with farmers outside the cooperative" (Farmer) (De los Ríos et al., 2015).

In a difficult economic context, cooperation seems to become more of a necessity and the tendency to compete against one another might decrease. But there are tensions between the two. Many farmers highlight the importance of being engaged in diverse networks – producers, consumers, associations, intermediaries, processors, wholesalers etc. Being engaged in diverse networks increases adaptive capacity and resilience, and it tends to create new opportunities.

Trust is a key element in promoting collaboration and cooperation (Dei Ottati, 1987). The German case study acknowledges the importance of trust as a main strength of the 'Hohenlohe' region, where actors have a strong sense of community that is based on very well-established communication structures as well as mutual trust within the region (Peter et al., 2015).

Trust is key to overcoming conflicts and crises by promoting an open attitude towards cooperation as well as participation in collective action (Curry, 2010). In the Spanish case study, trust is the main pillar on which the producer cooperative was built. The following quote shows the extent of the trust present:

"There is even enough trust as to not need to attend the assemblies. We just get the information later about the decisions made" (Farmer) (De los Ríos et al., 2015).

In this case, trust acts as an "engine" that keeps the cooperative moving forward and developing. It eases decision-making and promotes innovation. Farmers are convinced that anything that is promoted by the leaders of the cooperative is intended for the good of all.

3.3. How can these strategies be enabled and fostered?

In the different case studies, several common elements stood out as factors that enable and foster the strategies identified in the previous section. The following three approaches and factors should not be taken as an exhaustive list, but rather as recurring themes that came up in different contexts and forms: accommodating policies and multi-actor governance; society's solidarity with farming; recognising the importance of effectiveness for prosperity and well-being.

3.3.1. Accommodating policies and multi-actor governance

Farm households and rural communities are exposed to change processes that appear to drive them into different directions. Some rural communities are looking to become hubs of biotechnology i.e. German case study, others are strengthening their traditional identities and practices i.e. Italian case study, and there are some that are still struggling to find the balance between old and new i.e. Lithuanian case study. Farm households and rural communities need support in identifying the development path forward that best matches given resources, interests and aspirations. Effective policies are therefore those that can accommodate multiple visions, that provide the space needed for experimentation and that allows for growth not only through one prescribed modernity, but also through a dynamic evolution. Farmers and rural areas repeatedly pointed to the need for policies that allow them to be creative and that foster farmer-driven innovation, a finding which is in line with the policy-related analysis of Knickel *et al.*, (2017).

Governance also appears as a key element in the interviews and discussions: Often reference is made to the interconnectedness between different activities, and that appropriate governance systems and lasting relationships between different actors (as opposed to more opportunistic strategies) are a precondition for more beneficial developments. At least five out of the total of seven case studies provide good examples for the importance of accommodating policies and appropriate multi-actor governance systems (Denmark, Germany Italy, Spain and Israel). Also, governance systems and informal networks in particular tend to play a major role in facilitating such relationships is supported by the analyses of Koopmans *et al.*, (2015, 2017).

3.3.2. Society's solidarity with farming

Most farmers emphasised that society's solidarity with farming is important for their situation and rural well-being. They also believe that the quality of their work, closer producer-consumer connections and quality products contribute to increasing society's solidarity with farming. Activities or strategies that involve the community will be enhanced, enabled and fostered when society supports, acknowledges and values farmers work and activities. Examples include vibrant farmers' markets, local product shops, educational activities with schools etc.

A good example is the Italian case study, where the *Cinta Senese* breed represents Tuscan traditional farming par excellence. Its products match the regional gastronomic tradition perfectly. For the local population *Cinta Senese* products represent an element of prestige and pride. For tourists, it represents an extra element of interest as well as cultural and gastronomic richness which complements the list of products typical of this area (De Roest and Ferrari, 2015). The Spanish case study is also a good example, as agriculture

is central to Murcia's heritage. People feel linked to agricultural practice as either their parents or grandparents were farmers at some point. In this case, farmers in Murcia are well respected by society. It is worth telling that Camposeven is now the provider of fruits and vegetables to the local basketball team (De los Ríos *et al.*, 2015).

However, in particular in the Lithuanian case, even though small farms play a significant role in maintaining and developing social links between the urban, the peri-urban and the rural, and many urban people have rural roots, this widespread solidarity with farming seems to get lost in less than a generation (Atkočiūnienė *et al.*, 2015).

3.3.4. *Recognising the importance of effectiveness for prosperity and well-being*

Quality of life, education, social capital, adaptive capacity and the environment play a much larger role for respondents than commonly perceived. Classical parameters of a farm's performance and efficiency tend to completely miss this wider dimension. Based on our findings in all seven case studies, we would also argue that performance and efficiency parameters can only be meaningful to a very limited extent in different situations and at different times. How, for example, can labour productivity be a meaningful criterion in a situation where labour is abundant and where people do not have alternative employment opportunities? Similarly, how can labour productivity and yield or income per hectare be the key parameter of success if labour and/or land are relatively abundant compared with other resources?

We have observed that farmers are more concerned with an *effective* use of given local resources – in order to maintain the long-term productivity of soils *and* to minimise the capital-intensity of farm operations and indebtedness. This is fundamentally different from a focus on measuring a farm's performance in efficiency terms, and is in line with the analysis put forward by De Roest *et al.*, (2017).

Our interviews with farmers and farm household members also showed clearly the extent to which farm activities and strategies, other farm-based activities and off-farm employment as well as a family's perception of prosperity are interconnected. This finding is in correspondence with earlier work in particular by Bryden *et al.*, (1993, 2011) and Knickel *et al.*, (2011).

Therefore, the question is not only whether a farming system is 'efficient', but also whether it is adequate to accomplish purposes beyond production (e.g. protection of ecosystem services, climate change mitigation, prosperous rural areas), i.e. whether it is effective. The question then shifts from the efficiency of a specific production process to the effectiveness of this type of farming in achieving societal goals. What has been observed in the analysis presented in this chapter, is that the different farming strategies do play a significant role in achieving societal goals such as environmental protection, safeguarding traditions and culture, creating attractive landscapes and local job opportunities, thus, strengthening the foundations on which to keep developing and maintaining vibrant rural areas.

4. Conclusions

Before we present our conclusions from the above analysis, we need to ask how representative the seven case studies that we have examined in this chapter are. The seven case studies cannot be statistically representative, but they do represent very different

farm structural situations and regional contexts, as well as very different levels of prosperity in a conventional economic sense. The case studies explore and illustrate what matters for rural people, they exemplify how farmers are actively exploring alternatives in production methods and resource uses in order to maintain their livelihoods in the light of new social and economic realities. Although more empirical research with a larger number and representative set of case studies would be needed to further consolidate the related findings, they do illustrate and help to understand prosperity in rural areas.

From our analysis, we can conclude that rural prosperity and well-being embrace many more aspects of life than just monetary factors for farmers and other rural actors. Quality of life includes health, personal satisfaction built on values and ethics people believe in. Maintaining vibrant rural areas with sound infrastructures and social services is also an essential aspect of rural prosperity. Many farmers – not all – also recognise that farms are part of a broader rural community context and that their activities contribute to rural prosperity.

The close connections between farming and rural community, and often personal ties, are key to rebuilding a sense of community, which in turn contributes to reimagining the socio-economic opportunities of a region. A closely related dimension that should be accounted for in a new understanding of rural prosperity is culture: maintaining traditions and cultural differentiators, local culinary traditions and close relations between farmers, processors and consumers are still important in many regions. These close relations can also be linked with local employment opportunities that allow people to maintain their livelihoods.

The quality of the natural environment is not only connected with regional identity and traditions, it is also still seen by most farmers as a resource which is why they are interested in its preservation and integrity.

Farmers also noted a number of important strategies that they see as enablers of prosperity. Maintaining good relations and fostering cooperation is one of them. When good relations and cooperation are present, it generates new opportunities and solutions to many of the problems faced by farmers and rural communities. However, to achieve cooperation, both trust and the existence of strong interpersonal relationships play a key role, as they serve as the basis on which to build collective actions. The existence of trust also plays a role in governance and decision-making.

Innovation is seen not just in terms of technology and efficiency, but also, for example, in product lines and business models as well as in social, organisational and institutional innovation. Most of the case studies showed strong elements of cross-sectoral collaboration contributing to the well-being of all actors involved.

We like to conclude that also in rural areas and agriculture there is a need for a redefinition of prosperity. This redefinition needs to integrate economic parameters with human, social and environmental well-being. If such a redefinition encompasses the multidimensionality of rural actors' aspirations and realities, it can also guide new policies for a sustainable development of agriculture and rural areas, and a more balanced socio-economic development overall.

5. REFERENCES

Anand, P., Hunter, G., and Smith, R., 2005. Capabilities and Well-being: Evidence based on the Sen-Nussbaum Approach to Welfare. *Social Indicators Research*, 74(1), 9–55.

Atkočiūnienė, V., Aleksandravičius, A., Zemeckis, R., Vitunskienė, V., Dautartė, A., Spruogis, V., Blockytė, L., Baltušienė, J., and Serv, E. 2015. *Resilient farming systems and market differentiation: Challenges and opportunities in farmers' markets (Lithuania)*. RETHINK Case Study Report, Aleksandras Stulginskis University, Kaunas, Lithuania.

Benz, A., and Meincke, A. 2007. Regionalwissenschaftliche Theorieansätze –Analyse der Governance Strukturen. *Abschlussbericht Modul 3 und 4*. Hagen. Accessed 05/08/2015 at: http://www.regionenaktiv.de/bilder/Abschlussbericht_Modul_3_und_4.pdf.

Bryden, J., Bell, J., Gilliatt, E., Hawkins, E., and MacKinnon, N. 1993. *Farm household adjustment in Western Europe 1987-91*. Final report of the Research Program on Farm Structures and Pluriactivity. Luxembourg: Commission of the European Communities.

Bryden, J., Efstratoglou, S., Ferenczi, T., Knickel, K., Johnson, T., Refsgaard, K., and Thomson, K., (Eds.) 2011. *Towards sustainable rural regions in Europe. Exploring relationships between rural policies, farming, environment, demographics, regional economies and quality of life using system dynamics*. Taylor & Francis. New York.

Cazorla, A., De los Ríos, I., and Salvo, M., 2013. Working With People (WWP) in Rural Development Projects: a Proposal from Social Learning. *Cuadernos de Desarrollo Rural*, 10(70), 131-157.

Chambers, R. 1997. Responsible Well-being—a Personal Agenda for Development. *World Development*, 25(11), 1743–1754.

Cloke, P.J., and Little, J. 1997. *Contested Countryside Cultures: Otherness, Marginalisation, and Rurality*. Psychology Press. Routledge. London, U.K.

Cloke, P., Goodwin, M., Milbourne, P., and Thomas, C. 1995. Deprivation, poverty and marginalization in rural lifestyles in England and Wales. *Journal of Rural Studies*, 11(4), 351-365.

Cresswell, T. 1996. *In Place-Out of Place: Geography, Ideology, and Transgression*. University of Minnesota Press. U.S.A.

Curry, N. 2010. Differentiating Trust in Rural Decision-making, Drawing on an English Case Study. *Sociologia Ruralis*, 50(2), 121-138.

Daly, H. 2008. A Steady-State Economy: A Failed Growth Economy and a Steady-State Economy are not the same thing; they are the very different alternatives we face. *Sustainable Development Commission*, London. U.K.

Darnhofer, I., Lamine, C and Knickel, K 2014.a. Conceptual Framework. RETHINK project. 7th framework programme CE.

- Darnhofer, I., De los Ríos, I., Knickel, K., Koopmans, M., Lamine, C., Olsson, G.A., de Roest, K., Rogge, E., Sumane, S., and Tisenkopfs, T., 2014.b. *Rethinking the Links between Farm Modernisation, Rural Development and Resilience in a World of Increasing Demands and Finite Resources*. Analytical Framework. RETHINK project. 7th framework programme CE.
- Dayton-Johnson, J., 2001. *Social Cohesion and Economic Prosperity*. James Lorimer & Company, 152. Toronto, Canada.
- De los Ríos, I., García, C., Herrera, T and Rivera, M. 2015. *Innovation and social learning in organic vegetable production in the Region of Murcia, Camposeven, Spain*. RETHINK Case Study Report, GESPLAN – Technical University of Madrid, Technical College of Agriculture, Madrid, Spain.
- De los Ríos, I., Rivera, M., and García, C. 2016a. Redefining rural prosperity through social learning in the cooperative sector: 25 years of experience from organic agriculture in Spain. *Land Use Policy*, 54, 85-94.
- De los Ríos, I., Becerril, H., Rivera, M., and García, C. 2016b. Ecological agriculture and its influence on rural prosperity: An agricultural company's vision (Murcia, Spain). *Agrociencia*, 3, 375-389.
- De Roest, K. and Ferrari, P. 2015. *Extensive pig production systems, Italy*. RETHINK Case Study Report, Fondazione Studi e Ricerche (FSRC/CRPA), Reggio Emilia, Italy.
- Dei Ottati, G. 1987. Il mercato comunitario. *Mercato e Forze Locali: il Distretto Industriale*, 117-142.
- Diener, E., Sandvik, E. and Seidlitz, L.D. 1993. The relationship between income and subjective well-being: Relative or absolute? *Social Indicators Research*, 28(3), 195-223.
- Easterly, W., Ritzen, J., and Woolcock, M. 2006. Social cohesion, institutions, and growth. *Economics & Politics*, 18(2), 103–120.
- Friedmann, J. 1987. *Planning in the Public Domain: From Knowledge to Action*. New Jersey: Princeton University Press. U.S.A.
- Halfacree, K.H. 1993. Locality and social representation: space, discourse and alternative definitions of the rural. *Journal of Rural Studies*, 9(1), 23-37.
- Hooghe, L. and Marks, G., 2003. Unravelling the Central State, but How? Types of Multi-Level Governance. *The American Political Science Review*, 97(02), 233-243.
- Hurwitz, B., Calvão Chebach, T., Ashkenazy, A., Dagani, B., and Offenbach., R. 2015. *Rural innovation in global fluctuation: The Arava region case study (Israel)*. RETHINK Case Study Report, Central-and Northern-Arava Research and Development, Israel.
- Jackson, T. 2009. *Prosperity Without Growth: Economics for a Finite Planet*. Earthscan, London, UK.

Kasser, T., Cohn, S., Kanner, A.D., and Ryan, R.M. 2007. Some costs of American corporate capitalism: A psychological exploration of value and goal conflicts. *Psychological Inquiry*, 18(1), 1-22.

Knickel, K. 1990. Agricultural structural change: impact on the rural environment. *Journal of Rural Studies*, 6(4), 383-393.

Knickel, K. 2001. The marketing of Rhöngold milk: An example of the reconfiguration of natural relations with agricultural production and consumption. *Journal of Environmental Policy and Planning*, 3(2), 123-136.

Koopmans, M., Rogge, E., Mettepenningen, E., Kerselaers, E., and Van Huylenbroeck, G. 2015. *New forms of governance in landscape development (Belgium)*. RETHINK Case Study Report, Ghent University, Department of Agricultural Economics, Faculty of Bioscience Engineering, and Institute for Agricultural and Fisheries Research (ILVO), Social Sciences Unit, Belgium.

Llano, A., 1988. *La Nueva Sensibilidad*. Espasa-Universidad. Madrid, 244.

Long, N. 2000. *Anthropology, development and modernities*. Routledge, New York/London.

Miibourne, P. 1997. *Revealing Rural "Others": Diverse Voices in the British Countryside*. Pinter Press, London, U.K.

Murdoch, J., and Pratt, A., 1993. Rural studies: modernism, postmodernism and the "post rural". *Journal of Rural Studies*, 9(4), 411-427.

Nardone, G., Sisto, R. and Lopolito, A. 2010. Social Capital in the LEADER Initiative: a methodological approach. *Journal of Rural Studies*, 26(1), 63-72.

Neff, D.F. 2007. Subjective well-being, poverty and ethnicity in South Africa: insights from an exploratory analysis. *Social Indicators Research*, 80(2), 313-341.

Oostindie, H., van der Ploeg, J.D., Broekhuizen, R., Ventura, F., and Milone, P., 2010. The central role of nested markets in rural development in Europe. *Rivista di Economia Agraria*, 65(2), 191-224.

Pears, D.Q., Kristensen, L.S. and Primdahl, J. 2015. *Landscape strategy making and agriculture (Denmark)*. RETHINK Case Study Report, Copenhagen University, Danish Centre for Forest, Landscape and Planning, Copenhagen, Denmark.

Peter, S., Pons S. and Knickel, K. 2015. *Opportunities for creating an eco-economy: Lessons learned from the Regional Action and Bio-energy Regions schemes (Germany)*. RETHINK Case Study Report (D3.3), Institute for Rural Development Research at J. W. Goethe University, Frankfurt/Main, Germany.

Philo, C. 1992. Neglected rural geographies: a review. *Journal of rural studies*, 8(2), 193-207.

- Philo, C. 1993. Postmodern rural geography? A reply to Murdoch and Pratt. *Journal of Rural Studies*, 9(4), 429-436.
- Rapp, H. 2008. Fulfilment and prosperity: a new-Gandhian vision. Fourth opinion piece for the Redefining Prosperity seminar "Visions of Prosperity". *Sustainable Development Commission*, London, U.K.
- Sardar, Z., 2007. Prosperity: A Transmodern Analysis, Think-piece for the SDC seminar Visions of Prosperity. *Sustainable Development Commission*, London, U.K.
- SDC. 2003. Redefining prosperity: Resource productivity, economic growth and sustainable development. *Sustainable Development Commission*, London, U.K.
- SDC. 2009. Prosperity without Growth? The transition to a sustainable economy. *Sustainable Development Commission*, London, U.K.
- Sen, A. 1984. The Living Standard. *Oxford Economic Papers*, 36, 74–90.
- Shucksmith, M. and K. Rønningen., 2011. The Uplands after neoliberalism? The role of the small farm in rural sustainability. *Journal of Rural Studies*, 27(3), 275–287.
- Sibley, D. 1995. *Geographies of Exclusion: Society and Difference in the West*. Routledge, London, U.K.
- Stiglitz, J., Sen, A., and Fitoussi, J.P. 2009. The Measurement of Economic Performance and Social Progress Revisited. Reflections and Overview. *Commission on the Measurement of Economic Performance and Social Progress*, Paris, France.
- Šūmane, S., Kunda, I., Tisenkopfs, T., Pilvere, I., Stokmane, I., and Zēverte-Rivža, S. 2015. *Small farms' development strategies (Latvia)*. RETHINK Case Study Report, Nodibinajums Baltic Studies Centre (BSC) and the Latvian University of Agriculture, Faculty of Economics, Riga, Latvia.
- Toynbee, A. J., 1987. *A Humanidade ea Mãe-Terra: Uma Historia Narrativa do Mundo*. Guanabara. Brasil.
- Van der Ploeg, J.D. 2009. *The New Peasantries - Struggles for Autonomy and Sustainability in an Era of Empire and Globalization*. Routledge.
- Van der Ploeg, J.D. and Marsden, T. 2008. *Unfolding webs. The dynamics of regional rural development*. Royal Van Gorcum, Assen (NL), 1–28.
- Wall, D. 2008. *Prosperity without growth, economics after capitalism*. The first opinion piece for the Redefining Prosperity, third seminar "Confronting Structure—achieving economic sustainability". *Sustainable Development Commission*, London, U.K.
- Wolf, P. M., 1981. *Land in America: Its Value, Use, and Control*. Pantheon., New York, U.S.A.

CHAPTER 2:

Strategies to reach rural prosperity

Chapter 1 shows that the simple logic of associating rural prosperity with the modernisation of agriculture and the economic benefits that appear to originate from it is not correct. There are many other non-economic aspects, such as minimum level of autonomy, social recognition and social and environmental well-being that should be considered when understanding the meaning of prosperity in rural areas. Chapter 1 also quickly goes over the key strategies used by farmers in the different case studies and shows how these strategies are also benefiting the community and the region. Chapter 2 goes deeper into the analysis of these different strategies but focuses on those used by farmers in the Spanish Case Study (farming cooperative in Murcia) to achieve success without following the traditional conventions of economic growth and farm-efficiency. The strategies are framed within the “Working With People” model that divides the strategies in: technical entrepreneurial, ethical-social and political-contextual strategies. Experience lessons in this chapter demonstrate that the “technical-economic” approach of rural prosperity is not sufficient and results emphasize the important role of individuals’ behaviour as well as the contexts in which they are involved.

1. Introduction: definition, measurements and indicators

As we have seen in the previous chapter, conventionally, the concepts of prosperity and wellbeing have been strongly linked to economic activities, and consequently, growth has been traditionally measured through the Gross Domestic Product (GDP), i.e. based on increasing material throughput. However, growth of output does not accurately represent the growth of human welfare as GDP counts only goods and services that are traded in the market or have prices attached (Baumol *et al.*, 2007; Darnhofer *et al.*, 2014). As it fails to account for non-market services (such as household and voluntary labour), negative externalities (environmental degradation) and for changes in the asset base which affect our consumption possibilities, the widespread use of GDP as a key indicator of prosperity has been widely criticized (Stiglitz *et al.*, 2009). According to Stiglitz *et al.*, (2009), GDP neither outlines how income and wealth are distributed among people. Undeniably, a type of prosperity that is founded on ecological destruction and persistent social injustice is not a foundation for a civilized society (Jackson and Anderson, 2009). As a consequence, since the 1970s, a reformulation process of the key concepts was initiated and alternative definitions and measurement techniques for progress were developed. The paragraphs below provide an overview of the key indicators and definitions that have so far been created.

Jackson (2009: 44) points out that in a world of limits, certain kinds freedoms are immoral e.g. the freedom to endlessly accumulate material goods at the expense of child labour. His point is thus to aim for fair and lasting prosperity. Jackson (2009: 37) builds on the three understandings of prosperity elaborated by Amartya Sen (1984): Prosperity as opulence, this corresponds to the conventional understanding that prosperity is about material satisfaction; Prosperity as utility, recognizing that – given a diminishing marginal utility of goods – ‘more is not always better’; and Prosperity as capabilities for flourishing, the capability (or freedom to) function in a context (Sardar, 2007; Rapp, 2008). The Sustainable Development Commission has also developed a new understanding of prosperity (SDC, 2003; Kasser, 2007; Wall, 2008; SDC, 2009). The report by the Commission Stiglitz-Sen-Fitoussi recognizes that well-being has to do with both economic resources, such as income, and with non-economic aspects of peoples’ life. The Commission recommends taking into account eight different dimensions which

are also considered by the various alternative indicators that aim at measuring economic progress and that have been created so that economies can reach long-term prosperity, some examples of these indicators are: (1) Genuine Progress Indicator (GPI) which build on Daly's and Cobb's Index of Sustainable Economic Welfare, (Daly *et al.*, 1989) starts with GDP but adds factors like income distribution, volunteer work, leisure, education and subtracts factors such as environmental degradation and crime. It is currently used by the Government of Maryland (USA); and (2) the Legatum Prosperity Index based on the measurement of eight pillars: economy, entrepreneurship and opportunity, governance, education, health, safety and security, personal freedom and social capital.

All of the above indicators measure well-being at the national level, but indicators that specifically measure prosperity in rural areas have not yet been created. Rural areas are the main sustention of urban spots and therefore the guarantors of national prosperity. Van der Ploeg *et al.*, (2008) point out that quality of life in rural areas is linked to a social life characterized by networks, shared norms and expectations that promote interactions and create a "sense of belonging". It can therefore be said that social capital is one of the most important determinants of prosperity. The term 'social capital' encompasses factors such as social cohesion and engagement, as well as community and family networks (Legatum Institute, 2013). Rural areas should search for models were people could thrive and find well-being ecologically sustainable with regulated markets that promote prosperity (SDC, 2003). Kasser (2007) and Jackson (2009) believe this vision of prosperity is much more complete than the materialistic one that has been used so far, and it could lead to qualitative development instead of quantitative growth (Daly, 2008).

Understanding prosperity this new way implies recognition that economic growth at regional level and economic efficiency at farm-level are not proper signs of prosperity in rural areas. Therefore, large specialized farms should no longer be the unquestioned ideal. Small farms can be linked with beautiful landscapes, based on small-scale, low intensity, environmentally-friendly farming (Darnhofer *et al.*, 2014). Shucksmith and Rønningen (2011) highlight the fact that small farms can present a support upon which rural households can sustain their livelihoods through activity diversification and maintaining the population in areas that without them would have been undoubtedly lost. Activity diversification has been proven to be essential for a rural area to be prosperous and resilient. There are new activities and concerns, hi-tech agriculture is in crisis as surplus activity, rural areas are no longer seen as a space designated for production enhancing environmental conservation values which become the subject of political concern. The reappraisal of the "rural" concepts makes separation between town and countryside less marked (Wilkinson, 1982); with a more diverse relationship that includes new activities and changes. The rural environment is configured as poly functional space; not only productive but also recreational, residential and for conservation or environmental protection. In most developed societies, rural prosperity is not as simply as industrialization. New urban-rural relationships (Sibley, 1995), residential decentralization processes (Clark, 1982), spatial dispersion of the industry and services to the countryside (Murdoch and Pratt, 1993) came from this process of change.

Since the rediscovery of new forms of action, there is also a rethinking of matters regarding man-nature relationships that arise as a green claim (Ramos, 1993) against the traditional visions of prosperity (WCED, 1987). In this context, ecological agriculture has in the last few years become an important source of income and a way to diversify activities (Turinek *et al.*, 2009; Kastner *et al.*, 2012). Both organic and biodynamic

agriculture can be described as production systems whose processes allow obtaining natural and healthy food (Steiner, 1924; Turinek *et al.*, 2009; USDA, 2014). These two production systems respect the environment, protect biodiversity, provide for a beautiful landscape, use resources more efficiently and protect cultural heritage (Scialabba and Hattom, 2003; Wood *et al.*, 2006; Turinek *et al.*, 2009). Due to the holistic, diverse and distinctive nature of ecological agriculture (Jackson, 1980; Ikerd, 1993; Pretty, 2008) it requires of new forms of knowledge and learning that integrate social and environmental values (Curry and Kirwan, 2014; Pretty, 1995; Kloppenburg, 1991), as well as a diversity of knowledge sources and learning forms that are crucial for adaptive learning processes, and therefore essential to build resilience and prosperity (Berkes, 2007). According to Friedmann (1993) the “common action” occurs through social learning planning in a community by retaining the memory and continuity of actions to carry them out through dialogue, teamwork, community projects and other means.

With this in mind, the aim of this chapter is to analyse how a small farm cooperative that uses both biodynamic and organic production systems, is able to be prosperous without following the traditional conventions of economic growth and farm-efficiency. Both the evolution process of the cooperative —30 years of experience in collective action—, as well as the opinions of the main stakeholders have been analysed to add up to rethinking the prosperity concept as well as the main strategies followed by the cooperative to be prosperous. Their strategies are analysed and based upon conceptual framework “Working With People” (Cazorla *et al.*, 2013), which aims at enhancing the values of people and knowledge exchange to reach long-term prosperity. At the core of the WWP approach, the balance between three dimensions of competences —technical, behavioural and contextual competences— is key. The collective management strategy together with a constant flow of knowledge and learning (both formal and informal) are the two key elements that contribute to create more sustainable and prosper rural areas.

2. Study framework and description

We base our chapter on the case study carried out in the international RETHINK research programme supported by the European Commission and funding bodies in 14 countries under the umbrella of FP7 and the RURAGRI ERA-NET called Rethink (2013-15). This interdisciplinary project aims to “rethink the links between the modernization of farms, rural development, rural prosperity and resilience in a world of growing demands and finite resources” (Rethink, 2015). Camposeven is one of the 14 case studies from Rethink (De los Rios, 2015). The case included small-scale farmers from Camposeven organic cooperative in Spain. The research members of Rethink formed a multi-sectorial and interdisciplinary Expert Panel to create the reporting guidelines on each theme. The Expert Panel provided research advice on effective strategies and ways of rural prosperity and established the common guidelines for the creation of questionnaires based on the methodological framework “Working With People –WWP” (Cazorla *et al.*, 2013). The WWP model integrates experiential and expert knowledge, and connects knowledge to action incorporating the values of the people involved with the importance of the flow of goods and services generated in any project. The stakeholders' behavioural skills, as well as solid ethical foundations, are considered key elements in this model, together with technical and contextual skills, which are necessary to develop rural prosperity (Cazorla and De los Ríos, 2001). This human vision was agreed by the expert panel, as the ideal one, for the rural prosperity established in the analytical framework (Darnhofer *et al.*, 2014).

The questionnaires were semi-structured in-depth interviews and divided the questions into the four dimensions of the WWP framework: technical-entrepreneurial, ethical-social, political-contextual and social learning (Cazorla *et al.*, 2013). The analysis consists of two types of data. First, the empirical data was gathered through mixed methods involving semi-structured in-depth interviews and group discussions; on the other hand, the relevant secondary data was obtained from statistics, previous research and official documents, collected with the objective of examining the evolution process of Camposeven. The interviews were conducted individually and face to face with all multi sectorial stakeholders that were involved in this study, as rural development has become a multi-actor, multi-level and multi-sector process (Van der Ploeg and Marsden, 2008). Below are the 38 key agents (divided into 6 groups) involved that interact in one way or another with the organization Camposeven at different stages along the value chain (Table 1).

Table 1: Number of interviews within each sector

Cooperative Staff			Providers of services and supplies		
Farming partners	No farming partners	Directive Staff	Public Sector	Private sector	Civil Society
10	7	5	5	8	3
26%	18%	14%	13%	21%	8%

Source: Own elaboration from fieldwork (De los Ríos *et al.*, 2015)

When analysing the scope of the interviews, the weight of each group is, firstly stakeholders within Camposeven (58%) and secondly, stakeholders around Camposeven that have an influence on the organization (42%). The closed questions were divided into ordered categories that allow the person to refine their answer further (Abad *et al.*, 2011); the selected type was so called “level of agreement” of “Likert type” for which we established the following values: 1 very low, 2 low, 3 high and 4 very high. The rest of the open questions underwent a qualitative analysis (Timmermans and Tavory, 2012).

2.1. Camposeven organic agriculture cooperative

Camposeven Organic Agriculture Cooperative is found in Murcia. At spatial level, the territorial scale analysed is the Community of Irrigators of Campo de Cartagena, which counts with 1,163 km² and a total population of 358,927 inhabitants. In this region the food industry has a long tradition in agricultural activity. However, in the Mediterranean region, this sector presents a deep environmental, social and economic problem derived from the difficult existing conditions for farming in an arid climate with acute water shortage. Using up only 3% of the Spanish water resources and channelling investment towards an improved supply system and water treatment has allowed the region to evolve and place itself ahead of the Spanish average. Nevertheless, the strong presence of tourism in the area creates important pressure on natural resources and the prices of land, which also strongly affect agriculture’s survival capacity (INFO, 2014). Murcia’s economy has been moved largely by the agricultural sector, with the food industry being one of its main development engines and one of the main pillars with greatest contribution to GDP and territorial equilibrium. Murcia is also the autonomous community of Spain with more acres dedicated to organic farming (INFO, 2014), with an area of 58,820 ha

(which account for 10% of the regional agricultural area and 3.7% of the national agricultural area).

Figure 1. The study area

This case study is set in the above described challenging context, however the farmer's long experience (more than 25 years) in the agricultural cooperative sector allowed them to create an innovative cooperative that has become a great success in the area. The creation of Camposeven is the result of an evolution process lived by the actual farming partners of the cooperative and it is described below:

The farming partners of Camposeven had worked before for a large conventional agriculture cooperative, some of them for longer than 30 years, which implies that they counted on wide agricultural experience in the production, processing and marketing of conventional horticultural crops. The former cooperative had approximately 480 partners, 600 staff, 60 million Euros of sales, and produced 83,000 tons.

The year 2007 marked a turning point for 7 farmers that decided to abandon the old cooperative and start their own. This happened as a result of disagreements with the governing policies of the former cooperative. The new partners wanted their entrepreneurial project to be based on trust and transparency, focusing on the quality of the products and not so much on the quantity. The actual Chief Executive Officer (CEO) of Camposeven was also the CEO of the later cooperative until the year 2006.

Farmers have created Camposeven and they are the ones running the business. Farmers are the entrepreneurs that have full autonomy in Camposeven, this means that they have full control of the resources, including land, labour, knowledge, and networks, always basing their businesses on relationships of trust and credibility. The current mission of Camposeven is "promoting the health of people through developing organic product lines using sustainable techniques". The distinguishing factor and main characteristic of Camposeven is that most of their product is produced following organic standards. The intensification of agriculture has had a strong impact on the environment, and in Spain, intensive agriculture occurs in all regions occupying a total territory of 1,571,000 hectares which accounts for 24.2 million tons, out of which 54% are horticultural products (MAGRAMA, 2015). Camposeven still produces intensive, however, the need to intensify is not questioned, as high productivity is seen as fundamental to "feed the world" (Griffon, 2006). As an answer to this, the new concept of ecological intensification arises

(Doréa *et al.*, 2011), which aims at using ecological processes and ecosystem services to reduce the environmental impact of agriculture. All these pillars have allowed them to stay together, adapting to a complex and adverse context and overcoming different challenges together.

At the beginning, Camposeven was formed by seven producing families that counted with 200 hectares of land and 13 product varieties. In 2008, which was the first year of commercialization, the level of sales reached a total amount of 7.056.871 Euros. Since 2009, Camposeven participates in various platforms and networks of cooperation that aim to integrate learning and knowledge (expert and experiential). Their bet on new technologies and their investment on R&D has always been a distinctive feature of the organization. The main platform is the *Agrifood Platform*, created in 2009 and of which Camposeven is co-founder. It is managed by the Technical University of Madrid, and cooperates with different research groups.

In 2011, the number of producing families increased to nine, and the number of organic surface to 350 has, which increased their production to 17000 tons. That same year, the CEO of Camposeven was named president of the Working Group related to horticultural crops of the *Agrifood Platform Food for Life*. The next year, in 2012, the important milestone was the creation of “Freshvana”, a new commercial brand for the marketing of organic products through short chains, directly to the consumer online at national level.

In 2013, Camposeven got integrated into *Plant Response Biotech*, a research project with the Technical University of Madrid and with Bio-business enterprises that aim to develop innovative approaches to protect plants against pests and pathogens addressing sustainability needs in crop protection. In 2014 the society counted with 125 workers, 490 hectares of organic production, 19280 tons of 19 product varieties and 19,078,545 € of sales, out of which 90% were exported to other EU countries such as England, Italy, France etc.

At the end of the year 2014, after two years of working with people and training, the individual farming partners and the cooperative received the biodynamic certification, under the international normative of biodynamic production Demeter, providing them with an absolute differentiation from the rest of the producers of the area. In this way, Camposeven's farmers strive to create a new biodynamic, diversified and balanced farm ecosystem that generates health and fertility as much as possible from within the farm itself. The first sales of this type of biodynamic products took place in the last three months of 2014. They sold 105,182 kg of products, which is equivalent to 181,269 Euros. All these milestones, to operationalize a process approach, are summarized in table 2.

Table 2. Camposeven Evolutionary Milestones

	Previous Cooperat ive	Camposeven							
	Until 2007	07/08	08/09	09/10	10/11	11/12	12/13	13/14	1/10/- 31/12/14
Farming partners (Farms)	480	7	7	7	10	10	9	9	8
Cooperat ive Staff	600	164	167	301	188	153	173	171	68
Sales (€)	52.000.000	6.784.024	4.341.438	12.452.348	8.185.123	9.489.920	14.747.666	19.078.545	2.490.722
Producti on (Tons)	77.000	14.455	16.412	18.384	18.275	16.263	20.018	19.280	3.414
Surface (Hectare s)	1.300	336	407	750	529	516	779	608	-
Product type	Conventio nal	Organic	Organi c	Organic	Organi c	Organic	Organic	Organic	Organic and Biodyna mic
Product variety	15	13	13	18	18	19	19	24	19
Other data of interest	30 years of previous experience	Creation of Organic Agriculture Cooperative	Agrifo od Platform	IPMA certification	Food for Life	Freshvna	Plant Response Biotech	Demeter certification	Selling biodyna mic products

Source: Own elaboration from fieldwork (De los Ríos et al., 2015) and from Camposeven's internal documents

3. Strategies and approaches

The following subsections introduce the main results of the field study which illustrate a new approach to rural prosperity that goes beyond efficiency principles and values social and environmental elements as key within this new model. Results are divided into three different subsections: a) the influence of each social system scope in the rural prosperity according to farming partners, b) elements they believe should be included into the rural prosperity concept, and c) the strategies farmers follow through Camposeven to reach prosperity.

3.1. Influence of the social system of rural prosperity

The following table shows the value given by farming partners to the influence they believe that each social system scope exerts on rural prosperity. Political support and compensatory payments are often essential to the successful outcome of projects and programs for rural prosperity; this includes both national-level and local-level support

(Ickis, 1983; Conyers and Kaul, 1990). But in this case the main role is given to the private-business sector, followed by the role of civil society, and as least influencing political and public-administrative scopes (with 70% of respondents considering their influence as very weak).

Even if financial motivations play an important role, they are not necessarily related to an income-maximization attitude (Padel *et al.*, 2010). A very important aspect of autonomy, argued by 80% of farming partners, is being independent from public subsidies. In all cases, the dependence occurs in certain key inputs, and especially the use of water, which is scarce in the region and its cost is high. They are also totally dependent on income from their farms because they devoted exclusively to agriculture as a means of supporting their families. Camposeven Farmer's say: *I don't believe in subsidies, the product needs to be profitable on its own* (Farming Partner 8).

Table 3: Influence of the social system of rural prosperity

Scale of influence	Level of influence	Political	Public	Civil society	Private-business
1	Very weak	70%	70%	20%	20%
2	Weak	10%	20%	50%	0%
3	Strong	10%	0%	10%	50%
4	Very strong	10%	10%	20%	30%

Source: Own elaboration from fieldwork (De los Ríos et al., 2015)

3.2. Elements of rural prosperity

According to the learning and perceptions of all key agents interviewed, the main elements that have come up help us understand the values and beliefs underlying farmers' choices and their views about rural prosperity. These 5 main elements to be included in the concept of rural prosperity are the following, in order of importance. A) Firstly, personal satisfaction and life quality of the workers, the farmers consider that:

“to achieve rural prosperity, businesses should incorporate social values such as integrity, respect for the people and solidarity” (farming partner).

B) The second element is knowledge and learning, betting for a continuous development of capacities and skills will allow reaching the goals and objectives set. Prosperity is not just about improved facilities but also about stronger, more capable institutions and individuals (Korten, 1980) and this capacity building must be guided by values and ethics. C) The third main element is environmental awareness and protection. Camposeven farmers are deeply rooted in the founding philosophy of organic farming, which is based on the rejection of synthetic fertilizers and pesticides:

“Being aware that people and their activities are part of the environment, and that therefore it must be protected and respected, it is an element which must be incorporated in the culture of public and private organizations” (farming partner).

Organic farming is generally an option for people who believe in producer and/or consumer's health as well as having ethical and lifestyle considerations (Darnhofer *et al.*, 2005; Tovey, 1997; Michelsen, 2001). D) The fourth element is business profitability because rural prosperity requires self-sufficient organizations from an economical point of view, that generate goods and services (products) that are profitable

“This self-sufficiency from public aid has become one of the main strengths of Camposeven, allowing the partners to receive even higher incomes than other businesses dependent on subsidies” (CEO interview).

E) The fifth key element highlighted is research and innovation; businesses should bet for an innovative vision when managing their activities. The agents interviewed highlight research and innovation is important for energy self-sufficiency, information management as well as to develop new entrepreneurial ideas.

Table 4 shows the top 8 elements (out of 17 that came up in total) that were highlighted by which groups of interviewees and the importance given to each by each group.

Table 4. Rural Prosperity's elements importance divided into groups

Elements of rural prosperity	Camposeven (%)	Public Domain (%)	Private Domain (%)	Civil Society (%)	Sum
Personal satisfaction	45	60	38	67	210
Knowledge and learning	36	20	50	100	206
Environmental awareness and commitment	18	40	38	67	163
Business profitability	27	60	50	0	137
R&D and Innovation	45	20	25	33	123
Job creation	14	20	38	33	105
Accessibility to services	0	20	25	33	78
Synergies between activities and sectors	0	20	25	33	78

Source: Own elaboration from fieldwork (De los Ríos et al., 2015)

Analysing the opinions according to the groups of interviewed agents, it is possible to observe slight differences. While farmers consider primordial for rural prosperity the personal satisfaction and R+D and innovation, for public sector point interviewees, life quality and the satisfaction of the people as well as profitability are highlighted. And the agents from the civil society value most; people's satisfaction and training and the respect for the environment are all valued equally.

3.3. Strategies to reach rural prosperity through organic agriculture

The following sections show the value given by Camposeven's partners to the different strategies adopted to reach prosperity. They are divided into 3 dimensions: technical-entrepreneurial, ethical-social and political-contextual (Cazorla *et al.*, 2013). The technical-entrepreneurial section integrates the key strategies that make Camposeven an investment unit capable of generating good and services that comply with quality standards (IPMA, 2010). The ethical-social covers all the strategies related to the behaviour, attitudes and values of the people within the social subsystem. And the political-contextual comprehends the strategies that facilitate the participation and the social dynamics of Camposeven with its context.

3.3.1. Technical-entrepreneurial strategies

The main strategies used that have contributed to rural prosperity from a technical-entrepreneurial point of view, are related to actions oriented towards a sustainable use of natural resources and product differentiation. There are 3 that mainly stood out:

“Sustainable use of water resources” (mentioned by 43.5% of the interviewees), considering that the lack of water is Murcia's major problem for agriculture, it is an expected answer. This strategy focus on the technical challenges and includes actions related to production, such as R+D, and the modernization of farms through the use of drip irrigation, black plastic to retain moisture, creating reservoirs (capped to prevent evaporation), channels for water collection, multichannel techniques, drought-resistant varieties, and training staff for sustainable water use.

Another important strategy is “differentiation through ecological production” (with a 34.8%). This strategy aims at promoting people's health through the development of organic product lines. This differentiation through organic agriculture depends on traits like curiosity, flexibility, and the willingness to take risks as well as persistence and creativity in exploring innovative marketing approaches (Regouin, 2003). This can only be done, by using sustainable techniques, according European standards for organic and biodynamic products, which affect all stages: production, preparation and distribution. In order to carry out this strategy, farmer's at the cooperative have had to adapt to the following changes in the way they work: training on the use of common indicators and principles for the labelling and marketing of ecological products; appropriate design and management of biological processes based on ecological systems; restricting the use of resources from external environments (use of resources from organic production, natural substance.); sustainable techniques and principles in accordance with EC directives; use preventive measures to maintain the health of vegetables when choosing the appropriate species and varieties that are resistant to pests and diseases, appropriate crop rotations, and mechanical and physical methods for the protection of natural enemies of pests.

“Recycling waste and sub products” is the third most common technical-entrepreneurial strategy considered to lead towards rural prosperity (valued with 22%). Organic agriculture must be mainly based on renewable resources integrated into local agricultural systems (CE, 2007). For that, the actions taken aim at generating their own resources for agricultural production, following certain principles: minimizing the use of non-renewable resources, recycling waste and vegetable sub products (previously crushed) through the reposition of land nutrients and use them as manure, and not burning any type

of waste.

3.3.2. Ethical-social strategies

These strategies cover the context of behaviour, attitudes and values of people who interact to promote, manage or direct a project. Rural prosperity is linked to a social life characterized by networks, social interactions, “sense of belonging”, community and family networks (Van der Ploeg *et al.*, 2008). The ground of the social system that surrounds a project (organic management practices) is to cover the conduct and moral behaviour of people and it sets out the ‘foundations’ to make people, both from the private and public fields, to come to work together, with commitment, confidence and personal freedom. Camposeven’s farmers are ‘organic pioneers’ and all farmers included in the cooperative are committed to organic type of production. Same as farmers in other studies (Tovey, 1997; Michelsen, 2001; Darnhofer *et al.*, 2005), Camposeven farmers have decided to follow organic farming practices looking for producer and/or consumer’s health as well as because of ethical and lifestyle considerations. The incorporation of ethics means that organic farming is not considered a ‘neutral’ business, it is based on an ideal of service guided by values. Camposeven’s main partners consider certain ethical-social strategies and intangible aspects to be most important in their search for rural prosperity, and they are shown in table 5. These identified aspects are relevant both within the organization itself and at regional level.

Table 5. Ethical-social strategies and intangible aspects for rural prosperity

Ethical-social strategies	VALUE			
	1	2	3	4
Collective social learning social through knowledge exchange and teamwork	0%	0%	20%	80%
Improved information and knowledge	0%	10%	20%	70%
A strong sense of belonging among the actors involved	0%	0%	40%	60%
Skills and competencies development	0%	0%	50%	50%
Development of personal and community values	10%	0%	60%	30%

Source: Own elaboration from fieldwork (De los Ríos et al., 2015)

(Note that answers are neither inclusive nor exclusive)

The different strategies shown in table 5 have to do with two main elements that play a key role within this dimension, sense of community and knowledge and learning. Within the category “sense of community” we can observe two strategies: promoting a strong sense of belonging among the actors involved and promoting the development of personal and community values. These two strategies set the basis for collective action, and trust building, two key features in the success of Camposeven. At the level of their own particular farms or holdings, farmers have highlighted the importance of taking every person working for them into account, their ideas and problems.

“When one of my staff comes to me with an idea or problem, I listen to them. They work there, their effort and time gets my farm going and therefore their wellbeing worries me” (Farming partner).

Through participatory management, they get their staff motivated and create a connection between the land and their work that has a repercussion in the quality of the products. This participatory structure that is present both in the cooperative, and in their individual farms, also promotes the creation of personal and community values that get extrapolated outside of Camposeven to other farmers in the area.

Also, their participatory governance structure sets the bases for teamwork based on a “shared strategy” and participative decision-making. Through internal workshops, formal and informal meetings and participatory processes between farming partners and all staff has allowed them to commonly define the business strategy of the organization (mission, vision, values and operating principles) and the governance system (department organization, administrative rules processes). Its mission is to promote the health of people by developing organic products lines. The vision they share is to be an innovative enterprise in process management and other agricultural tasks. To develop a business aimed at meeting the needs of customers. The main partners have agreed that their values go from integrity, respect for people, leading by example, leadership, innovation, results orientation and pride of ownership, to excellence in the workplace. All these processes are highly effective for the unity of the people in the team of Camposeven.

The knowledge and learning category, which is highly valued by all interviewees, is also closely related to having a strong sense of community. Farmers value both informal and formal knowledge networks and activities. Learning processes are embedded in farmers’ daily relational structures, which are largely self-organized, personalized and local. Their social learning approach is very relevant as it reveals learning as situated in particular social contexts that happens through interactive participatory process among actors who share the same interests (Wenger, 2009). Throughout the participative processes the importance of social learning, and the existing relationship between expert (other external agents involved) and experiential knowledge (farmers) has been proved. The different collective social learning actions carried out in Camposeven are primarily used to formalize an organized union based on mutual trust and respect. This formal union or cooperative is the result of social learning achieved through knowledge exchange. Farming partners say:

“Mutual learning process helps improve our knowledge, and that the interaction between us is possible due to a strong sense of community and the strong feeling of implication with our holdings and the Cooperative business in general”.

Local knowledge is generally shared through informal knowledge networks in their specific context. This type of knowledge is dynamic and includes complex bodies of know-how, practices and skills that are developed and sustained over time and generations by people and their communities on the base of their experiences in their specific environmental and socio-economic realities (Goven and Morris, 2012). Farmers in Camposeven consider the protection of this type of knowledge key for prosperity, as it results on the protection of the local culture and traditions *“of course innovating and experimenting through innovative practices is very important, but I need to preserve what I was taught by my grandfather and father, as he really knew the land and the implication of each action on the land and biodiversity in this area”* (Farming partner). Informal

networks are also important to share any type of knowledge and information between farmers that might be useful to improve practices and to promote equitized development.

Formal knowledge networks include workshops, courses, meetings and agreements with external institutions. Camposeven has agreements signed with Universities and other research institutions to set up joint collaboration that results on improved information and knowledge. In 2013 Camposeven built its own field test with specific research topics of interest to farmers, in connection with the UPM and response research group *Plant Biotech*. All farming partners and 50% of office workers are also taking courses on new farming techniques such as the one they carried out in 2014-2015 on biodynamic agricultural practices. Considering that agricultural cooperatives require "dynamic capabilities" (Teece, 2007), understood as the evolutionary fitness of an organization to identify opportunities and threats, seize opportunities and reshape its structures to remain competitive, farmers are also taking project management courses where they improve their skills and competences and brings the organisation closer to (Augier and Teece, 2009).

3.3.3. Political-contextual strategies

The strategies from this dimension include the capacities and the aspects needed for the cooperatives and agrarian organizations to relate adequately with the policies and the different public administrations at all levels (international, national and local), as well as with other contextual elements and agents that are key for the sustainable success of agrarian organizations (Cazorla *et al.*, 2013). The ability to establish relationships with the context depends on the attainment of an internal organization that facilitates participation and social revitalization in the cooperative. The arrangement of the cooperative must ensure that organizational change processes (Argyris and Schön, 1978), and structural processes are generated to permit adaptation to the priorities of the people involved as well as actors from the political and public administration fields. Managing relationships with national and local political leaders and parties has been a priority for Camposeven's managers even though this is time-consuming work and requires a lot of effort.

Farming partners identified and valued the following key contextual strategies that they believe influence the rural prosperity of their farms (table 6).

Table 6. Political-contextual influences on farm/agricultural prosperity

Items	VALUE			
	1	2	3	4
Green-marketing strategy	-	-	-	100%
Competitiveness at international level	-	-	30%	70%
Biodiversity and environment protection	-	-	30%	70%
Technological change (new technologies)	-	-	30%	70%
Competitiveness at national level	-	10%	40%	50%
Knowledge and information	-	20%	40%	40%
Legal frameworks and regulation	30%	10%	20%	40%
International grants (including EU)	60%	10%	-	30%
Rural development policy of the EU	40%	10%	30%	20%
Domestic market	50%	10%	20%	20%
Solidarity in society with agriculture	40%	30%	20%	10%
Other European policies	50%	20%	20%	10%

Source: Own elaboration from fieldwork (De los Ríos et al., 2015)

Top-rated strategies were green marketing, competitiveness in international and national markets, the environment and technological change (techniques and practices). Their green-marketing strategy was valued as the most important as farmers consider their activity has no future if part of their organic products do not get commercialized at the international markets (Spain's organic market is only beginning to grow today). Camposeven produces organic which has higher demand in international markets therefore 90% of Camposeven's products get exported, being these markets the main pillar of the organization. But, their "green-marketing strategy" is deeply rooted in the founding philosophy of organic farming, social responsibility and business ethics; as their primary aim is to remain true to a philosophical well-being ideal based on trust, health care and environmental protection. The protection of the environment is extremely important for the farming partners and many of their technical strategies described above are planned with this aim.

As entrepreneurs, they also focus on the technical challenges that entail profound changes in their farm's organization, and are not eager to implement them unless they can expect a tangible benefit. Camposeven competes with other European countries with quality and product differentiation through organic and biodynamic products under EU standards, and therefore technology plays an important role in helping them to be competitive:

"For some of us is easier, the younger ones, the older ones struggle and may be a bit more reluctant to learn at the beginning, but they end up learning, there is not really a choice" (Farming partner).

4. Discussion and Conclusions

Rural prosperity is increasingly being understood as a concept that includes multiple dimensions that comprise social, environmental and economic parameters (Chambers 1997; Anand *et al.*, 2005; Neff, 2007). Through this case study we attempt to find out which strategies and ideals are making a small organic agricultural cooperative be successful and contribute to its own prosperity as well as to its community's prosperity. A prosperous farm would do well financially but also would be able to offer their families a good quality of life and guard its generational takeover capacity. To move towards rural prosperity, multiple ways and approaches can be sequenced and combined; in our case, at the core of the WWP approach the balance between the three dimensions — technical, behavioural and contextual— is necessary. It is also essential that rural prosperity enable considerable progress to achieve a balanced role of agents and the empowerment (Friedmann, 1992) of the four areas of the social relationships system: political, public, private and social.

The elements that farmers believe conform their prosperity are in accordance with the multidimensionality concept of prosperity. The elements they have highlighted can be considered as the goals they want to reach through the different strategies identified. The importance they give to the environment is illustrated in the different technical strategies identified that can be all grouped within the organic production methods and correspond with the actions believed that should be promoted to contribute to sustainable development (Van Huylenbroeck and Durand, 2003; Padel *et al.*, 2010; Darnhofer *et al.*, 2014a: 21). Many farmers appreciate environmental integrity not just for the gains it provides, but also in its own sake, taking pride in the ecosystem, which they are a part of, whether directly or through its manifestations as particular landscapes and organisms.

Other strategies such as diversification aim at ensuring the profitability of the cooperative. Prosperity in rural areas requires of the existence of business structures that are able to generate goods and services to society, to achieve sustainable success of the organization and a quality of life improvement (Freibauer *et al.*, 2011; Sekulova *et al.*, 2013). It is about stimulating companies to incorporate social and environmental values to generate projects that mobilize resources, generate products that meet the needs of the markets and guarantee a subsistence way for producers and entrepreneurs of rural areas.

The existence of strong partnerships (organizations or associations), with capacity to relate to the context has also proven to be key. The idea behind partnerships is to formalize alliances and associations based on mutual trust and teamwork between different individuals that freely unite and establish common objectives that allow overcoming problems and seizing opportunities (Dwyer, 2011). Farmers highlighted autonomy as a key characteristic that allows them to be more flexible and adaptive before challenges, opportunities and problems. As Davidson (2010) recognizes, having autonomy from public aids, subsidies and resource use is important for the sustainability of the system. In terms of trust, its role is important for building strong bonds between people and to make cooperation easier and more flexible, which in turn gets reflected in their resilience capacity, as well as also enhancing the sense of community.

As main strategy to reach effective forms of collaboration and rural prosperity, social learning stands out for fulfilling the needs of the people to get involved in the territory generating a sense of belonging, participating and working together. Rural prosperity

requires knowledge and learning processes that connect different knowledge types in decision-making actions. Such processes need to integrate not only market, but also social and environmental values; they should be rooted in and adapted to specific local conditions and demand considerable farmers' individual cognitive engagement and their collaboration. For building resilience, Folke *et al.*, (2003) identifies two factors directly linked to learning: 'learning to live with change and uncertainty' and 'combining different types of knowledge and learning'. In this case study, mutual-learning strategies through knowledge exchange and teamwork, having an open attitude and cooperation are highlighted. According to Poppe *et al.*, (2009) effective communicative capacity included within the ability to engage between territorial agents influences prosperity. This engagement is necessary to create adequate platforms, promote synergies between the parts involved, propitiate knowledge creation and enhance the adaptive capacity (Darnhofer *et al.*, 2014). In addition, knowledge exchange helps integrating the needs and expectations of the stakeholders and promoting strategic alliances with public, private and research institutions (Shortall, 2013). Social learning in this case study also influences innovation, promoting the creation of new human relations, new forms of management, administration and negotiation systems, learning techniques as well as new ways of structuring and sharing information and knowledge among all social agents. Therefore, innovation should be a continuous objective for farmers, betting for quality and differentiation (Knickel *et al.*, 2009; Klerkx *et al.*, 2012), as the actual and future trend is that for managing organic and biodynamic agricultural systems, research and innovation activities are key to progress towards a sustainable and resilient agricultural model.

This approach to rural prosperity enables us to consider questions of how knowledge can be better connected to actions. Social learning through cooperation would possibly enhance rural prosperity further than keeping knowledge to themselves. In this case, it is possible to observe strong cooperation between the farmers and formal institutions with which they have been cooperating for a long time. As Berkes and Folke (2002) highlight, prosperity needs good cooperation networks and R+D, capable of integrating expert and experienced knowledge and learning. A lot of experienced knowledge has been lost together with the spread of *productivist logic* and the standardized solutions that have caused the diminishing and weakening of farmers' communities (Fonte, 2008). However, with sustainable agriculture this is being reversed. Recent research shows that contemporary sustainable agriculture, is advanced by multi-actor knowledge networks (De los Ríos *et al.*, 2011; Moschitz *et al.*, 2015; Tisenkopfs *et al.*, 2015) in which various knowledge's are exchanged and new meanings and practices of farming are negotiated and institutionalized. A social learning process approach is needed where one first learns how to do something effectively, then how to do it efficiently and finally how to expand its impact (Korten, 1980).

With all of the above in mind we can therefore conclude that going beyond marketing and efficiency principles will be easier to achieve rural prosperity. Furthermore, cooperative collective management together with a constant flow of knowledge and learning (both formal and informal) contributes to create more sustainable and resilient agricultural models and prosper rural areas by raising awareness on environmental, technical, economic and social issues, allowing farmers to be more competitive, and increasing their confidence in coping with issues that have direct effects on their ability to adapt to new circumstances, to innovate and to collaborate. On-going learning and updating knowledge prepares farmers for better manoeuvring in dynamic contexts: it

helps them to be aware of available alternative choices and opportunities when facing disturbances and make sounder decisions to survive and develop, as well as to gain and maintain prosperity.

5. REFERENCES

Abad, F.J., Olea, J., Soda, V., and García, C., 2011. *Medición de ciencias sociales y de la salud*. Síntesis, Madrid, España.

Anand, P., Hunter, G., and Smith, R., 2005. Capabilities and Well-being: Evidence based on the Sen-Nussbaum Approach to Welfare. *Social Indicators Research*, 74(1), 9–55.

Argyris, C., and Schön, D. 1978. Organizational learning: a theory of action perspective. *Reis*, 77, 345–348.

Augier, M., and Teece, D. 2009. Dynamic Capabilities and the Role of Managers in Business Strategy and Economic Performance. *Organization Science*, 20(2), 410–421.

Baumol, W.J., Litan, R.E., and Schramm, C.J., 2007. Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity. *Law and Economics Workshop*, Yale University Press, New Haven & London. U.K.

Berkes, F. 2007. Understanding uncertainty and reducing vulnerability: lessons from resilience thinking. *Natural Hazards*, 41, 283–295.

Berkes, F., and Folke, C. 2002. Back to the future: ecosystem dynamics and local knowledge. In: L.A. Gunderson and C.S. Holling (Eds.). *Panarchy: Understanding transformations in human and natural systems*, Island press, Washington, U.S.A.

Cazorla, A., De los Ríos, I., and Salvo, M., 2013. Working With People (WWP) in Rural Development Projects: a Proposal from Social Learning. *Cuadernos de Desarrollo Rural*, 10(70), 131–157.

Cazorla, A., and De Los Ríos, I. 2001. The new social sensibility in the Rural Development Engineering. *First International Joint Workshop on Rural Development Engineering*. Rural Development Network. AGENG. Tampere (Finland).

CE, 2007. Reglamento (CE) No 834/2007 del Consejo de 28 de junio de 2007 sobre producción y etiquetado de los productos ecológicos y por el que se deroga el Reglamento (CEE) no 2092/91. Spain.

Chambers, R. 1997. Responsible Well-being—a Personal Agenda for Development. *World Development*, 25(11), 1743–1754.

Clark, G. 1982. *Housing and Planning in the Countryside*. Wiley Chichester, UK, Vol.2.

Conyers, D., and Kaul, M., 1990. Strategic issues in development management: Learning from successful experience. Part I. *Public Administration and Development*, 10(2), 127–140.

Curry, N., and Kirwan, J. 2014. The role of tacit knowledge in developing networks for sustainable agriculture. *Sociologia Ruralis*, 54 (3), 341-361.

Daly, H. 2008. A Steady-State Economy: A Failed Growth Economy and a Steady-State Economy are not the same thing; they are the very different alternatives we face. *Sustainable Development Commission*, London. U.K.

Daly, H., Cobb, J., and Cobb, J.B. 1989. *For the Common Good—Redirecting the Economy towards Community, the environment and a sustainable future*. Green Print, London. U.K. Vol.73.

Darnhofer, I., Lamine, C and Knickel, K 2014a. *Conceptual Framework*. RETHINK project. 7th framework programme CE.

Darnhofer, I., De los Ríos, I., Knickel, K., Koopmans, M., Lamine, C., Olsson, G.A., de Roest, K., Rogge, E., Sumane, S., and Tisenkopfs, T., 2014b. *Rethinking the Links between Farm Modernisation, Rural Development and Resilience in a World of Increasing Demands and Finite Resources. Analytical Framework*. RETHINK project. 7th framework programme CE.

Darnhofer, I., and Schneeberger, W., Freyer, B. 2005. Converting or not converting to organic farming in Austria: Farmer types and their rationale. *Agriculture and Human Values*, 22, 39–52.

Davidson, D. 2010. The applicability of the concept of resilience to social systems: Some sources of optimism and nagging doubts. *Society and Natural Resources*, 23, 1135–1149.

De los Ríos, I., García, C., Herrera, T and Rivera, M. 2015. *Innovation and social learning in organic vegetable production in the Region of Murcia, Camposeven, Spain*. RETHINK Case Study Report, GESPLAN – Technical University of Madrid, Technical College of Agriculture, Madrid, Spain.

De los Ríos, I., Díaz-Puente, J., and Cadena-Iñiguez, J. 2011. The initiative LEADER as a model for rural development: implementation to some territories of México. *Agrociencia*, 45(5), 609-624.

Doréa, T., Makowskib, D., Malézieuxc, E., Munier-Jolaind, N., Tchamitchiane, M., and Tittonef, P. 2011. Facing up to the paradigm of ecological intensification in agronomy: Revisiting methods, concepts and knowledge. *European Journal of Agronomy*, 34(4), 197–210.

Dwyer, J. 2011. UK land use futures: policy influence and challenges for the coming decades. *Land Use Policy*, 28, 674–683.

Folke, C., Colding, J., Berkes, F. 2003. Synthesis: building resilience and adaptive capacity in social-ecological systems. In: F. Berkes, J. Colding and C. Folke (Eds.). *Navigating socialecological systems. Building resilience for complexity and change*. Cambridge: Cambridge University Press, 352–387.

Fonte, M. 2008. Knowledge, Food and Place. A Way of Producing, a Way of Knowing. *Sociologia Ruralis*, 48(3), 200-222.

Freibauer, A., Mathijs, E., Brunori, G., Damianova, Z., Faroult, E., Girona, J., Gomis, I., O'Brien, L., and Treyer, S. 2011. Sustainable food consumption and production in a resource-constrained world. Third SCAR Foresight Exercise. European Commission - *Standing Committee on Agricultural Research*. Brussels. Belgium.

Friedmann, J. 1992. *Empowerment: The Politics of an Alternative Development*. Blackwell, Cambridge, U.K.

Friedmann, J. 1993. Toward a Non-Euclidean Mode of Planning. *Journal of American Planning Association*, 482-485.

Goven, J., and Morris, C.M. 2012. Regulating biopharming: the prism of farmer knowledge. *Science as Culture*, 21(4), 497-527.

Griffon, M. 2006. *Nourrir la planète, pour une révolution doublement verte*. Odile Jacob. Paris, France.

Ickis, J.C. 1983. Structural Response to New Rural Development Strategies in David C. Korten and Felipe B. Alonso (eds), *Bureaucracy and the Poor: Closing the Gap*. West Hartford (Connecticut): Kumarian Press. Indian Dairy Corporation. 1982. Eleventh Annual Report, 1980-81.

Ikerd, J. E. 1993. The need for a system approach to sustainable agriculture. *Agriculture, Ecosystems and Environment*, 46(1-4), 147-160.

INFO, 2014. Informe sectorial. El sector hortofrutícola en la Región de Murcia. May 2014. *Instituto de Fomento Región de Murcia*, España.

IPMA, 2010. *NCB - Bases para la competencia en dirección de proyectos*. Versión 3.1. Valencia (Spain): AEIPRO (Spanish Project Engineering Association), Spain.

Jackson, T. 2009. *Prosperity Without Growth: Economics for a Finite Planet*. Earthscan, London, UK.

Jackson, T., and Anderson, V. 2009. Redefining Prosperity—Essays in Pursuit of a Sustainable Economy. *Sustainable Development Commission*. Earthscan, London, UK.

Jackson, W. 1980. *New Roots for Agriculture*. Lincoln: University of Nebraska Press.

Kasser, T. 2007. A Vision of Prosperity. Think-piece for the Sdc's Redefining Prosperity Project. *Sustainable Development Commission*, Earthscan, London, UK.

Kastner, T., Ibarrola R., M., Koch, W., and Nonhebel, S. 2012. Global Changes in diets and consequences for land requirements for food. *Proceedings of the National Academy of Sciences of the United States of America*, 6868-6872.

Klerkx, L., van Mierlo, B., and Leeuwis, C. 2012. Evolution of systems approaches to agricultural innovation: concepts, analysis and interventions. In: I. Darnhofer, D. Gibbon and B. Dedieu (Eds.). *Farming Systems Research into the 21st Century: The New Dynamic*, Springer Science.

- Kloppenburger, J. 1991. Social Theory and the De/Reconstruction of Agricultural Science: Local Knowledge for an Alternative Agriculture. *Journal of Rural Sociology*, 56(4), 519-548.
- Knickel, K., Brunori, G., Rand, S., and Proost, J. 2009. Towards a better conceptual framework for innovation processes in agriculture and rural development: From linear models to systemic approaches. *Journal of Agricultural Education and Extension*, 15, 131-146.
- Korten, D.C. 1980. Community organization and rural development: A learning process approach. *Public Administration Review*, 480-511.
- Legatum Institute, 2013. Prosperity Index 2013. Accessed 10.21.14 in [http://www.prosperity.com/#!/.](http://www.prosperity.com/#!/)
- MAGRAMA, 2015. Producciones Agrícolas: Frutas y Hortalizas. Accessed 03.01.2015 in <http://goo.gl/DfCeLY>.
- Maryland's Genuine Progress Indicator —An Index for Sustainable Prosperity, s.a. Maryland: Smart, Green & Growing. Accessed 9/15/14 in: <http://www.dnr.maryland.gov/mdgpi/>.
- Michelsen, J. 2001. Organic farming in a regulatory perspective. The Danish case. *Sociologia Ruralis*, 41(1), 62-84.
- Moschitz, H., Roep, D., Brunori, G., and Tisenkopfs, T. 2015. Learning and Innovation Networks for Sustainable Agriculture: Processes of Co-evolution, Joint Reflection and Facilitation. *The Journal of Agricultural Education and Extension*, 21(1), 1-11.
- Murdoch, J., and Pratt, A., 1993. Rural studies: modernism, postmodernism and the "post rural". *Journal of Rural Studies*, 9(4), 411-427.
- Neff, D.F. 2007. Subjective well-being, poverty and ethnicity in South Africa: insights from an exploratory analysis. *Social Indicators Research*, 80(2), 313-341.
- Padel, S., Niggli, U., Pearce, B., Schlüter, M., Schmid, O., Cuoco, E., Willer, E., Huber, M., Halberg, and N., Micheloni, C. 2010. Implementation action plan for organic food and farming research. *Technology Platform Organics*. IFOAM EU Group, Brussels, Belgium.
- Poppe, K., Termeer, C., and Slingerland, M. 2009. *Transitions towards sustainable agriculture and food chains in peri-urban areas*. Wageningen Academic Publishers. Wageningen, Netherlands.
- Pretty, J.N., 1995. Participatory learning for sustainable agriculture. *World Development*, 23(8), 1247-1263.
- Pretty, J.N. 2008. *Agricultural sustainability: concepts, principles and evidence*. Philosophical Transactions of The Royal Society B, 363(1491), 447-465.
- Ramos, A.1993. *¿Por qué la conservación de la naturaleza?* Discourse of the opening reception of the Spanish Royal Academy of Exact Science. Madrid (Spain).

Rapp, H. 2008. Fulfilment and prosperity: a new-Gandhian vision. Fourth opinion piece for the Redefining Prosperity seminar "Visions of Prosperity". *Sustainable Development Commission*, London, U.K.

Regouin, E. 2003. To convert or not to convert to organic farming. In *Organic agriculture—Sustainability, markets and policies. Proceedings of an OECD Workshop*, September 2002, Washington, DC, 227-235.

Rethink, 2015. Rethinking the links between farm modernisation, resilience and rural development in a world of increasing demands and finite resources. Accessed 02/02/2015 in <http://www.rethink-net.eu/home.html>.

Sardar, Z., 2007. Prosperity: A Transmodern Analysis, Think-piece for the SDC seminar Visions of Prosperity. *Sustainable Development Commission*, London, U.K.

Scialabba, E.H., and Hattom, C. 2003. *Agricultura organica, medio ambiente y seguridad alimentaria*. FAO, Roma, Italia.

SDC. 2003. Redefining prosperity: Resource productivity, economic growth and sustainable development. *Sustainable Development Commission*, London, U.K.

SDC. 2009. Prosperity without Growth? The transition to a sustainable economy. *Sustainable Development Commission*, London, U.K.

Sekulova, F., Kallis, G., and Rodríguez-Labajos, B., Schneider, F. 2013. Degrowth: From theory to practice. *Journal of Cleaner Production*, 38, 1–6.

Sen, A. 1984. The Living Standard. *Oxford Economic Papers*, 36, 74–90.

Shortall, S. 2013. Using evidence in policy: The importance of mediating beliefs and practices. *Sociologia Ruralis*, 53(3), 349–368.

Shucksmith, M. and K. Rønningen., 2011. The Uplands after neoliberalism? The role of the small farm in rural sustainability. *Journal of Rural Studies*, 27(3), 275–287.

Sibley, D. 1995. *Geographies of Exclusion: Society and Difference in the West*. Routledge, London, U.K.

Steiner, R. 1924. *Geisteswissenschaftliche Grundlagen zum Gedeihen der Landwirtschaft*. Rudolf Steiner Verlag, Dornach 1924. Schwabe AG, Vol. 327.

Stiglitz, J., Sen, A., and Fitoussi, J.P. 2009. The Measurement of Economic Performance and Social Progress Revisited. Reflections and Overview. *Commission on the Measurement of Economic Performance and Social Progress*, Paris, France.

Teece, D. 2007. Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350.

Timmermans, S., and Tavory, I. 2012. Theory construction in qualitative research from grounded theory to abductive analysis. *Sociological Theory*, 30(3), 167–186.

- Tisenkopfs, T., Kunda, I., Šūmane, S., Brunori, G., Klerkx, L., and Moschitz, H. 2015. Learning and Innovation in Agriculture and Rural Development: The Use of the Concepts of Boundary Work and Boundary Objects. *The Journal of Agricultural Education and Extension*, 21(1), 13-33.
- Tovey, H., 1997. Food, environmentalism and rural sociology: on the organic farming movement in Ireland. *Sociologia Ruralis*, 37, 21-37.
- Turinek, M., Grobelnik-Mlakar, S., Bavec, M., and Bavec, F., 2009. Biodynamic agriculture research progress and priorities. *Renewable Agriculture and Food Systems*, 24(2), 146-154.
- USDA, 2014. Agricultural Act of 2014. Highlights and implications. USDA, Economic Research Services. Washington: USDA.
- Van der Ploeg, J.D. and Marsden, T. 2008. *Unfolding webs. The dynamics of regional rural development*. Royal Van Gorcum, Assen (NL), 1–28.
- Van der Ploeg, J.D., van Broekhuizen, R., Brunori, R., Sonnino, R., Knickel, K., Tisenkopfs, T., Oostindie, H. 2008. Towards a Framework for Understanding Regional Rural Development, in: van der Ploeg, J.D., Marsden, T. (Eds.), *Unfolding Webs: The Dynamics of Regional Rural Development*. Royal Van Gorcum, Assen (NL), 1–28.
- Van Huylenbroeck, G., Durand, G. 2003. *Multifunctional agriculture. A new paradigm for European agriculture and rural development*. Aldershot, Ashgate.
- Wall, D. 2008. *Prosperity without growth, economics after capitalism*. The first opinion piece for the Redefining Prosperity, third seminar “Confronting Structure—achieving economic sustainability”. *Sustainable Development Commission*, London, U.K.
- WCED, 1987. Our common future. *World commission on environment and development*. London: Oxford, U.K.
- Wenger, E. 2009. A social theory of learning. In: K. Illeris (Ed.) *Contemporary theories of learning. Learning theorists... in their own words*. Routledge, London, U.K. 209–218.
- Wilkinson, K. 1982. Changing rural communities. In P. Keller & J. Murray (Eds.) 20-28, *Handbook of Rural Community Mental Health*. New York: Human Science Press.
- Wood, R., Lenzen, M., Dey, C., and Lundie, S., 2006. A comparative study of some environmental impacts of conventional and organic farming in Australia. *Agricultural Systems*, 324-348.

CHAPTER 3:

Social capital as an important factor for sustainable development and rural prosperity

Chapter 3 is based on the results of chapters 1 and 2 that emphasize the important role of individuals' behaviour as well as the contexts in which they are involved. In fact, more specifically, during the analysis of rural prosperity in previous chapters, a number of social capital related elements continuously emerged: trust, cooperation, sense of community and culture and tradition. This is the main reason why chapter 3 focuses on the deep analysis of the role, nuances and characteristics acquired by these elements when contextualised in rural environments. The chapter uses data from the 7 case studies which represent a broad spectrum of socio-economic and agricultural contexts. The case studies are used to illustrate the different expressions of social capital in different situations. All these different dimensions have shown to play a critical role in rural areas as they affect how people relate to each other, organise themselves and interact for development.

1. Introduction: the growing attention paid to social capital and the relevant theory

Social capital has emerged in the last decades as a much-discussed and critiqued topic in government, the private sector and academic circles (Edwards and Foley, 1997; Portes 1998). It is a heterogeneous and multidimensional concept that has been approached from different perspectives and disciplines (Lin, 2001; Durlauf and Fafchamps, 2004). Some see it as a key concept related to success and having a happy and satisfying life (Baker, 2000; Grootaert and Bastelaer, 2002).

Social capital refers to the intangible resources that reside in relationships that enable the creation of value, achieving goals and getting things done. The notion of social capital can be seen as the opposite of individualism that is so deeply rooted in Western societies. Individualism means that everyone succeeds or fails on the basis of own actions and abilities while the social capital concept focuses on the nature and role of relationships and how these play a key role as hidden resources in being successful in all areas of life – work, family, community (Coleman, 1988; Baker, 2000).

Social capital has also become an important analytical concept and policy tool within rural development (Putzel, 1997; Lin, 2001; Midgley, 2013) and prosperity (Darnhofer *et al.*, 2014). Here the focus is on how it affects the capabilities of rural people to organize themselves for development (Woolcock, 1998; Guenther and Falk, 1999; Portes and Landolt, 2000).

1.1 Social capital: rural prosperity and development

The two main challenges faced by the international community to reduce rural poverty and hunger are directly related to that (Serageldin, 1998; FAO, 1998; United Nations, 2005). Most poor people (more than 800 million) live in rural areas and their capability to organize themselves might well be their most important resource (Sen, 1981; FAO, 1998; Legatum Institute, 2015). Societies with low levels of social capital have shown to experience lower levels of economic growth while social networks and the cohesion that exists when people trust one another have a direct impact on their development (Putnam, 1993; Woolcock, 1998; Knack, 2002; Legatum Institute, 2015).

In the context of rural areas, authors such as Van der Ploeg and Marsden (2008), Falk and Kilpatrick (2000), Karlsson and Stough (2012), Bebbington (1999), Phillips (2015) and Darnhofer *et al.* (2014) have emphasised the important role of social capital in integrated rural development strategies. Van der Ploeg and Marsden (2008) and Von Münchhausen and Knickel (2010) emphasised the interplay of social capital with other elements such as endogeneity, novelty production, institutional arrangements, the governance of markets and sustainability. The same authors conceptualised social capital as one of the key building blocks of what they called the “rural web” and argued that these building blocks need to come together in order to respond to the challenges faced by rural economies to improve the sustainability of rural livelihoods and their prosperity (Van der Ploeg, 2008; Von Münchhausen and Knickel, 2010).

In this chapter, we aim to explore and better understand the special nuances social capital acquires in different rural environments. To do this, we have based our analysis on empirical data from seven different case studies located in different countries that represent a broad spectrum of socio-economic and agricultural contexts. In the analysis and discussion, we pay particular attention to four main elements related to social capital: trust, cooperation, sense of community and culture and tradition, as their role has important effects on how people interact, relate to each other and organise themselves for development.

1.2 Theoretical frameworks of social capital

Social capital literature dates back to the 80s and is mainly based on the work of Pierre Bourdieu, James Coleman and Robert Putnam (Lang and Hornburg, 1998; Caroll and Stanfield, 2003; Tisenkopfs, Lace and Mierina, 2008). The modern notion of social capital originates from Bourdieu’s book *Distinction* (1984), although his work is considered by many authors as egocentric and individualistic (Wall, Ferrazzi and Schryer, 1998) containing little empirical analysis (Adam and Roncevic, 2003).

This view differs from the subsequent normative approaches of Coleman (1988) and Putnam (1993) and the network based utilitarian approach of Burt (1998) and Lin (2001). Coleman brings together perceptions from sociology and economics to define social capital (Coleman, 1988:98) and his work is considered much more socio-centric as it describes outcomes for groups, organisations, institutions or societies (Mc Clenaghan, 2000; Adam and Roncevic, 2003). Coleman, unlike Bourdieu was also involved in empirical research and the identification of relevant indications and indicators of social capital (Baron, 2000). It was Robert Putnam, however, the author that popularised the concept with the creation of his widely-applied measure called “Putnam Instrument” (Putnam *et al.*, 1993). His arguments have also been accused of being “circular” and even “superfluous” (Portes, 1998). Serageldin and Grootaert (1998) point out that these different definitions of social capital should not be seen as alternatives, but rather as different manifestations of the social capital present in a society.

Although Bourdieu, Coleman and Putman were the first to try to conceptualize the complex theory of social capital, many authors have continued their work (Fujuyama, 1995; Portes and Landolt, 1996; Knack and Keefer, 1997; Woolcock, 1998; Paxton, 1999; Foley, Michael, and Edwards, 1999; Lin *et al.*, 2001). The result was the creation of a number of definitions that lead to different ways of operating and measuring the concept with no consensus on which specific aspects of interaction and organization merit the label of social capital (Serageldin, 1998).

Fukuyama (1995) practically equated social capital to trust while others such as Pamela Paxton (1999) stated that social capital consisted of objective and subjective associations between individuals that must be reciprocal. Knack and Keefer (1997) adopted two measures, trust and a composite index of norms of civic cooperation, and Paldam (2000) talks about the “trust-cooperation complex”.

In summary and going beyond differences in definitions, there is consensus on the fact that the notion of social capital serves to describe the pattern and intensity of networks among people as well as the shared values which arise from those networks (Serageldin, 1998; Baker, 2000; Milone, 2010). It is also commonly considered an important, intangible and dynamic resource that exists in communities and that constitutes a social asset for collective efficacy and development (Bourdieu, 1986; Coleman, 1988; Putnam, 1993; Portes and Landolt, 1996; Woolcock, 1998; Paxton, 1999; Foley *et al.*, 1999; Field, 2005).

1.3 Indicators of social capital as used in this analysis

For this analysis, we have decided to analyse those elements of social capital that are present in theoretical discourses and that have shown to play a particularly important role in rural areas according to the results of chapters 1 and 2: trust, cooperation, sense of community and culture and tradition. In the central part of this chapter, we will examine the role of these different elements and of their interplay in our case studies. Before that, a short description of each of the elements and of their potential relevance.

Trust can be defined as the firm belief in the reliability, truth, or ability of someone or something (Oxford Dictionary), and is a key element for the creation of strong interpersonal relationships – in public and private spheres – in turn promoting collaboration and cooperation (Dei Ottati, 1987; Tisenkopfs *et al* 2008). Trust can both be considered as a precondition and an outcome of social capital (Tisenkopfs *et al.*, 2008). Fisher (2013) found trust to be a catalyst through which social relationships become social capital.

Cooperation on the other hand, is the action or process of working together to the same end (Oxford Dictionary). According to Mandell and Keast (2011) cooperation between partners in a network can take several forms, ranking from cooperation over coordination to collaboration. Collaboration implies that there is recognition among the partner that “they cannot meet their interests working alone and that they share with others a common problem” (Innes and Booher, 2000). This goes beyond just resource dependence, data needs etc. Although these may be involved, it comprises a need to make a collective commitment to change the way in which they are operating. Coordination is argued to involve strategies and tasks that require information sharing as well as joint planning and decision-making, joint policy, projects and funding initiatives (Kilpatrick, Bell and Falk 1999).

Sense of community, according to psychologists, is the way individuals interact and relate to others in communities (Pooley, Cohen and Pike, 2005). McMillan & Chavis (1986 p.9) define sense of community as *"a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together"*. Sense of community allows us to understand the individual's connection to the community, which is central to the concept of Social Capital (Pooley *et al.*, 2005; Vera-Toscano *et al.*, 2013).

Culture and tradition is a fourth element closely related to sense of community that also plays a key role in social capital. Culture and tradition transcends across all the dimensions of social capital, and of a society. It underlies the basic components of social capital such as mutual confidence, responsible civic behaviour, and degree of “associativeness” (Kliksberg, 1999; Fukuyama, 1999). Virtually all forms of traditional culture-social groups like tribes, clans, village associations, religious sects, etc. are based on shared norms and use these norms to achieve cooperative ends (Fukuyama, 1999). As Tisenkopfs *et al* (2008) states “values are stable and encoded in culture principles, ideals and criteria of human action”. The values prevailing in the educational system, the communications media and other areas which influence their formation can either stimulate or obstruct the formation of social capital. This is because, as Chang (1997) notes, values raise the bases for the concern of one citizen for another above considerations of mere personal well-being and play a crucial role in determining whether there will be progress in terms of social networks, norms and mutual confidence. Culture is also a decisive factor in social cohesion and sense of community, as through it persons can recognize each other’s qualities, grow together and develop collective self-esteem. As Stiglitz (1998) notes in this respect, preserving cultural values is very important for development, as such values serve as a cohesive force at times when many others are flagging.

In this chapter, we examine how these four elements materialise and interact in rural contexts. We use the seven different case studies as empirical basis for the analysis and discussion, as well as for illustration.

2. Analytical structure and empirical basis

This chapter is based on seven case studies that have been carried out in the framework of the European RETHINK research program. RETHINK is a transdisciplinary research project supported by the European Commission and funding bodies in 14 countries under the umbrella of 7th Framework Programme and the RURAGRI ERA-NET. Its overall aim is to rethink the links between farm modernisation, rural development and resilience in a world of increasing demands and finite resources. The different case studies that are central to the project represent diverse pathways to modernization, their role in rural development, as well as the diverse characteristics that drive them to resilience.

The research approach chosen was mixed-method, comprising qualitative, quantitative and discursive methods. This allowed gaining a deeper understanding in each of the case studies. The analysis was carried out according to common conceptual and analytical frameworks (Darnhofer *et al.*, 2014; De los Ríos, Rivera and García, 2016) and methodological guidelines that specified key questions, criteria and indicators. This way, the data that was gathered is sufficiently comparable while at the same time being specific enough to the particular contexts.

For the particular analysis of social capital in rural areas, the data was obtained through a total amount of 11 focus groups/workshops and 369 semi-structured interviews. Surveys and official records and statistical data for each case study were also consulted. The main stakeholders that participated in the consultations represent local, regional and national levels of agriculture related fields. Farmers’ opinions played a central role in the research (see section 1.2 for more detail on the case studies and methodological process).

3. Social capital as a tool for development

In this section we will discuss in more detail the role played by the different elements on the case studies and the implications for rural areas and their development. The results are divided into four main subsections dealing with each of the elements above identified.

3.1 Role of trust in rural areas

In the case studies analysed, we have found that trust has an influence on four main aspects: sense of community, decision making, participatory governance, and knowledge and learning. The key question addressed is how important trust is in the rural context in building strong resilient communities with common objectives. We will also examine how trust influences decision making structures and operating principles.

3.1.1 Trusts enables participatory governance

In the case studies, we have observed that trust contributes to good local governance processes, and therefore to overcoming conflicts and crises. Trust contributes to an open attitude towards cooperation as well as participation in collective action. Findings from Curry (2010) also support this.

A good illustration is the Spanish case study, where trust has been key to the creation of the cooperative and is also key in their actual internal functioning (De los Ríos *et al.*, 2015). In fact, all the farmers that created the cooperative had previously worked for another very large cooperative from which they dropped out because of their lack of trust in the administration, the lack of transparency in resource management, strong hierarchies and the lack of participation in decision-making processes. And it is precisely aiming to improve all these aspects, how they came up with the actual operation principles of Camposeven “mutual trust and shared values”.

“We left the former cooperative because we did not believe in its ideals, we disagreed. We wanted to create our own regulations based on mutual trust. Now we perform much better in social and economic terms, and making compromises has become much easier” (Farmer).

Operating principles aim to ensure everyone’s equal treatment and wellbeing within the organisation, thereby avoiding many conflicts that occurred in the former cooperative. In the former situation, farmers were not given the option to talk about their particular problems with respect to a decision made by the board, thus creating resentment and discomfort. Now, when a crisis does develop, all farmers through the Governing Board find a common solution, for example initiating pest control and support measures even when only one farmer sees their crops affected. Within the Governing Board:

“The culture of cooperation and mutual trust is extremely favourable, there is even enough trust as to not need to attend the assemblies. We get the information later about the decisions made” (Farmer).

Nowadays, farmers have reaffirmed their belief in the importance of mutual trust, as it is considered one of the most important enabling elements to achieve successful cooperation and teamwork both between the farmers themselves and also with external institutions,

i.e. sharing machinery between them; accepting late payments from producers; sharing information with researchers etc. and so, improving their attitude towards cooperation.

However, it is also important to highlight that in trying to safeguard the proper functioning of their organisation, they make it very difficult for other farmers to enter the cooperative, and thus isolating many farmers and particularly those that do not belong to their trust circle. This could in the long run for example, lead to decisions against outside farmers who find it hard already to compete with the members of Camposeven. Overall however, we can conclude that trust has strengthened the resilience of the cooperative fostering a strong internal structure and governance that makes it easier to overcome conflicts and crisis.

3.1.2 Trust-based dialogue enables decision-making and lasting initiatives

The Danish case study (Pears *et al.*, 2015) is a good example of the way trust has an influence on enabling fast decision making and creating sustainable initiatives in rural areas through the establishment of a trust-based type of dialogue between the different stakeholders of the area (municipality, Oddebæk Stream Association (OSA) and farmers). This type of dialogue has enabled fast decision-making processes as well as confidence in long-term projects through cooperation both between non-members and members of the OSA (see section 3.2.1. for more details on these results). A quote from an interview with a municipal worker illustrates this:

“I had a meeting, I never thought I would experience. ...The advisor said: ‘Welcome, now we need to find out, what disagreements we have to overcome in order for an environmental approval of the new business plan. After that the advisor didn’t speak at all, because [the board member], my colleague and I took over the conversation and just agreed on the rest without interference.’”

However, there are also other benefits of trust like a closer and more confident dialogue. The municipality, in return for their trust, gained an array of experimental, landscape-related environmental projects, where the landowners voluntarily accepted and engaged in the process. The OSA, on the other hand, has an interest in keeping the management of the stream within the association and making sure that the projects are implemented by the landowners on a voluntary basis. In this case, the OSA perceives the self-governance of the stream and the voluntary approach as crucial to maintaining the member’s trust in the association. This trust and alternative approach has resulted in a less rigid regulatory administration and the feasibility of projects concerning the expansion of agricultural production facilities within the area has increased.

We conclude that consensual fast decision-making is important in rural areas in particular because of the dynamics inherent in markets and changing contexts. Rural actors need to be able to react fast to difficult situations as well as to take advantage of those opportunities that may arise, and that might cause either the survival of a rural organisation or its failure and disappearance. However, trust does not only affect the way the different actors relate to each other. It helps finding common objectives and projects that stand a high chance of being sustainable in time because it also enables a non-hierarchical cooperation where everyone’s interests are being met.

3.1.3 Trust between stakeholders enhances the exchange of knowledge

A good example that illustrates the important role of knowledge exchange in rural areas are the Latvian and Lithuanian case studies (Atkočiūnienė *et al.*, 2015; Šūmane *et al.* 2015) where trust is built through direct contact between consumers and farmers. In these two countries, because of negative experiences of forced collectivism during the Soviet period, there is a lack of social skills and trust, and thus, farmers do not engage in collective action initiatives. Trust in this case is built through direct selling techniques where farmers receive the whole share of the price paid by consumers. This way, producers and consumers establish trust relationships that contribute to their solidarity and to positive long-term relationships. Farmers who are linked to other stakeholders via trust-based relationships have access to a wider pool of knowledge and valuable information about for example market trends and production methods as well as gaining access to other resources. However, in the absence of trust, these knowledge exchanges do not happen. An example is Camposeven farmers, who do not share knowledge with farmers outside the cooperative:

“It is important to select well who you trust, otherwise you end up getting deceived and getting new ideas stolen from you” (Farmer).

What we have observed in all seven case studies is that trust increases the possibilities of knowledge exchange happening between the different actors. One of the reasons why there is a need for knowledge exchange in rural areas comes from the fact that farmers in this case, have an increasing necessity of knowledge in many different areas – marketing, computing, management, solutions for new plagues, etc. – in order to be competitive at local, national and international levels. This variety of knowledge types cannot be individually achieved, and therefore exchanging knowledge between rural actors is key for their individual and collective development.

3.2 Role of cooperation in rural areas

Our hypothesis for the subsequent subsections is that cooperation of farmers in different networks and associations is an important and growing factor that contributes to farm development and future prosperity. Related to that, we also deduce that in particular for small farms, the lack of cooperation does hamper their development.

3.2.1 Cooperating through formal networks

The OSA in Denmark is a very good example of this, as it is a formal network (understood as any relationship bounded by rules and contracts that structure the network) through which formal and informal understandings and agreements between farmers, landowners and public or governmental organizations are developed, potential problems are resolved and desired projects realised. The basis being a creative and solution-oriented approach (Pears *et al.*, 2015).

Cooperation supports innovation and the seizing of new opportunities. Before the establishment of the OSA in 2000, there were many informal relations, especially between the farmers and landowners in the area, however, after the establishment of the OSA, the individual farmers have formed networks on a larger scale (the entire watershed) and many new relations among the landowners in the countryside were created. Another example is Camposeven (De los Ríos *et al.*, 2015), as being an active

member of the European Platform Food for Life has allowed to establish new connections between agents and companies that in turn have led to new activities and projects.

Our case studies indicate that an increase in common objectives also increases the chances for all the parties to win from cooperation, thereby facilitating the realisation of new sustainable changes and innovations as well as improvements for the community. Nowadays, the OSA and the University of Copenhagen have developed a collective landscape strategy approach for planning rural landscapes, and Camposeven provides a test field for the Technical University of Madrid's students to research on organic solutions for pests: "Cooperation allows us to be innovative and competitive" (Camposeven farmer).

Cooperation helps to achieve greater income security. An example is the bio-energy village of Untermaßholderbach of the German case study (Peter *et al.*, 2015) that meanwhile sources almost all its heat from a local heating network based on residual heat from biogas production. Additionally, the village community has decided to set up a plant for wood chip production in order to be able to cover peaks in heat demand during winter.

The village has developed into a zero-emission municipality that covers its demand 100% from renewable energy at a much lesser cost. The networks created in the German case study show that networking is particularly important when farmers are considering new investments, for example, for jointly acquiring new machinery, land etc. that individual farmers would otherwise not be able to afford.

There are also examples that show that a lack of cooperation hinders development. In both Latvian and Lithuanian case studies (Atkočiūnienė *et al.*, 2015; Šūmane *et al.*, 2015) nowadays hardly any farmers are involved in formal cooperatives or networks. More than 50 years of Soviet ruling and superimposed collectivism means that mistrust for collective management is very pronounced. Today it means that farm owners are holding on to their land and are reluctant to formally cooperate. It is very important for them to keep personal control over their work and its organisation. This very attitude means that sometimes they have less possibilities for joint investments as well as less chances to benefit from common ideas and joint projects for their development. Although farmers recognise that collective marketing can help them to act more efficiently in niche production and marketing chains, this idea still remains largely underutilised. We could therefore say that in this case, the reluctance of farmers to co-operate hinders obtaining a better price than when they sell individually, thus missing an opportunity for an improved and more secure income.

From the case studies, we could presume that social relations and different types of associations and networks create the preconditions to being aware of available resources and their potential reconfiguration and provide access to a wider pool of experiences, knowledge and connections, all of which contributes to their farms' and communities' development. It is true however that cooperation might not always aim to benefit the community, and often it also makes decision-making more tedious as there are more voices and interests involved. The tension between individual and "individualistic traditional modernization" on the one side and joint action on the other has been suitably expressed by a municipal worker in the Danish case study (Pears *et al.*, 2015):

“In spite of the general farm modernization trend, which implies that you individually have to compete [as businesses], you don’t really seem to care much for the competition. It seems that you would rather cooperate anyway” (Municipal worker).

3.2.2 Cooperating through informal networks and its effect for rural areas

Informal types of networks (understood as socially structured and less rigid relationships) are also present in the case studies and have proven to be important for farmers especially in terms of information and knowledge exchange.

Informal networks help to clarify and meet common community goals. Informal networks start already when farmers exchange information as neighbours, friends and peers. In Italy (De Roest *et al.*, 2015), farmers participate in informal networks through events such as the annual agricultural fairs as well as weekly farmers’ markets. Some farmers also participate in informal networks that have nothing to do with breeding, as for example, local hunter’s networks. Nonetheless, these relationships also have a positive impact on the community’s prosperity, as they improve cooperation for example in managing wild fauna in areas with extensive outdoor pig farming. In villages with features such as those where Camposeven is located (small territories and few people) (De los Ríos *et al.*, 2015), most farmers know each other, their farms are located near and often have similar workdays or schedules, and work habits. It is therefore very common to meet in the morning and have informal reunions in bars or when taking a break. These are the times when they exchange information with other farmers and workers in other sectors (mainly construction and tourism in this case), which opens up their spectrum obtaining transversality. It was through this type of knowledge exchange that Camposeven’s farmers realised that local people wanted to be able to buy their products too, and so they decided to open their warehouse for direct selling. In this case, informal networks served them as a source of unlooked for opportunities.

Informal cooperation supports vibrant rural communities. Even in Latvia and Lithuania (Atkočiūnienė *et al.*, 2015; Šūmane *et al.*, 2015) where, as we have seen in the previous section, formal networks barely exist, informal networks are very common. Because of the aging farming community, cooperation between the elderly and young farmers is increasingly needed in these contexts. Smaller farms in particular are involved in rather dense local informal networks, which provide them with opportunities to gain information, learn and to participate in community-level activities. Many of those networks have no strict common objectives, rules or functions and they consist of ad hoc relations that are activated when needed. Common aims are to keep local control over food production, maintain food diversity, strengthen links among producers and consumers including urban areas, thereby backing solidarity.

Informal cooperation can also function as a buffer against competitive attitudes and behaviour. As competition increases in importance, a key condition to stimulate a local community’s cooperation is to have a higher degree of self-governance with higher levels of self-organisation. An example for this is the case of the Arava valley in Israel (Hurwitz *et al.*, 2015). Their relative isolation has allowed them to create a strong community character with their own traditional governance structures. And this is precisely the base on which cooperation is built. The “returning sons” who came back to the Arava testified that the ability to rely on this communal network was one of the reasons for their return as it made them feel supported and accompanied. If ever they want to try out a new

practice or technology or start growing a new crop, they can learn from other farmers in the community.

3.3 Role of sense of community in rural areas

Through the different case studies, we better understand the role played by sense of community in the ability farms have to persist and adapt to new circumstances and on enhancing the communities' potential.

3.3.1. *Sense of community enhances persistence and adaptability capacities*

In the case of the Arava (Hurwitz *et al.*, 2015), stakeholders and farmers emphasized that the relative isolation of the region fostered the creation of a very strong sense of community feeling built upon mutual solidarity, trust and responsibility in an area characterised by harsh desert conditions for farming. The massive return of third generation residents to the region is considered a reflection of this social strength, and one of the key drivers for this return is that:

“People want to have kids in the region” (Arava farmer)

Residents of the Arava attest that the region's source of strength is its strong sense of identity, which has played a major part on farms' ability to persist, adapt and prosper throughout its history. A good example of this is the 'Clean Arava Project' (CAP) by which various initiatives aimed at minimizing or even absolutely preventing the presence of pests were implemented. The control of potential quarantine pests is also due to a remarkable cooperation among all farmers. It allows to export fresh agricultural produce from the Arava region to markets like the United States where strict quality standards on such pests apply.

This ability to persist, adapt and prosper fostered by a sense of community feeling is also acknowledged by German farmers (Peter *et al.*, 2015). They state that the benefits of community life are present even in the way projects are conducted. Farmers in the case study felt that the sense of community of the region is not only an intangible advantage, but rather a *modus operandi*: Regional actors are characterized by a practice- and implementation-oriented 'hands-on' mentality (i.e. mobilizing the capacities necessary for realizing ideas), as well as by a 'culture of cooperation' including contacts with neighbouring administrative districts. Regional actors are well aware of their own potentials and actively realize them. This mentality becomes apparent in the implementation of joint projects, in which farmers are well-acknowledged and serve as active partners from the start (for instance in elaborating a business plan for a shared local heating network).

However, an overly pronounced sense of community might also come with an exclusion problem. Local people may become wary of what comes from outside the community causing a rejection of external ideas and resources, thus possibly inhibiting further innovation and development. In the Arava, until very recently, the great majority of the farmers were exclusively focused on yielding peppers, however, the current crisis has forced them to look for alternative solutions and they have now started farming a diversity of products such as seaweed for medical purposes and crops for the production of ethanol.

3.3.2. *Competition obstructs sense of community*

In rural contexts where producers aim to commercialise their products in international markets, i.e. Italian and Spanish case studies (De los Ríos *et al.*, 2015; De Roest *et al.*, 2015), we can observe that competition tends to obstruct the sense of community. This inhibits a closer contact between them that would be essential to reimagine the possibilities for economic opportunities in the region, as well as how to reconfigure resource use to create new and additional value. Camposeven is a small community of farmers where there is very little direct competition as they all work for the same cooperative with the same shared goals. Feeling part of a common ‘project’ and being linked to other people working for the same goal is key for success. The sense of a common project allows them to be more effective and innovative as they feel at ease and motivated to work harder:

"I always try to listen to my staff in the field and discuss with them the new actions to be taken" (Spanish Farmer).

However, while this sense of cooperation and mutual trust is pronounced at the level of the Camposeven cooperative, this does not apply to a higher, community level where the general mentality remains individualistic.

3.4 Role of culture and tradition in rural areas

Farmers in all case studies highlighted the importance of society’s solidarity with farming and with the general positive repercussions their work offers the community. Reference is made to maintaining local traditions, environmental benefits, developing social links between the urban, peri-urban and the rural, as well as enhancing producer-consumer links (Gómez-Limón, Vera-Toscano and Garrido-Fernández, 2014). Farmers contribute with their work to creating inclusion and to strengthening the community.

3.4.1. *Culture and tradition may support farmers and even enrich their role*

The Italian case study (De Roest *et al.*, 2015) stands out as the one where cultural values and tradition are particularly valued. The Cinta Senese breed represents Tuscan traditional farming par excellence. Its products match the regional gastronomic tradition perfectly. Consequently, for the local population, Cinta Senese products represent an element of prestige and pride, and for tourists it represents an extra element of interest and cultural and gastronomic richness that complements the list of products typical of this area. These cultural values that are created in conjunction with a particular farming practice strengthen farm and community persistence. Regional activities complement and need each other thereby creating a community identity.

In the Spanish case study (De los Ríos *et al.*, 2015), agriculture is central to Murcia’s heritage as the region is known to be the “European orchard”. People feel linked to agricultural practice and the area, as either their parents or grandparents were farmers at some point. This means that farmers in Murcia are well respected by society, thus, fostering the perpetuation of their engagement and attitudes in future generations in a context where the general trend is that young people leave rural areas. Farmers are proud to be farmers. It therefore promotes the continuity of agricultural practice and transversal cooperation. It is true however that as it was mentioned in section 3.3.2, having such a

strong agricultural tradition means that there also is a lot of competitiveness, and therefore cooperation mainly exists among the people that provide different services from farming.

The culture and traditions of a particular area affects the way farmers are viewed by the rest of the community. This means that their work is more or less respected and valued, which in turn causes the establishment of different types of relationships that can be a reflection of respect and gratitude as well as of indifference. The sort of relationships will determine the type of activities and networks that may result from them and therefore will also have an effect on the way the area develops. In areas where farming is not acknowledged, as is the case of Latvia (Šūmane *et al.*, 2015), farmers see themselves hindered in terms of their adaptability and persistence, i.e. they do not count on enough governmental support for new investments and entrepreneurial activities. In areas where farmers are respected and the importance of their work acknowledged, farmers see their capacities reinforced and supported i.e. Camposeven recently closed an agreement with the local football and basketball teams to provide them with organic fruit and vegetables.

3.4.2. Culture and tradition may determine the type of entrepreneurship created around farming

In some instances, traditions may even impede someone becoming a farmer or may influence which type of product or what type of farming an individual will carry out. This can be easily observed in the Arava case (Hurwitz *et al.*, 2015), where the type of relationships that are created depend totally on the culture and traditions that underlie agricultural activities. The agricultural communities in the region are organised as “Moshav”s, a specific type of semi-communal settlement where in order to be admitted as new members of the community, an acceptance procedure takes place by the members of the Moshav. While some Moshavim (plural of Moshav) gave up their communal properties in favour of individual farming businesses, others still maintain their joint operations, for example, the communal date plantation in Moshav Zofar. According to farmers, this traditional community structure provides them stability and is key in their success as farmers producing for international markets.

Additionally, it is important to highlight that culture and tradition sometimes might require conformity with old practices. These can create resistance to change and therefore inhibit innovation and new ideas, irrespective of potential increases in levels of productivity. Although it is not the case yet, Italian pig breeders whose work is very much grounded in traditions did express concern that this could, at some point in the future, have an effect on their development trajectories.

4. Conclusions: social capital elements and rural development

Social capital plays an important role in rural development, not only for particular tangible results, but also because it contributes conceptually – “it adds a social dimension to the development equation of capital that has been mostly ignored in economic explorations of determinants of poverty and household welfare” (Narayan, 1997:50).

Through this analysis we aim to observe how different elements of social capital enable each other and interact in different ways depending on the particular rural context. The case studies on which this analysis is based are very diverse in nature. All of the farming models examined, however, tend to ground farm activities in a broader set of values and have a rather personal rationale of economic activity. Rewarding work and income allow

successful and knowledgeable farmers to attain a satisfactory quality of life and material standard of living, which in turn provides motivation to continue with farming.

Both trust and cooperation, two elements that are very important in theoretical discourses, have shown specific characteristics in our different case studies that make them essential for individual and collective development.

4.1. Trust acts as an engine for development

The absence or the existence of trust is a key determinant of the development of an area. Trust in rural contexts stimulates the creation of strong bonds between people and this in turn provides the foundation for sustainable cooperation. In cases where interpersonal trust is strong, all farmers highlighted it as the main strength (Peter *et al.*, 2015; De los Ríos *et al.*, 2015; Hurwitz *et al.*, 2015; Pears *et al.*, 2015) for their development. Trust contributes to good local governance that is key to overcoming conflicts and crisis by promoting individual engagement and collective action. Both is expressed in the establishment of lasting initiatives with shared common objectives that in turn reinforce the sense of belonging of the people involved (Peter *et al.*, 2015; De los Ríos *et al.*, 2015; Pears *et al.*, 2015; De Roest *et al.*, 2015).

Farmers who are linked to other stakeholders via trust-based relationships have access to a wider pool of knowledge and other resources that can be deployed. The capacity for learning, having an active learning attitude and being part of knowledge networks is one of the cornerstones of the development of successful farms. A continuous engagement in learning, according to farmers in Latvia, Spain and Israel, raises awareness on environmental, technical, economic and social issues, and contributes to development. This allows farmers to be more competitive, and increases their confidence in their ability to adapt, to innovate and to collaborate. Participation in knowledge networks is also important for staying informed about local developments and opportunities. In the situation where formal knowledge institutes only partly respond to small farmers' knowledge needs, informal, tacit and endogenous knowledge serve them as valuable support and source of inspiration and innovation.

4.2. Cooperation as a key strategy among successful farms

The key element of cooperation is the establishment of short-term, often informal and largely voluntary relations between people or organizations. There is a general recognition of the need to cooperate and collaborate to enhance everyone's development. Several of our case studies have shown that farmer's membership in producer groups and cooperatives is an important and growing factor that contributes to farm development. In two of our case studies (Latvia and Lithuania), the lack of cooperation hampered the development of small farms.

Cooperating in both formal and informal networks helps to mature and gear new strategies and approaches. It is however important to recognize that there is no one way of cooperating. All forms of cooperation are valid depending on the context in which they occur. No matter what the objectives of the cooperation are –collective marketing and commercialization, advice, joint investments, knowledge etc.– what becomes apparent is that there always tend to be some positive repercussions from this cooperation. This does not mean that all cooperation will be productive and sustainable in time, what it means is

that it will always come with intangible benefits both for the individual and the community as a whole.

In difficult economic contexts, in particular (i.e. Spain and Israel), cooperation seems to become more a necessity, thereby lessening the tendency to compete against one another. Related to this, farmers highlight the importance of being part of diverse networks of producers, cooperatives, intermediaries, processors, wholesalers etc., which allows adaptation and maintaining livelihoods because of the diversity of opportunities this generates.

A cooperative attitude also helps farmers to integrate the economic and social activities that take place at farm household and communal or local level, which is again very important for maintaining their quality of life.

4.3. Sense of community is key for flourishing rural areas

Being part of the community and participating in community life makes people in rural areas look beyond their own individual benefits and relate themselves and their activities with the broader community. The creation of local markets that serve local communities is an example, as such markets tend to create strong bonds between consumers and producers, enhance the capability to collaborate, and contribute to flourishing rural communities. The related businesses tend to be locally embedded instead of being an isolated entity competing in anonymous market places (Knickel, 2001; van der Ploeg, 2008; Oostindie *et al.*, 2010). A region's sense of community also contributes to enhancing the area's attractiveness to incoming people and businesses, thereby counteracting demographic change.

4.4. Cultural values shape relationships and development pathways

Cultural values strengthen the communities' adaptive capacity and persistence by contributing to a common identity. As UNESCO (2009) emphasizes, people's values are often all they have to assert. Strengthening and reasserting culture and traditions, can set free the energy needed in difficult situations and times of change (Kliksberg, 1999). Culture and the values it comes with also affects the way in which people interact and cooperate. It may sometimes also inhibit innovative ideas for example when having to conform to old practices. Generally, cultural capital can contribute to maintaining interest in an area, which in turn may foster the promotion of entrepreneurial activities and innovation amongst those that want to stay and live in that territory. The fact that particular cultural attributes and assets can actually support a positive development is emphasised by Ray (1998).

With the seven cases studies, we have been able to observe how the different social capital elements examined, interact and affect each other. In some case we could also observe that they can play a rather decisive role in particularly critical situations. It is therefore important to acknowledge their role, especially in the era of globalization. Agriculture and rural areas are subject to enormous transformation processes that reshape socio-economic patterns and an impact on civic engagement. With our analysis, we could show that social capital enhances the creation of networks, and contributes to cooperation, trust and a sense of belonging. All of that is so important in times of globalisation, crises and change.

5. REFERENCES

Adam, Frane, and Borut Roncevic. 2003. Social Capital: Recent Debates and Research Trends. *Social Science Information*, 42(2), 155-183.

Atkočiūnienė, V., Aleksandravičius, A., Zemeckis, R., Vitunskienė, V., Dautartė, A., Spruogis, V., Blockytė, L., Baltušienė, J., and Serv, E. 2015. *Resilient farming systems and market differentiation: Challenges and opportunities in farmers' markets (Lithuania)*. RETHINK Case Study Report, Aleksandras Stulginskis University, Kaunas, Lithuania.

Baker, W. 2000. What is social capital and why should you care about it. *Achieving Success Through Social Capital*, 1-26.

Baron, R.A. 2000. *Social capital*. John Wiley & Sons, Ltd. U.S.A.

Bebbington, A. 1999. Capitals and capabilities: a framework for analyzing peasant viability, rural livelihoods and poverty. *World development*, 27(12), 2021-2044.

Benz, A., and Meincke, A. 2007. Analyse der Governance Strukturen. *Abschlussbericht der Module*, 3, 2004-2006.

Bourdieu, P. 1984. *Distinction: A social critique of the judgement of taste*. Harvard University Press.

Bourdieu, P. 1986. The forms of capital. In Richardson, J. (Ed.) *Handbook of Theory and Research for the Sociology of Education*. Greenwood, New York, 241-258.

Burt, R. 1998. The gender of social capital. *Rationality and Society*, 10, 5-46.

Carroll, M.C, and Stanfield, J.R. 2003. Social capital, Karl Polanyi, and American social and institutional economics. *Journal of Economic Issues* 37, 397-404.

Chang, H.N. 1997: Democracy, diversity and social capital. *National Civic Review*, 86(2), 141-147.

Coleman, J. 1988. Social Capital in the Creation of Human Capital. *The American Journal of Sociology*, 94, 95-120.

Curry, N. 2010. Differentiating Trust in Rural Decision-making, Drawing on an English Case Study. *Sociologia Ruralis*, 50(2), 121-138.

Darnhofer, I., De los Ríos, I., Knickel, K., Koopmans, M., Lamine, C., Olsson, G.A., de Roest, K., Rogge, E., Sumane, S., and Tisenkopfs, T., 2014.b. *Rethinking the Links between Farm Modernisation, Rural Development and Resilience in a World of Increasing Demands and Finite Resources*. Analytical Framework. RETHINK project. 7th framework programme CE.

De los Ríos, I., García, C., Herrera, T and Rivera, M. 2015. *Innovation and social learning in organic vegetable production in the Region of Murcia, Camposeven, Spain*. RETHINK Case Study Report, GESPLAN – Technical University of Madrid, Technical College of Agriculture, Madrid, Spain.

- De los Ríos, I., Rivera, M., and García, C. 2016. Redefining rural prosperity through social learning in the cooperative sector: 25 years of experience from organic agriculture in Spain. *Land Use Policy*, 54, 85-94.
- De Roest, K. and Ferrari, P. 2015. *Extensive pig production systems, Italy*. RETHINK Case Study Report, Fondazione Studi e Ricerche (FSRC/CRPA), Reggio Emilia, Italy.
- Dei Ottati, G. 1987. Il mercato comunitario. *Mercato e Forze Locali: il Distretto Industriale*, 117-142.
- Durlauf, S.N., and Fafchamps, M. 2004. *Social Capital, The Centre for The Study of African Economies*, Working Paper Series, 214.
- Edwards, B., and Foley, M.W. 1997. Social capital and the political economy of our discontent. *American Behavioral Scientist*, 40(5), 668-677.
- Falk, I., and Kilpatrick, S. (2000). What is social capital? A study of interaction in a rural community. *Sociologia ruralis*, 40(1), 87-110.
- FAO. 1998. Rural Development Strategy as the Focus Towards the Reduction of Extreme Poverty in the Region. Paper prepared for twenty-fifth FAO regional conference for Latin America and the Caribbean, Nassau, Bahamas, June 16±20.
- Field J. 2005. *Social capital and lifelong learning*. Policy Press, Bristol, U.K.
- Fisher, R. 2013. *Teaching thinking: Philosophical enquiry in the classroom*. A&C Black.
- Foley, M., and Edwards, B. 1999. Is it time to disinvest in social capital? *Journal of Public Policy*, 19, 141-73.
- Fukuyama, F. 1999. *Social Capital and Civil Society*. For IMF Conference on Second Generation Reforms. Institute of Public Policy. George Mason University. U.S.A.
- Fukuyama, F. 1995. *Trust: The social virtues and the creation of prosperity*. Free Press, New York, U.S.A.
- Gómez-Limón, J.A., Vera-Toscano, E., and Garrido-Fernández, F.E. 2014. Farmers' Contribution to Agricultural Social Capital: Evidence from Southern Spain. *Rural Sociology*, 79(3), 380-410.
- Grootaert, C., and Van Bastelaer, T. 2002. *Understanding and measuring social capital: A multidisciplinary tool for practitioners*. World Bank Publications. Vol. 1.
- Guenther, J., and Falk, I. 1999. *Measuring trust and community capacity: social capital for the common good*. Launceston: Centre for Research and Learning in Regional Australia. 90.
- Hurwitz, B., Calvão Chebach, T., Ashkenazy, A., Dagani, B., and Offenbach., R. 2015. *Rural innovation in global fluctuation: The Arava region case study (Israel)*. RETHINK Case Study Report, Central-and Northern-Arava Research and Development, Israel.

Innes, E J., and Booher, D.E. 2000. Indicators for sustainable communities: A strategy building on complexity theory and distributed intelligence. *Planning theory & practice*, 1(2), 173-186.

Karlsson, C., and Stough, R. 2012. *Entrepreneurship, social capital and governance: Directions for the sustainable development and competitiveness of regions*. Edward Elgar Publishing. London, U.K.

Kilpatrick, S., Bell, R., and Falk, I. H. 1999. The role of group learning in building social capital. *Journal of Vocational Education and Training*, 51(1), 129-144.

Kliksberg, B. 1999. Social capital and culture. *Cepal Review*, 69, 83.

Knack, S. 2002. Social capital, growth and poverty: A survey of cross-country evidence. *The role of social capital in development: An empirical assessment*, Cambridge University Press, U.K. 42-82.

Knack, S., and Keefer, P. 1997. Does social capital have an economic payoff? A cross-country investigation. *The Quarterly journal of economics*, 1251-1288.

Knickel, K., Redman, M., Darnhofer, I., Ashkenazy, A., Calvão Chebach, T., Šūmane, S., Tisenkopfs, T., Zemeckis, R., Atkočiūnienė, V., Rivera, M., Strauss, A., Søderkvist Kristensen, L., Schiller, S., Koopmans M.E., and Rogge, E. 2016. Towards resilient agricultural and food systems and sustainable rural development. The policies needed to promote the required systemic changes. *Journal of Rural Studies*, (manuscript submitted for publication).

Knickel, K. 2001. The marketing of Rhöngold milk: An example of the reconfiguration of natural relations with agricultural production and consumption. *Journal of Environmental Policy and Planning*, 3(2), 123-136.

Lang, R., and Hornburg, S. 1998. What is social capital and why is it important to public policy. *Housing Policy Debate*, 9, 1-16.

Legatum Institute. 2015. The 2015 Legatum Prosperity Index. Accessed: 12/04/2016 in <http://www.li.com/activities/publications/2015-legatum-prosperity-index>.

Lin, N. 2001. *Social capital: a theory of social structure and action*. Cambridge University Press. U.K. Vol. 19.

Mandell, M., and Keast, R. 2011. Strategic Leveraging: A Revised Framework of Managing Strategically in Collaborative Networks. In *7th Trans-Atlantic Dialogue Conference*, Newark, U.S.A.

McClenaghan, P. 2000. Social capital: Exploring the theoretical foundations of community development education. *British Educational Research Journal*, 26, 565-582.

McMillan, D.W., and Chavis, D.M. 1986. Sense of community: A definition and theory. *Journal of community psychology*, 14(1), 6-23.

Midgley, J. 2013. *Social development: theory and practice*. Sage. London, U.K.

- Narayan, D. 1997. *Voices of the poor: poverty and social capital in Tanzania*. World Bank Publications, Vol. 20.
- Oostindie, H., van der Ploeg, J.D., Broekhuizen, R., Ventura, F., and Milone, P., 2010. The central role of nested markets in rural development in Europe. *Rivista di Economia Agraria*, 65(2), 191-224.
- Oxford Dictionary. 2016. Searched words: “Trust” and “Cooperation”. Accessed 27/03/2016 in <http://www.oxforddictionaries.com/>.
- Paldam, M. 2000. Social capital: one or many? Definition and measurement. *Journal of economic surveys*, 14(5), 629-653.
- Paxton, P. 1999. “Is social capital declining in the United States? A multiple indicator assessment.” *The American Journal of Sociology*, 105, 88.
- Pears, D.Q., Kristensen, L.S. and Primdahl, J. 2015. *Landscape strategy making and agriculture (Denmark)*. RETHINK Case Study Report, Copenhagen University, Danish Centre for Forest, Landscape and Planning, Copenhagen, Denmark.
- Peter, S., Pons S. and Knickel, K. 2015. *Opportunities for creating an eco-economy: Lessons learned from the Regional Action and Bio-energy Regions schemes (Germany)*. RETHINK Case Study Report (D3.3), Institute for Rural Development Research at J. W. Goethe University, Frankfurt/Main, Germany.
- Phillips, M. 2015. Assets and Affect in the Study of Social Capital in Rural Communities. *Sociologia Ruralis*, 56(2), 220–247.
- Pooley, J.A., Cohen, L., and Pike, L.T. 2005. Can sense of community inform social capital?. *The Social Science Journal*, 42(1), 71-79.
- Portes, A. 1998. Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, 24(1) 1-24.
- Portes, A., and Landolt, P. 1996. The downside of social capital. *The American Prospect*, 26, 18-23.
- Portes, A., and Landolt, P. 2000. Social Capital: Promise and Pitfalls of its Role in Development. *Journal of Latin American Studies*, 32, 529.
- Putnam, R. 1993. *Making democracy work: civic traditions in modern Italy* Princeton University Press, Princeton, U.S.A.
- Putnam, R. 2000. *Bowling alone: the collapse and revival of American community*. Simon & Schuster. New York, U.S.A.
- Sen, A. 1981. *Poverty and Famines: An Essay on Entitlement and Deprivation*. Oxford University Press, Oxford. Sen, A. (1997) Editorial: Human capital and human capability. *World Development*, 25(12), 1959-1961.

Serageldin, I. 1998. The initiative on defining, monitoring and measuring social capital: overview and program description. *Social capital initiative. Papeles de trabajo N°1, Banco Mundial*.

Serageldin, I., and Grootaert, C. 1998. 10. Defining social capital: an integrating view. *Evaluation and Development: the institutional dimension*, 1, 203.

Stiglitz, J.E. 1998. *More instruments and broader goals: moving toward the post-Washington consensus*. Helsinki: UNU/WIDER. 2.

Šūmane, S., Kunda, I., Tisenkopfs, T., Pilvere, I., Stokmane, I., and Zēverte-Rivža, S. 2015. *Small farms' development strategies (Latvia)*. RETHINK Case Study Report, Nodibinajums Baltic Studies Centre (BSC) and the Latvian University of Agriculture, Faculty of Economics, Riga, Latvia.

Tisenkopfs, T., Lace, I., and Mierina, I. 2008. Ch. 5 “Social Capital”. *Unfolding webs: the dynamics of regional rural development*. Royal Van Gorcum, Assen, Netherlands.

UNESCO. 2009. The Power of Culture for Development. Accessed: 07/10/2015 in <http://unesdoc.unesco.org/images/0018/001893/189382e.pdf>.

United Nations. 2005. Economic Commission for Latin America. *Aprender de la experiencia: el capital social en la superación de la pobreza*. Irma Arriagada (Ed.). United Nations Publications. Vol. 86.

Van der Ploeg, J.D. 2009. *The New Peasantries - Struggles for Autonomy and Sustainability in an Era of Empire and Globalization*. Routledge, London, U.K.

Van der Ploeg, J.D. and Marsden, T. 2008. *Unfolding webs. The dynamics of regional rural development*. Royal Van Gorcum, Assen, Netherlands, 1–28.

Vera-Toscano, E., Garrido-Fernández, F.E., Gómez-Limón, J.A., and Cañadas-Reche, J. L. 2013. Are theories about social capital empirically supported? Evidence from the farming sector. *Social indicators research*, 114(3), 1331-1359.

Von Münchhausen, S., Knickel, K. 2010. Rural development dynamics: a comparison of changes in rural web configurations in six European countries. P. Milone, P. *Networking the rural: the future of green regions in Europe*. Uitgeverij Van Gorcum.

Wall, E., Ferrazzi, G., and Schryer, F. 1998. “Getting the goods on social capital.” *Rural Sociology*, 63, 300-322.

Woolcock, M. 1998. Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and society*, 27(2), 151-208.

CHAPTER 4

Conclusions

This Ph.D. Thesis is composed of three main contributions. Each of them aims to shed light on a particular aspect related to the rural prosperity concept with the aim of contributing to a new description and characterisation that truly reflects the reality of rural areas.

As it has been discussed, rural areas are the world's key providers of raw material and food, thus, constituting an important source of development across the globe. However, these territories and the role of the people that live and work within are not being recognised nor valued sufficiently. Furthermore, in order to comply with the 2030 Agenda for Sustainable Development, these areas need to receive special attention by international public and private institutions. Rural areas host most of the world's poor people, and ending poverty must go hand in hand with strategies that build economic growth through addressing a range of social and environmental needs that require to be identified and researched in order to implement them successfully and to drive these areas to prosperity.

1. About the understandings of rural prosperity

As the attainment of rural prosperity is the target, understanding what is meant by this term and what are the respective implications is key. In order to recognise the specific needs of rural areas so that demography can be maintained and people can live fulfilling lives, the opinions and views of rural stakeholders need to be included and granted the importance they deserve.

Rural areas and their prosperity have in the past mainly been associated with the modernization of agriculture and the economic benefits that appeared to originate from it. The common assumption was that rationalization in farming, scale enlargement, specialization and mechanization contribute to higher farm incomes and, eventually, to rural prosperity. However, in this Ph.D. Thesis and mainly in chapter 1, the recognition of the limitations such vision embraces are highlighted: The increasing capital intensity in farming tends to be connected with debt and (path) dependency, and farm incomes seem to be under continuous economic pressure. Regionally, farm structural change and the modernization of a few farms have not always contributed to prosperous rural areas and the concentration of production in some regions and on some farms, can be directly linked with the marginalization of other regions and farms. This can all be observed in the case studies analysed. On the level of farm households, we can see that other non-economic aspects such as a minimum level of autonomy, recognition in society and social and environmental well-being play a rather significant role according to farmers.

Bestowing to the interviews, it can be said that farming is much more than just any other income earning activity or job; rather it is a lifestyle that is chosen because of the values and qualities that contribute to their prosperity. A lifestyle where people enjoy their surrounding natural environment as well as the humanity of a small-scale society. According to the opinions of stakeholders, **a prosperous farm would be one that is doing well financially, by offering the farm family a good quality of life, while at the same time maintaining the natural environment. It would be a farm that has the societal opportunity to be taken over by the next generation, where farmers do not act as owners but as guardians of a land that needs to pass to the next generation in the same state as they first received it.** Personal well-being, maintaining vibrant rural

areas, knowledge and culture, employment and entrepreneurship and the environment are key according to stakeholders to reach prosperous rural areas.

Figure 1. Main defining elements of rural prosperity

Source: Own elaboration from Thesis' results

2. About the strategies applied by farmers to reach rural prosperity

As economic efficiency does not remain the predominant criteria any more, the merits of large specialized farms need to be revisited as they may no longer be the unquestioned ideal. A shift to the effectiveness of different types and scales of farming to achieve societal goals has been observed through the different strategies used by farmers across these case studies, which have proven to have an effect on their respective community's prosperity and that can be considered expressions of new conceptualizations of rural prosperity and well-being. These strategies can be categorised into an open variety of complex modernization models (some models use tradition as driving force, others use innovation, some have low reliance on global market while others have high reliance etc.) that do not fit into the "classical" concept. Each rural region has its own path towards renewed prosperity, and therefore, policies should direct global strategies towards:

- Accommodating these multiple visions;
- Providing a space to experiment and grow through alternative models that actors actually believe in; and
- Recognising all the different roles that farmers play and that may not be so evidently represented in GDP but that contribute to societal well-being. This includes a recognition for the food products, for the high labour inputs that are required to manage a farm, an appreciation that the cultural landscape is shaped and maintained by farmers, and a recognition of their contribution to broader social life in rural areas.

Even though political efforts are still not being driven towards the above statements, farmers are pursuing holistic strategies for improving the prosperity of their farms and rural areas. Finding a balance between technical, social and contextual strategies is actually key for rural prosperity as can be observed in chapter 2.

The main strategies that can be highlighted are:

- Effective and sustainable use of given natural resources. Farmers appreciate environmental integrity not just for the gains it provides, but also in its own sake, taking pride in the ecosystem, which they are a part of, whether directly or through its manifestations as particular landscapes and organisms;
- Diversification of goods and services, which increases the resilience of farm households and promotes the creation of new job opportunities for the rural community;
- Process and market own products, thus shortening food chains and connecting directly with consumers. This helps farmers move up the value chain, target their clients more effectively and gain independence and adaptability;
- Trust building and participating in joint activities and fostering cooperation. Trust is key to overcoming conflicts and crises by promoting an open attitude towards cooperation and participation in collective action. Cooperation, the creation of strong partnerships and being engaged in diverse networks increases adaptive capacity and resilience, and it tends to create new opportunities; and
- Participating on research and innovation related activities. Innovation is particularly important in being informed and managing information, in supply chain organisation, quality production and many other areas, but it is not only about increasing production efficiency and competitiveness, social and organisational innovations also play a major role in rural renewal.

Figure 2. Strategies for Rural Prosperity

Source: Own elaboration from Thesis' results

3. About social capital elements and their role in rural prosperity

It can be said that a constant flow of knowledge and learning (both formal and informal)

contributes to creating more sustainable and resilient agricultural models and prosper rural areas by raising awareness on environmental, technical, economic and social issues, allowing farmers to be more competitive, and increasing their confidence in coping with issues that have direct effects on their ability to adapt to new circumstances, to innovate and to collaborate. On-going learning and updating knowledge prepares farmers for better manoeuvring in dynamic contexts: it helps them to be aware of available alternative choices and opportunities when facing disturbances and make sounder decisions to survive and develop, as well as to gain and maintain prosperity.

However, for knowledge exchange to occur, trust and cooperation, two elements that are very important in social capital theoretical discourses, have shown to play a key role, making them essential for individual and collective development. In chapter 3 it can be observed that farmers who are linked to other stakeholders via trust-based relationships have access to a wider pool of knowledge and other resources that can be deployed. The absence or the existence of trust is a key determinant of the development of an area. Trust in rural contexts stimulates the creation of strong bonds between people and this in turn provides the foundation for sustainable cooperation.

Example:

Spanish Case Study

Positive influence:

- Trust was key in the creation of the cooperative in 2007
- It is essential for the non-hierarchical structure in which they are internally organised to work and be sustainable in time
- It helps them overcome conflicts and crisis that may arise when making decisions on new products or commercialization techniques
- It enables successful cooperation and teamwork both between the farmers themselves and also with external institutions such as the UPM

Negative influence:

- Very difficult for others to enter cooperative, therefore isolating other farmers that do not belong within their trust circle

“The culture of cooperation and mutual trust is extremely favourable, there is even enough trust as to not need to attend the assemblies. We get the information later about the decisions made” (farmer)

Cooperation always comes with intangible benefits both for the individual and for the community as a whole. In difficult economic contexts in particular, cooperation seems to become more a necessity, thereby lessening the tendency to compete against one another. Related to this, farmers highlight the importance of being part of diverse networks of producers, cooperatives, intermediaries, processors, wholesalers etc., which allows adaptation and maintaining livelihoods because of the diversity of opportunities this generates.

Example:**German Case Study****Formal cooperation:**

- The bio-energy village of Untermaßholderbach sources almost all its heat from a local heating network based on residual heat from biogas production.
- Additionally, the village community has decided to set up a plant for wood chip production in order to be able to cover peaks in heat demand during winter. The village has developed into a zero-emission municipality that covers its demand 100% from renewable energy at a much lesser cost.

Italian Case Study**Informal cooperation:**

- Italian farmers participate on agricultural fairs, farmer's markets and informal hunter's networks.
- This type of cooperation allows them to keep local control over food production, maintain food diversity, strengthening links among producers and consumers including urban areas
- It increases their opportunities to gain information, learn and participate in community-level activities

“these networks improve cooperation also in managing wild fauna in areas with extensive outdoor pig farming”(farmer)

These networks also contribute to the creation of sense of community, which in turn makes people in rural areas look beyond their own individual benefits and relate themselves and their activities with the broader society contributing to the creation of flourishing rural communities. Additionally, a region's sense of community also contributes to enhancing the area's attractiveness to incoming people and businesses, thereby counteracting demographic change.

Example:**Israeli Case Study****Positive influence:**

- Their isolation has strengthened their cultural identity, and thus, it has increased their ability to persist, adapt and prosper throughout its history
- i.e. ‘Clean Arava Project’: initiatives preventing the presence of pests, allowing to export to high quality standards i.e. U.S.A

Negative influence:

- It can create an exclusion problem. Local people may become wary of what comes from outside causing a rejection of external ideas and resources

Another element that contributes to making an area attractive is culture and tradition, as it is a transversal element that has an effect on every aspect of a society. It strengthens the communities' adaptive capacity and persistence by contributing to a common identity and can set free the energy needed in difficult situations and times of change. Culture and the values it comes with also affects the way in which people interact and cooperate, in some cases even inhibiting innovative ideas for example when having to conform to old practices.

Example:

Italian Case Study

Positive influence:

- Farmers and their work are the perfect representation of the regional gastronomic tradition
- Local people respect and feel pride of the work done by their farmers
- It becomes another cultural attraction for tourist who in turn also bring wealth to other sectors of the region

Negative influence:

- Culture and tradition sometimes might require conformity with old practices. These can create resistance to change and therefore inhibit innovation and new ideas, irrespective of potential increases in levels of productivity.

These case studies illustrate how the four social capital elements examined, interact and affect each other in different rural contexts. They help maintain interest in an area, which in turn may foster the promotion of entrepreneurial activities and innovation amongst those that want to stay and live in that territory. It is indeed very important to acknowledge their role, especially when agriculture and rural areas are subject to enormous transformation processes that reshape socio-economic patterns and have an impact on civic engagement.

Figure 3. Social Capital Elements and their effect on Rural Prosperity

Source: Own elaboration from Thesis' results

4. Towards a rural prosperity model

The analysis of prosperity in these highly diverse rural farming contexts advocates for European policies that pay more attention and back their development under the umbrella of a new modernization paradigm where economic efficiency is not the dominant criteria, where systemic change is fostered, where environmental protection plays a larger role, where experimentation and innovations are encouraged, and where all the different and alternative development pathways that are not “main stream” find the space and support they need in order to develop and grow.

The European Commission, in its most recent discussion paper of 2016: “*A strategic approach to EU agricultural research and innovation*” shows that it is aware of the urgent need to change paradigm and to establish which are the priority areas in order to achieve prosperity in rural areas. However, more effort is yet needed, as well as stronger cooperation between policy makers, researchers and farming communities so that these new approaches and ideas are more effective and adjusted to the reality of the different contexts.

This Thesis aims to contribute to this task establishing the foundations for a new Rural Prosperity Model based on the main learnings from each of the chapters that compose this Thesis. The foundations for the understanding and analysis of prosperity in rural

context. Figure 4 represents the main features of rural prosperity according to the analysis of this Thesis. It may also serve as a general framework on which to build a new rural prosperity model and the policies to support it.

Figure 4: Building Rural Prosperity

Source: Own elaboration from Thesis' results

As can be seen in chapter 1 of this Thesis, the main elements –pillars– that should be considered when defining rural prosperity according to stakeholders from the seven case studies are: quality of life; vibrant rural areas; knowledge; employment and entrepreneurship; good social services and environmental sustainability. All of these pillars are sustained on Social Capital. Chapter 3 shows the important role played by mainly four social capital elements in rural contexts: trust, cooperation, sense of community and culture and tradition. These elements constitute the basis on which the pillars stand. The more solid and strong is social capital in rural areas, the more robust and stable are the pillars.

This whole Rural Prosperity structure is shaped following a balanced set of technical, contextual and social strategies –as can be seen in chapter 2– that change the focus from efficiency –understood traditionally as technical efficiency and allocative efficiency – to the effectiveness of farming strategies to contribute to more diverse communal and even societal goals.

Ultimately, it can be said that this Thesis contributes to expanding the knowledge and understandings of the rural prosperity concept reflecting the visions of local stakeholders and highlighting their needs and aspirations. It also sheds light on the existing alternative strategies that are being developed with the aim of revitalizing rural areas both at individual and community levels and highlights the importance of social capital elements for rural development.

Finally, all the main learnings on how to understand prosperity in rural territories and the different elements and strategies that define and support it are organized and logically structured to present the foundations on which to build new models and indicators that allow the development and measurement of prosperity in rural areas, thus, contributing to the maintenance and creation of vibrant rural areas where people can thrive, find well-being and live in ecologically sustainable ways.

Annex 1:
Published scientific
contributions
derived from the
Ph.D. Thesis

Contribution a

Distribution of International Research on Rural Prosperity

Title	Authors	Type of Contribution	Published/ Presented	Quality Criteria
Distribution of International Research on Rural Prosperity	María Rivera María Sánchez & José M. Díaz Puente	Scientific Paper (under review)	Cuadernos de Desarrollo Rural	JCR: Q4 SJR: Q3

Related to Introduction (section 1.4)

Geography of Rural Prosperity: *Trends and Patterns*

Abstract

The concept of prosperity and shared prosperity is a target Sustainable Development Goal (SDG) and as such is present in the discourse and agenda of nations all around the world. Both the definition and quantification of the different dimensions of prosperity is currently a much discussed issue and a living reality. On the other hand, almost half the world's population live in rural areas where living conditions and access to services are often harsher than in urban environments. Therefore, through this paper we aim to go deeper into the rural prosperity concept, and in particular we aim to obtain knowledge, through the different published articles, about ways in which the scientific community is contributing to their development. What does the geography of the research look like and how has it evolved? What geographical areas are most researched? Where are the papers getting published? We have made an assortment based on a rigorous article selection and a crossed approach with the main attributes that revealed surprising patterns that could be conditioning the overall picture.

Key words:

Development, geography, prosperity; publications, rural, science, sustainability

1. INTRODUCTION: PROSPERITY AS A NEW CONCEPT IN POLICY AND RESEARCH LITERATURE

In the last few years, the concept of prosperity and in particular the concept of shared prosperity is at the top of the international global agenda. In fact, prosperity is one of the 5 main areas on which the new goals and targets specified on the 2030 Agenda for Sustainable Development should focus: people, planet, prosperity, peace and partnership (United Nations, 2016). The 17 Sustainable Development Goals of the 2030 Agenda were adopted by world leaders in September 2015 and came into force on January 1st 2016. These new goals call for action by all countries to promote prosperity while protecting the planet. They recognise that ending poverty must go hand in hand with strategies that build economic growth through addressing a range of social needs, while tackling climate change and environmental protection (United Nations, 2015).

With regard to prosperity, world countries have a compromise to “ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature” (United Nations, 2015). However, in order to meet these new societal goals, it is important to clearly understand the meaning of the concepts that are being pursued, and in this case, prosperity still does not count with a consensual and clear definition (Jackson, 2009; Sen, 1984; Stiglitz, Sen and Fitoussi, 2009). The General Assembly of the UN in the document “The road to dignity by 2030” talks about economic growth leading to shared prosperity. The world needs inclusive growth, built on sustainable livelihoods measured on ways that go beyond GDP and account for human well-being, sustainability and equity (United Nations, 2014). This sentence suggests that the traditional definition of prosperity, which was solely understood as economic growth, is nowadays becoming challenged by different societal

spheres (Jackson, 2009; Stiglitz *et al.*, 2009; Kasser 2007; Sardar 2007; Rapp 2008; Wall 2008; and SDC 2009).

It was in the 1970s when academics started to discuss the idea that an enhanced output does not accurately represent progress in human welfare (Chambers, 1997). This is because GDP fails to account for non-market services, negative externalities and changes in the asset base that affect our future consumption possibilities (Darnhofer *et al.*, 2014; Jackson and Anderson, 2009) nor outlines how income and wealth are distributed among people (Stiglitz *et al.*, 2009). Thus, Jackson (2009) proposes to redefine prosperity along two main issues: ecological and social and builds on the three understandings of prosperity elaborated by Amartya Sen (1984). Sen (1984) describes prosperity as a construct integrating three relevant dimensions and includes material satisfaction, utility, and the capability of flourishing and functioning within the specific context. Understanding prosperity as capability for flourishing implies the need to clarify what is meant by humans to ‘flourish’, and for human beings to flourish, prosperity needs to take into account psychological and social dimensions (Darnhofer *et al.*, 2014; Van der Ploeg and Marsden, 2008; Innes and Booher, 2000; De los Ríos, Rivera, and García, 2016; Knickel, Brunori, Rand, and Proost, 2009; Karlsson and Stough, 2012). Undeniably, we need meaning and purpose in life, and the ability to participate freely in the life of society. Prosperity can therefore be looked at as a qualitative condition defined by inclusion in a society that offers opportunities, aspirations and comfort (Sardar, 2007; Baumol, Litan, and Schramm, 2007). Accordingly, the circumstances that drive prosperity strongly depend on the specific context and the nature of the examined society (Collomb, Alavalapati, and Fik, 2012; Jolly, 2002; Rahman, Mittelhammer and Wandscheider, 2005).

The Sustainable Development Commission (SDC 2003) further developed the new understanding of prosperity building on a vision in which human beings flourish, achieve greater social cohesion and find higher levels of well-being while reducing their material impact on the environment (Kasser 2007, Sardar 2007, Rapp 2008, Wall 2008, and SDC 2009). Tim Jackson (2009) popularized this new understanding in his book “Prosperity without growth: Economics for a finite planet”. We could therefore say that prosperity and sustainability come hand in hand, as prosperity understood as a concept in which social, economic and environmental needs converge, implies meeting these needs through sustainable actions.

1.1. The challenge of measuring prosperity

The realization that non-economic aspects of prosperity are as important as economic ones encouraged the new goal of measuring well-being in ways that recognize the multidimensionality of the concept (Chambers, 1997; Neff, 2007; Anand, Hunter and Smith, 2005). The related work aims at accounting for important socio-cultural aspects of people’s life, such as psychological well-being, freedom of choice, opportunities and social capital (Stiglitz *et al.*, 2009, van der Ploeg *et al.*, 2008, Sen, 1984) as well as environmental aspects such as resource use and environmental degradation (Jackson, 2009; Diener and Suh, 1997, Daly, 2008).

In 2008, the French government established the *Commission of the Measurement of Economic Performance and Social Progress* (the so-called *Stiglitz-Sen-Fitoussi Commission*) to examine how to quantify wealth without relying solely on GDP (Stiglitz *et al.*, 2009); similarly, the government of Maryland in the USA (Maryland’s Genuine Progress Indicator, s.a.) officially determines prosperity through the *Genuine Progress Indicator* (GPI, see Talberth *et al.*, 2007) which builds on the *Index of Sustainable*

Economic Welfare (Daly, Cobb, Cobb, 1989). Already existing alternative indicators are mainly hosted by international organisations: the most prominent example is the *Human Development Index* (HDI) of the *United Nations Development Programme* (1990).

Nowadays, one of the most complete indexes that attempt to measure Prosperity at national level establishing clearly defined quantitative indicators is the *Legatum Prosperity Index*. This index is “the only global measurement of prosperity based on both income and wellbeing” (Legatum Institute, 2015) and bases its prosperity analysis on 89 variables divided into 8 sub-indices: economy, social capital, personal freedom, safety and security, health, education, governance and entrepreneurship and opportunity.

1.2. Prosperity in rural areas

The above mentioned indicators represent a real effort to try to capture all the dimensions of prosperity and their measurement. However, in order to meet the sustainable development goals set for 2030, it is very important to take into account the particular situation and role of rural areas around the world for a variety of reasons: half of the world’s population live in rural areas; natural resources are managed in rural spaces; and agricultural activity constitutes the heart of the world’s food production, among other reasons (Sibley, 1995; Murdoch and Pratt, 1993; Clark, 1982). Additionally, considering that most of the world’s poor people live in rural areas (more than 800 million), many countries and development agencies focus special attention on these particular areas (Serageldin 1998; FAO 1998; United Nations 2005).

Considering the importance of research activity for development (Griliches, 1979; Griffith, 2000; Greenstone, 2011), in this paper we aim to identify the master lines of research activity on rural prosperity across the world in perspective with the ongoing transformations and the challenges derived from them. Likewise, we aim to describe the most determinant cases in global evolution, the underlying patterns and the potential development constraints. The analysis builds on the 8 sub-indices created by the Legatum Institute (2015), and the main questions we would like to address are: Where do researchers come from? What geographical areas are most researched? Where are the papers getting published? What does the geography of the research look like and how has it evolved?

We believe that the answer to these questions may reveal interesting patterns that could be key when determining which actions to take, where and why. The author’s thematic interests depending on where they come from, as well as publications’ geographical focus – most researched areas and least researched areas by the scientific community – are trends, which may sometimes go unnoticed, but that are equally important and determinant in achieving sustainable development. This paper mainly focuses on one of the five main areas on which the SDG should focus, which is prosperity, however, this same exercise would also be of great interest if done with the other four areas. Results show a very biased world in terms of research origin and interests with a diversity of gaps that would need to be addressed if research on rural issues aims to contribute to meeting the SDG by 2030.

2. SELECTION CRITERIA AND QUANTITATIVE ANALYSIS

In order to meet the objectives of this paper, we have developed a methodology that involves two rigorously designed procedures: (1) article selection, (2) quantitative attribute analysis.

2.1. Article Selection

A search within ISI Web of Science was performed. This search was restricted to the Science Citation Index Expanded and the Social Sciences Citation Index with the purpose of identifying high-impact articles published in indexed and peer-reviewed journals in the last decade.

As framework for the article selection, we used the 8 main pillars of prosperity established by the Legatum Institute (Legatum Institute, 2015): (i) economy, (ii) social capital, (iii) safety and security, (iv) personal freedom, (v) health, (vi) education, (vii) entrepreneurship and opportunity and (viii) governance. As our main focus was to analyse these concepts in rural areas, we added the word “rural” into the main article search (see Table 3 for more details). The objective was to obtain the first 100 most cited articles for each of the fields, when the article search resulted in a number a bit over 100, we selected the whole lot, when the number was smaller than 100 we looked for different search options in order to get the closer to 100 as possible. For that, we first looked for our key words in the title of the papers, for those cases when no articles were found, we looked for the key words in the topic or modified the search words within the titles.

Table 3. Article Selection

Pillar	Abbreviation	Key words	Field	N° Papers
Economy	REc	Rural Economy	Title	102
Social Capital	SC	Rural Social Capital	Title	54
Safety and Security	SS	Rural Safety	Title	46
		Rural Security	Title	55
Personal Freedom	PF	Rural person* free*	Topic	33
Health	RH	Rural Health	Title	100
Education	REd	Rural Education	Title	100
Entrepreneurship & Opportunity	REO	Rural Entrepreneurship	Title	33
		Rural Innovation	Title	33
		Rural Opportunity	Title	43
Governance	Rgo	Rural Governance	Title	72
Total				671

Source: Own elaboration from methodological approach

As a result, we obtained a data base of 671 papers with the main scientific literature on rural prosperity related fields for the last decade.

2.2. Quantitative Analysis of the Data Material

Once the article selection was done, the articles got introduced into the tool selected as our information repository, which was Nvivo 10 software. The attributes selected for the analysis from each of the articles is shown in Table 4. Each attribute was analysed separately and in combination with the other attributes.

Table 4. Attributes for the analysis

Attributes obtained from ISI	Added Attributes
First Author	Studied Geographical Area of the paper
Title	Prosperity Pillar
Year of Publication	Country of the First Author's Affiliation Institution
Journal	Country of the Journal

Source: Own elaboration from methodology

The geographical dimension appears in three application areas: country of the journal, studied geographical area of the paper and country of the first author's affiliation institution.

The nomenclature of the geographical areas had to be consistent for all three areas and we therefore created these attributes according to the World Bank criteria. The continental groups are the following: Europe & Central Asia, North America, Latin America & Caribbean, Sub-Saharan Africa, Middle East & North Africa, East Asia & Pacific, South Asia and General.

In terms of the country grouping according to economic criteria, we used income level data classification from the World Bank for the year 2015: High income ($GNIPc \geq \$12746$), Upper middle income ($\$12746 > GNIPc \geq \4125), Lower middle income ($\$4125 > GNIPc > \1045), Low income ($GNIPc \leq \$1045$) and Not defined / General.

This way, each country got aggregated into two different pyramids, a geographical and an economical one for each of the geographical attributes. Once all these attributes and data got defined, we used both Nvivo10 and excel tables in order to cross the different attributes and obtain relevant quantitative data. This data was then analysed and contextualised into the actual situation of rural areas across the globe. Only the most relevant data and crossings are shown in the results.

Data collection for the characterization of the rural world

In order to be able to contrast and contextualise our data, we decided to do an analysis of the rural world (shown in section 3) with data obtained from the World Bank open data repository (World Bank, 2016). However, the data bases were complete for all countries only until the year 2012 (U.S.A. data base was not updated), we therefore had to limit the time-based data until this year.

The data bases obtained from the Data World Bank for all countries were: Total population; Total GDP; Rural Population; and Agriculture (aggregate value % GDP). Using these files, we generated a time-based registry for each country as well as the information ordered by Region and Income group. Out of all this raw data we generated the following indicators: 1) Urban Population = Population – Rural Population; 2) Rural

GDP = GDP X Agriculture, value added (% of GDP); 3) Urban GDP = GDP – Rural GDP; 4) GDPPC= GDP / Population; 5) Rural GDPPC = Rural GDP / Rural Population; 6) Urban GDPPC = Urban GDP / Urban Population. These indicators have allowed us to obtain a radiography on the current context of rural regions, which was necessary to better analyse and complement the results.

3. CHARACTERISATION AND EVOLUTION OF THE RURAL WORLD: 2004-2012

The following sections aim to give a general description of rural areas across the world in terms of population and economic performance.

3.1. Rural population and its evolution

The rural population data shown in Table 5 is related to the people that live in rural areas, as specified by the local statistic agencies, and it is calculated obtaining the difference between the total and the urban population.

Table 5. Rural evolution from 2004-2012: Population, GDP y GDPPC, region and income

	Rural Population (M people)						Rural GDP (B US\$)				Rural GDPPC US\$		
	2012	Eq incr	Rural vs Tot	Incr 2012 - 2004	Pop share 2012	Incr 2012 - 2004	2012	Eq incr	Share 2012	Incr 2012-2004	2004	2012	Eq incr
Rural World	2612	0.2%	29.6%	-1.4 pts	8.0%	-0.2 pts	518	3.6%	17.1%	-9.0 pts	1445	1953	3.8%
Europe & Central Asia	265	0.0%	18.9%	-1.3 pts	2.0%	-0.0 pts	211	3.7%	7.0%	-3.6 pts	2407	3214	3.7%
North America	66	0.0%	18.9%	-1.3 pts	2.0%	-0.0 pts	211	3.7%	7.0%	-3.6 pts	2407	3214	3.7%
Latin America & Caribbean	128	0.2%	21.0%	-2.4 pts	3.8%	-0.1 pts	281	9.7%	9.3%	0.3 pts	1033	2198	9.9%
Sub-Saharan Africa	582	2.0%	63.8%	-3.8 pts	17.5%	2.3 pts	264	13.6%	8.7%	2.3 pts	192	453	11.4%
Middle East & North Africa	145	1.0%	36.6%	-3.1 pts	4.3%	0.3 pts	97	3.3%	3.2%	-1.8 pts	556	669	2.3%
East Asia & Pacific	1021	1.4%	46.2%	-8.3 pts	30.6%	-4.0 pts	1243	13.0%	40.9%	9.7 pts	410	1218	14.6%
South Asia	1125	0.8%	68.2%	-3.1 pts	33.8%	1.8 pts	423	11.4%	13.9%	2.0 pts	169	376	10.5%
Total general	3332	0.2%	47.5%	-4.0 pts	100.0%	0%	3037	9.2%	100.0%	0%	455	911	9.1%
High income	258	0.6%	20.2%	-2.1 pts	7.8%	-0.5 pts	744	2.9%	24.5%	-15.1 pts	2185	2880	3.5%

Upper income	middle	93 6	- 1.5 %	39.1 %	-8.0 pts	28.1 %	-4.1 pts	13 21	12.3 %	43.5 %	8.5 pts	49 4	14 12	14.0 %
Lower income	middle	15 53	0.9 %	61.5 %	-3.2 pts	46.6 %	2.7 pts	83 5	12.4 %	27.5 %	5.5 pts	22 8	53 8	11.3 %
Low income		58 5	1.6 %	70.5 %	-3.5 pts	17.6 %	1.9 pts	13 7	12.8 %	4.5%	1.0 pts	10 1	23 4	11.1 %
Total general		33 32	0.2 %	47.5 %	-4.0 pts	100. 0%		30 37	9.2 %	100. 0%		45 5	91 1	9.1 %

*Own elaboration using data obtained from World Bank (2016)**

The world's rural population has increased in 43 million people, reaching 3332 million between 2004-2012, and has decreased from being 53% of the total to the 47.5%. The weight of the rural population varies in different regions; it goes from being 18.9% in North America to 68.2% in South Asia. The weight increases with the decreasing income. The most rural continents are Africa and Asia with more than 50% of the rural population, then Europe 30% and America with less than 20%. This weight has decreased in all regions and in all income sections during the study period. It is noteworthy the 8.3 pts decrease in East Asia & Pacific, that goes from 54.5% to 46.2%. This change presumes moving from being mainly a rural region to becoming mainly urban and it sets the general global transformation trend.

As for the evolution of the rural population in absolute value, we see that even if overall it has increased, at regional level the behaviours differ. It grows in Sub-Saharan African regions, Middle East & North Africa and South Asia; in North America it is stabilized; in Latin America & Caribbean and Europe & Central Asia it decreases at an annual rate of 0.2% and even faster in East Asia & Pacific, with an equivalent rate of 1.4%. In terms of income sections, rural population increases in the lower segments of low and lower middle income and decreases in the upper segments of upper middle and high income.

As a consequence, while overall rural population increases, its weight over the global decreases and gets reconfigured both in terms of regions and income segments. The block conformed by Sub Saharan Africa, Middle East & North Africa and South Asia gains 4.4 pts in relative weight, at the same time as East Asia & Pacific loses 4 pts. The population of the lower income segments increases 4.6 pts its weight within the total.

The rural population is concentrated in Asian regions, that together with Sub Saharan Africa exceed the 82% of the total rural population of the planet. By income segment, those countries found within the lower segments represent 64% of the total rural population.

3.2. Economic data in rural areas

Rural GDP includes divisions 1 to 5 according to ISIC (International Standard Industrial Classification of all Economic Activities): forestry, hunting, fishing, agriculture and livestock. Therefore, it does not include other economic activities such as industries or agricultural tourism and does not reflect the complete economic activity but provides a basis for consistent comparisons across countries and over time, except for the region

⁴ Clarification notes for tables 3 and 4:

Incr: increase; Eq Incr: equivalent increase; Pop: Population

M: million; B: billion, K: thousands

Middle East & North Africa whose time series for rural GDP economic data are not homogeneous (see Table 6).

The rural GDP per capita (GDPPC) is calculated as the ratio between rural GDP and rural population, consistent with the global GDPPC. The comparison between the two is difficult to interpret as the rural is confined within the global. It is therefore interesting to introduce the comparison between the rural and urban indicator.

The elements retained for the analysis of the rural economy are the GDP and GDPPC of the rural population, both in its individual and comparative evolution.

Table 6. Economic data for rural areas in the different world regions and income segments

	Rural Total	GDP vs		Rural GDPPC vs Max		Rural GDPPC vs Urban		Urban GDPPC US\$	
	2004	2012	Incr 2012- 2004	2004	2012	Incr 2012- 2004	2004	2012	Eq incr
World									
Europe & Central Asia	2.5%	2.4%	-0.1 pts	1.7	1.6	-0.0 pts	6%	6%	0.0%
North America	1.2%	1.2%	-0.0 pts	1.0	1.0	0.0 pts	5%	5%	0.4%
Latin America & Caribbean	5.7%	4.8%	-0.9 pts	2.3	1.5	-0.9 pts	20%	19%	0.8%
Sub-Saharan Africa	17.1%	16.9%	-0.2 pts	12.6	7.1	-5.5 pts	10%	12%	1.6%
Middle East & North Africa	6.0%	2.9%	-3.1 pts	4.3	4.8	0.5 pts	10%	5%	4.6%
East Asia & Pacific	5.1%	6.3%	1.2 pts	5.9	2.6	-3.2 pts	5%	8%	3.3%
South Asia	19.5%	18.2%	-1.3 pts	14.2	8.6	-5.7 pts	10%	10%	0.6%
Total general	3.5%	4.2%	0.7 pts	5.3	3.5	-1.8 pts	3%	5%	1.4%
High income	1.7%	1.5%	-0.2 pts	1.0	1.0	0.0 pts	6%	6%	0.0%
Upper middle income	9.2%	7.6%	-1.7 pts	4.4	2.0	-2.4 pts	11%	13%	1.3%
Lower middle income	18.6%	16.7%	-1.9 pts	9.6	5.4	-4.2 pts	12%	13%	0.1%
Low income	27.2%	27.6%	0.4 pts	21.6	12.3	-9.3 pts	13%	16%	2.8%
Total general	3.5%	4.2%	0.7 pts	4.8	3.2	-1.6 pts	3%	5%	1.4%

Own elaboration using data obtained from World Bank (2016)

Rural GDP at the end of 2012 reached \$3037 B after growing at an equivalent rate of 9.2% annually since 2004. Its weight within the total GDP went from 3.5% to 4.2%,

although it only increases at regional level in East Asia & Pacific, passing from 5.1% to 6.3%, in the remaining regions it decreases.

The global map is getting reconfigured: Europe & Central Asia have decreased 9 pts, from 26.1% to 17.1%; East Asia & Pacific increased 9.7 pts to 40.9% despite the sharp decline in their rural population; North America decreased 3.6 pts to 7%; and between South Asia and Sub Saharan Africa they increased 4.3 pts. In terms of continents, Europe and America lose relative weight in favour for Asia and Africa; by income segments, high income countries lose 13.8 pts, and the upper middle segments sees an increase of 10.8 pts.

Rural GDPPC has grown widely at different speeds. In total it has risen from \$455 to \$911, which corresponds to a 9.1% per annum which compares with the 4.4% in urban GDPPC.

By regions, we can observe apparently unconnected dynamics with the income segments. So, while rural GDPPC in North America has grown over the urban, in Europe & Central Asia they have kept pace. While Sub Saharan Africa records highest growth in rural GDPPC than in urban, South Asia accounts for the opposite. East Asia & Pacific grows in rural ratio to 14.6% annual, doubling the 7% of urban income.

Moreover, the 2015 country segmentation of the World Bank classified as Low Income countries those whose GDPPC is less than \$1045 a year and Lower Middle Income those countries found between 1045 and \$4125. We can say that the rural world on its own, fits into the lower income segments in all regions. Regions such as North America, classified in the High Income segments, include a rural population whose income is comprised within the Lower Middle Income segment.

The World Bank sets the threshold of extreme poverty on \$1.25 per day and \$456 per year. It is important to note that according to these values, the average income of rural populations in South Asia (\$376) and Sub Saharan Africa (\$453) corresponds to values of extreme poverty. Both regions together represent 51% of the world's rural population with 1600 M people.

In general, between 2004 and 2012 the world's population has gone from being predominantly rural to urban. However, the rural world is still very important as almost half of the population lives in rural areas.

4. PUBLICATIONS' ATTRIBUTES AND CHARACTERISTICS

The analytical base consists of 671 articles, published between 2004 and 2014 in 368 journals, written by scientists from 70 countries over 123 geographic areas and 8 thematic pillars.

4.1. What is being talked about? Geographical areas of study

Table 5 shows the distribution of articles by geographic area of study and thematic pillar. China and USA are the most studied countries, between the two they account for 27% of the total published articles and together with the next 5 geographic areas they account for more than 50% of the literature. In terms of researched pillar, each of these countries shows their own particular distribution. Research on China shows preference for the Rural Governance (Rgo) and Education (Ed) pillars; in the USA the pillars with more weight are Rural Health (RH) and Safety and Security (SS). In India the Rgo pillar stands out followed by Ed and RH, partly coinciding with the above two. Therefore, in Table 7, at country level we see different thematic compositions.

Table 7. Article distribution in terms of geographical area and pillar

Geographic areas	No. Articles	REc	S C	SS	P F	R H	Ed	RE O	Rg o	Proportion
China	98	15	3	8	6	13	27	7	19	14.6%
USA	86	6	7	24	5	23	9	7	5	12.8%
India	43	5	3	4	1	9	9	4	8	6.4%
Not defined / General	38	6	2	7	2	2	5	10	4	5.7%
Australia	29		4	2	3	6	5	3	6	4.3%
South Africa	27	2	1	8	2	5	6	1	2	4.0%
United Kingdom	26	9	3	1	1	3	2	5	2	3.9%
Europe	13	3	1	2				5	2	1.9%
Ghana	11	2	1	1		1	6			1.6%
Developing Countries	11	4	1	4	1			1		1.6%
Canada	10	2	2	1		2		3		1.5%
Others	279	48	26	39	12	36	31	63	24	41.6%
Total	671	102	54	10	33	0	0	109	72	100.0%
Europe & Central Asia	138	33	17	9	4	7	6	42	20	20.6%
North America	96	8	9	25	5	25	9	10	5	14.3%
Latin America & Caribbean	40	3	3	6	2	7	9	8	2	6.0%
Sub-Saharan Africa	112	15	5	26	5	23	25	10	3	16.7%
Middle East & North Africa	7		1	2	1		1	2		1.0%
East Asia & Pacific	154	23	11	12	9	23	33	15	28	23.0%
South Asia	67	9	4	9	2	13	12	9	9	10.0%
Not defined / General	57	11	4	12	5	2	5	13	5	8.5%
Total general	671	102	54	10	33	0	0	109	72	100%
High income	261	40	33	37	13	39	18	51	30	38.9%
Upper middle income	178	26	8	25	12	21	41	22	23	26.5%
Lower middle income	101	19	6	12	2	19	21	9	13	15.1%
Low income	76	7	4	14	3	19	13	14	2	11.3%
Not defined / General	55	10	3	13	3	2	7	13	4	8.2%
Total general	671	102	54	10	33	0	0	109	72	100.0%

Source: Own elaboration

From a regional point of view, we can observe that East Asia & Pacific is the most researched region, followed by Europe & Central Asia and in third place Sub Saharan Africa. The thematic profile is different in each line and we can observe how East Asia is completely affected by China, Europe & Central Asia are very concerned about the Rural Entrepreneurship and Opportunity (REO) pillar as well as Rural Economy (REc)

and the most prominent concern in Sub Saharan Africa is RH and SS, which is thematically similar to North America.

The third part of Table 7 shows the distribution by income level, where we can see that for High Income countries, the preferred pillars are Social Capital (SC) and REO, and for the Upper Middle Income, Ed and RGo. For the Lower Middle Income segment Ed and RH are the most important while for Low Income is RH and SS. It is interesting to see how the vision changes according to the geographical and economic groupings.

A vertical reading of each pillar is also interesting to highlight considering the relative importance of each group: in the pillar REc, Europe & Central Asia is over represented. From an income point of view, Low Income countries are infra represented in favour of the Lower Middle income ones; the SC pillars is mainly dealt within Europe & Central Asia and North America, which results in an overweight of the High Income segment. Australia and Canada are the most active countries in this pillar; the SS pillar, despite the interest it arises in North America gets offset from an income point of view, where the lower segment and the Not Defined stand out. The RH pillar is main one in the USA, Australia and India.

In terms of regions, it is North America and Sub Saharan Africa the ones that most attention have received, and in terms of income the lower segment; Ed is one of the favourite themes when researching about China, together with Ghana, South Africa and India; the REO pillar is not one of the favourites, except for Canada. In terms of region, Europe stands out over the other aggregates; finally, RGo is the preferred theme in literature about China, India and Australia. In terms of regional vision, Europe & Central Asia get incorporated and in terms of income segment it is pretty much equilibrated with the exception of the low income segment.

4.2. Where are articles published? Most active publications

The 671 articles have been published in a total of 368 journals, the average of 1.8 papers per journal comprises 253 journals that have published 1 article, 69 that have published 2 and 12 that have published 3.

We can classify publications between those that we call *specialized* that deal with a specific pillar or region, and the *generalists* that deal with different pillars. The theme specialization mainly happens in health, and education, and the geographical specialization in Africa.

The 74 journals specialised in Health, Education or Transport have published 162 articles in their themes. Out of the other 294, 55 are focused on concrete regions which correspond to a total of 101 articles. The other 239 journals that we call *generalists* deal with themes related to rural areas and social sciences, and they have published 408 articles.

Within the generalist ones we can highlight Journal of Rural Studies with 27 publications in all themes except Health; World Development with 16 articles and same pattern; Sociologia Ruralis with 12 articles, and Journal of Development Studies with 11. Between the four of them they reunite almost 10% of the total publication data base.

Where are articles published? Country of the journal

The publications are distributed in 33 different countries, out of which, 6 represent 88% of the total and have registered an activity of 10 or more papers. Table 6 shows that the United Kingdom leads the ranking with 286 articles and is followed by the USA with

226. Between the two they account for 76% of the total. Thus, only two countries account for the bulk of the literature on rural prosperity between 2004 and 2014.

Table 8. Article distribution per country of the journal and pillar

Countries of journal	No. Articles	RE	Ec	S	C	SS	P	F	R	H	Ed	RE	O	Rg	o	Proportion
United Kingdom	286	47	24	25	11	37	48	49	45							42.6%
USA	226	31	21	46	14	47	31	23	13							33.7%
NETHERLANDS	45	11	1	10	2	2	8	9	2							6.7%
GERMANY	13		1		1	2	3	5	1							1.9%
INDIA	12	2		5	1		1	1	2							1.8%
POLAND	10	2	3					5								1.5%
Others	79	9	4	15	4	12	9	17	9							11.8%
				10		10	10									
Total	671	102	54	1	33	0	0	109	72							100.0%
Europe & Central Asia	391	65	32	39	16	50	61	77	51							58.3%
North America	228	31	21	46	14	47	31	25	13							34.0%
Latin America & Caribbean	10	1		3			1	3	2							1.5%
Sub-Saharan Africa	16	2	1	5	1	1	3	2	1							2.4%
Middle East & North Africa																
East Asia & Pacific	12			2	1	2	3	1	3							1.8%
South Asia	14	3		6	1		1	1	2							2.1%
				10		10	10									
Total general	671	102	54	1	33	0	0	109	72							100%
High income	625	94	53	87	31	99	94	101	66							93.1%
Upper middle income	21	4		3	1	1	4	5	3							3.1%
Lower middle income	24	4	1	11	1		2	3	2							3.6%
Low income	1								1							0.1%
				10		10	10									
Total general	671	102	54	1	33	0	0	109	72							100.0%

Source: Own elaboration

Outside of Europe and North America, only India becomes represented with 12 articles, there are no Chinese journals in spite of their importance both in geographical area being researched and on country of origin of researchers (see sections 4.1, 4.3).

In terms of thematic preferences, UK presents an equilibrated profile with a strong presence of the RGo pillar, while the USA profile is uneven with marked preferences to PF, SS and RH, and little activity compared to its representativeness in REO and RGo.

In terms of region, Europe & Central Asia appears equilibrated in general but with the SS pillar underrepresented. North America, on the other hand, shows great interest in SS and RH. The rest of regions have a very small representation in the total.

4.3. Who researched? Affiliation Institution of researchers

The distribution of the articles in terms of the affiliation institution of the author accounts for 70 countries out of which, 4 concentrate the 50% of the total publications. The 12 countries of the affiliated institutions of authors that have published more than 10 papers represent almost 80% of the total activity (see **Table 9**).

Table 9. Article distribution per affiliation institution of the author and thematic pillar

Countries of author	No. Articles	RE	SC	SS	PF	RH	Ed	REO	Rgo	Proportion
USA	191	30	12	31	12	43	30	17	16	28.5%
United Kingdom	79	21	6	4	4	11	15	12	6	11.8%
Australia	47	4	5	3	4	10	8	5	8	7.0%
China	46	5	1	6	2	4	16	3	9	6.9%
Canada	32	5	5	6	2	3	5	6		4.8%
Germany	30	2	1	4	2	6	1	8	6	4.5%
South Africa	20	1	2	2	2	4	5	2	2	3.0%
India	17	2		4	1	1	1	2	6	2.5%
Italy	16	2	2	6			1	3	2	2.4%
Netherlands	15	1		4			2	5	3	2.2%
Spain	14	1	1	1		1		6	4	2.1%
Sweden	12	1	2	4	1		1	3		1.8%
Others	152	27	17	26	3	17	15	37	10	22.7%
Total	671	102	54	101	33	10	10	109	72	100.0%
Europe & Central Asia	243	44	25	27	8	26	25	59	29	36.2%
North America	223	35	17	37	14	46	35	23	16	33.2%
Latin America & Caribbean	13	1		3	1	1	3	4		1.9%
Sub-Saharan Africa	46	4	2	11	2	9	7	9	2	6.9%
Middle East & North Africa	9	1	1	4			1	2		1.3%
East Asia & Pacific	115	12	9	13	7	17	28	10	19	17.1%
South Asia	22	5		6	1	1	1	2	6	3.3%
Total general	671	102	54	101	33	10	10	109	72	100%
High income	522	84	50	72	27	82	69	85	53	77.8%
Upper middle income	97	9	4	15	5	10	27	15	12	14.5%
Lower middle income	34	7		11	1	4	2	3	6	5.1%
Low income	18	2		3		4	2	6	1	2.7%
Total general	671	102	54	101	33	10	10	109	72	100.0%

Source: Own elaboration

USA tops the list with 191 papers and 28.5% of the total activity, followed by the UK, Australia and China. The affiliation institutions of these 4 countries have generated 50% of the literature on rural prosperity between 2004 and 2014.

In terms of themes, we see very different preference profiles in the Top 4; while the USA prefers PF and RH, the UK opted for REC and Ed. The themes studied in Australia belong to the pillars of Rgo and PF. China shares the interest in the RGo pillar but its favourite is Ed.

By regional distribution, we observe that similarly to what happens with the distribution by geographical area of study, there are regions whose character is the reflection of a country and others whose overall character accounts for the total aggregate, resulting in a different message. Among the regions mainly influenced by a single country we found North America represented by the USA, East Asia & Pacific is influenced greatly by China and South Asia is mainly represented by India. Among the regions that we can call multi-country from the point of view of this research, we found Europe & Central Asia, which is particularly relevant this region leads the ranking of activity, or Sub Saharan Africa.

Most publications, almost 70% have originated from Europe & Central Asia and North America, if we add East Asia & Pacific we reach 87%.

The preferred pillars by regions show different characters, while Europe & Central Asia prefer REO and SC, North American affiliating institutions prefer RH. Research in East Asia & Pacific is active in Ed and RGo and South Asia in RGo, SS and REc. This way, the scientific community interests on the different themes, gets unevenly distributed between regions and countries within regions.

In terms of income level, the higher income countries concentrate almost 80% of the publications, the themes get even with the countries aggregate. The Upper Middle segment prefers the pillar Ed, the Lower Middle has an activity of 5.1% and seems to care most for RGo and REc.

4.4. Crossed dimensions: Country of the author's affiliation institution and studied geographical area

The propensity of researchers focusing on their own geographical areas appears as a decisive connection that has conditioned the geography of research in the study period, as can be seen in Figure 1.

Figure 1. Distribution of papers according to the origin of the author's institution and geographical area treated

Source: Own elaboration

In Figure 1 we can observe a marked trend to research about the same region the author is affiliated to. This feature allows us to classify and identify what for the purpose of this research we call "local" behaviour, which corresponds to those that research about their own affiliation institution's area, and "explorer" behaviour, which corresponds to those that research about geographical areas different from their own.

The "explorer" behaviour is linked to the income level of the region, which in turn is connected to the volume of publications of this same region. However, there are differences between the regions both in the weight of the research with an "explorer" profile and in the content.

Europe & Central Asia with 55% of the papers written about their own region and North America with 42% agglutinate between the two nearly 90% of the papers with an "explorer" profile. An important element to highlight is that these two regions do not research about each other, that is to say that we did not find papers written by European & Central Asian Institutions about North America, and only 3 in the opposite direction.

This way, the "explorer" character of Europe & Central Asia corresponds to less than 35% of its production. The most explored region by European & Central Asian scientists is Sub-Saharan Africa with 16.5% of the total, followed by East Asia & Pacific, South Asia y Latin America & Caribbean, balanced with quotes between 5% and 6% of the production. Finally, there are no papers about Middle East & North Africa, nor about North America.

North America presents a more "exploratory" character with almost 50% of the total number of articles about regions different from their own, without including those papers of a general nature that relate to almost 10% of the total. Their favourite region is East Asia & Pacific with 20.6% of the papers, Sub Saharan Africa with 11.2%, South Asia with 9.9% and finally Latin America & Caribbean with 6.3% of the total scientific literature on rural prosperity generated in North America. Same as with Europe & Central

Asia, there are practically no papers about Middle East & North Africa (1) or about Europe & Central Asia (3).

The reason behind the much larger “explorer” character between the North American research community compared to the European & Central Asia one is difficult to determine and should be studied from a much deeper perspective. However, it could be due to multicultural composition of the scientific community in North America, which could also imply that researcher’s interests are determined by the author’s country of birth and not the institutions itself.

The next region with the most volume of published papers is East Asia & Pacific, 80% of the total number of papers published deal with countries found within that region, which means that their scientific behaviour is mainly “local”. Even if it is true that the research activity is inferior to the European & Central Asian one, and almost halves the North American, its volume is important, as it surpasses the total sum of the other regions. Research in the rest of the regions presents an eminent “local” behaviour as can also be observed in

Figure 2.

Figure 2 shows the distribution of the author’s affiliation institution regions per geographical area studies. As we have already seen, Europe & Central Asia and North America are the two big regions within the High Income segment that also generate most of the scientific literature on rural prosperity and are mainly studied by researchers of their own regions affiliation institutions.

Figure 2. Distribution of papers published according to geographical area of study and region of the author’s affiliation institution

Source: Own elaboration

East Asia & Pacific is the most studied region, with 154 papers, and gets studied by local in almost 60% of the cases, 30% by North Americans and 10% by Europe & Central Asia.

Sub Saharan Africa is the third most studied region with 112 papers, and it is the most balanced in terms of scientist composition. Although it is the local institutions the ones

that most publish with a 38.3%, Europe & Central Asia generates 35.7% and North America 22.3%.

South Asia, with 67 papers is the 5th in terms of total volume, and the first in which the highest volume of papers does not get generated within the region itself. North American institutions are the most active, with 33% of the papers, followed by South Asia with 27%, Europe & Central Asia 21% and East Asia & Pacific 18%.

Latin America & Caribbean has been the focus of 40 papers, 35% come from North America, 32.5 from Europe & Central Asia, and 27.5% from their own institutions. Finally, Middle East & North Africa, with only 7 papers and 85.7% are a result of their own institutions, seems to be the most overlooked region by the international scientific community.

4.5. Exploratory profile contrasted with the country of the author's affiliation institution and pillar of origin

In order to better understand the “explorer” behaviour of researchers and their influence on the global scientific production, we explore the combination of the three dimensions. Table 8 shows the local (L)/explorer (E) profile of the regions in the different pillars.

Table 10. Distribution of articles according to the origin of the author, thematic pillar and researcher profile (%)

Country of author's affiliation institution	No. Article s		REc		SC		SS		PF		RH		Ed		REO		Rgo	
	L	E	L	E	L	E	L	E	L	E	L	E	L	E	L	E	L	E
Europe & Central Asia	55	34	66	27	68	24	33	44	50	3	27	69	24	76	71	17	69	14
North America	42	50	23	57	53	47	62	30	36	7	54	43	26	66	43	43	31	69
Latin America & Caribbean	85						100		10		10		10		75			
Sub-Saharan Africa	93	2	100		50		100		10		89	11	10		89		10	0
Middle East & North Africa	67	22		10	10		50	25					10		10			
East Asia & Pacific	80	17	75	25	67	22	77	23	86		82	18	71	21	90	10	95	5
South Asia	82	5	100				67		10				10		50		10	0
Total general	59	32	54	35	63	30	61	27	58	7	55	43	47	48	69	19	71	22

Source: Own elaboration

The above Table 10 shows in rows the region of the author's affiliation institution, and in columns each of the pillars with the data corresponding to the “explorer (E)” or “local (L)” profile in each case.

59% of the total number of articles correspond to “local” research profiles. Leaving Middle East & North Africa aside due to their little representativeness, we find 4 regions

with more than 80% of their scientific production in prosperity focusing on geographical areas within their own region. East Asia & Pacific with 80%, South Asia 82%, Latin America & Caribbean 85% and Sub Saharan Africa 93%. As we have already seen, Europe & Central Asia with 55% of the articles being “local” and North America with 42%, represent the two most “exploratory” regions.

In the Table 10 we can see how the “explorer” profile changes depending on the pillar studied, suggesting that it is not the pillar but the origin of the researcher that determines the “local” or “explorer” profile linked to a concrete theme. Thus, for example for the REc pillar, researchers from European & Central Asian institutions had a “local” behaviour in 66% of the papers, while they “explored” in the other 27%. This contrasts with the global profile of the region, as well as with the North American values that for this pillar has a “local” behaviour in 23% of the cases and “explores” in 57% of the cases. We can say that Europeans & Central Asians stress their “local” behaviour for this pillar while North Americans stress their “explorer” behaviour for this particular pillar.

The opposite situation occurs with the SS pillar, where Europeans & Central Asians only study their region in 33% of the cases, and the North American reach 62%. The RH pillars is preferred by North American researchers and deal with it from a “local” behaviour in 54% of the cases, compared to Europe & Central Asia, where this pillar from a “local” approach only reaches 27%. Additionally, the preferred regions under an “explorer” profile also do not coincide. North America researchers on this RH pillar mainly about East Asia & Pacific, while Europe & Central Asia researchers mainly focus on Sub Saharan Africa. The Ed pillars shows however a similar profile between them, both in “local” and “explorer” profiles, and in the focused regions.

It does seem that once again, the attribute that determines the pillar studied for each study area is very much dependent on the origin of the author’s institutions and not on the geographical area studies itself, that gets studied in different frequencies by the different institutions.

Preferences on each pillar are linked to the geographical area differently for each region of origin of the institution. Similarly, the explorer/local profiles for each pillar is different depending on the region of origin of the institution.

5. CONCLUSIONS

Rural areas and the people that live within constitute an important source of development across the globe. However, in our current societies, rural areas have not received enough attention by world’s leaders, partly because their role is not recognised nor valued sufficiently. However, in order to meet the 2030 Agenda for Sustainable Development, these areas should be paid special attention by all the different spheres of society. Rural areas host most of the world’s poor people, and ending poverty must go hand in hand with strategies that build economic growth through addressing a range of social needs that require to be identified and researched in order to implement them successfully and to drive these areas towards a shared prosperity.

The world population is distributed almost 50% between rural and urban environments. This figure contains a tremendous variability by region where the weight of rural population ranges between 20% and 70%. The overall picture is characterized by deep inequalities, not only the population is distributed unevenly by region, but so does income. The annual income per capita in the region that occupies the first position in the ranking represents 51.5 K€, and is almost 37 times higher than the last one with 1.4 K €.

The calculated income for the rural population is consistently lower than that of the urban population. The proportion between the latter and the former is between 5 and 20 depending on the region. These internal differences are more pronounced in countries with higher incomes.

The analysis of population and income figures in rural areas, if compared between the different regions, illustrates how the differences appear smoothed relative to the total figures. While the overall maximum income by region exceeds 37 times the minimum, in rural areas this figure is reduced to 8.6 times. Rural economic and demographic geography evolves according to their own particular patterns that are not always in line with the position and overall development of the regions.

The deeper transformation that has had the most impact on the overall figures has taken place in East Asia because of China. In this region the rural population has gone from 54.5% to 46.2% in a dizzying process, and it has gone from having the largest rural population to occupy second place after South Asia. At the same time its weight in the overall rural economy has increased from 31.2% to 40.9% and is the only region where the weight of the rural economy increases in the domestic economy (5.1% to 6.3%). If this continues, the value of rural income per capita will surpass the European and will occupy the third position in the world rankings in a few years. Rural populations in Sub-Saharan Africa and South Asia face a difficult situation because they grow in absolute and relative value while their income per capita is below the extreme poverty threshold.

5.1. Research activity's patterns and trends

Through the literature review we have identified as the driving element of a region's thematic research the author's affiliation institution. Thus, we observe a scientific research community that mainly researchers through a "local" approach, and does it with a determined thematic profile. Only scientists from North America and to a lesser extent, Europe & Central Asia, do research about different regions from their own –explorer behaviour–. This "explorer" profile is made with a different thematic bias from the one under the "local" profile but varies for each region investigated depending on the origin.

The literature on rural prosperity is thus the result of the preferences of the researchers that also seem to be affected by their institution's geographical origin. A first condition to have literature generated on a region is thus the existence of its own scientific community; second is the preference of the "explorer" researchers on that particular region in combination with their thematic preferences. From a different perspective, the resulting literature for a region is much richer the more diverse the scientific community that is interested in it is. Thus, regions such as North America or Europe & Central Asia, despite the quantity of papers dealing with issues about these regions, they are all generated locally. East Asia & Pacific which records the maximum interest from "explorers" has the most comprehensive literature. Sub Saharan Africa and South Asia would need a larger external research effort to complement the local one and Middle East & North Africa represent the worst case scenario, without local production or outside interest.

When putting into perspective the results of the literature review and the evolution observed, we find that there is a clear asymmetry between the geography of research and the geography of rural prosperity. While the dramatic transformation in East Asia & Pacific has been accompanied by a large number of articles, the pressing needs of South Asia and Sub Saharan Africa have not aroused the same interest. Moreover, North America and Europe & Central Asia, despite its apparent stagnation are very much

studied. The solid evolution and internal balance in Latin America as a region have not arisen the curiosity of the scientific community, and the region of Middle East & North Africa is largely absent in terms of research.

5.2. Research activity and its role to achieve shared rural prosperity

Prosperity and its indicators deal with concepts that are considered essential to reach development: governance, social capital, education, health, economy, personal freedom, entrepreneurship and opportunity and safety and security. We have observed during our analysis that scientific interest in these themes changes depending on the geography. However, the overall of these indicators and their corresponding publications reveal patterns that should not be ignored nor go unnoticed. Considering the key role research plays for development (R&D) improving and accompanying the quality of transformation (Griliches, 1979; Griffith, 2000; Greenstone, 2011), it becomes increasingly important that research should happen everywhere and for all. However, this is not the trend observed in this analysis. In prosperity related aspects some regions receive much attention, while others hardly receive any. If some geographical areas receive all scientific attention while others do not receive any, how can it be expected that sustainability and development occurs everywhere and for all? For the sustainability and for shared prosperity to become a reality, research should happen for all geographical areas, and maybe even be regarded as part of the cooperation activity for development. All societal spheres should acknowledge this and take action to make it happen. Another question we may ask is, what drives cooperation activities' focus and locations?

Nowadays, we could allegorically say that what is occurring is some kind of “scientific colonialism”, that decides about what and about who to do research, greatly influencing the development potential of individuals. This could be considered both a spontaneous behaviour, and a guided one, as researchers need to comply with the objectives and themes set by financing sources to receive research capital. What is clear is that we live in a very unequal world, and that aspects such as research should be informed and partly directed so that the needs of the countries and areas with less resources that seem to be less relevant for the international scientific community and that are met. We believe that it could be helpful to steer and monitor thematic research in order to cover both the geographic and thematic spectrum completely. It is not so much about directing the agenda, but about covering those chapters that otherwise do not get addressed spontaneously by research and its financing sources. If sustained, inclusive and sustainable economic growth is essential for prosperity, research also need to be inclusive and address sustainable approaches to different issues. Piloting from research institutions the gaps left by the spontaneous behaviour of the scientific community and accompanying this with measures to encourage the funding of such programs can transform not only the research agenda but the reality of the rural world to one that is more prosperous and balanced.

REFERENCES

- Anand, P., Hunter, G., Smith, R. (2005). Capabilities and Well-being: Evidence based on the Sen-Nussbaum Approach to Welfare. *Soc. Indic. Res.* 74, 9–55.
- Baumol, W.J., Litan, R.E., Schramm, C.J. (2007). *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity*, Law and Economics Workshop. Yale University Press, New Haven & London.
- Chambers, R. (1997). Editorial: Responsible Well-being—a Personal Agenda for Development. *World Dev.* 25, 1743–1754.
- Clark, G. (1982). *Housing and Planning in the Countryside*. Wiley Chichester, UK.
- Collomb, J.-G.E., Alavalapati, J.R., Fik, T. (2012). Building a Multidimensional Wellbeing Index for Rural Populations in Northeastern Namibia. *J. Hum. Dev. Capab.* 13, 227–246.
- Daly, H. (2008). *A Steady-State Economy: A Failed Growth Economy and a Steady-State Economy are not the same thing; they are the very Different Alternatives we face*. Sustainable Development Commission, London.
- Daly, H., Cobb, J., Cobb, J.B. (1989). *For the Common Good—Redirecting the Economy towards Community, the Environment and Sustainable Development*. Green Print, London.
- Darnhofer, I., de los Rios, I., Knickel, K., Koopmans, M., Lamine, C., Olsson, G.A., de Roest, K., Rogge, E., Sumane, S., Tisenkopfs, T. (2014). *Rethinking the Links between Farm Modernisation, Rural Development and Resilience in a World of Increasing Demands and Finite Resources*. University of Life Sciences, Vienna
- De los Ríos, I., Rivera, M., & García, C. (2016). Redefining rural prosperity through social learning in the cooperative sector: 25 years of experience from organic agriculture in Spain. *Land Use Policy*, 54, 85-94.
- Diener, E., Suh, E. (1997). Measuring Quality of Life: Economic, Social and Subjective Indicators. *Soc. Indic. Res.* 40, 189–216.
- FAO (1998) *Rural Development Strategy as the Focus Towards the Reduction of Extreme Poverty in the Region*. Paper prepared for twenty-@fth FAO regional conference for Latin America and the Caribbean, Nassau, Bahamas, June 16±20.
- Greenstone, M. (2011). *The Importance of Research and Development (R & D) for US Competitiveness and a Clean Energy Future*. MIT Center for Energy and Environmental Policy Research.
- Griffith, R. (2000). How important is business R&D for economic growth and should the government subsidise it?. The Institute for Fiscal Studies (IFS). London. Briefing Note No. 12.
- Griliches, Z. (1979). Issues in assessing the contribution of research and development to productivity growth. *The bell journal of economics*, 92-116.
- Innes, E J., and Booher, D. E. (2000). Indicators for sustainable communities: A strategy building on complexity theory and distributed intelligence. *Planning theory & practice*, 1(2), 173-186.

- Jackson, T. (2009). *Prosperity Without Growth: Economics for a Finite Planet*. Earthscan, London.
- Jackson, T., Anderson, V. (2009). *Redefining Prosperity—Essays in Pursuit of a Sustainable Economy*. Sustainable Development Commission. Earthscan, London.
- Jolly, R. (2002). Statisticians of the World Unite: The Human Development Challenge Awaits. *J. Hum. Dev.* 3, 263–272.
- Karlsson, C., & Stough, R. (2012). *Entrepreneurship, social capital and governance: Directions for the sustainable development and competitiveness of regions*. Edward Elgar Publishing.
- Kasser, T., 2007. *A Vision of Prosperity*. Think-piece for the Sdc’s Redefining Prosperity Project. Sustainable Development Commission, London.
- Knickel, K., Brunori, G., Rand, S., Proost, J. (2009). Towards a better conceptual framework for innovation processes in agriculture and rural development: from linear models to systemic approaches. *Journal of Agricultural Education*. Ext. 15, 131–146.
- Legatum Institute. (2015). The 2015 Legatum Prosperity Index. <http://www.li.com/activities/publications/2015-legatum-prosperity-index> and www.prosperity.com (accessed: 11/04/2016)
- Murdoch, J., Pratt, A. (1993). Rural studies: modernism: postmodernism and the post rural. *J. Rural Stud.* 9, 411–427.
- Neff, D.F. (2007). Subjective Well-being, Poverty and Ethnicity in South Africa: Insights from an Exploratory Analysis. *Soc. Indic. Res.* 80, 313–341.
- Rahman, T., Mittelhammer, R.C., Wandscheider, P. (2005). *Measuring the Quality of Life across Countries: A Sensitivity Analysis of Well-being Indices* (No. 2005/06). Research Paper, UNU-WIDER, United Nations University (UNU).
- Rapp, H. (2008). *Fulfilment and Prosperity: A New-gandhian Vision*. Fourth Opinion Piece for the Redefining Prosperity Seminar Visions of Prosperity. Sustainable Development Commission, London <http://www.sd-commission.org.uk/publications.php?id=737>.
- Sardar, Z. (2007). *Prosperity: A Transmodern Analysis*, Think-piece for the SDC seminar Visions of Prosperity. Sustainable Development Commission.
- SDC. (2009). *Prosperity without Growth? The Transition to a Sustainable Economy*. Sustainable Development Commission, London <http://www.sdcommission.org.uk/publications.php?id=914>.
- SDC. (2003). *Redefining Prosperity: Resource Productivity, Economic Growth and Sustainable Development*. Sustainable Development Commission, London <http://www.sdcommission.org.uk/publications.php?id=41>.
- Sen, A. (1984). The Living Standard. *Oxf. Econ. Pap.* 36, 74–90.
- Serageldin, I., & Grootaert, C. (1998). 10. Defining social capital: an integrating view. *Evaluation and Development: the institutional dimension*, 1, 203.
- Sibley, D. (1995). *Geographies of Exclusion: Society and Difference in the West*. Routledge, London.
- Stiglitz, J., Sen, A., Fitoussi, J.-P. (2009). *The Measurement of Economic Performance and Social Progress Revisited. Reflections and Overview*. Commission on the Measurement of Economic Performance and Social Progress, Paris.
- Talberth, J., Cobb, C., Slattery, N. (2007). *The Genuine Progress Indicator 2006, Redefining Progress*. Oakland (CA).
- United Nations. (2016). *Transforming our world: the 2030 agenda for sustainable development*. A/RES/70/1

- <https://sustainabledevelopment.un.org/post2015/transformingourworld/publication> (accessed: 07/04/2016)
- United Nations. (2015). Sustainable Development Agenda. A/RES/70/1. Resolution adopted by the General Assembly. http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E (accessed 26/10/2015)
- United Nations. (2014). The Road to Dignity by 2030: Ending Poverty, Transforming All Lives and Protecting the Planet: Synthesis Report of the Secretary-General On the Post-2015 Agenda. New York. http://www.un.org/disabilities/documents/reports/SG_Synthesis_Report_Road_to_Dignity_by_2030.pdf accessed, 20/07/2016)
- United Nations. (2005). United Nations. Economic Commission for Latin America. 2005. *Aprender de la experiencia: el capital social en la superación de la pobreza* (Vol. 86). Irma Arriagada (Ed.). United Nations Publications.
- United Nations Development Programme. (1990). Human Development Report 1990. Oxford University Press, New York.
- Van der Ploeg, J.D. and Marsden, T. (2008). Unfolding webs. The dynamics of regional rural development. Assen: Royal Van Gorcum
- Van der Ploeg, J.D., van Broekhuizen, R., Brunori, R., Sonnino, R., Knickel, K., Tisenkopfs, T., Oostindie, H. (2008). Towards a Framework for Understanding Regional Rural Development, in: van der Ploeg, J.D., Marsden, T. (Eds.), Unfolding Webs: The Dynamics of Regional Rural Development. Royal Van Gorcum, Assen (NL), pp. 1–28.
- Wall, D. (2008). Prosperity without growth, economics after capitalism. The first opinion piece for the Redefining Prosperity, third seminar ‘Confronting Structure—achieving economic sustainability’. London: Sustainable Development Commission <http://www.sdcommission.org.uk/publications.php?id=771>.
- World Bank. (2016). World Bank Open Data: Free and open access to global development data. <http://data.worldbank.org/> (accessed: 06/02/2015)

Contribution b

A gaze to rural education according to scientific discourses during the last decade

Title	Authors	Type of Contribution	Published/ Presented	Quality Criteria
A gaze to rural education according to scientific discourses during the last decade	Gretel Rivera, Maria Rivera & José M. Díaz Puente	Oral presentation in an International Conference (2015) and indexed publication (2015)	Presented at: World Conference on Educational Sciences 2015 (Online) Published in: Procedia-Social and Behavioral Sciences	International conference with blind peer-review Publication indexed by: - Scopus: SJR= 0,166 (Q3 in 2015) -Conference Proceedings Citation Index (Web of Science)

Related to Introduction (section 1.4)

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A gaze on rural education according to scientific discourses during the last decade

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Abstract

The largest proportion of illiteracy and lack of access to education in the world is concentrated in rural areas; therefore it is important to ensure there is access to quality education in these spots. This challenge is assumed by different branches of social research and it is reflected within the publication of articles in scientific journals. In the present document the scientific discourse surrounding the theme of rural education during the last decade was analyzed. To do this, the paper focuses on three aspects: the countries that set the agenda, the geographical areas that represent most of the attention and the prevalent themes within continents. It was observed that USA was the most productive country in terms of scientific writings with 30%; that Asia is really interested in health issues associated to rural education; that in Europe gender issues are on the table and that the African and Asian continents, as well as Latin America, are interested only on their own issues, as 100% of the times they only wrote about themselves.

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Keywords: rural education; development; content analysis; scientific discourse; Nvivo

1. Introduction

More than 50% of the world's population belongs to rural areas (Banco Mundial, 2014). The gap of illiteracy in rural areas is 2-3 times higher than in urban areas, and it is them, more precisely, the most affected by development issues (Unesco, 2014). There are several theories that point at education as key element for its consecution (Schultz, 1961; Becker, 1995). For authors such as Sen (1999b), Ordaz (2009), Harber (2012) and other ranking prepared annually on prosperity (Legatum Prosperity Index, 2013) the variables of education and development are

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inextricably linked. Sen (1999) states that there is sufficient evidence to relate access to quality education with economic growth, as well as with improving quality of life. It is well known that there is a greater likelihood for rural areas to adopt technology, increase productivity and be able to face and adapt to changes more easily if they have received at least the benefits of basic education (Sepulveda & Gallardo, 2011). An education that is not only focused on academic learning, but that rewrites their goals to acquire new social, ethical and emotional abilities that help humans to be resilient in their own environment (Cohen, 2006), in this particular case your, in rural areas.

The profit obtained from educational processes represent a long list, as it goes from economic empowerment and quality of life improvement, up to peace keeping (Boix, 2004). These benefits, as well as the challenge that achieving access to quality education in rural areas implies, have not passes unperceived for the academic world, which demonstrates its interests on the matter through the publication of scientific articles (Valsecchi & Alberti, 2007).

Depending on the addressed issue, scientific discourse tends to move before reality does, and in many cases, it represents the base for policy building (Camargo, 2007). Given the social responsibility that published scientific writings have from being knowledge and experience broadcasters (Valero, 2006), observing what they talk about and their academic inclinations, it is possible to get a grasp on updated scientific currents and the potential effects of this discourse on reality. The objective of the present document was analyzing how the scientific discourse on rural development has evolved through time, which are the main issues addressed and their geographic distribution. To do this, we have answered three questions: which countries set the scientific agenda? Which are the geographical regions that receive most attention? and, what issues prevail in which continents?

2. Methodology

In order to analyse the scientific discourse, the 100 most cited articles between the years 2004-2014 within the ISI Web of Science data base that included the words “rural” and “education” in the title were selected for the analysis. For the study only the abstracts were analysed, as this way we could have access to all most cited articles, and not only those that we could access. This 100 abstracts were downloaded and introduced into the qualitative analysis software Nvivo, which allowed us to perform both a quantitative and qualitative analysis based on geographic variables and content.

To perform the content analysis, the general procedure consisted on a thorough categorization of the content and issues found within each of the abstracts (Ryan, 2000; Richards 2002). On the other hand, for the geographical analysis the articles were classified according to: country/continent of the author origin and the country/continent of area studied in each of the abstracts. Finally all data was extracted and cross-connected. For the purposes of this paper the American continent was separated in Latin America and North America taking Mexico as part of the first one.

3. Results

The following section is divided into the quantitative data obtained (geographic area of study and the author), and the content found within the abstracts.

3.1. Which are the geographic regions that receive most attention?

The data shows, as can be seen in graph 1, that the most treated geographical areas are developing countries, with a corresponding percentage of 77% of the articles. Within these, the most studied continent is China with 37% of the articles.

Graph 1: who receives most attention?

Source: Own elaboration

In a deeper analysis, it was possible to observe that within each continent there were certain countries that stood out as attention spotlights. China represented the most treated area within the Asian continent, and not only that, it is also the most studied country at global scale, representing 27% of all abstracts analysed.

Other areas that stand out for their emergence percentage were, divided into continents (with respect to the global percentage): India (9%) within the Asian continent; Ghana (6%) and South Africa (6%) within the African continent; in Latin America Peru (3%) and Paraguay (2%); in North America, the United States (9%); in Europe United Kingdom (2%); and in Oceania Australia (3%) was the most and only mentioned country.

If we look at the example above but rearrange it in % of occurrence per most recurrent countries, independently of their continent, China (27%) received the most attention, as we have signaled before, but it would be followed by countries like India and U.S.A (both 9%) and Ghana and South (both with 6%).

3.2 What countries set the international agenda?

In the case of the author's country of origin, the percentages found in the section above get inverted. Developed countries have more authors that write articles on rural education than developing ones with a 69% and 31% respectively. The continent that stands out the most is North America, from where 35% of all authors cited in the abstracts come from.

Graph 2. Who sets the agenda?

Source: Own elaboration

The countries that stand out of each continent are China and Japan in Asia, South Africa, Brasil and Mexico in Latin America and U.S. and Canada in North America, Australia, and finally in Europe, the UK stands out as most active country.

We can observe the same example but individually and by the percentage of appearance. The country that heads the list is the U.S comprising 30% of the authors, China this time is not first but second, as it represents 16% of the authors, followed by the UK with 13%. After this, the differences between the quantity of authors from one place or the other are less substantial: Australia (8%), Canada y South Africa (5%) Japan (3%) Brazil (2%).

3.3 Which are the geographical interests according to the author's country of origin?

Graph 3: Who writes about who?

Source: Own elaboration

For this section, we have crossed two geographical variables: the continent of the author and the continent of the study area. This way we can observe how in the analysed abstracts certain facts stand out, such as data that demonstrates that the authors that come from Africa or Latin America write 10% of the times about its own territory; the Asian continent is of high interest for most authors, as studies about this continent are present in North American, European, Asian and Australian institutions; Only Australia writes about Australia, although they do have interest in other areas such as Europe or Asia; and Europe did not write about North America and vice versa.

3.4 What themes are prevailing in the different continents?

The content analysis showed that there are different interests within the issue of rural education. Depending on the area studies, the variety of the themes and approaches changed, although certain themes prevail no matter the geographical space analyzed.

When the focus was the Asian continent, the main addressed themes are related to health, associating health to education. A certain worry about the relationship between the school, home and communities as key factors within education was also evidenced. Status and expectations are themes commonly addressed too.

In the case of the African continent, the content of the abstracts was characterized by the diversity in the actors affecting education (teachers/students/parents/communities). Especially with a differentiation in gender issues associated mainly to fertility, mortality and sexually transmitted diseases. Another prevalent issue is the problems faced before entering the educational system: access possibilities and opportunities were recurrent elements. Other

issues that also stand out are the costs, effects and results of the educational process. And as happens in Asia, education is strongly linked to communities and health.

In Latin America, the parents and their role in education seems to be the strongest prevailing theme. Therefore, as in the previous two continents, the community plays an extremely important role, and especially the closest family is essential. There is high interest on the area of educational impact, issues of programs organizational policies (structure of the education), and access problems. However, although present, gender issues do not seem to be as significant in comparison to Africa or Europe.

In Europe the main interest are the problems related to gender discrimination in the Access and continuity within the educational system, and to a lesser extent, issues related to reproductive health and sexual transmitted diseases. In Europe the issues found are not only concerned with basic education, the issues addressed deal, for example with problems when accessing university for rural people. UNESCO is also highly referenced in these articles.

In North America there is not a significant differentiation between the actors involved in education in terms of children, girls and boys etc. but the division is found when referring to students, teachers, participants etc. A common issue is the language and communication problems, this may be due to the fact that North America receives a lot of students whose mother tongue is not English, and this may cause problems in the educational system. The interests are mainly focused on higher educational levels, and especially on interest areas such as engineering and science in rural area, with a more applied character.

Oceania is a special case because of the priorities in content, which are a little different. The themes deal with content related to culture, justice and social factors. There was a strong interest for different educational models and the use of new technologies in rural areas.

4. Conclusions

For the present study, a specific methodological framework was designed and applied for the analysis of the selected materials about the academic discourse around rural education. Taking into account that scientific activity builds knowledge; the examination of the published articles on this theme has allowed us to know which are the interest lines and the actors and main subjects of the debate of the last 10 years.

The obtained data depend ultimately on the selected articles, in English and indexed in ISI. It is therefore limited and the results may not be taken as universal, as it makes sense to think that depending precisely on the educational level, there may be countries that publish on national journals that cannot be contemplated in this study. However we build the study on the premise that the best journals are indexed in ISI and publish in English.

In general, Nvivo revealed how developed countries write more about rural education although the main subjects continue to be developing countries. This could be conditioned by the fact that accessing these journal is easier for developed countries due to language, access to information and technology.

It was observed as main results that when writing about Europe and Africa, the main interests deal with gender discrimination in education, and as well as the U.S, Europe also address higher level education, like universities and professional training. On the other hand, Asia and Africa shared a common interest on the strong association between education, health and nutrition.

For the specific case of gender issues, the fact that they were recurrent –independently of it being a developing or developed country- and that its main focus was on women's access to education and reproductive health, this may be due to the demonstrated impact that women's education has on fertility and mortality, as well as on the economic indicators of a country, (World Bank, 1991; Brown, 2004) which may convert it into a universal theme.

Roughly, in the articles, it was noted that although there are common problems in all developed and developing areas, generally it is not possible to affirm that rural education problems are divided into priority issues depending on its development degree, as there are themes that go beyond economic borders and possess high degrees of universality.

References

- Banco Mundial (2014). *World Development Indicators: Rural environment and land use*. Retrieved from: <http://wdi.worldbank.org/table/3.1>.
- Boix, R. (2004). *La escuela rural: funcionamiento y necesidades*. Madrid: CISSPRAXIS.
- Brown, D. S. (2004). Democracy and gender inequality in education: a cross national examination. *British Journal of Political Science* pp 137-152.
- Camargo Uribe, Angela (2007). *La construcción de sentido en el discurso científico. Algunos apuntes sobre su presencia en la escuela*. Cuadernos de Lingüística Hispánica, 9, 137-152.
- Cohen, J. (2006). *Social, emotional, ethical, and academic education: Creating a climate for learning, participation in democracy, and well-being*. USA: Harvard Educational Review 201-237.
- Harber, C. & V. Mincube (2012). *Education, democracy and development*. Oxford Symposium Books.
- Legatum Prosperity Index. (2013). *Prosperity Index*, Retrieved from: <http://www.prosperity.com/#/>
- Ordaz, J.L. (2009). *Impacto de la educación en la pobreza rural*. Revista: Serie estudios y perspectivas. Cepal. 105,1-40.
- Richards, L., 2002. *Qualitative Computing - a Methods Revolution?* Int. J. Soc. Res. Methodol. 5, 263– 276.
- Ryan, G.W. & Bernard, H.R., (2000). Data Management and Analysis Methods, In: Denzin, N.K., Lincoln, Y.S. (Eds.), *Handbook of Qualitative Research*. Sage, Thousand Oaks CA, 769–802.
- Schoultz, Jan & Hultman, Glenn. (2004). *Science teaching and the school – When concepts meet context*. Journal of Baltic Science Education. 2 (6), 22-33.
- Schultz, T. (1961) Investment in human capital. *The american economic review*. 51 (1), 1-17.
- Sen, Amartya (1999). *Desarrollo y libertad*. Editorial Planeta
- Sepúlveda, M.del P. & Gallardo, M. (2011) *La escuela rural en la sociedad globalizada: nuevos caminos para una realidad silenciada*. Profesorado. Revista de currículum y formación del profesorado, 15, 2.
- Valero M. J. (2006). *Social Responsibility on the scientific activity*. Revista Internacional De Sociología (Ris). LXIV (43), 219-242
- Valsecchi, Anna M. & Alberti, G. (2007). *Bibliografía para la educación de jóvenes y adultos*. Unesco
- World Bank. (1991). *World Development Report 1991: The Challenge of Development*. Oxford: Oxford University Press.

Contribution c

Rural Economy: A Geographical Distribution of Scientific Discourse

Title	Authors	Type of Contribution	Published/ Presented	Quality Criteria
Rural Economy: A Geographical Distribution of Scientific Discourse	María Rivera, Alina Seebacher & José M. Díaz Puente	Oral presentation in an International Conference and indexed publication (20159)	Presented at: The 7th International Scientific Conference on Rural Development 2015. Organised by Aleksandras Stulginskis University (Lithuania) Published in: Proceedings of the 7th International Scientific Conference Rural Development 2015 (ISSN 1822- 3230)	Publication indexed by the Conference Proceedings Citation Index (Web of Science) and Academic Search Complete via EBSCO

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RURAL ECONOMY: A GEOGRAPHICAL DISTRIBUTION OF SCIENTIFIC DISCOURSE

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Abstract

In the political system and in public perception, the well-functioning of economy is frequently equalled to the output of the national economy—that is, the Gross Domestic Product (GDP). However, during the last decades, this narrow conception of economic prosperity started to erode. This paper describes the scientific discussion surrounding the topic of “economy” in rural places, with the objective of exploring who is setting the agenda and which themes are prevalent. We examine 102 journal papers published during the last decade and design a methodological frame based on Nvivo10 software which combines quantitative analysis of geographical attributes (geographical location; journal’s precedence; author’s institution) and qualitative content analysis of the selected articles. Our results put forward that “rural economy” is conceptually linked to different societal spheres in areas such as development and progress, society and community, resources and sustainability. However, it is authors coming from developed countries the ones that mainly treat this issue and base their studies mainly on developing countries. Therefore it can be concluded that scientific discourse around rural economy deals with issues of interest to developed countries, but that it has, however, started to get linked to social and environmental aspects, and it is through achieving a balance between them that rural prosperity will be achieved.

Keywords: *content analysis; geographical distribution; prosperity; rural economy; scientific agenda*

Introduction

Since the Enlightenment, the concepts of development and wellbeing have been closely linked to economic, scientific, and technical dimensions. Conventionally, growth has been measured through the Gross Domestic Product (GDP) and thus translated into an increase in production and consumption of goods and services traded in the market (Baumol *et al.*, 2007). However, since the 1970s, the dominant idea that economic growth equals development and wellbeing started to erode (Pena-Trapero, 2009). An enhanced output—that is, an increase in GDP—does not accurately represent a progress in human welfare, as it fails to account for non-market services, negative externalities and changes in the asset base affecting our future consumption possibilities (Darnhofer *et al.*, 2014; Jackson and Anderson, 2009; Midgley, 2013); neither it outlines how income and wealth are distributed among people (Stiglitz *et al.*, 2009). Therefore, economic growth is increasingly considered merely as a necessary condition for genuine prosperity, instead of using it as a synonym for prosperity (Jackson, 2009; Stiglitz *et al.*, 2009). As a consequence, a reformulation process of these key concepts was initiated within the public and scientific sphere and alternative definitions for progress, as well as new measurement techniques, were developed.

The realisation that non-economic aspects of prosperity are as important as economic ones incited the new goal of measuring wellbeing in a different way; a way, that recognises the multidimensionality of the concept (Chambers, 1997; Neff, 2007; Anand *et al.*, 2005) by including important socio-cultural aspects, such as psychological wellbeing, freedom of choice, opportunities and social capital (Stiglitz *et al.*, 2009; van der Ploeg *et al.*, 2008; Sen, 1984); and environmental aspects, such as resource limitations and environmental degradation (Jackson, 2009; Diener and Suh, 1997; Daly, 2008).

There are different indicators recently created to assess general wellbeing at the national level (GPI, Legatum Prosperity Index, HDI, and Maryland’s Genuine Progress Indicator). However, an index that specifically evaluates wealth in rural areas has not yet been created. Sen (1984) describes prosperity as a construct integrating three relevant dimensions and includes material satisfaction, utility, and the

capability of flourishing and functioning within the specific context in his analysis. Accordingly, prosperity can be looked at as a qualitative condition defined by inclusion in a society that offers opportunities, aspirations and comfort (Sardar, 2007). Thus, the circumstances that drive prosperity strongly depend on the specific context and the nature of the examined society (Collomb et al., 2012; Jolly, 2002; Rahman et al., 2005). These theoretic ideas suggest that the rural context is individuated due to its particular characteristics and dynamics, as well as its difference in functioning compared to urban societies (van der Ploeg et al., 2008). The concept of rural economy is important because eight out of ten of the world's working poor live in rural areas where the lack of decent work opportunities is prevalent. Common constraints to unleashing the potential of rural economies include: lack of decent jobs and reliable incomes; low productivity; informality; weak enforcement of the rule of law; ineffective organization and participation of rural people in decision-making; under-investment in agriculture, non-farm rural employment and infrastructure; and limited or no access to social protection and services (ILO, 2008). We want to shed light on prosperity in the specific context of rural societies and examine, up to which point the discourse around the economic dimension of prosperity is cross-connected, defined by, and based on other societal dimensions. With this aim, we explore the debate around "rural economy" held by the scientific elite during the last decade. In general we want to know: Who is talking about rural economy and what are they talking about? Consequently, we pursue two objectives: Firstly, we explore, which voices are setting the scientific agenda; and secondly, we analyse the diversity of themes constituting this topic. To pursue the goal of our research, 102 articles published within the period from 2004 to 2014 and dealing with "rural economy" were analysed.

Our intention is to contribute to a better understanding of the dimensions constituting "economy" in rural places, as considered by the scientific system. We believe that this analysis adds to the broader objective of redefining prosperity and setting bounds to the shortage of classical economic wellbeing measurements: By exploring the themes present in those articles, we try to discover, which other dimensions are closely related to "rural economy", and thus should be considered when defining (and measuring) rural prosperity.

Methodology

In this study, a methodological framework for understanding the scientific debate surrounding "rural economy" is developed by applying three rigorously designed procedures: (1) article selection, (2) quantitative attribute analysis and (3) qualitative content analysis of the abstracts using *NVivo 10* software.

A search within *ISI Web of Science* was performed, giving as a result 102 journal papers published during the last decade (2004-2014, April) containing the terms "rural" and "economy" in the title. This search was restricted to the *Science Citation Index Expanded* and the *Social Sciences Citation Index* with the purpose of identifying high-impact articles published in indexed and peer-reviewed journals. All articles that met the conditions were extracted. The following attributes were automatically retrieved from *ISI Web of Science* and imported into *NVivo 10*: publication year, publication name, country of the academic institution to which the first author is affiliated (country of author), country of the journal's editorial (Díaz-Puente et al., 2007). Besides, the attribute "geographic study area" was introduced and determined for each article. Additionally, for each country of journal, author and study area, its continent and status as developing or developed country (International Statistical Institute, 2014) was specified. Each attribute was analysed separately and in combination with the other attributes.

In order to obtain a consistent idea of the main contents treated within the articles (note that only 94 articles provided abstracts), a methodological framework combining *inductive* and *quantitative* approaches of content analysis was developed. The central idea of qualitative content analysis is that "the many words of the text are classified into much fewer content categories" (Weber, 1990, p. 12) through a systematic process of identifying themes and patterns. Hence, the objective is to find relevant themes (also called codes or categories) present in the text material (Ryan and Bernard, 2003).

Who is Talking: a Basic Quantitative Analysis

In this section, we provide a quantitative description of the basic attributes of the 102 articles. We concentrate on the voices that shape the academic discourse about "rural economy" and on the institutions that carry those voices.

Geographic Study Area

Most of the articles (60 %) explicitly examine issues of developing countries, whereas only one third refers to developed countries (see Table 1). Concerning the continents of the study areas, an Asian (35 %) or European setting (29 %) is prevalent, followed by Africa, North-America and then, Latin-America.

With respect to specific countries, Table 1 shows that 16 articles examine rural economy in China, evidencing that 44 % of the papers about Asia concentrate on China. Similarly, the USA constitutes an important research area (6 articles explore topics concerning the USA). Europe's geographic areas (30 articles) are more widespread, with minor concentrations on England (17 % of the European articles), France and Scotland (each 10 % of the European studies). Interestingly, nearly 60 % of the articles about Africa examine four countries (Malawi, Ghana, Nigeria and South Africa).

Origin of Authors

Most of the first authors are affiliated to academic institutions in developed countries (81 %), indicating that publishing activity is higher in the global North. More specifically, most of the authors proceed from Europe (40 %), North-America (34 %) and—to a lesser extent—Asia (15 %).

Table 1 shows the origin of the authors in detail. Remarkably, nearly 30 % come from institutions located in the USA, whereas 16 % come from England. In total, more than 60 % of the authors proceed from English-speaking countries, evidencing an Anglo-Saxon prevalence in the examined scientific community. Interestingly, only 5 authors come from Chinese institutions (compared to 16 articles dealing with Chinese issues).

Table 1: Geographic distribution of attributes

	Geographic Areas			Countries of Author			Countries of Journal		
	No. Art.	% (total)	% (continent)	No. Art.	% (total)	% (continent)	No. Art.	% (total)	% (continent)
Developing	61	59,8		19	18,6		6	5,9	
Developed	35	34,3		83	81,4		96	94,1	
Not Defined	6	5,9							
Africa	14	13,7	100,0	4	3,9	100,0	2	2,0	100,0
Malawi	2	2,0	14,3	1	1,0	25,0			
Ghana	2	2,0	14,3						
Nigeria	2	2,0	14,3	1	1,0	25,0	1	1,0	50,0
South Africa	2	2,0	14,3	1	1,0	25,0	1	1,0	50,0
Other	6	5,9	42,9	1	1,0	25,0			
Asia	36	35,3	100,0	15	14,7	100,0	3	2,9	100,0
China	16	15,7	44,4	5	4,9	33,3			
Other	20	19,6	55,6	10	9,8	66,7	3	2,9	100,0
Australia				6	5,9				
Europe	30	29,4	100,0	41	40,2	100,0	65	63,7	100,0
England	5	4,9	16,7	16	15,7	39,0	46	45,10	70,8
Scotland	3	2,9	10,0	3	2,9	7,3	1	1,0	1,5
France	3	2,9	10,0	1	1,0	2,4			
Netherlands	1	1,0	3,3	1	1,0	2,4	11	10,78	16,9
Other	18	17,6	60,0	20	19,6	48,8	7	6,9	10,8
Latin-America	5	4,9		1	1,0		1	1,0	
North-America	8	7,8	100,0	35	34,3	100,0	31	30,4	100,0
USA	6	5,9	75,0	30	29,4	85,7	31	30,4	100,0
Canada	2	2,0	25,0	5	4,9	14,3			
English Speaking	18	17,6		64	62,7		79	77,5	

Note: Number of articles for each region, continents and country, showing all countries referred to in this section, arranged according to their continents. The numbers of articles or percentages discussed in the text are marked as bold.

Source: Own elaboration

Distribution of Scientific Journals

The editorials of the scientific journals publishing in the field of “rural economy” are even more concentrated: 94 % of the journals are set in the global North. Table 1 shows the prevalence of European (64 %) and North-American (30 %) journals. Concerning Europe, the publications proceeding from England and the Netherlands represent 88 % of the European publications (65) and 56 % of the total publications (102). About 78 % of the articles were published in editorials from English-speaking countries. To summarise, the prevalence of publications and—to a lesser extent—of authors proceeding from developed countries is evident. In contrast, only one third of the geographic study areas are located in the global North.

Geographic areas treated in selected articles

As can be seen in table 1, 59,8% of the articles talk about developing countries, and only 34,3% about developed ones. Being more specific, Asia received the most attention with 35,3% of the articles, out of which 15,7% talked about China. Followed by articles that talk about Europe (29,4%) in general, which come next with 17,6% of the total. Africa goes next with 13,7% of the articles talking about countries located in this continent and finally North and Latin America with respectively 7,8% and 4,9%.

Origin of Authors versus Study Areas

Examining the academic institutions of the first authors writing about each geographic study area, it is noticeable that generally, authors prefer to write about issues concerning their home continents (see diagonal in Figure 1). African and Asian authors exclusively choose research questions regarding their continents. European authors also mostly deal with their own continent (25 out of 38). Only authors from North-American institutions investigate more on an Asian setting (13 out of 30) than on their home countries. Figure 2b condenses this outcome: No author coming from institutions in the global South explores issues in developed countries, whereas authors from the global North write more about developing (42 articles) than developed (35 articles) regions.

Figure 1: Origin of author versus study area

a) Author vs. Study Area by Continent

		Continent of Author					
		Africa	Asia	North-America	Latin-America	Europe	Australia
Continent of the Study Area	Africa	4	0	4	0	5	1
	Asia	0	15	13	0	5	3
	North-America	0	0	8	0	0	0
	Latin-America	0	0	1	0	3	1
	Europe	0	0	4	0	25	1
	Australia	0	0	0	0	0	0

b) Author vs. Study Area by Region

		Continent of Author	
		Developing	Developed
Continent of Study Area	Developing	19	42
	Developed	0	35

Note: Number of articles for a) the continents and b) the regions of authors and study areas. Dark red indicates a high amount of articles in this study area, whereas light blue signifies a low number.

Source: Own elaboration

What's Talked About: a Qualitative Content Analysis

The topics included within the literature dealing with “rural economy” are multiple and diverse. The methodology described in section 2 allowed us to separate seven content categories.

Content Categories

Parallel to the levels of analysis, we established seven contents categories (see Table 2): Category 1 “**Progress & Development**” contains more than half of the articles (48 out of 94). At the micro-level, the concept of development is often equalled to income and access to food (23 articles), whereas at the other levels the themes are more diverse: Those articles refer to the social, economic, territorial and ecological dimensions of rural development.

Table 2: Content categories

	Content Categories	No. Art.	% (total)
1	Progress & Development	48	51,1
2	Neoliberal Classical Economy	45	47,9
3	Resources & Capital	44	46,8
4	Society and Community	36	38,3
	Politics & Public Regulation	33	35,1
	Alternative Economy	27	28,7
	Sustainability	12	12,8
5	Total	94	100,0

Source: Own elaboration

The “**Classical Neoliberal Economy**” category refers to concepts present in mainstream economic literature. In total, nearly half of the articles about rural economy (45 out of 94) relate to classical economic concepts. They are divided into three normative positions: On the one hand, almost two thirds of the authors (29 out of 45) write in a neutral or positive way and evaluate specific situations from a classical economic viewpoint. On the other hand, one third of the authors (16 out of 45) highlight the negative aspects of our current economic system and do not examine those situations in narrow terms of success or failure, but focus on the underlying premises. To a lesser extent, this category also deals with management aspects (9 out of 45).

The third category “**Resources & Capital**” encloses a totality of 44 articles and can be separated into three subcategories: 21 articles address the significance of social and human capital; the same amount of articles discuss the relation between economic activities and natural, physical or environmental resources; finally, the infrastructural and technological basis for rural development is explored (17 out of 44).

Category 4 “**Society & Community**” includes 38 % of the articles (36 out of 94) and deals above all with three fundamental research topics: gender issues (eight articles describe how gender influences occupational and educational possibilities), migration and its effects on the left-behind regions or households (seven articles) and socio-economic inequality across population (12).

The fifth category “**Politics & Public Regulation**” contains more than one third of the articles (33 out of 94) and generally examines existing political structures, concrete challenges for policy-makers and social consequences of policies. Within this category, one topic is noteworthy: In total, six authors address the difficulties faced by governments when delivering public services and comment the actual trend of involving other, non-public actors in this task.

The “**Alternative Economy**” category focuses on economic structures other than classical agriculture and forestry. Key-topics within this category are small-scale enterprises, rural non-farm activities, diversification of economic activities and innovation. In total, more than a quarter of the articles (27 out of 94) were included within this category. All articles either analyse alternative economy objectively (abstaining from a normative judgment) or consider it as something positive enhancing rural development.

Regarding the “**Sustainability**” category, 12 articles (out of 94) articulate mechanisms that contribute to sustainable development, shed light on sustainable resource management or highlight the frictions between the sustainability paradigm and other societal influences.

Conclusions

In this paper, we designed and applied a methodological frame to examine the selected text material representing the academic discourse surrounding “rural economy”. This allowed us to contribute to a better understanding of the main themes and the scientific actors shaping the debate. Drawing conclusions, we have to bear in mind that this analysis was based on a predefined selection of articles and thus the results cannot be mistaken for the general scientific opinion.

Concerning the major results, the quantitative attribute analysis showed a significant prevalence of developed countries in publication activity: The majority of the first authors are affiliated to European or North-American institutions; with respect to the journal editorials, this unequal distribution is even more pronounced. In consequence, those outcomes evidence a one-sided (or north-sided) scientific activity and indicate that the debate about “rural economy” is biased towards a European and North-American perspective. At the same time, the geographical areas treated by these authors are mainly located in developing countries. Considering the importance research has on development, it could be argued that this is some kind of “scientific colonialism”. To achieve a balanced scientific agenda-setting and the integration of geographically different concerns, a more equal scientific activity across North and South is necessary. On the other hand, content categories demonstrate how the concept of rural economy is linked to different ideas that not only relate to GDP such as sustainability, alternative economies, community and society and resources for development. It can therefore be concluded that scientific discourse around rural economy is already associated to social and environmental aspects, and that it is through achieving a balance between them that rural prosperity will be achieved. However, a new definition of prosperity that includes these three aspects should be globally created and approved so that policies can be shaped in order to attain this newer and completer conception of the term. The objective of this research for the future is to analyse further in depth the content of the articles in order to better answer the question of what is the scientific community concerned about in relation to rural economy, as well as which themes are important in which geographical areas.

References

1. Anand, P., Hunter, G., Smith, R., 2005. Capabilities and Well-being: Evidence based on the Sen-Nussbaum Approach to Welfare. *Soc. Indic. Res.* 74, 9–55.
2. Baumol, W.J., Litan, R.E., Schramm, C.J., 2007. *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity*. Law and Economics Workshop. Yale University Press, New Haven & London.
3. Bazeley, P., 2006. The Contribution of Computer Software to Integrating Qualitative and Quantitative Data and Analyses. *Res. Sch.* 13, 64–74.
4. Booth, W.C., Colomb, G.G., Williams, J.M., 2008. *The Craft of Research*, Third. ed. University of Chicago Press, Chicago.
5. Chambers, R., 1997. Editorial: Responsible Well-being—a Personal Agenda for Development. *World Dev.* 25, 1743–1754.
6. Collomb, J.-G.E., Alavalapati, J.R., Fik, T., 2012. Building a Multidimensional Wellbeing Index for Rural Populations in Northeastern Namibia. *J. Hum. Dev. Capab.* 13, 227–246.
7. Daly, H., 2008. A Steady-State Economy: A Failed Growth Economy and a Steady-State Economy are not the same thing; they are the very Different Alternatives we face. Sustainable Development Commission, London.
8. Daly, H., Cobb, J., Cobb, J.B., 1989. *For the Common Good—Redirecting the Economy towards Community, the Environment and Sustainable Development*. Green Print, London.
9. Darnhofer, I., de los Rios, I., Knickel, K., Koopmans, M., Lamine, C., Olsson, G.A., de Roest, K., Rogge, E., Sumane, S., Tisenkopfs, T., 2014. Rethinking the Links between Farm Modernisation, Rural Development and Resilience in a World of Increasing Demands and Finite Resources. University of Life Sciences, Vienna.
10. Diaz-Puente, J.M., Cazorla, A., Dorrego, A., 2007. Crossing National, Continental, and Linguistic Boundaries Toward a Worldwide Evaluation Research Community in Journals of Evaluation. *Am. J. Eval.* 28, 399–415.
11. Diener, E., Suh, E., 1997. Measuring Quality of Life: Economic, Social and Subjective Indicators. *Soc. Indic. Res.* 40, 189–216.
12. Edge, D., 1995. Reinventing the Wheel, in: Jasanoff, S., Markle, G.E., Peterson, J.C., Pinch, T. (Eds.), *Handbook of Science and Technology Studies*. SAGE Publications, Thousand Oaks (CA), pp. 3–24.
13. Golinski, J., 2008. *Making Natural Knowledge: Constructivism and the History of Science*, with a new Preface. University of Chicago Press.
14. Hsieh, H.-F., Shann, S.E., 2005. Three Approaches to Qualitative Content Analysis. *Qual. Health Res.* 15, 1277–1288.
15. International Statistical Institute, 2014. International Statistical Institute: Developing Countries, URL <http://www.isi-web.org/component/content/article/5-root/root/81-developing> (accessed 4.17.14).
16. ILO, 2008. 97th Session of the International Labour Conference. [http://www.ilo.org/ilc/ILCSessions/97thSession/lang--en/index.htm](http://www.ilo.org/ilc/ILCSessions/97thSession/lang-en/index.htm)
17. Jackson, T., 2009. *Prosperity Without Growth: Economics for a Finite Planet*. Earthscan, London.
18. Jackson, T., Anderson, V., 2009. *Redefining Prosperity—Essays in Pursuit of a Sustainable Economy*. Sustainable Development Commission. Earthscan, London.
19. Jolly, R., 2002. Statisticians of the World Unite: The Human Development Challenge Awaits. *J. Hum. Dev.* 3, 263–272.
20. Legatum Prosperity Index, 2013. Prosperity Index, URL <http://www.prosperity.com/#/> (accessed 10.21.14).
21. Luckmann, T., Berger, P.L., 1991. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. Penguin, UK.
22. Maryland’s Genuine Progress Indicator—An Index for Sustainable Prosperity, s.a. Maryland: Smart, Green & Growing, URL <http://www.dnr.maryland.gov/mdgpi/> (accessed 9.15.14).
23. Midgley, J., 2013. *Social Development: Theory and Practice*. SAGE, London.
24. Namey, E., Guest, G., Thairu, L., Johnson, L., 2007. Data Reduction Techniques for Large Qualitative Data Sets, in: Guest, G., MacQueen, K.M. (Eds.), *Handbook for Team-Based Qualitative Research*. Rowman Altamira, pp. 137–161.
25. Neff, D.F., 2007. Subjective Well-being, Poverty and Ethnicity in South Africa: Insights from an Exploratory Analysis. *Soc. Indic. Res.* 80, 313–341.

26. Oreskes, N., 2004. The Scientific Consensus on Climate Change. *Science* 306, 1686–1686.
27. Pena-Trapero, B., 2009. La medición del Bienestar Social: una Revisión Crítica. *Estud. Econ. Apl.* 27, 299–324.
28. Rahman, T., Mittelhammer, R.C., Wandscheider, P., 2005. Measuring the Quality of Life across Countries: A Sensitivity Analysis of Well-being Indices (No. 2005/06). Research Paper, UNU-WIDER, United Nations University (UNU).
29. Richards, L., 2002. Qualitative Computing—a Methods Revolution? *Int. J. Soc. Res. Methodol.* 5, 263–276.
30. Ryan, G.W., Bernard, H.R., 2000. Data Management and Analysis Methods, in: Denzin, N.K., Lincoln, Y.S. (Eds.), *Handbook of Qualitative Research*. Sage, Thousand Oaks CA, pp. 769–802.
31. Ryan, G.W., Bernard, H.R., 2003. Techniques to Identify Themes. *Field Methods* 15, 85–109.
32. Ryan, G.W., Weisner, T., 1996. Analyzing Words in Brief Descriptions: Fathers and Mothers describe their Children. *Cult. Anthropol. Methods J.* 8,
33. Sardar, Z., 2007. Prosperity: A Transmodern Analysis, Think-piece for the SDC seminar Visions of Prosperity. Sustainable Development Commission.
34. Sen, A., 1984. The Living Standard. *Oxf. Econ. Pap.* 36, 74–90.
35. Stiglitz, J., Sen, A., Fitoussi, J.-P., 2009. The Measurement of Economic Performance and Social Progress Revisited. Reflections and Overview. Commission on the Measurement of Economic Performance and Social Progress, Paris.
36. Talberth, J., Cobb, C., Slattery, N., 2007. The Genuine Progress Indicator 2006, Redefining Progress. Oakland (CA).
37. United Nations Development Programme, 1990. Human Development Report 1990. Oxford University Press, New York.
38. Van der Ploeg, J.D., van Broekhuizen, R., Brunori, R., Sonnino, R., Knickel, K., Tisenkopfs, T., Oostindie, H., 2008. Towards a Framework for Understanding Regional Rural Development, in: van der Ploeg, J.D., Marsden, T. (Eds.), *Unfolding Webs: The Dynamics of Regional Rural Development*. Royal Van Gorcum, Assen (NL), pp. 1–28.
39. Weber, R.P., 1990. Basic Content Analysis, 2nd ed, SAGE University Papers Serie on Quantitative Applications in the Social Science. SAGE, Newberry Park CA.

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Contribution d

Rethinking rural prosperity: a discussion of empirical data derived in six countries with the "Working with People" approach

Title	Authors	Type of Contribution	Published/ Presented	Quality Criteria
Rethinking rural prosperity: a discussion of empirical data derived in six countries with the "Working with People" approach	Ignacio de los Rios; Maria Rivera ; Karlheinz Knickel; Amit Ashkenazy; David Qvist Pears; Tzruya Chebach; Sandra Šūmane	Oral presentation in an International Conference (2015) and indexed publication (2015)	Presented at: The XXVI European Society for Rural Sociology Congress. Places of Possibility? Rural Societies in a Neoliberal World. (Aberdeen) Published in: Proceedings of the XXVI Congress. ISBN 978-0-902701-14-4	International conference with blind peer-review

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The XXVI European Society for Rural Sociology Congress
Places of Possibility? Rural Societies in a Neoliberal World
 18-21 August 2015, Aberdeen Scotland

XXVI European Society for Rural Sociology Congress 2015

ABSTRACT SUBMISSION

Title: Rethinking rural prosperity: a discussion of empirical data derived in six countries with the "Working with People" approach

Abstract No. 0262

Title Rethinking rural prosperity: a discussion of empirical data derived in six countries with the "Working with People" approach

Abstract

Changes at farm-level cannot be considered independently from the organisation of (global) food chains or from the prosperity of rural areas in which they are embedded. Rather they are inherently linked to the underlying logic of agro-economic and food systems. Technical 'solutions' often only alleviate the symptoms and ignore wider ramifications. In this paper we argue that decisions in both, the private and public sector need to go further and pay attention to the dynamics of processes and interactions. Different understandings of rural prosperity, related parameters and strategies are discussed. The discussion incorporates key elements of participatory planning and social learning as well as a range of rural development models. In the analysis we will examine different farming systems, with their management and development strategies and how they relate to rural prosperity. The methodological approach applied is the "Working with People" model that aims at connecting knowledge (formal and informal) with actions (strategies and entrepreneurial projects). The basis are major case studies from six countries (Spain, Italy, Lithuania, Latvia, Israel, Germany) with data from interviews with key actors and stakeholders, focus groups and data on indicators of rural prosperity and well-being. One key question is how the links between the different dimensions of prosperity are conceptualized in the different case studies and how this expresses different ideas and strategies about 'development'. The methodological process integrates and synthesizes information and knowledge around three components - ethical-social, technical and political-business context.

Permission Yes

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Categories 17 Promoting and sustaining rural wellbeing in a Neoliberal world: methods, case studies and critiques

Presentation Oral

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Rethinking rural prosperity: a discussion of empirical data derived in seven countries with the "Working with People" approach

I. De los Rios¹; M. Rivera¹; K. Knickel⁴; T. Chebach³; D. Qvist⁵; A. Ashkenazy³; S. Šūmane²

Abstract – Farm level changes tend to be connected with alterations in markets (and food chains) on the one side, and with the prosperity of the rural areas in which they are embedded on the other. They are inherently linked to the underlying logics of agro-economic and food systems. Technical 'solutions' often only alleviate the symptoms and ignore wider ramifications. In this paper, we argue that decisions in both, the private and public sector need to pay attention to the systemic nature, and dynamics, of processes, interactions and impacts. The main focus is on rural prosperity, the different ways of understanding the concept and the related parameters and strategies. The discussion incorporates key elements of social learning as well as a range of rural development models. In the analysis, we will examine different farming systems through the "Working with People" model. The basis for the analysis are major case studies from six countries with data from interviews with key actors and stakeholders, focus groups and data on indicators of rural prosperity and wellbeing.

INTRODUCTION

The term prosperity has in the past mainly been associated with economic aspects. Kasser *et al.* (2007) defined prosperity as the capacity to generate economic growth through consumption. This economic interpretation of prosperity has been influenced by the ideal of indefinite progress (Friedman, 1987) based on the belief of the unlimited availability of natural resources and the promotion of consumption in modern societies. Since the 1970s, a reformulation of relevant concepts was initiated and alternative definitions and measurement techniques for progress were developed (Jackson, 2009; Stiglitz *et al.*, 2009). Today there is considerable consensus that growth in output does not accurately represent the growth in human welfare. The use of GDP as a key indicator of prosperity fails in particular to account for non-market services, negative externalities and changes in the asset base (Stiglitz *et al.*, 2009).

Other analysts argue that factors such as social cohesion and engagement, as well as community and family networks need to be considered. An overarching idea is that society should search for models where people can thrive, find well-being and live in ecologically sustainable ways. Kasser (2007) and Jackson (2009) argue that this vision of prosperity is much more complete than the materialistic interpretation used so far. Daly (2008) argues that society needs to aim at qualitative development instead of quantitative growth. Van der

Ploeg *et al.* (2008) translate these views to the rural world pointing out that quality of life is closely linked with a social life characterized by networks, shared norms and expectations that promote interactions and create a "sense of belonging". Understanding prosperity in this new way implies a recognition that economic growth at regional level and economic efficiency at farm-level are only to a limited extent signs of prosperous rural areas. We argue that if economic efficiency does not remain the predominant criteria any more, we need to revisit the merits of large specialized farms who may no longer be the unquestioned ideal. Smaller and mix farms can in many regions be linked with valued cultural landscapes, based on smaller field sizes and mosaic-like field structures, as well as with lower farming intensities and the use of more traditional environment-friendly farming systems (Shucksmith and Rønningen, 2011; Knickel, 2001). The aim of this paper is to examine the linkages between farming, rural prosperity and well-being in different countries and contexts (Spain, Italy, Lithuania, Latvia, Israel, Germany and Denmark). We will examine how different management and development strategies relate to new concepts of rural prosperity and well-being. Two key questions addressed are how the links between the different dimensions of prosperity are actually conceptualized among stakeholders, and how this expresses different ideas and strategies about rural development.

METHODOLOGY

We base our paper on seven agro-economic, farming and rural systems case studies carried out in the international RETHINK research programme: The cases included small-scale farms from Latvia, Lithuania and Denmark, Italian pork breeders, organic farmers from Spain, hi-tech vegetable producers from Israel, and renewable energy producing German farmers. In the case studies we used the "Working with People" (WWP) model as a common analytical framework for framing three main prosperity dimensions: ethical-social, technical-entrepreneurial and political-contextual. The WWP model integrates the knowledge and experience of the population with expert knowledge (Cazorla, 2013). Empirical data was gathered through 11 focus groups and 205 semi-structured interviews as well as secondary data from surveys and official records.

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RESULTS

In the following, we will briefly point to some key results structured into the three WWP dimensions.

Technical-Entrepreneurial dimension

Farmers follow very different strategies in order to increase prosperity: 1) Diversifying the range of goods and services. An example of this is the Spanish case study, where farmers produce through organic and biodynamic means and commercialise online using medium and long chains. Another example is Israel, where certain farmers have started to establish tourism services on their farms. 2) Quality of goods and services is also crucial according to farmers. In the Italian case, not providing quality ham would mean a downfall in international level competitiveness as well as reduction in value-added. 3) Ensuring the profitability of the farm through a careful selection of products and services. 4) Having a coherent vision and business strategy, which means, among Lithuanian farmers, continuous knowledge and learning, and more specifically, knowing your objectives and the most effective means to reach them.

Ethical-Social dimension

Key elements are the following: 1) Being able to overcome conflicts and crisis, both at personal and business levels. 2) Having autonomy in decision-making; farmers who are more autonomous are also more flexible and faster in their reactions, for example in the context of constantly changing market opportunities. 3) Trust enhances cooperativeness, community-building and respect. An example is the Spanish case where the cooperative is built on trust, and where without it, it would not exist. 4) Having an open attitude towards cooperation. Latvia highlights this as a very important factor for many small farmers, especially for those who are not deeply embedded in the value chain and who aim at keeping marketing diversity under their own control. To trust one each other, and build and maintain cooperative relationships is considered important for prosperity as it can in turn improve governance structures and leadership.

Political-Contextual dimension

There are both positive and negative impacts of public policies according to farmers. However, the positive ones do not coincide much between countries, while negative ones tend to be similar. Farmers from all countries seemed to agree on the fact that EU policies are favourable for the farming sector. The reasons range from supporting young entrepreneurs to increasing human capital, enhancing community building as well as establishing common product standards. The bureaucratic nature of many support schemes tends to be commonly perceived as a negative consequence (aspect?) of policies that is slowing down processes, limiting freedom and autonomy, and causing ineffectiveness. Most farmers in all case studies also agree on the fact that administrative rules for support schemes are rigid and complicated, maintain unprofitable activities, limit autonomy, and in some cases even impair competitiveness. Most farmers also feel that the

public-private dialogue is ineffective and that the real needs of farmers are hardly ever addressed. Farmers criticize that policies still follow traditional modernisation pathways and productivity, rather than innovative ways towards prosperity.

CONCLUSIONS

Quality of life, education, social capital, adaptive capacity and the environment need to play a larger role in the general definition of rural prosperity and progress. Rural prosperity as a separate concept from national prosperity has not been dealt with sufficiently yet. It is therefore important to know which elements seem important at farm level in order to better define the concept. Policies and the public system exert great influence on the prosperity of farms and should be further developed. Technical solutions often only alleviate the symptoms and ignore wider ramifications within agro-economic, food and rural systems. It seems particularly important to value social and contextualized developments that pursue more holistic strategies for improving prosperity in rural areas. Further analyses will focus on: What social capital elements seem truly relevant for rural prosperity and why? What is the role of small farms in changing the focus from economic efficiency to effectiveness and well-being? What can we learn from stakeholder's perceptions of prosperity?

REFERENCES

- Cazorla, A. De los Ríos, I. Salvo, M. (2013) Working With People (WWP) in Rural Development Projects: a Proposal from Social Learning. *Cuadernos de Desarrollo Rural* 10 (70): 131-157
- Daly, H. (2008). A Steady-State Economy: A Failed Growth Economy and a Steady-State Economy are not the same thing. Sustainable Development Commission, London
- Friedmann, J. (1987). Planning in the public domain: from knowledge to action. New Jersey: Princeton University Press
- Jackson, T. (2009). Prosperity without growth: economics for a Finite Planet. Earthscan, London
- Kasser, T. et al. (2007). Some Costs of American Corporate Capitalism: A Psychological Exploration of Value and Goal Conflicts. *Psychological Inquiry*, 1-22
- Knickel, K. (2001) The marketing of Rhöngold milk: An example of the reconfiguration of natural relations with agricultural production and consumption. *Journal of Environmental Policy and Planning*, 3 (2), 123-136
- Shucksmith, M. and K. Rønningen (2011). The Uplands after neoliberalism? The role of the small farm in rural sustainability. *Journal of Rural Studies*, 27: 275-287
- Stiglitz, J., Sen, A., Fitoussi, J.-P., 2009. The Measurement of Economic Performance and Social

Contribution e

“Towards resilient agricultural and food systems and sustainable rural development. The policies needed to promote the required systemic changes”

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Towards resilient agricultural and food systems and sustainable rural development. The policies needed to promote the required systemic changes. Journal of Rural Studies	Knickel, K., Redman, M., Darnhofer, I., Ashkenazy, A., Calvão Chebach, T., Šūmane, S., Tisenkopfs, T., Zemeckis, R., Atkočiūnienė, V., Rivera, M. , Strauss, A., Søderkvist Kristensen, L., Schiller, S., Koopmans M.E., Rogge, E.	Scientific Paper	Under review: Journal of Rural Studies	JCR: Q1 SJR: Q1

Related to chapter 1

Towards resilient agricultural and food systems and sustainable rural development. The policies needed to promote the required systemic changes

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Abstract

In the face of the environmental impact of intensive farming systems, turbulent global markets, climate change, and increasing societal demands for the provision of public

goods, it is becoming increasingly clear that a systemic change in agricultural and food systems is needed. We draw on evidence from case studies in 14 countries to explore the changes in policy frameworks that are needed. The insights can be grouped into four main areas. First, it is very difficult for farmers restructure or grow their farms fast enough to cope with the reduction and volatility of producer prices on global markets. It is almost impossible to do this whilst using more environmentally sustainable practices. Public funding needs to explicitly support resource-efficient, resilient, low-carbon solutions, based on assessments of farm performance that extend beyond economic performance. Policies need to acknowledge the effectiveness of different scales, types and styles of farming in addressing wider societal demands. Second, the concentration of production in some regions or some farms is directly linked to the marginalisation of others. Public funding needs to provide more support (financial and otherwise) to the very large number of small farms in Europe, enabling them to remain or engage in trajectories that are resilient, balanced, equitable and inclusive. The current one-sided emphasis on economic performance, competitiveness and growth is counterproductive as it further disadvantages the most marginalised. Third, there is much to be learned from local farmer-driven innovations. Farmers focus on efficiently using the resources available to them and build on location-specific experiential knowledge. Yet, their initiatives and this knowledge are not sufficiently respected by agricultural (knowledge) institutions. Policies need to enable networks that facilitate inclusive modes of knowledge generation, integration and sharing. And fourthly, informal networks can balance different interests and approaches, which is essential for integrated rural development strategies and projects. This requires strengthening the capacity of local government agencies and stakeholders to adapt and transform. Overall, the 14 case studies show that grassroots initiatives and pilot programmes are already generating a wealth of experiences and knowledge which could be fruitfully used to inform higher-level policy development.

Highlights

- Much can be learned about resilient agricultural and food systems and sustainable rural development from grassroots initiatives, farmer-driven innovations and alternative practices.
- There are very good reasons for the great diversity that is to be found in agricultural practices, food systems and trajectories of rural development: farm modernisation - and progress - can follow very different pathways.
- There is particular value in the experimentations and informal experiential knowledge of farmers and other rural actors and in informal governance arrangements that are driven by farmers and other rural actors
- Policy and agricultural (knowledge) institutions, particularly at the national and regional levels, need to become more open-minded, appreciative and supportive of alternative and endogenous strategies. The most recent EU-level policy and research frameworks for agriculture, agricultural research and rural development can be seen as a major step forwards in this respect.

Keywords: policy, governance, agriculture, food, rural, innovation, transformation, resilience, sustainability

Background and approach

The need for systemic change

The last decades have seen profound structural changes in European agriculture, food systems and rural areas. In large parts of Europe agricultural production has become specialised and very capital-intensive, and food processing and retailing have grown exponentially in scale (EEA, 2010; European Commission, 2011). These changes have contributed to an abundant supply of cheap food for European consumers, and have supported the development of non-agricultural sectors by releasing labour resources and creating a steady demand for machinery, production inputs and services.

However, these structural changes also mean that contemporary food production is now largely decoupled from natural processes and much more dependent on industrially produced inputs and fossil fuels. The negative social and environmental outcomes of these developments have been widely analysed and documented (IAASTD, 2009; EEA 2010, 2013; OECD, 2012). The risks associated with intensive farming systems, including their path-dependency and limited buffering capacities are increasingly becoming apparent. Examples include the collapse of cereal production due to drought in regions accustomed to low but relatively stable rainfall levels; the nutrient surpluses and the related eutrophication of ecosystems and groundwater bodies in regions with a high concentration of intensive indoor livestock production; and the current economic problems in capital-intensive dairy farming (EEA, 2010, 2013; European Commission, 2011).

The intensification of production and the growth of output is largely confined to some specific areas. Other areas, generally with less favourable production conditions and/or more distant from markets, are being marginalised as a result of this (IAASTD, 2009; Knickel *et al.*, 2013). The concentration of agricultural production and the increasing polarisation of agricultural structures has led to significant changes in the economic structure, demography and social make-up of rural areas (European Commission, 2010a; 2011).

There is a large risk is that the very substantial public and private sector investments currently going into building a low-carbon ‘bioeconomy’ will further aggravate these problems, as this will reinforce the agricultural sector’s focus on producing cheap raw materials. Policy makers should do their utmost to steer developments in *desirable* directions (European Commission, 2015; Knickel *et al.*, 2013; Horlings and Marsden, 2014; Peter and Knickel, 2016; IPES-Food, 2016).

In this context, the term ‘resilience’ has become central in both academic discourse and policy agendas (Calvão Chebach *et al.*, 2016). Holling’s (1973) seminal contribution highlighted the importance of resilience, defining it as the ability “*to manage or cope with change*”. Resilience resides at a number of different levels: the individual farm, the community and the region. The RETHINK project places a great deal of emphasis on rural resilience, and the relations between these three levels. The project has set out to investigate how farms, communities and rural regions perceive and respond to the systemic challenges they are facing. Through 14 case studies, the project has investigated the strategies deployed by farmers and other rural actors in their efforts to maintain their quality of life and ensure continuity, not least through adapting and transforming in response to new challenges, opportunities and broader societal changes. Our analysis is strongly influenced by works such as ‘Prosperity without Growth: Economics for a Finite Planet’ by Tim Jackson (2009), ‘The Measurement of Economic Performance and Social Progress Revisited’ by Joseph Stiglitz *et al.* (2009), and the

OECD's (2012) 'Environmental Outlook to 2050: The Consequences of Inaction'. We also draw on the extensive literature compiled by the European Commission (2010a; 2010b, 2011, 2015, 2016), the European Environment Agency (EEA 2010, 2013, 2015), the Forum for the Future of Agriculture (FFA, 2016), Cooper *et al.* (2010), IAASTD (2009), Potočník (2015) and others that provides detailed analyses of the enormous structural changes that have occurred in the European and global agricultural and food sectors in recent decades and the changes that need to be made to meet the joint challenges of feeding the world whilst significantly lowering agriculture's environmental impact.

The RETHINK project explored how policy, research and practice can address these challenges and what more integrated, sustainable and resilient farms, food systems and rural areas might look like. The project set out to explore possible ways in which European agriculture might develop at a time when it needs to respond to increasing scarcity and distributional issues and face up to deep uncertainty over future developments, especially those related to climate change and global markets. More specifically the project explored how to shape the relationships between rural areas and agriculture in a way that strengthens resilience and increases rural prosperity. This seems to imply moving beyond competition, competitiveness and cost reduction. But how? Another key issue is the role that different knowledge bases and social learning can play in shaping the required systemic changes. Can collaboration between public authorities, farmers, researchers, extension services and market actors support a more balanced development? Equally we explored the role and potential of multi-actor partnerships and cooperative approaches and how local policy-makers and practitioners can connect the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-AGRI) and LEADER in mutually beneficial ways?

Our findings to these questions are presented in a set of papers that explore four cross-cutting themes: the resilience of farms and of rural areas (Calvão Chebach *et al.*, 2016; De Roest *et al.*, 2016), prosperity and well-being (Rivera *et al.*, 2016a; 2016b), the role of knowledge in driving the systemic changes that are needed (Šūmane *et al.*, 2016) and the governance structures and practices needed to harmonise agricultural modernisation and rural development (Koopmans *et al.*, 2016). The aim of this concluding paper is to summarise and synthesise the key findings from each theme, and to identify the strategic frameworks and types of policies needed to induce the required systemic changes. The paper relates the project's findings to the 'Europe 2020' strategy⁵, the Rural Development Regulation (RDR)⁶, the further development of the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-AGRI)⁷ and the first discussions about the strategic agenda and direction of the next CAP (2021-2027). The concluding section relates the challenges ahead to the UN's new 2030 Agenda for Sustainable Development (UN, 2015).

Research approach and empirical foundations

The aim of the RETHINK project has been to identify and better understand the conflicting goals and potential synergies facing rural areas, while explicitly recognising

⁵ Communication from the Commission - Europe 2020 – A strategy for smart, sustainable and inclusive growth. COM 2010 (2020)

⁶ Regulation (EU) No 1305/2013 of the European Parliament and of the Council of 17 December 2013 and Council Regulation (EC) No 1698/2005

⁷ European Innovation Partnership 'Agricultural Productivity and Sustainability'. COM(2012) 79 final

the complexity of the challenges and the diversity of different rural localities. To this end, the research used a systems perspective to explore interdependencies and to understand the interrelated dynamics of change (Darnhofer *et al.*, 2014a; 2014b). Fourteen substantial case studies (**Table 1**), one in each country were used to explore the connections between farm modernisation, rural development and the resilience of agricultural and rural systems.⁸ These case studies provided empirical data about how practitioners are reshaping their working practices and interrelations with the land, the markets and society at large in order to achieve a way of farming that works better for them. Each case study highlighted particular strategies and potential synergies between farm modernisation and the prosperity and resilience of rural people. This paper is based on the insights obtained from the case studies, a comparative analysis of case studies, and on the policy-oriented discussions that took place at the final project conference.

Table 1: Overview of the 14 case studies

Case study (country)	Summary of the case studies and key issues raised
Organic farming and resilience (Austria)	The case study focused around Salzburg, where 49% of the agricultural area is certified organic. Farmers here couple the selective use of technology with traditional knowledge, in order to meet societal and consumer demands. They focus on economies of scope, niche markets and identifying new business models that allow them to link up with other rural stakeholders (Darnhofer and Strauss, 2015).
New forms of governance in landscape development (Belgium)	The case study focused on a landscape fund, which was established in the canal zone of Ghent. This alternative financing strategy for landscape development involves new forms of cooperation between different rural actors, farmers, the municipality and local residents. The case study also examines the role of the fund in revalorising multifunctional agriculture, increasing the resilience of local farming systems and improving urban-rural relations (Koopmans <i>et al.</i> , 2015).
Suburban food production systems in the Swiss agglomeration of Bern (Switzerland)	The case study examined local agricultural initiatives in the agglomeration of Bern. The growing number and diversity of initiatives reflects the municipality's and local residents wish to strengthen the sustainability of agricultural and food systems. The case study explores the economic and social links between farmers and local residents through local food markets (Bourdin <i>et al.</i> , 2015).
Opportunities for creating an eco-economy: Lessons learned from two pilot schemes (Germany)	The case study focuses on the role that rural areas and agriculture can play in the transition towards a low-carbon, resource-efficient economy. It examined cross-sectoral management, new territorial-level arrangements, new forms of governance and the valorisation of different kinds of knowledge. The analysis compares the key features of an eco-economy with those of a bio-economy (Peter <i>et al.</i> , 2015).
Landscape strategy and agriculture (Denmark)	The case study focuses on the rural landscape as the spatial framework for agricultural and rural development. It explores how collaborative strategies can contribute to the design of agricultural landscapes that are more attractive and provide more services and how these landscapes can contribute to rural development. It provides insights into how new governance structures can enhance ecological landscape services and social cohesion (Pears <i>et al.</i> , 2015).

⁸ Detailed information on all 14 case studies, including the complete case study reports, is available on the RETHINK project website: <http://www.rethink-net.eu/case-studies.html>

Case study (country)	Summary of the case studies and key issues raised
Innovation and social learning in organic vegetable production in the Region of Murcia (Spain)	The case study analyses the evolution of the Camposeven cooperative. The cooperative emphasises the use of sustainable horticultural techniques, ways of working together that are based on trust and transparency, prioritising quality over quantity and using a diverse range of marketing channels. The case study shows that governance, knowledge and learning were the main factors contributing to increased prosperity and resilience (De los Ríos <i>et al.</i> , 2015).
Transitions towards ecological production (France)	The case study includes a sociological analysis of the greening of the agri-food system in the Drôme Valley ('Biovallée') and an economic analysis of new market mechanisms that support the continuous improvement of agricultural practices. The systemic analysis covers the role of the different actors in the agri-food system, the social learning processes and the forms of territorial governance (Lamine <i>et al.</i> , 2015).
Farmers adopting a new nutrient management technology (Ireland)	The case study focuses on livestock farmers participating in the Irish Agricultural Catchments Programme. In a context of a policy promoting export growth for global markets, it analyses the role of innovation in the sustainable intensification of grass-based production and, more specifically, the adoption of a new nutrient management technology (Buckley and Shortle, 2015).
Rural innovation as a response to global fluctuation: The Arava region case study (Israel)	The case study focuses on the Arava region, which is currently undergoing a major crisis that is pushing stakeholders to reconsider some of their long-standing perceptions and motivations regarding the region, their sources of income and their own roles. The analyses examine the new directions for agricultural and rural innovation that individual farmers and regional institutions have begun developing and explores how a, once, highly successful farming community has had to reassess the resources available to it and the process of selecting new options to pursue (Hurwitz <i>et al.</i> , 2015).
Extensive pig production systems (Italy)	The case study analyses an outdoor pig farming system in Tuscany, which is based on a local pig breed, the <i>Cinta Senese</i> . The newly established high value-added food chain combines traditional artisanal methods with contemporary management and modern technologies and marketing. The products add to the region's gastronomic richness, and are a source of local prestige and pride (De Roest and Ferrari, 2015).
Resilient farming systems and market differentiation: Challenges and opportunities in farmers' markets (Lithuania)	The case study focuses on how farmers, local inhabitants and consumers strive to maintain local added-value in the food sector, especially through farmers' markets. The case study explores consumer preferences together with farmers' attitudes and changing behaviour. The analysis identifies the issues that key actors associate with farm modernisation, as well as bottlenecks (Atkočiūnienė <i>et al.</i> , 2015).
Small farms' development strategies (Latvia)	The case study focuses on Tukums, a centre of fruit growing. The analysis focuses on how modernisation influences the resilience of farming systems and the prosperity of farmers and the region. It identifies organisational innovations and initiatives that have been put in place to try to reshape the local agricultural and food markets. It identifies diverse practices of market, territorial, social and political involvement that ensure farm development while at the same time contributing to viable and sustainable rural communities (Šūmane <i>et al.</i> , 2015).
Peri-urban agricultural transformations in Gothenburg (Sweden)	The case study explores development trends in landscapes between 1990 and 2020, in a peri-urban area around Gothenburg and a rural grain farming region (Östergötland). The study focuses on the influence of incentives and regulations on changes in land use, and pays special attention to the sustainability of the landscape and the ecosystem services produced by different types of land use (Olsson <i>et al.</i> , 2015).

Case study (country)	Summary of the case studies and key issues raised
Resilience and competitiveness of small ruminant farms in Isparta (Turkey)	The case study focuses on the Isparta province, famous for fruit and oil rose cultivation, as well as its sheep and goats. The analysis identifies the role that farmer organisations (cooperatives, producers' unions, and breeders' unions) and innovations play in the competitiveness and resilience of local farming systems (Giray <i>et al.</i> , 2015).

The resilience of farms and rural areas

The challenges ahead and the European response

Resilience is generally understood as the capacity of social, economic and environmental systems to cope with change, both foreseeable trends and unexpected events or disturbances, by responding and reorganising in ways that maintain identity and essential functions – in our case of agriculture, food systems and rural areas. Calvão Chebach *et al.* (2016) arrive at two fundamental questions when concluding their comparative analysis on rural resilience and its relation to grassroots initiatives and policy strategies: *“What is rural resilience, and what precisely do we actually want to preserve? Does the resilience of farm households equal rural resilience equal societal resilience?”* One argument that one can draw out of this is that resilience strategies developed by one group or at one level might have negative implications for another group or level or for society as a whole. Calvão Chebach *et al.* (2016) continue: *“While identifying these strategies is crucial as evidence and inspiration to what is possible, these potential trade-offs further emphasise that resilience should not be perceived as an objective but rather a means to achieve livelihoods and wellbeing and that trade-offs within a broader context must be considered when policy decisions are to be made.”* The questions raised by Calvão Chebach *et al.* (2016) provide a good starting point for discussing the resilience of farms and of rural areas, and the role of agricultural and rural policy.

Resilience has recently been referred to, indirectly and directly, in a number of policy papers although often with little clarity about its meaning. The ‘Europe 2020’ strategy seeks to *“promote a more resource efficient, greener and more competitive economy”*. The Common Agricultural Policy (CAP) speaks of maintaining *“a competitive and dynamic agricultural sector which attracts young farmers in order to preserve the vitality and potential of rural Europe”* (European Commission, 2010). Article 3 of the 2014-2020 RDR refers to the *“development of an EU agricultural sector that is more territorially and environmentally balanced, climate-friendly, resilient, competitive and innovative”*. Priority 5 refers to a *“shift towards a low carbon and climate resilient economy”*.

In light of these objectives, European agriculture is expected to maintain and increase production, while also reducing its negative environmental impacts, increasing its resource-use efficiency and making positive contributions towards climate stability, biodiversity, landscape quality and resilience to weather extremes. Priority 6 of the RDR adds an important additional dimension, as it refers *“to promoting social inclusion, poverty reduction in, and the economic development of, rural areas”* (Art. 5 (6), Art. 20) (European Parliament/Council (2013).

Rural resilience: key findings from the case studies

In their comparative analysis, Calvão Chebach *et al.* (2016) identify multiple individual and collective strategies being deployed by farmers, rural residents and those in leadership positions, to try to ensure their resilience. They emphasise that most of those strategies reflect the need to create a sufficient (or desired) level of income, both at household and regional level. This satisficing behaviour is in contrast to conventional economic thinking, which emphasises growth and income maximisation. Also in contrast with the, often narrow, scope of conventional economic thinking, farmers and rural regions apply a wide range of strategies. For example, farmers in the Baltic States responded to the 2008 economic crisis by finding new markets to sell their agricultural produce. Such a strategy can enhance farmers' and even regional autonomy, and overcome previous limitations and economic boundaries. A focus on new markets and different consumer groups can also lead to improvements in product and process quality, as shown in the case of organic farming in Austria. It can also induce the adoption of more progressive standards, as was the case with environmental standards in Israel. Farmers carefully weigh the trade-offs. For example, while investing in technology to increase efficiency can increase farm revenue, it can also create debt. This debt may become hard to service if markets and economic circumstances change, and often puts a heavy emotional burden on farm families. Thus, one way of strengthening farm resilience is to limit borrowing and choose a modest technological upgrade, to give priority to local as opposed to extra-regional or export markets, and strive to maintain their autonomy, as was the case in Turkey, Lithuania and, to a lesser extent, Latvia. Other goals include reducing risk (Latvia), being less dependent on energy-intensive technology or simply increasing added-value by applying artisanal methods as in the Italian case.

Already these first few examples illustrate a variety of farm trajectories, which reflect the diversity of contexts, divergent goals, and a complex balancing of adaptation and maintenance. Strategies are much more differentiated than the standard 'scale enlargement – specialisation – rationalisation' model. The diverse motives driving strategies ranged from improving competitiveness in global markets (in the Irish and Israeli case studies), maintaining autonomy (in the Latvian, Lithuanian and Austrian case studies), to paying increasing attention to quality of life and the provision of public goods and ecosystem services (the Belgian, Danish, and Swedish case studies). The active positioning of farming in the newly evolving bio-economy was the predominant feature in the German case study, and an increased engagement in higher value product chains and organic markets were the strategies adopted in the Austrian, French, Spanish and Italian case studies.

Calvão Chebach *et al.* (2016) found that redesigning supply chains is one commonly chosen strategy for enhancing resilience. Alternative supply chains decrease dependency on retailers, attract more value added along the chain as a whole, which is a more evenly shared along the chain, and foster cooperation between chain partners. Such adjustments are far easier today, as information technology and the internet allow farmers to engage directly with consumers. In Switzerland, there are many examples of this strategy, which increase transparency and build consumer trust in local brands and produce (Bourdin *et al.*, 2015). The case study in Switzerland also reveals that resilience at the regional level can be enhanced as well by establishing new forms of cooperation with large players. The organic milk industry strengthened its ties with national retailers, enabling retailers to buffer against shocks within their conventional chains.

Strengthening ties with neighbouring cities is another strategy for achieving greater resilience. While cities may be seen as competing with their periurban and rural surroundings, they are also an important hub of activity. Rural residents can find off-farm jobs in cities and sell their produce there, while urban residents may embark on visits to farms or the countryside, creating new revenue streams for farm families (Olsson *et al.*, 2015, Pears *et al.*, 2016). Creating farmers' markets and designing activities that attract urban residents to rural areas plays an important role in farmers' strategies to strengthen rural resilience in Latvia and Lithuania.

Rural resilience is also strengthened through new forms of cooperation (Koopmans *et al.*, 2016). In addition to producer organisations, which can lower costs and create new possibilities for a 'sharing economy', rural residents are coming together in efforts to protect key landscape elements and enhance a region's natural capital. Examples include the Danish case study, where a new multi-stakeholder group was established to enhance a local stream system and the surrounding landscape, and the Belgian case study, where farmers were encouraged to plant trees after joint deliberations between them farmers and non-farmers.

In a number of case studies, farmers adopted several strategies simultaneously to ensure their resilience, but implemented them at different paces and adapted them towards a range of economic, environmental and/or social objectives. The resulting differences in trajectories and goals reflect differences in preferences, structures, resource endowments and societal demands. The diversity of farm household strategies is related to a farm's degree of integration in agricultural and non-agricultural markets, the integration of different sources of income for the farm household, the degree of specialisation and the combination of marketing strategies used (confirming earlier findings from Van der Ploeg, 1994, and Knickel *et al.*, 2011a).

At the regional level, some case-study regions were dominated by family farms whose main concerns were with making environmental improvements and improving their economic viability and quality of life. In others, farms predominantly focused on 'old-style' modernisation, i.e. specialisation and scale increase, leading to ever-more investments in machinery and increased automation. Yet, in most case study areas regional resilience might well be strengthened by a dynamic mix of different farm types and strategies. Diversity can strengthen resilience, can be viewed as a mixture of the capacity to conserve existing functions and structures (persistence), the capacity to deal with uncertainty through re-organisation and learning (adaptability), and the capacity to create a wholly new trajectory that involves a change in the very nature of the system (transformation) (Darnhofer *et al.*, 2014a; 2014b).

In their synthesis of the case studies, Calvão Chebach *et al.* (2016) add an important dimension when they argue that strengthening resilience necessarily involves making explicit the values that motivate people to want to 'maintain' a system. This core motivation might be to safeguard local knowledge and traditions, to conserve landscapes which society holds dear, to ensure the livelihoods of rural populations, to protect the ecosystems in which rural communities live, or a combination of these. That conflicting goals can be resolved and that strategies are more likely to succeed through a concerted effort, co-ordinated by formal and/or informal networks was shown by Koopmans *et al.* (2016).

Building resilience in rural regions where agriculture still is a central economic activity requires an understanding of the synergies or contradictions created by agricultural support schemes and regional development strategies (Calvão Chebach *et al.*, 2016). Decision-makers therefore need to ask how one community's strategy to increase its resilience might affect the resilience of other groups in the region or elsewhere.

Policies and market mechanisms that can strengthen rural resilience

Farm and regional-level adaptations and transformations, and thus resilience, can be encouraged or constrained by many factors. These include the character and capacity of individual farm managers, their interactions with other stakeholders and the access they have to (multiple sources of) agricultural knowledge and support for innovation. Other influencing factors include access to resources such as land, labour and capital, and the farmer's ability to reconfigure these through creative thinking and (joint) problem solving, interactive innovation, and adopting new practices. Policies and market mechanisms shape many of these factors, sometimes in advantageous ways, and other times in unfavourable ways. Generally, policy development does not assess these effects systemically nor does it include a proper consideration of the effect of market mechanisms and power relations.

Calvão Chebach *et al.* (2016) stress that support from government can play a key role in both regional and farm-based efforts to strengthen resilience, and that this support can take many forms, e.g. direct financial transfers, allocation of land and water, support for collective initiatives, or permits for migrant labour. While it is preferable if the support from government promotes resilience of a region in an integrated fashion, several case studies revealed that support is more usually offered on a farm-by-farm basis, without a clear regional vision and strategy.

One consequence of this farm-level focus is that any distributional effects that may arise from say, supporting larger farms tend to be overlooked. Support for agricultural investment is often not accessible to small farms or for strategies that are not 'mainstream' (Dwyer *et al.*, 2012; Davidova *et al.*, 2013). It is also rarely available for open-ended projects that are surrounded by uncertainties, for innovative ideas that cannot be expressed in a conventional business plan, for social innovations that do not involve investments in buildings or machinery, or for farms that want to avoid going into debt. Similarly, the direct payments that do exist – e.g. for organic farming – are rarely justified for their systemic effects, such as environmental benefits, higher value-added, employment generation, or a higher level of resilience.

If systemic changes in agriculture are to occur the subsidies that prop up unsustainable practices, such as those for practices that are intensive in their use of fossil fuels need to be phased out. Yet here we face the fundamental problem that many societal and environmental costs associated with agriculture are externalised and that ecosystem services are considered to be 'free', thus providing an economic advantage to unsustainable practices. To create a level playing field, finite resources, such soil, water and biodiversity must have a realistic price, and the social and environmental costs and benefits need to be accounted for.

It is also important that agricultural and rural development strategies are based on a clear vision and **strategic perspective**. This **perspective** needs to encompass not only sustainability, but also the ability to adapt to global trends, such as climate change, the **globalisation of market relations, economic turbulence, social transformations and cultural shifts**. **Visioning processes need to become a formal requirement in RD programming processes. The 'Regional Action' and 'Bioenergy Regions' pilot schemes that form the basis of the German case study provide clear evidence of the value of such an approach (Peter *et al.*, 2015).**

Diversity enables cross-fertilisation and multifarious opportunities for cooperation. European and national policy frameworks should acknowledge the benefits of diverse **farm structures** and create a framework that enables different development pathways and farming styles. Support mechanisms need to recognise the particular and diverging needs of different farm sizes and types. Such policies would enable farmers to consider

approaches other than scale increase, the currently favoured ‘one-size-fits-all’ approach, and encourage them to implement strategies that correspond better to their specific strengths, that can flexibly be adapted to changes in societal expectations.

The challenge of prosperity and well-being

The concentration of production and wealth contradicts EU objectives

Two of the main overall objectives of EU policy are to foster social cohesion and prosperity and promote well-being among all European citizens. The European Commission’s strategy document ‘Europe 2020: a European strategy for smart, sustainable and inclusive growth’ (European Commission 2010b) refers to the need “*to offer a sense of direction to our societies*”, to “*inclusive growth*”, the “*fostering [of] a high-employment economy*” delivering “*economic, social and territorial cohesion and solidarity*”, and “*respecting environment and cultural diversity*”.

The intensification of production and the concentration of production in some regions and on some farms completely contradicts these overarching goals and is highly divisive. Intensification in some regions can be directly linked with the marginalisation of other regions and farms and undermines social cohesion. It leads to environmental degradation, the problem of work-related pressure, stress and indebtedness. To try to be competitive through seeking ever-lower production costs exerts a continuous pressure on food quality and environmental standards and work conditions. Rivera *et al.* (2016a) argue that in the past, rural prosperity mainly stemmed from the economic benefits that originated from the modernisation of agriculture. However, they challenge the common assumption that agricultural rationalisation, scale enlargement, specialisation and mechanisation still contribute to higher farm incomes, rural prosperity and a better quality of life (Rivera *et al.*, 2016a). They argue that this logic simply does not hold true anymore, for several reasons. At the farm level increasing capital intensity is often associated with debt and (path) dependency, placing farm incomes under continuous economic pressure. From a societal perspective these structural changes and the modernisation of a few farms at the expense of others have not contributed to the prosperity of rural communities (at least in aggregate).

Considering these shortcomings in conventional trajectories, it is hard to understand why conventional agricultural support systems (i.e. Chambers of Agriculture, policies, market interventions, etc.) undervalue and largely ignore alternative and multifunctional approaches. This observation applies to all fourteen case studies.

Prosperity and well-being: key findings from the case studies

Rivera *et al.* (2016a) present an empirically grounded analysis on the question of prosperity and well-being based on in-depth case studies in seven countries (Spain, Italy, Lithuania, Latvia, Israel, Germany, Austria and Denmark). They discuss the linkages between farming, rural prosperity and well-being in these different countries and contexts.

These case studies show that farmers in similar conditions adopt farming strategies that differ in type and scale (a finding that is in line with work by Van der Ploeg in the early 1990s, see e.g. Van der Ploeg, 1994). Some of these strategies, and particularly those that are less mainstream, have a beneficial effect on both the farmer’s and the community’s prosperity, and improve farmers’ quality of life. Rivera *et al.* (2016a) interpret this as an expression of new ways of thinking about rural prosperity and well-

being. Small farms and particularly farms in less favourable areas seek more integration between the economic and social aspects of their activities than large farms, and are often engaged in promoting local trading systems that strengthen community bonds (Van der Ploeg *et al.*, 2002; Bryden *et al.*, 2011; Knickel *et al.*, 2013).

The data from the case studies, indicate that prosperity in rural contexts is increasingly understood as being multi-dimensional and that people seek to balance economic parameters with human, social and environmental well-being. For farm households, non-economic aspects such as their degree of autonomy, social recognition and social and environmental well-being all play a significant role in defining well-being (Rivera *et al.*, 2016a; 2016b). The case studies from the Baltic countries (Atkočiūnienė *et al.*, 2015; Šūmane *et al.*, 2015) and Austria (Darnhofer and Strauss, 2015) illustrate that farmers appreciate environmental integrity not just for the benefits it provides, but also take pride in the ecosystem and landscapes that they maintain. In the Spanish case study farmers appreciated the feeling of working on a common project where everyone participates and felt this made them more effective, innovative and motivated.

The benefits of community life were made explicit in all the case studies: German farmers see social inclusion not just as an intangible benefit, but also as a *modus operandi* (Peter *et al.*, 2015). Rivera *et al.* (2016a) conclude that rural areas should no longer be seen as exclusively, or even primarily, a place of production. They follow the line taken by Woods (2005), Bryden *et al.* (2011) and others, and stress that the countryside is (also) a place of consumption. Indications of this include an increased emphasis on environmental conservation, new urban-rural partnerships, residential decentralisation, and the provision of other non-production services and amenities in the countryside. These findings are in line with a vision of prosperity in which human beings flourish, seek social cohesion and improve their levels of well-being while in the ideal situation also reducing their material impact on the environment (Jackson, 2009; Stiglitz *et al.*, 2009).

How policy can foster prosperity and social cohesion

While economic aspects remain an important consideration, personal well-being, maintaining vibrant rural areas, fostering a sense of community, exchanging knowledge and caring for the environment are other key factors that stakeholders identified as contributing to the prosperity of rural areas.

The stimulation and active promotion of partnerships and cooperation through support schemes can contribute to prosperous rural areas, often more so than competition (Darnhofer and Strauss, 2015; De Roest and Ferrari, 2015). Many LEADER activities and the German Regional Action and Bio-energy Regions pilot schemes vividly illustrate this point (Peter *et al.*, 2016).

Trust is a key element for the creation of strong interpersonal relationships that in turn promote collaboration and cooperation (Pears *et al.*, 2015; Rivera *et al.*, 2016b). The importance of trust, partnerships and cooperation is often overlooked by public sector decision-makers. The existence of, sometimes huge, differences in access to resources, including support mechanisms, is another factor that is very detrimental and particularly worsens the situation of the most deprived rural groups, thereby increasing inequality within and between regions.

Rivera *et al.* (2016a) argue that, in order to promote these aspects of rural prosperity, there is a need for accommodating policies that aim to find a balance between the old and the new, research and development, innovations in management, and the promotion of cooperation and trust. Effective policies are those that can “*accommodate multiple*

visions, allowing space to experiment and to grow not only through one prescribed modernity, but also through a dynamic evolution”.

The role of knowledge in bringing about systemic change

Current European strategies towards agricultural knowledge and innovation

The current agricultural knowledge and innovation system, particularly national level agricultural institutions, including higher education, is deeply attached to the technologically-driven agricultural industrialisation model. The second SCAR Foresight report (EU SCAR, 2009) described the state of the *“remaining publicly funded”* knowledge and innovation institutions in Europe as *“unable to absorb and internalise the fundamental structural and systemic shifts that have occurred [...] locked into old paradigms based on linear approaches and conventional assumptions.”* The third SCAR Foresight report (EU SCAR 2012) stresses the necessity of making Europe’s agricultural knowledge systems *“more responsive in providing integrated answers that combine ecological and social concerns with economic aspects.”*

Since then EU level frameworks that support research and innovation have made considerable progress. One milestone in this respect has been the Strategic Working Group’s AKIS-3 report (EU SCAR, 2015) that introduced the interactive innovation model, emphasised the role of ICT and e-science in agriculture and heralded the role of the public sector as a *“coordinating agent in an increasingly pluralistic AKIS”*.

Article 14 of the RDR refers to a range of knowledge transfer and information actions, and Article 15 to advisory services, farm management and farm relief services.

However, the reference to *“farm modernisation, competitiveness building, sectoral integration, innovation and market orientation, as well as the promotion of entrepreneurship”* still says a lot about current priorities.

The ‘Europe 2020’ strategy identifies knowledge and innovation as drivers of future growth and development (European Commission, 2010b). The European Commission’s ‘CAP towards 2020’ strategy reflects this priority: emphasising that innovation is *“indispensable to preparing EU agriculture for the future”* (European Commission, 2010a). Article 53 of the RDR has established the EIP-AGRI, a new instrument that represents a major step forward. One key aim of EIP-AGRI is to close the gap between agricultural research and practical application.⁹

Knowledge and innovation: key findings from the case studies

The RETHINK case studies confirm that technological innovation cannot readily be separated from organisational or social changes at the farm, food-chain or community level. They also show that social and organisational innovations play a particularly vital role in renewal at farm level and within rural economies as a whole. When innovation takes into account social and environmental considerations it can advance economic development, social welfare and resilience and improve natural resource management.

Šūmane *et al.* (2016) emphasise that access to *appropriate* knowledge for innovation played an important role in all case studies. New pathways, whatever direction they run in, require a mix of new technical, organisational, marketing, management and other

⁹ European Innovation Partnership 'Agricultural Productivity and Sustainability', COM (2012) 79 final.

knowledge, as well as social skills. The systemic shifts, such as energy farming in the German case study, required that farmers receive training in new business skills, in this example in the development of value chains. However, existing agricultural knowledge institutions and networks do not pay equal attention to all knowledge needs: while they are good at providing technical knowledge, they have little competence in helping farmers looking to engage in social innovations or to establish and manage innovative supply chains (Hurwitz *et al.*, 2015; Bourdin *et al.*, 2015; Darnhofer and Strauss, 2015). Šūmane *et al.* (2016) also showed the pivotal role of farmers' knowledge in both their daily operations and when creating novel solutions or adopting their practices: farmers rely heavily on their own experiential knowledge and place a high value on exchanging experiences with other farmers. Local and informal knowledge is often more attuned to the values, needs and resources of farmers and rural communities. This informal knowledge, interactions, exchanges and learning form a foundation for developing practices that make best use of local natural and social resources and possibilities and enhancing livelihoods in the long-term.

Integrating this context-sensitive knowledge with formal scientific knowledge will be a critically important tool for fostering systemic change. Knowledge exchange is essential in order to better address common and complex challenges, to meet economic, environmental and social needs, to develop innovative solutions and to foster collaboration between different stakeholders. **The case studies in Spain, France, Germany and Israel particularly show that mutual trust, transparency and good communications between different actors play an important role in the creation, adoption and scaling-up of innovations.**

Multi-actor platforms set up to share different forms of knowledge enable joint learning through reflection, encourage people to question practices that narrow options, and promote new, innovative ideas. Their particular potential is due to their embeddedness in tangible social, economic and environmental contexts, which have specific dynamics, diversity, opportunities, uncertainties and risks (Šūmane *et al.*, 2016).

How policy can improve the effectiveness of the agricultural knowledge and innovation system

The findings obtained from the comparative analysis by Šūmane *et al.* (2016) are fully in line with the European Commission's (2016) most recent research strategy discussion paper: *"Dealing with complexity requires the harnessing of all available knowledge sources, including tacit knowledge at farm and business level and requires the involvement of all relevant actors (farmers, foresters, cooperative and industry, advisors and knowledge brokers, etc.) in a process of knowledge co-creation and appropriation. This is what we refer to as the interactive innovation model"*.

The EIP-AGRI, which was introduced in 2013, supports the combination of different types of knowledge and co-learning and fosters adaptive management, which is a major improvement to the transfer-of-knowledge approach. Yet, the importance and potential of informal knowledge and of adaptive management is not yet fully recognised, particularly in national agricultural knowledge and innovation systems. When implementing the EIP-AGRI at the national-level more attention should be paid to the types of knowledge and innovation that are required to foster a more balanced development overall, to making agricultural and food systems more sustainable, and to increasing the resilience of rural communities.

Policy needs to put more emphasis on adaptive management. One way to adapt to, and shape, change is by creating functional feedback loops. The insights these generate need to be used for learning. Adaptive management should be extended into adaptive co-

management which would emphasise the role of collaborative management in the governance of natural resources and extend it into the social domain (Folke *et al.* 2010; Walker *et al.* 2004; Knickel *et al.*, 2011b). Adaptive co-management enables collaboration between diverse actors, who often operate in networks at different levels (e.g. on the farm, the municipality, or national organisations). By doing so it draws on a range of knowledge sources and facilitates social learning.

The inter-linkages between knowledge, innovation and rural development lead us to the conclusion that policies and support frameworks need to adopt longer-term adaptive management frameworks than they currently do. Such longer-term frameworks need facilitation, network management and continuity. In some areas prolonged funding might be required to ensure the continuation and viability of newly established governance processes and structures.

Researchers, developers and planners need to recognise that farmers are co-creators of knowledge and to make more use of farmers' practice-based experiential knowledge. This would further the move towards an inclusive knowledge-based society, in which all types of knowledge are recognised and respected, where there is broad access to knowledge and where people with different types of knowledge participate (European Commission, 2016).

Initiatives such as the new EIP-AGRI can make a significant contribution to disseminating the lessons learnt from pilot programmes and to fostering their wider application. The similarities between EIP-AGRI and the LEADER approach lead us to believe there is a strong possibility for building connections between the two and for exchanges of experiences and lessons learned. Both approaches show how important it is to give consideration to factors that lead different actors to become engaged in strategy development and implementation, and use this knowledge to promote practice-driven, **practitioner-led** innovation (Knickel *et al.*, 2015; Šūmane *et al.*, 2016).

New approaches to governance are needed in order to harmonise agricultural and rural development

The challenges of multi-level governance and subsidiarity

The Commission's communication 'The CAP towards 2020' explicitly states that "*measures to help unlock the potential of rural areas should pay particular attention to innovative ideas for business and local governance*". The RDR speaks of the "*networking of national networks, organisations and administrations involved in the various stages of programme implementation*" and how this has proven able to "*play a very important role in improving the quality of rural development programmes by increasing the involvement of stakeholders*" (RDR, par. 40). Baldock (2014) draws attention to the "*structural heterogeneity in EU farming plus the intrinsic jointness of the production of market goods (food) and non-market services (good environmental land management) [that] create a certain unavoidable complexity.*" He concludes that "*highly targeted policies have their place and will be needed. ... that these issues demand collaborative thinking across organisations, public and private, ...*" [and that] "*quite different actions may be needed in the prime agricultural producing areas relative to the more economically marginal but environmentally sensitive areas, especially those associated with high nature value farming.*"

Overall, there clearly is the political need and will to further develop governance structures and processes in ways that accommodate these different demands and foster

the sustainability and resilience of food, agricultural and rural systems. At the same time, there seems to be a good amount of highly relevant research and evaluation-based knowledge. The key questions therefore are: How to move from good science to daily reality? How to change the mind-sets of programme-level officials and administrators who implement policy at the local level? How to find a good balance between informal and formal governance in networks? And, how to better target financial support? The comparative analysis of the case studies presented by Koopmans *et al.* (2016) addresses these questions which we look at in turn.

Governance arrangements: key findings from the case studies

The case studies explore various scales and modes of organisation, often with a strong farmer presence. They covered a wide range: from very small farms to producer cooperatives, peri-urban agriculture and bio-regions. Koopmans *et al.* (2016) sum up their analysis by emphasising that governance systems that engage in multi-actor cooperation are helping to foster a departure from purely economic and purely sectoral approaches. Their analysis shows that well-managed processes of multi-actor involvement can capture the diverse – and sometimes conflicting – interests around regional development, allowing participants to identify and align behind common long-term goals, and to resolve conflicts. The case studies from Belgium, Denmark, France, Germany, Italy and Sweden in particular show that multi-stakeholder cooperation can be very effective in strengthening the resilience of rural areas.

The majority of case studies also point to the fact that more governments – national and regional – are increasingly trying to assume the role of an ‘enabling state’ and to better integrate different funding mechanisms. Both these moves help to harmonise agricultural and broader rural development goals and to be more responsive to the demands of rural actors to have more agency in rural development processes (Koopmans et al., 2016).

More attention needs to be paid to long-term perspectives. The establishment and management of networks, in particular, is a vital component of RDPs that requires more than initial or temporary funding. Peter et al. (2016) suggest incorporating the management of networks, and their facilitation, in the concept of ‘services of public interest’ as an additional ‘soft’ factor.

Another key finding that was particularly evident in the German and the Danish case studies is that there should be more emphasis on initiating and subsidising pilot schemes that encourage experimentation with completely new approaches and to evaluate the systemic changes that they induce. Examples could include new forms of partnership in value chains, profoundly novel cross-sectoral rural development visions and strategies, and more localised interpretations of a knowledge-based bio-economy. Other areas that would benefit from fundamentally new thinking include collective climate action and/or connecting urban, peri-urban and rural areas. The RDR describes pilot projects as “important tools for testing the commercial applicability of technologies, techniques and practices in different contexts, and adapting them where necessary” (RDR, para 29). This description should in the next CAP reform round be extended beyond its obvious narrow focus on conventional forms of innovation.

In particular the Danish, Belgian and Swedish case studies show that new approaches to coordinate and connect strategic land-use planning with rural development instruments and socio-economic mechanisms have the potential to better reconcile landscape management with leisure and production functions in rural areas (Pears *et al.*, 2015; Koopmans *et al.*, 2015; Olsson *et al.*, 2015).

That culture and tradition also contribute to network building and participatory decision-making was particularly evident in the Italian and Latvian case studies (De Roest *et al.*, 2015; Šūmane *et al.*, 2015). This can in turn contribute to innovative entrepreneurial activities amongst those who are committed to staying in their home region and help to create a new, more dynamic regional identity. In other regions, farmers are much less involved in civil society and cooperative initiatives. In such regions one of the first steps that needs taking is to invest in activating stakeholders and promoting community engagement. Transparent communication and open governance structures with meaningful stakeholder involvement are very important in all initiatives and regions (Koopmans *et al.*, 2016).

How policy can support informal networks and strengthen subsidiarity

The growing importance of grassroots initiatives and informal networks is widely recognised. Dower (2014) refers to “*a step-change in the relationship between governments and local actors, between elective and participatory democracy*” and that there is a “*need to enhance the existing, and develop new, mechanisms for linking top-down government and bottom-up initiatives*”. The LEADER Initiative, launched by the European Commission in 1991, has been widely used in this respect.

European policy frameworks provide many opportunities for local actors to play a greater role in local-level policy implementation. National, regional and local-level decision-makers need to make fuller use of these opportunities. Government agencies need to participate in formal and informal networks without always being in a leading position. Implementing agencies need to experiment with, and learn, how to enable more integrated, cross-sectoral, bottom-up strategies and projects.

New governance arrangements require new skills and competences (such as mediation, the toleration of failure and of backward steps) within public institutions and among citizens and civil society organisations (Rogge *et al.*, 2013). This might explain why there is considerable reluctance to try out new approaches. The fostering of cross-sectoral integration requires a considerable amount of facilitation and trust building. RD programmes should provide for this through relevant measures and adequate resourcing. Capacity building among local government and stakeholders needs to be more closely coordinated with other kinds of support. In this context, Koopmans *et al.* (2016) refer to the collective environmental goals in the Danish case, and the joint achievement of socio-economic goals in the Spanish farm cooperative. In the literature, this is termed ‘civic agency’. In the RETHINK cases, this civic agency helped farmers to link up to broader strategic agendas, such as producing public goods.

Cairol *et al.* (2009) and Koopmans *et al.* (2016) stress that strategies with a territorial focus help to better orchestrate the governance of agriculture and rural development. Even within these, however, there is still a need to better integrate policy frameworks across levels and sectors. Participatory spatial development planning can play a major role in this. In particular, the Belgian, Danish and German case studies show that additional research is required into what stimulates and what obstructs collaborative planning and action within a rural and agricultural context.

Conclusions: The role of policy in promoting systemic change

Systemic change is required. In this last section we ask how a general call for systemic change can be triggered, and how it can be promoted. How can researchers contribute more effectively to the required changes, and how do we change those – in policy, administration and in the agricultural knowledge system – who do not want to change?

These are some of the questions that were raised at the final RETHINK conference and we have at least partly addressed them in the case studies and comparative analyses. Overall, we see three main strategies for making policy more effective in promoting systemic changes:

- a) Reorienting and integrating support for agriculture and rural development.
- b) Recognising the importance of informal knowledge and enabling and fostering co-learning.
- c) Building capacity within local government, other stakeholders and informal networks.

Reorienting and integrating support for agriculture and rural development

EU policy is obligated to contribute to the achievement of the UN's new 2030 Agenda for Sustainable Development (UN, 2015; European Commission, 2016) and the 17 new Sustainable Development Goals (SDGs) that aim to end poverty, hunger and inequality, take action on climate change and the environment, improve access to health and education, build strong institutions and partnerships, and more. Most of these goals have direct or indirect implications for agricultural, rural and food systems which have to become more sustainability and resilient. The CAP will be the primary EU instrument for encouraging sustainable resource management and the delivery of public goods related to the environment and climate Cooper *et al.*, 2010; Swinnen, 2015; Hart 2015).

Rivera *et al.* (2016a) add another important dimension, arguing that economic efficiency should no longer be the dominant criteria in agricultural policy and that large industrialised farms “no longer represent an unquestioned ideal”. A related incremental change in thinking and gradual reorientation in farm management styles and business models can be seen in many case studies (Austria, Denmark, France, Germany, Italy and Sweden) and typically in those countries where the industrialisation of agriculture has been established for a long time. A considerable proportion of farms in these countries are highly specialised and capital input and energy-intensive and it is important that decision makers pay more attention to the limited resilience of these farms and to regions where agriculture is dominated by few specialised businesses. Very clearly, Member States and regional authorities need to pay more attention to fostering systemic change, grasping opportunities and supporting strategies that are not ‘mainstream’ and giving priority to encouraging relevant experimentation and innovations. All of this would be accelerated if the European Agricultural Fund for Rural Development (EAFRD) required a minimum allocation (or share) of available public funding to go into implementing the EIP-AGRI (as it currently does for the LEADER programme).

In countries, mainly the newer members of the EU, where the industrialisation of agriculture is less advanced and reliance on subsidies less pronounced policy development, agricultural knowledge and innovation systems and agricultural investment require rapid realignment so that they no longer push farms and agriculture in the direction of industrial farming.

One of the starting points for RETHINK was that measures such as the cost of production and cost-based competitiveness should not have so much importance as indicators (see Stiglitz *et al.*, 2009). Calvão Chebach *et al.* (2016) underline that the objectives of a systemic change need to be clearly defined and that indicators of the effectiveness of policy need to be revised accordingly (e.g. by expanding the definition of value added from an economic, social and ecological perspective). Our case studies have very clearly confirmed that well-being, environmental integrity, product quality, social cohesion, social recognition and maintaining a certain level of autonomy are as

important as income as determinants of the quality of life for farmers and other stakeholders. New approaches for assessing farms' performance are therefore required. These should extend beyond the current narrow focus on productive assets, production functions, costs, and economic performance.

Development strategies need to be based on clear visions of what a more sustainable agriculture that supports rural prosperity and a good quality of life could look like. The European Commission underlines this when emphasising that *"increased economic interdependence demands also a more determined and coherent response at the political level"* (COM, 2010b). The processes of developing these visions should become a formal requirement for all agricultural and RD support.

Rivera *et al.* (2016a) contend that there needs to be a focus on serving people (particularly in marginalised regions and communities), on improving their quality of life, and on promoting resource-use efficiency in farming and rural businesses. The 14 case studies have shown that there is a whole range of strategies that can contribute to rural and farm-level prosperity. These include product innovation, diversification, nature management and the provision of community services. When farmer's initiatives and strategies are integrated with those of other stakeholders this tends to increase the sustainability and resilience of agricultural and food systems and rural regions.

Consumers need to be empowered through much better information on the different dimensions of food quality and the real costs of different forms of production. One way towards achieving this is by strengthening interactions and relations between producers and consumers, and between rural and urban areas. We need research that addresses how this can be made happen. Coordinating agricultural trajectories with consumer demands will require more efforts in value-chain development. Agricultural policies, at whatever scale (European, national, regional, local), should be better linked to food policies in order to enable them to contribute to the resilience of food systems. The discussion initiated by the Dutch EU Presidency about moving from the CAP towards a common food policy seems to go in this direction.¹⁰

Recognising informal knowledge and supporting co-learning

How can advisory services, and the agricultural knowledge and innovation system as a whole, support the rethinking of agricultural modernisation and rural development?

Advisory services have for a long time concentrated on transferring knowledge from research results, on securing individual farm profits, on ensuring compliance with regulations, on getting subsidies etc. The more recent EU-level policy frameworks (and instruments) echo societal interests, which expect more from agriculture than cheap food. National and local authorities and actors in agricultural knowledge and innovation systems need to focus more on contributing to rural resilience and sustainability.

In the next CAP reform round more resources need to be allocated to training farmers in new business skills relevant to their regional and social context and to developing new business models and value chains that can co-evolve with local agriculture. A considerable reorientation is required if we are to make the much-needed transition(s) and to benefit from the multiple new opportunities that this will bring. Regions need to have the capacity to redefine their own economic priorities and decide on the right

¹⁰ Reflections on a Sustainable Food Policy convened by the Dutch Government and Dutch EU Presidency in March 2016.

http://epha.org/IMG/pdf/Towards_a_sustainable_food_policy_agenda.pdf and http://www.ipes-food.org/images/Reports/OpenLetter_web_CommonFoodPolicy.pdf

combinations of social, organisational and technological innovations. It is unfortunate that social innovation is mostly currently restricted to the LEADER programme. Darnhofer and Strauss (2015) argue that RD programmers and funders, need to accept that it is often not possible to predefine the outcomes of social innovations as they only emerge through a process of modifying and refining ideas. In this respect policy makers should pay more attention to the multiple small initiatives that are already in place locally and learn from them. There is lack of (policy) platforms for promoting and learning from innovative initiatives focused on more resilient agricultural and food systems (Knickel *et al.*, 2015; Knickel, 2016).

Given the limited nature of natural resources and the buffer capacities they provide, there is an urgent need for more transdisciplinary research on alternative modernisation trajectories and pathways that enhance resilience (Borne, 2010). This is particularly the case in countries with resource-intensive agriculture and regions where production is extremely concentrated and/or specialised (Pretty, 1997; Röling and Jiggins, 1998; Knickel *et al.*, 2015). The principles that should guide this research have already been set out very clearly by the European Commission (2016) in its most recent discussion paper *“A strategic approach to EU agricultural research and innovation”*. The paper is a vital step forward demanding *“integrated ecological approaches from farm to landscape level”* as well as a *“deeper understanding of ecological principles [that] is changing views on the functioning of primary production systems and will make it possible to use ecosystem services to benefit sustainable production. ... Synergies and trade-offs between the different environmental challenges and productivity and profitability aspects have to be considered in order to create win-win situations and design pathways to innovative and resilient ecological farming systems.”*

To develop such new approaches, the policy, research and farming communities need to work together more effectively. The research community needs to integrate social components within their agendas. These should include quality of work conditions, the use of farmers’ knowledge and experience, ties with the local economy as well as community and environmental criteria. This, in turn, will help lead to a more gradual and more differentiated development of the very large number of small farms in Europe, reducing their exposure to external risks and allowing them to develop along trajectories that are more resilient.

The funding of pilot schemes should require that all projects cross social, economic and environmental boundaries, are carried by multi-actor partnerships, recognise the importance and potential of informal knowledge and are based on a convincing long-term vision and management strategy. Farmer’s experiential knowledge needs recognition and new forms of training and learning need to support farmers in developing and sharing this. Finally, there is a particular need for strengthening transdisciplinary research that can better inform public and private sector decision-making at all levels.

Building adaptive and transformative capacity at the local level

Local governments and administrations need to develop and support strategies and actions that contribute to systemic change, and to have the skills and ability to carry out this new role. At the same time, more efforts need to be made to balance the devolution of responsibilities and strengthen local ownership, with higher levels steering the desired developments. In places where there is already an abundance of networks, organisations and initiatives, governments should be careful not to establish new organisations or institutions on top of the existing ones. It is generally more effective to

connect existing structures and strengthen coordination between them, the Belgian case is an example (Koopmans *et al.*, 2016).

In order to foster transformative capacity at both national and local levels, new funding strategies and business models are needed. Visioning and decision-making platforms and information tools are needed to enable communities (whether of practice or geographic) to make choices that have a longer term perspective.

European policy frameworks should aim at generating an environment of creativity and innovation where changes results from an open-ended learning process. Smart policy frameworks can foster mutual respect among farmers who are following different pathways of modernisation and rural entrepreneurs, and enhance synergies and collaboration. Facilitators will be needed to act as catalysts in these processes.

More in-depth research is required on the interplay between bottom-up initiatives and top-down policy. There is a particular need to create a network of good examples and pilot projects that experiment with, and achieve, far-reaching systemic change.

Overall our study, spanning 14 countries, 12 in the EU and two adjacent, found a large array of existing and often successful, alternative development trajectories in farm modernisation, food systems and rural development. The case studies helped us to better understand and highlight particularly promising pathways. The main challenge however remains: to overcome simplistic viewpoints of what 'modernisation' entails in national and local administrations as well as in the agricultural knowledge and information system, and to grasp the many opportunities that this opening up brings.

References

- Atkočiūnienė, V., A. Aleksandravičius, R. Zemeckis, V. Vitunskienė, A. Dautartė, V. Spruogis, L. Blockytė, J. Baltušienė and E. Serva (2015) Resilient farming systems and market differentiation: Challenges and opportunities in farmers' markets (Lithuania), RETHINK Case Study Report, Aleksandras Stulginskis University, Kaunas, Lithuania
- Baldock, D. (2014) Some thoughts on the CAP post 2020. Discussion paper, London: Institute for European Environmental Policy (IEEP).
- Borne, G. (2010) Sustainable Development: Representing a reflexive modernity inside the United Nations, *Journal of Global Analysis*, 1 (1), 27-50.
- Bourdin, D., A. Gerz, S. Révillon and M. Siegenthaler (2015) Sub-urban food production systems in a Swiss agglomeration: the example of the milk supply chain in Bern (Switzerland), RETHINK Case Study Report, Swiss Association for the Development of Agriculture and Rural Areas (AGRIDEA), Lausanne/Lindau, Switzerland
- Bryden, J., S. Efstratoglou, T. Ferenczi, K. Knickel, T. Johnson, K. Refsgaard, K. Thomson (eds) (2011) *Towards sustainable rural regions in Europe. Exploring relationships between rural policies, farming, environment, demographics, regional economies and quality of life using system dynamics*. Studies in Development and Society, New York: Routledge.
- Buckley, C., G. Shortle (2015) Farmer adoption of a new nutrient management technology, Republic of Ireland, RETHINK Case Study Report, The Agriculture and Food Development Authority (TEAGASC), Johnstown Castle Research Centre, Wexford, Ireland.
- Cairol, D., E. Coudel, K. Knickel, P. Caron, M. Kröger (2009). Multifunctionality of agriculture and rural areas in policies: The importance and relevance of the territorial view. *Journal of Environmental Policy and Planning*, 11 (4), 269-289

- Calvão Chebach, T., Ashkenazy, A., Knickel, K., Peter, S., Hurwitz, B. (2016) Building resilience in agricultural households and rural regions – evidence-based lessons from fourteen case studies in Europe and beyond (publication forthcoming).
- Cooper, T., K. Hart, D. Baldock (2010) The provision of public goods through agriculture in the European Union, Report prepared for DG Agriculture and Rural Development, Contract No 30-CE-1233091/00-28, London: Institute for European Environmental Policy (IEEP).
- Darnhofer, I. and Strauss, A. (2015) Organic farming and resilience (Austria). RETHINK Case Study Report, University of Natural Resources and Life Sciences, Institute of Agricultural and Forestry Economics, Vienna, Austria.
- Darnhofer, I., C. Lamine, K. Knickel (2014a) Conceptual Framework. RETHINK project, URL: www.rethink-net.eu.
- Darnhofer, I., De los Ríos, I., Knickel, K., Koopmans, M., Lamine, C., Olsson, G.A., de Roest, K., Rogge, E., Sumane, S., Tisenkopfs, T. (2014b) Analytical Framework. RETHINK project, URL: www.rethink-net.eu.
- Davidova, S., A. Bailey, J. Dwyer, E. Erjavec, M. Gorton, K. Thomson (2013). Semi-subsistence farming – value and directions of development. Luxembourg: European Parliament Committee on Agriculture and Rural Development. URL: <http://www.europarl.europa.eu/delegations/en/studiesdownload.html?languageDocument=EN&file=93390>.
- De los Ríos, I., C. García, A. T. Herrera and M. Rivera (2015) Innovation and social learning in organic vegetable production in the Region of Murcia, Camposeven, Spain. RETHINK Case Study Report, GESPLAN – Technical University of Madrid, Technical College of Agriculture, Madrid, Spain
- De los Ríos, I., Rivera, M., García, C. (2016) Redefining rural prosperity through social learning in the cooperative sector: 25 years of experience from organic agriculture in Spain. *Land Use Policy*, (54) 85-94
- De Roest, K. and P. Ferrari (2015) Extensive pig production systems, Italy, RETHINK Case Study Report, Fondazione Studi e Ricerche (FSRC/CRPA), Reggio Emilia, Italy
- De Roest, K., P. Ferrari, K. Knickel (2016) Specialisation or diversification? Economies of scale or economies of scope? Assessing different agricultural development pathways (publication forthcoming)
- Dower, M. (2014) Report on the conference, AEIDL Conference 19-20 February 2014. Brussels: AEIDL
- Dwyer, J., B. Ilbery, K. Kubinakova, A. Buckwell, H. Menadue, K. Hart, K. Knickel, F. Mantino, E. Erjavec (2012). How to improve the sustainable competitiveness and innovation of the EU agricultural sector. Brussels/Luxembourg: European Parliament, Directorate General for Internal Policies - Policy Department B - Structural and Cohesion Policies. URL: <http://www.europarl.europa.eu/committees/fr/studiesdownload.html?languageDocument=EN&file=74955>.
- EEA (2010) *10 messages for 2010 - Agricultural ecosystems*. Copenhagen: EEA
- EEA (2013) Natural resources and human well-being in a green economy. Environmental indicator report 2013. Copenhagen: EEA
- COM / European Commission (2010a) The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future, COM(2010) 672 final, Brussels.
- COM / European Commission (2010b) Europe 2020: a European strategy for smart, sustainable and inclusive growth, COM(2010)2020, Brussels.

- COM / European Commission (2011) Situation and prospects for EU agriculture and rural areas. Brussels.
- COM / European Commission (2011) Sustainable food consumption and production in a resource-constrained world. Standing Committee on Agricultural Research (SCAR), Brussels.
- COM / European Commission (2012) Communication on the European Innovation Partnership 'Agricultural Productivity and Sustainability'. COM(2012) 79 final, Brussels, 29.2.2012.
- COM / European Commission (2015) Sustainable agriculture, forestry and fisheries in the bioeconomy – a challenge for Europe. Standing Committee on Agricultural Research (SCAR), Brussels.
- COM / European Commission (2016) A strategic approach to EU agricultural research and innovation. Draft paper prepared for the European Conference: Designing the path: a strategic approach to EU agricultural research and innovation – 26-28 January 2016, Brussels.
- EEA / European Environment Agency (2015) The European environment: state and outlook (SOER 2015), <http://www.eea.europa.eu/soer>.
- European Parliament / Council (2013) Regulation (EU) No 1305/2013 of the European Parliament and of the Council of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD). Journal of the European Union, L 347/487
- EU SCAR (2009) New challenges for agricultural research: climate change, food security, rural development, agricultural knowledge systems, Standing Committee on Agricultural Research (SCAR), Collaborative Working Group AKIS, Brussels.
- EU SCAR (2012) Agricultural knowledge and innovation systems in transition – a reflection paper, Standing Committee on Agricultural Research (SCAR), Collaborative Working Group AKIS, Brussels.
- EU SCAR (2015) Agricultural knowledge and innovation systems towards the future – a foresight paper, Standing Committee on Agricultural Research (SCAR), Collaborative Working Group AKIS, Brussels.
- Folke, C., S. Carpenter, B. Walker, M. Scheffer, T. Chapin, J. Rockström (2010) Resilience thinking: integrating resilience, adaptability and transformability. *Ecology and Society* 15(4): 20. URL: <http://www.ecologyandsociety.org/vol15/iss4/art20/>
- FFA / Forum for the Future of Agriculture (2016) No business as usual – UN SDGs and Forum demand action and collaboration. 9th Forum for the Future of Agriculture, Brussels, <http://www.forumforagriculture.com>
- Giray, F. H., T. Bal, S. Boyar and B. Sayın (2015) Resilience and competitiveness of small ruminant farms in Isparta (Turkey). RETHINK Case Study Report, Suleyman Demirel University, Faculty of Agriculture (SDUZF), West Mediterranean Agricultural Research Centre (BATEM), Turkey
- Hart, K. (2015) The fate of green direct payments in the CAP reform negotiations. In: Swinnen, J., *The political economy of the 2014-2020 Common Agricultural Policy*, 245-276
- Holling, C. S. (1973) Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics*: 1-23.
- Horlings, L. G., Marsden, T. K. (2014) Exploring the 'New Rural Paradigm' in Europe: eco-economic strategies as a counterforce to the global competitiveness agenda. *European Urban and Regional Studies* 21(1), 4-20

- Hurwitz, B., T. Calvão Chebach, A. Calvão Chebach, B. Dagani and R. Offenbach (2015) Rural innovation in global fluctuation: The Arava region case study (Israel). RETHINK Case Study Report, Central-and Northern-Arava Research and Development, Israel
- IAASTD (2009) *Agriculture at a crossroads. International Assessment of Agricultural Knowledge, Science and Technology for Development*. B. D. McIntyre, H. R. Herren, J. Wakhungu, R. T. Watson (eds.), Washington.
- IPES-Food (2016) *From uniformity to diversity: paradigm shift from industrial agriculture to diversified agroecological systems*. International Panel of Experts on Sustainable Food systems. Report 02. <http://www.ipes-food.org>
- Jackson, P. (2009) *Prosperity without growth: economics for a finite planet*. Earthscan, London
- Knickel, K., K. Lehmann, M. Kröger (2011a) Multifunctionality in agriculture and rural development: an empirical analysis based on survey data from eleven European regions. Bryden, J. et al. (eds), *Studies in Development and Society*, New York: Routledge, 82-113
- Knickel, K., G. Salmon, S. von Münchhausen (2011b) Cooperative environmental management: taking care of New Zealand's unique natural resources in more effective ways. Boston, J., A. Bradstock, D. Eng (eds) (2011) *Ethics and Public Policy: Contemporary Issues*. Wellington: Victoria University Press, 270-296
- Knickel, K., R. Zemeckis, T. Tisenkopfs (2013) A critical reflection of the meaning of agricultural modernization in a world of increasing demands and finite resources. Proceedings, Vol 6, Book 1. Kaunas, Akademija: ASU Publishing Center, 561-567
- Knickel, K. (2016) Rethinking rural resilience. *ENRD Magazine Rural Connections*, Spring Issue, 17
- Koopmans, M., E. Rogge, E. Mettepenningen, E. Kerselaers and G. Van Huylenbroeck (2015) New forms of governance in landscape development (Belgium), RETHINK Case Study Report, Ghent University, Department of Agricultural Economics, Faculty of Bioscience Engineering, and Institute for Agricultural and Fisheries Research (ILVO), Social Sciences Unit, Belgium.
- Koopmans, M., E. Rogge, E. Mettepenningen, K. Knickel (2016) The role of multi-actor governance in re-connecting farm modernisation and sustainable rural development (publication forthcoming)
- Lamine, C., M. Navarrete, S. Bui and E. Rousselle (2015) Transitions towards ecological production, France, RETHINK Case Study Report, Institut National de la Recherche Agronomique, Sciences pour l'Action et le Développement (INRA-SAD), Ecodéveloppement, Avignon, France
- OECD, 2012. OECD Environmental Outlook to 2050: The Consequences of Inaction. Paris: OECD.
- Olsson, G. A., K. Bruckmeier and A. Wästfeld (2015) Peri-urban agricultural transformations in Gothenburg, Sweden. RETHINK Case Study Report, University of Gothenburg, Global Sustainability Studies, School of Global Studies, Gothenburg, Sweden
- Pears, D.Q., L. S. Kristensen and J. Primdahl (2015) Landscape strategy making and agriculture (Denmark). RETHINK Case Study Report, Copenhagen University, Danish Centre for Forest, Landscape and Planning, Copenhagen, Denmark
- Peter, S., S. Pons and K. Knickel (2015) Opportunities for creating an eco-economy: Lessons learned from the Regional Action and Bio-energy Regions schemes

- (Germany). RETHINK Case Study Report (D3.3), Institute for Rural Development Research at J. W. Goethe University, Frankfurt/Main, Germany
- Peter, S. and K. Knickel, 2016. Renewable energy transitions – lessons learned from rural pilot regions and communities in southwestern Germany. In: Wilcox, A. and S. Vinall (eds.) *Social and Technological Transformation of Farming Systems*, Harper Adams University, 135.
- Ploeg, J.D. van der (1994) Styles of farming: An introductory note on concepts and methodology. In: J.D. van der Ploeg and A. Long (eds) *Born from within: Practice and perspectives of endogenous rural development*. Assen: van Gorcum, 7-30
- Ploeg, J.D. van der, A. Long, J. Banks (2002) *Living countrysides – rural development processes in Europe: the state of the art*, Elsevier, EBI, Doetinchem
- Potočník, J. (2015) The perspective of the (former) European Commissioner for Environment. In: Swinnen, J., *The political economy of the 2014-2020 Common Agricultural Policy*, 159-166
- Pretty, J. (1997) The sustainable intensification of agriculture. *Natural Resources Forum*, 21, 247-256
- Rivera, M., I. de los Rios, K. Knickel, A. Calvão Chebach, D. Qvist, T. Calvão Chebach, S. Šūmane (2016a) Rethinking the connections between agricultural change and rural prosperity: a discussion of insights derived from case studies in seven countries (publication forthcoming)
- Rivera, M., K. Knickel, I. de los Rios (2016b) The role of social capital in rural development: lessons learnt from a set of varied case studies in seven countries (publication forthcoming)
- Rogge, E., Dessein, J., Verhoeve, A. (2013) The organization of complexity: a toolbox to organize the interface of rural policy making. *Land Use Policy* 35, 229-24
- Röling, N.G., Jiggins, J. (1998) The ecological knowledge system. In: Röling, N.G., Wagemakers, M.A.E. (eds) *Facilitating Sustainable Agriculture. Participatory Learning and Adaptive Management in Times of Environmental Uncertainty*. Cambridge University Press: Cambridge, 283-311
- Stiglitz, J., Sen, A., Fitoussi, J.-P. (2009) The Measurement of Economic Performance and Social Progress Revisited. Commission on the Measurement of Economic Performance and Social Progress, Paris.
- Šūmane, S., I. Kunda, T. Tisenkopfs, I. Pilvere, I. Stokmane and S. Zēverte-Rivža (2015) Small farms' development strategies (Latvia). RETHINK Case Study Report, Nodibinajums Baltic Studies Centre (BSC) and the Latvian University of Agriculture, Faculty of Economics, Riga, Latvia
- Šūmane, S., K. Knickel, A. Strauss, I. Kunda, I. de los Rios, M. Rivera, T. Calvão Chebach, A. Calvão Chebach, T. Tisenkopfs (2016) Local and farmers' knowledge matters! How integrating informal and formal knowledge enhances sustainable and resilient agriculture (publication forthcoming)
- Swinnen, J. (ed) (2015) The political economy of the 2014-2020 Common Agricultural Policy – an imperfect storm. Centre for European Policy Studies (CEPS) Brussels, London: Rowman & Littlefield International, Ltd.
- UN (2015) Transforming our world: the 2030 Agenda for Sustainable Development. A/RES/70/1, 21.10.15, <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>, New York

- Walker, B., C.S. Holling, S. Carpenter, A. Kinzig (2004) Resilience, adaptability and transformability in social-ecological systems. *Ecology and Society*, 9 (2): 5. URL: <http://www.ecologyandsociety.org/vol9/iss2/art5/>
- Woods, M. 2005. Rural Geography: Processes, Responses and Experiences in Rural Restructuring. SAGE Publications Ltd

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Contribution f

“Innovation and social learning in agricultural systems. Case study: Murcia, Spain”

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Related to chapter 2

Innovation and Social Learning in Agricultural Systems
Case Study: Murcia, Spain

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Keywords: rural development, intensive agriculture, innovation, product certification, organic farming, Working With People, resilience

Abstract

Agricultural activity is still a key factor for rural development. The high competitiveness of Murcia's agriculture is everyday having to face new problems and challenges. The imbalance between natural resources and their regeneration capacity is due to the high agricultural and industrial holdings that have been instituted in recent decades as well as to southern Spain's own meteorological problems. In addition, social difficulties also add up. Because of the existing problems, and with the aim of finding effective solutions to obtain the highest profitability and first quality products, certain entrepreneurs have adopted competitive strategies based on quality and innovation in the production process, under the conceptual basis of "Working With People" (WWP) and from a social learning perspective that encourages the resilience of the sector. The actual and future trend is that for the managing of agricultural systems, measures where agriculture development and environmental conservation coexist should be taken, allowing the progression towards a sustainable agricultural model. Measures taken in this direction and under the conceptual framework WWP by the Agrarian Transformation Society Camposeven will be looked at and discussed.

1. Introduction

Agricultural activity is still a key factor for rural development. In the Mediterranean region this aspect presents a deep environmental, social and economic problem derived from the difficult existing conditions for farming in an arid climate with acute water shortage. The drainage basin of the Segura River that supplies the region with water, presents a structural deficit of 460 Hm³. In the area of the study: Murcia, the rainfall hardly reaches 225 liters per m² (Gobierno de Murcia, 2012)

The high competitiveness of Murcia's agriculture is everyday having to face new problems and challenges. The imbalance between natural resources and their regeneration capacity is due to the high agricultural and industrial holdings that have been instituted in recent decades as well as to southern Spain's own meteorological problems. The whole country, and therefore Murcia's need of extending the growing areas in order to obtain more products and higher economical benefits has prompted the abuse of heavy machinery, pesticides and greenhouses; all of this can be traduced into biodiversity, soil and vegetation loss, as well as a worrying water shortage (Murcia, 2010). Other harmful practices are excessive land cultivation or clearing, intensive agriculture, urbanization of virgin land, and the misuse of aquifer resources. Adding up to this, we can find the power of intermediaries, the lack of labor and the increasing international competition affecting

the profitability of the production. To the economical and environmental problems, social difficulties also add up: agriculture recession due to the farmers ageing (older than 40) and the scarce number of young people willing to substitute them; making extremely necessary a generational takeover. In this process, quality and innovation are key factors, boosting product certification as the distinctive element of the region and encouraging the evolution of organic farming (Gobierno de Murcia, 2012).

Because of the existing problems, and with the aim of finding effective solutions to obtain the highest profitability and first quality products, certain entrepreneurs have adopted competitive strategies based on quality and innovation in the production process, under the conceptual basis of “Working With People” and from a social learning perspective that encourages the resilience of the sector. The actual and future trend is that for the managing of agricultural systems, measures where agriculture development and environmental conservation coexist should be taken, allowing the progression towards a sustainable agricultural model. Therefore, the aim of the study will be to come up with effective possible solutions related to innovation and social learning to obtain high profitability and first quality products respecting and protecting the environment; this will be looked at through 2 different aspects, which are the key to achieve sustainable rural development: resilience and knowledge and learning (innovation and social learning). The study will be performed through a deep analysis of an Agricultural Society of Transformation called Camposeven found in Murcia that has applied strategies from quality and innovation into the production process through the diversification and specialization of the business and the products offered. These strategies have been assumed following a social learning process included into the conceptual model of *Working With People*. Therefore, considering the global challenges that agricultural systems and rural development have to face (Murcia, 2010), this paper shows the beginning of a research work that will carry on until April 2014 that will extract the lessons and experiences from Camposeven; successful experiences that from a knowledge and learning approach make resilience feasible and reachable, in order to bring stability and prosperity to the rural areas.

1.1. Working With People conceptual framework as social learning process

Our study will be based upon WWP as main conceptual framework because it opens up the possibility of a “new modernization” research question and new postmodern approaches to enlighten existing questions in rural development project’s theory and in planning as social learning research. At the core of the WWP model, the balance between three dimensions of competences —technical, behavioral and contextual competences— is basic. Also, this model leads to considerable progress by achieving a balanced role of agents and an empowerment in the four areas of a social relationship system: political, public, private and social (Cazorla et al., 2013).

Learning is a key concept for research and production in innovation (Sandberg & Ohman, 2011), as for these to happen, it is necessary that the users get involved in the different management and production processes that apply to each territory (Albuquerque, 2008). Given the social nature of learning and innovation for resilience in a territory, it is imperative to work in close contact with the people; this way, from the model Working With People (WWP), this social learning process becomes easier through the interaction and knowledge transfer. From a WWP perspective, innovation is conceived as an open and interactive process that includes new human relationships, management,

administration and negotiation systems; with a strong social dimension that warrants constant adaptation and learning in all knowledge forms (Cazorla et al., 2013). This capacity of adaptation to change is precisely a necessary condition to achieve resilience in a territory.

In Camposeven, people represent a fundamental value; they bet to have the best team in order to obtain the best results. To this end, they have assumed a WWP model (Cazorla et al. 2013) through a social learning process (Friedmann, 1993) in the enforcement of their innovative strategies. The learning process of the society can be distinguished from the existing relationship between its 42 members (distributed in 8 families), who have achieved an important consolidation through trust, mutual respect, and common values; key factors affecting the success of this Agrarian Society.

2. Methodology

In order to start analyzing information, data from different sources of information was needed. Firstly, data obtained first hand was recorded and studied. Data was obtained from structured interviews through email exchanges with Camposeven's Manager, as well as from semi-structured interviews done to various members of Camposeven's staff during a field trip visit on November 2013. During this visit, 3 interviews were carried out to different staff in charge of: the storehouse, the finance and the technical issues of the company.

Secondary sources of information have been studied so far to extract the problems found in the region of Murcia. For future development of the research, data from official governmental documents will be analyzed, and all the information concerning Agriculture in Murcia will be extracted for further analysis. All this information will be obtained from official sites of the Spanish government, Murcia's government or local official institutions. More localized general data about the area of Campo de Cartagena where Camposeven is located, will also be acquired. These are the following steps for progressing with the investigation.

3. Results

Although nowadays Murcia's economy is living the momentum of tourism and second home, historically, economy has been moved largely by the agricultural sector, with the food industry being one of its main development engines and one of the main pillars with greatest contribution to GDP and territorial equilibrium. In 2012, 10% of national agrifood exports came from Murcia, and its agriculture and livestock represented 4.58% of regional GDP. Agricultural production represented 3.8% of the sector's national income; highlighting fruit and vegetables with 39% (24.6% of the country's total). Vegetables grown in Murcia represent 13% of the Spanish total (Murcia, 2010).

3.1. Problems for Agriculture in Murcia

However, the high competitiveness of Murcia's agriculture is everyday having to face new problems and challenges (see figure 1); the Region has to deal with the power of intermediaries, the lack of labor and the increasing international competition that affect the profitability of the production, meteorological problems, and price rises due to tourism expansion.

Figure 1. Problems

Source: Own elaboration obtained from Murcia's RDP 2007-2013

Murcia's need of extending the growing areas in order to obtain more products and higher economical benefits means they have to rethink their agrarian system to become sustainable and environmentally friendly.

3.2. Primary Information

Camposeven is found in the South East part of Spain (Murcia). Camposeven is an Agrarian Transformation Company formed by a group of 8 farmers/partners that decided to collaborate to strengthen their position in the Region. It was created in 2007, and they count with 823has of agricultural land, out of which 62has are greenhouses.

In order to overcome this problems Camposeven as a whole has decided to bet for differentiation and specialization. More specifically, figure 2 shows the concrete actions they have taken based on quality and innovation to achieve this aim.

Figure 2. Solutions applied by Camposeven

Source: Own elaboration with information obtained from primary data

These solutions have been applied because of the internal structure of Camposeven (figure 3).

Figure 3. Internal Structure of Camposeven

Source: Own elaboration with information obtained from primary data

Camposeven is composed of 6 departments to deal with all issues affecting the company every day. 10/10 partners are part of this main company. Responding to the needs of the sector, and in order to diversify and specialize, some of the partners created 3 other smaller companies that share with Camposeven some of the departments (see figure 3). Each of these smaller companies was created for a specific reason and with a very clear business strategy. Commercial Seven's main function is to sell third party products and so reduce the commercialization chain. Bioseven is specialized on selling

ecological products online in order to reach more people as well as reducing the commercialization chain. Plant Response Biotech specializes on research for agricultural purposes. They have recently created an ecological vaccine that acts as a natural pesticide. This last company collaborates with institutions all over Europe, and especially with the Technical University of Madrid, favoring innovation and social learning, working with people from many different backgrounds with a common objective.

4. Discussion

From an innovational system approach, innovation is conceived as an interactive process in which multiple actors interrelate to construct it (van Mierlo, Leeuwis, Smits, & Klein, 2010) and proposes human activities to be examined as a complex set in which people have different points of view; therefore, the innovation process implies an important social collective dimension that entails a constant adaptation knowledge and learning of technological conditions and a constantly changing market (De los Ríos et al., 2002). According to this view point, innovation processes, as well as research on innovation require a constant interaction between the parts where learning is a key concept (Ellstrom, 2010).

Friedmann (1993) defines social learning as a complex process, where action, strategy, political tactic, reality analysis and values direct actions and projects. For Röling (2002), learning occurs when actors change, more or less simultaneously, their mentality in a way that drives them to a new form of effective coordination of action.

Nowadays responsible innovation is booming (Von Shomberg, 2011; Stilgoe, Owen, & Macnaghten, 2013); Shomberg defines it as a “transparent and interactive process through which social actors and innovation producers become considerate based on acceptance, ethics, innovation sustainability, as well as in their products negotiation; with the aim of permitting adequate inclusion of society technological advancements”. For Stilgoe et al. (2013), a more responsible vision of innovation implies “caring for the future through collective management of science and innovation”, and demands for the integration of factors such as anticipation, reflexivity, inclusion and responsibility under the context of governance; where negotiation becomes necessary to deal with conflicts arising from these factors. As Leewis (2004) indicates, “Effective social learning is unlikely to happen if it is not embedded in a well-managed negotiation process. At the same time, effective negotiation is impossible without a properly facilitated social learning process.”

In line with the descriptions above, from a social learning perspective, the way the concept of responsible innovation is being developed shall open a wide path for deliberation aiming at creating sensible policies (Stilgoe et al. (2013).

4.1. From technical-entrepreneurial component

To survive in a highly competitive environment, the entrepreneur needs to have in mind strategy renovation in terms of commercialization, and the different goods and services offered (Borchert, 1988). In this sense and from this component, innovation focuses on the continuous search for product differentiation and diversity, based on research.

Aiming to find effective solutions to obtain high profitability and first quality products caring for the environment, Camposeven has adopted a variety of innovation, diversification and specialization strategies for their businesses and products (see Fig.2), under strict quality standards; through which they have boosted product certification as a

distinctive element of the Region, propitiating the increasing evolution of ecological agriculture.

4.2. From ethical-social component

Under this component, resilience's spotlight is worker's competence development; considering competences as a demonstrated aptitude to apply knowledge and/or abilities, and when required, personal attributes; where competence certification arises as an important public and formal recognition of a person's skills (ISO/IEC 17024, 2012). In this context, knowledge and learning needs that innovation creators and users evaluate their social abilities to improve their knowledge generation capacity (Badilescu-Buga, 2013) and as a consequence encourage resilience.

This way, the social relationship system shall be guided by values and ethics (Cazorla et al., 2013), which are necessary competences to successfully overcome moral conflicts related with the involved parts; as well as reaching reliability and trust between the parts (IPMA, 2010).

In Camposeven, which has been created and is being run by farmers, people represent a fundamental value; they bet to have the best team in order to obtain the best results. To this end, they have assumed a WWP model (Cazorla et al., 2013) through a social learning process (Friedmann, 1993) in the enforcement of their innovative strategies. From a participatory and learning logic, the existing relationship between its 42 members (distributed in 8 families) has achieved an important consolidation through trust, mutual respect, and common values; key factors affecting the success of the society.

Moreover, the involvement of the partners can be seen through the interest and ongoing tracing put on the whole investigation process carried out by research institutions; with the aim of contrasting the execution of the request in terms of cost, technology, environment and consumers. Because of the strategic alliances built with research institutions, two different types of knowledge get together in an environment of appreciation.

In order to drive their crops to a more human dimension, they have started to grow biodynamic products with the aim of soon getting the certification. At the moment, 6 out of 8 families produce ecologic, and it is estimated that in the following 3 to 4 years, no conventional agriculture will be produced in Camposeven.

4.3. From political-contextual component

From a political-contextual point of view, resilience searches for the integration of societal needs within its physical, environmental and economic context, which more implicitly means governance (Miller et al., 2010).

Within a difficult global context, companies should take into account, amongst other variables, consumer's demands, integration strategies with the tourism sector and with I+D+i international knowledge networks. Camposeven within a complex context has rethought the agricultural system from a more sustainable approach and with a deeper human dimension. For which it has created links with the UPM, and because of this link they are now part of a European Union research project called RETHINK, which searches to rethink the links between farm modernization, rural development and resilience in a world of increasing demands and finite resources.

5. Conclusions

Camposeven represents a successful experience on how social learning approaches make the innovation process feasible and reachable, in order to contribute to the sustainable development of a rural territory.

Innovation is crucial for the resilience of a territory, and it emerges from a social learning, and knowledge generating joint process found within complex dynamics based on human aspects and development. Understanding innovation from this view point requires a human side supported on ethics and values that develop competences and ease the process escorting resilience (De los Ríos, Guillén-Torres, & Herrera-Reyes, 2013). Within a dynamic and complex concept that needs constant adaptation to technological conditions and very fast changing market (De los Ríos et al, 2002), new forms of knowledge and learning find their peak meaning when integrated within people's development. A proactive community influences the development of fresh trajectories and propitiates the creation of an innovative environment (Magis, 2010); it is therefore necessary to improve the competences of the parties, as pro-active leaders, committed teams, common values and solid trust become essential; aiming to encourage tacit knowledge transfer that entails success by achieving common goals.

To reach knowledge and learning as such, social learning processes have to be led by a suitable model built on complex thinking that focuses on a relational understanding through dynamical relationships in the search for joint knowledge production.

In this broad context, Camposeven increases every year its production and commercialization, through sustainable and respectful means based on respect and trust and flexibility. Therefore, they represent a successful experience on how social learning and knowledge approaches make resilience feasible and reachable, in order to contribute to the development of the rural territory.

References

- Alburquerque, L.L., F. (2008). Innovación, Transferencia de Conocimientos y Desarrollo Económico Territorial: una Política Pendiente. *Arbor*, 184 (732), 687-700. doi:10.3989/arbor.2008.i732.215
- Badulescu-Buga, E. (2013). Knowledge behaviour and social adoption of innovation. *Information Processing and Management*, 49, 902–911. <http://dx.doi.org/10.1016/j.ipm.2013.02.001>
- Borchert, J.G. (1988). Planning for retail change in the Netherlands. *Built Environment*, 14 (1), 22–37.
- Cazorla, A., De los Ríos-Carmenado, I., & Salvo, M. (2013). Working With People (WWP) in rural development projects: A proposal from social learning. *Cuadernos de desarrollo rural –International Journal of Rural Development*, 10 (70), 131-157. Available online: <http://revistas.javeriana.edu.co/index.php/desarrolloRural/article/view/5120/3990>
- De los Ríos, I., Agudo, M.A., Aliacar, F., Alier, J.L., Cazorla, A., Chichón, A... Zamora, J. (2002) Innovación para el Desarrollo Rural: La iniciativa LEADER como laboratorio de aprendizaje. Madrid: Artes Gráficas Cuesta.
- De los Ríos, I., Guillén-Torres, J., & Herrera-Reyes, A.T. (2013). Complexity in the management of rural development projects: Case of LASESA (Spain). *Cuadernos de Desarrollo Rural, –International Journal of Rural Development*, 10 (71), 167-186. Available online: <http://revistas.javeriana.edu.co/index.php/desarrolloRural/article/view/6273/5002>
- Ellström, P.E. (2010). Practice-based innovation: a learning perspective. *Journal of Workplace Learning*, 22 (1/2), 27-40. doi: 10.1108/13665621011012834.
- Friedmann, J. (1993). Toward and Non-Euclidean Mode of Planning. *Journal of American Planning Association*, 59 (4), 482-485. Available online: <http://classweb.gmu.edu/erodger1/prls%20531/Friedmann.pdf>
- IPMA. (2010). NCB, Bases para la Competencia en Dirección de Proyectos. Versión 3.1. Valencia: UPV.
- ISO/IEC 17024. 2012. Evaluación de la conformidad. Requerimientos generales para organismos que operan sistemas de certificación de personas. Editada por Asociación Española de Normalización y Certificación (AENOR), Génova, España.
- Leeuwis, C. (2004). (With contributions by A. van den Ban), *Communication for Rural Innovation: Rethinking Agricultural Extension*. Oxford/ Wageningen: Blackwell Science/CTA.
- Friedmann, J. (1993). Toward and Non-Euclidean Mode of Planning. *Journal of American Planning Association*, 59 (4), 482-485. Available online: <http://classweb.gmu.edu/erodger1/prls%20531/Friedmann.pdf>
- Magis, K. (2010). Community resilience: an indicator of social sustainability. *Society & Natural Resources*, 23 (5), 401-416. doi: 10.1080/08941920903305674.
- Miller, F., Osbahr, H., Boyd, E., Thomalla, F., Bharwani, S., Ziervogel, G... Nelson, D. (2010). Resilience and vulnerability: Complementary or conflicting concepts? *Ecology & Society*, 15 (3). Available online: www.ecologyandsociety.org/vol15/iss3/art11/.
- Murcia. (2010). Programa de Desarrollo Rural de la región de Murcia 2007-2013. Región de Murcia. En: http://www.redr.es/recursos/doc/Políticas_rurales/Programa_desarrollo_rural/2051168992_2112009172940.pdf.
- Röling, N.G. (2002). Beyond the aggregation of individual preferences: moving from multiple to distributed cognition in resource dilemmas. In: C. Leeuwis, R. Pyburn (Eds.), *Wheelbarrows Full of Frogs: Social Learning in Rural Resource Management*, Assen: Royal Van Gorcum.
- Sandberg, K.W., & Ohman, G. (2011). Learning in innovation development. *Procedia - Social and Behavioral Sciences*, 28, 379 – 383. doi:10.1016/j.sbspro.2011.11.072
- Stilgoe, J., Owen, R., & Macnaghten, P. (2013). Developing a framework for responsible innovation. *Research Policy*, (42), 1568–1580. <http://dx.doi.org/10.1016/j.respol.2013.05.008>.

- Van Mierloa, B., Leeuwis, C., Smits, R., & Klein, R. (2010). Learning towards system innovation: Evaluating a systemic instrument. *Technological Forecasting & Social Change*, 77, 318–334. doi:10.1016/j.techfore.2009.08.004
- Von Schomberg, R. (2011). Prospects for technology assessment in a framework of responsible research and innovation. In: Dusseldorp, M., Beecroft, R. (Eds.), *Technikfolgen Abschätzen Lehren: Bildungspotenziale Transdisziplinärer Methode* (pp. 39-61), Wiesbaden: Springer VS.

Contribution g

“El Comercio Agrícola y la Prosperidad Rural”

Title	Authors	Type of Contribution	Published/ Presented	Quality Criteria
El Comercio Agrícola y la Prosperidad Rural	Hilario Becerril; María Rivera	Oral presentation in an International Conference (2014)	XVII Congreso Internacional de Dirección e Ingeniería de Proyectos Organized by the Asociación Española de Ingeniería de Proyectos and the International Project Management Association	International conference with blind peer-review

Related to chapter 2

EL COMERCIO AGRICOLA Y LA PROSPERIDAD

una propuesta conceptual desde el modelo Working With People.

RESUMEN:

En un entorno donde no existe la comunicación entre distintos niveles sociales y que sufre una creciente demanda en la producción agropecuaria, la agroindustria y calidad de los mismos, el comercio, como regulador de la oferta y la demanda, ejerce un fuerte impacto sobre el medio económico, ambiental y sobre la calidad de vida de los agricultores. Esta situación conlleva la necesidad de encontrar un equilibrio sostenible y justo entre las partes involucradas (agricultores y comerciantes).

Esta comunicación busca encontrar este equilibrio a través de la integración del comercio con la prosperidad, entendida no desde un punto de vista directamente económico, sino como una mejora en la calidad de vida. Esta propuesta se encuentra enmarcada en el modelo Working With People (WWP) como base conceptual desde la que se impulsarán acciones concretas que fomentarán el acercamiento entre las partes que conducirá hacia una resiliencia sostenible del sector. Para ello se llevará a cabo una exhaustiva revisión de la literatura científica sobre el tema, a fin de analizar y desarrollar el estado del arte de los conceptos involucrados. Como resultado se presenta una propuesta conceptual desde las tres dimensiones del modelo WWP: técnica-empresarial, ético-social, político-contextual"

Palabras clave: Comercio; Prosperidad; WWP; Calidad; Agricultura; agroindustria.

AGRICULTURAL TRADE AND PROSPERITY

A conceptual proposal from the Working With People model.

ABSTRACT:

In an environment where there is no communication between different social levels and which is suffering an increasing demand in agricultural production, agribusiness and quality, trade, as a regulator of the supply and demand, has a strong impact on the economic and environmental areas as well as on the farmers quality of life. This entails the need to find a sustainable and fair balance between the different parties (farmers and traders).

This paper seeks to find this balance through the integration of trade with prosperity, understood not from a purely economic point of view, but as an improvement in life quality. This proposal is framed within Working With People (WWP) as the main conceptual base for achieving concrete actions that will promote a rapprochement between the parties that will lead to the sector's sustainable resilience. This will be achieved through a exhaustive review of scientific literature in order to analyze and develop the state of the art of the concepts involved. The result is a conceptual proposal presented from the three dimensions of the WWP model: technical-entrepreneurial, ethical-social, political-contextual"

Key Words: trade; prosperity; wwp; quality; agriculture; agroindustry

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1. INTRODUCCION

Es complicado el entender como se integra una cadena de producción y comprender la posición de cada uno de los eslabones en la generación de recursos para mantener en operación la misma, y mas aun comprender el papel del comercio en este proceso, acción que conlleva posiciones de decisión en ocasiones en contra de los agroproductores (Neu, 2014). Este proceso puede resultar mas dinámico y anárquico en los países en desarrollo, que toman como referencia a los desarrollados lo que pueden provocar notorios avances o profundos desajustes (Briz & De Felipe, 2011).

La cadena agroalimentaria (Fig. No. 1) se constituye por diversos eslabones, producción primaria, transformación, comercialización(canales de distribución minorista y restauración) y consumidores finales (Herrero, 2013).

Figura 1. Cadena Agroalimentaria

Fuente: Elaboración propia

El primer eslabón de la cadena lo integran los agricultores o grupos de agricultores ya sea organizados formando cooperativas (Gallego Bono & Lamanthe, 2011), como sociedades privadas (Rodríguez, 2006) o laborando en forma individual a nivel familiar a través de pequeñas empresa familiares conocidas como famiempresas (FMDR, 2014).

El desarrollo de los agricultores y grupos de agricultores se da en forma paralela al crecimiento poblacional y por supuesto al crecimiento de nuevos demandantes de productos agropecuarios y en respuesta a esto, los agroproductores se ven en la necesidad de mejorar sus sistemas de producción, superando su autoconsumo y generando excedentes que se ofertan a los diversos mercados, iniciándose el proceso de comercialización (Briz & De Felipe, 2011).

La comercialización es el segundo eslabón de mayor importancia dentro de la cadena. La comercialización se da desde los procesos menos complicados (y una gran parte de los agroproductores así lo deciden), venta de excedentes de su producción a puerta de rancho, ingreso en efectivo y a la mano, los precios son estipulados por el comprador, hasta los mas

complicados y que consisten en la contratación de ventas de productos con empresas comercializadoras, que pueden ser agroindustrias o hipermercados, cuyo trato comercial esta definido por normas y reglamentos del estado, influidos por los ministerios de agricultura y economía y mas aun por la normatividad local, teniendo que conocer detalladamente cada uno de los lineamientos comerciales de cada región y de cada país en caso de que los comerciantes sean operadores de productos de exportación.

Los productos agrícolas son considerados parte básica de las agroindustrias(eslabón conocido como procesamiento), estas los procesan y le dan un valor agregado, permitiendo así ofrecer un producto mas atractivo a los consumidores. Estos productos se diferencian por la calidad de su proceso, mismo que permite dar al consumidor una amplia información sobre su contenido y calidad nutricional, procesos que actualmente son observados por diversos grupos de consumidores interesados en la relación producción/medio-ambiente, observándose el incremento por el consumo de estos productos y estando de acuerdo en pagar un poco mas por su consumo (Mercados, 2011).

Esta situación hace que algunas empresas agropecuarias con capacidad económica y tecnológica modifiquen sus sistemas de producción tradicionales en sistemas de producción ecológicos, acción que implica una elevación de costos de producción haciendo de sus productos finales un segmento especializado para un grupo definido de consumidores.

La base de estas acciones se fundamentan en el principio de agricultura sostenible, en el cual se deben satisfacer las necesidades del presente sin comprometer la capacidad de las generaciones futuras para satisfacer con éxito las suyas (Safley, 1998) (Cazorla, De los Ríos, & Salvo, 2013)

La importancia de las empresas conformadas en Cooperativas por el número y volumen de negocios realizados cotidianamente, han desarrollado sistemas administrativos que les permiten tener una mayor eficiencia en las ventas con respecto al resto de los sectores tradicionales agrarios, manifestándose esto, en la mayor rentabilidad obtenida por los mismos, en términos estáticos y dinámicos por el grado tecnológico alcanzado en los procesos de producción y comercialización, integrándose a las funciones normales de la operación teniéndose como resultado una proporcionalidad entre los costos y los ingresos (Martín Lopez & Ruiz Guerra, 2011).

El cooperativismo y la comercialización se ha convertido en una realidad económica consolidada para el sector agrario (Martín Lopez & Ruiz Guerra, 2011), comercio que no realizan en su totalidad, siendo los intermediarios (Casares & Rebollo, 2002), quienes realizan la mayor parte de este proceso a nivel nacional e Internacional.

Las organizaciones de productores han tomado un gran repunte y buscan fortalecerse en cada una de sus cadenas, este fortalecimiento tiene el objetivo de resguardarse de los embates del mercado, el fortalecimiento esta enfocado a la formación de alianzas estratégicas, asociación de cooperativas, etc. y así contrarrestar el alto poder del mercado de los agentes dominantes (Sanchez, Briz, & Valerio, 2011).

El comercio es producto de relaciones humanas, relaciones que pueden ser éticas entre proveedores(agroproductores, agroindustriales) e intermediarios o comerciantes en el proceso de hacer un reparto mas equitativo del valor añadido del producto original entre los agentes económicos de este proceso (Briz & De Felipe, 2011).

La prosperidad vista en forma tradicional es obtener recursos económicos producto de las actividades productivas o comerciales y que permiten obtener una vida prospera,

entendiéndose esta, como mejorar la calidad de vida (Ardila, 2003) en una forma integral.

Pero la prosperidad no solo se da con la generación de recursos económicos, tradicionalmente el bienestar y la prosperidad se mide a través del PIB, el cual mide todo los bienes y servicios que se comercializan en el mercado, El PIB no mide toda una serie de actividades que no se negocian en el mercado, pero que, no obstante, contribuyen o restan valor a nuestra sensación general de bienestar, que incluye: actividades de los hogares, la salud humana, etc. (Baumol, 2007).

El pensar en que las actividades agroproductivas y las comerciales puedan ser equilibradas para obtener una prosperidad equitativa, tendría que existir una vinculación estrecha entre los dos ámbitos, el aprendizaje y la enseñanza son puntos básicos para esta actividad.

El desequilibrio observado entre las partes de producción(proveedores) y los responsables del dispersar los productos en los diferentes niveles de proceso hasta llegar a los consumidores finales(comerciantes o intermediarios) es fundamentalmente por la falta de comunicación, de vinculación, de una interacción no solo de negocio, de una interacción sensible entre ambas partes y como mencionan Cazorla & de los Ríos (2013), el modelo WWP se considera para transmitir la necesidad de superar la visión tradicional técnico-económica de la prosperidad.

El buscar el equilibrio tendrá como resultados una prosperidad real, considerándose esta como una calidad de vida, entendiéndose como el siguiente paso después de haber satisfecho las necesidades básicas de alimento, vivienda, trabajo, salud (Ardila, 2003), acción vinculada con el modelo WWP quien busca garantizar el bienestar social y el desarrollo sostenible.

Objetivo

Los resultados de esta investigación integraran una propuesta para lograr el equilibrio entre los principales eslabones de la cadena agroalimentaria, "el comercio y la agroproducción", eslabones que buscan obtener una prosperidad cada uno en sus actividades específicas. El modelo WWP se ubica como instrumento viable para la vinculación de estos conceptos y generar finalmente un equilibrio que tendrá como resultado una prosperidad real, entendida por los participantes de ambos eslabones.

Metodología

Para la realización de esta investigación se considera analizar los procesos que vinculan el comercio agrícola con la prosperidad. Se analizaran los conceptos de comercio y prosperidad y se incorpora en este proceso de análisis el modelo WWP, modelo que permite hacer interaccionar no solo los procesos de comercialización y producción agrícola, sino que permite hacer reflexionar sobre la situación en la que actúan, reflexionar sobre cada uno de sus procesos (RURAGRI ERA-NET, 2013).

Los análisis de cada uno de estos elementos permitirán aportar una propuesta que permita formar un equilibrio en el concepto general de "comercio agrícola", que integra los eslabones básicos de la cadena agroalimentaria, "comercio y agroproducción" relacionándolos con la necesidad de la existencia de una prosperidad que sea entendida por ambas partes como un mejoramiento de su calidad de vida (Ardila, 2003).

Resultados

La definición de comercio según el diccionario de la Real Academia Española, del latín *commercium*, "negociación que se hace comprando y vendiendo o permutando géneros o mercancías". En base a esta definición, el comercio agrícola se enfoca a la compra venta, o permutando mercancías agropecuarias.

La agricultura analizada desde la visión de actividad multifuncional (Martínez, 2002) y (Bonaf, Bosc, Díaz, & Losch, 2003), se ha popularizado en los últimos años y no sólo por la creciente insatisfacción con las políticas agrarias tradicionales, de orientación productivista, sino también como consecuencia de la admisión de las preocupaciones no comerciales (non-trade concerns) por parte de la Organización Mundial del Comercio (OMC).

El mercado se ha empezado a definir y las opciones no son muchas y en el sistema de producción agropecuario es "*adaptarse*" a los cambios del entorno (organización, producción, comercialización) o "*marginarse*", desafortunadamente si no hay previsión, es mas posible que pase lo segundo (Acosta, 2006), y al marginarse estos agroproductores, es cuando se forman los grandes grupos relegándose a los mas débiles.

La separación de la actividad comercial y la producción de agroproductos hace que existan inercias independientes sobre la dinámica existente en la cadena agroalimentaria, el elemento de referencia es el eslabón final conocido como consumidores, este eslabón es el decide que comprar y por lo tanto es necesario conocer lo que realmente necesita (Nebreda, 1992) y así el sector distributivo o de comercialización prepare el producto que realmente será pagado por el consumidor, apoyándose por el área productiva o por el área de la transformación o agroindustrial, los consumidores son exigentes y el distribuidor debe atender las exigencias, ubicando el producto requerido en el lugar adecuado y en el momento adecuado (Casares & Rebollo, 2002).

Al analizar detalladamente este proceso que conlleva el análisis de todo el proceso de la cadena agroalimentaria y necesariamente conocer el peso económico que integra todo este proceso y que se conoce como cadena de valor (Porter, 1985), definiéndose como el valor de la suma de los beneficios percibidos que el cliente recibe menos los costos percibidos por él al adquirir y usar un producto o servicio. La cadena de valor es esencialmente una forma de análisis de la cadena agroalimentaria mediante la cual descomponemos a la cadena en sus partes constitutivas, buscando fuentes generadoras de valor y aprovechar las ventajas competitivas (Porter, 1985).

El comprender el funcionamiento de la cadena de valor genera un aprendizaje y generación de experiencias y el modelo WWP concibe la prosperidad como un proceso de aprendizaje social que incluye nuevas relaciones humanas, administración y sistemas de negociación, las nuevas formas de aprendizaje, nuevas formas de estructuración intercambio de información y conocimientos entre todos los agentes sociales que traen el bagaje de innovación.

En todo el proceso de la dinámica de la cadena agroalimentaria las diferentes partes compiten, como complemento, y permiten la colaboración entre sí para permitir que cada uno alcance sus metas. El estudio analiza las relaciones sofisticadas entre actores, y proporciona insumos a las discusiones estratégicas acerca de cómo mejorar sus posiciones competitivas (Wei, 1999).

La innovación como un proceso de aprendizaje social puede ser entendida, por tanto, como un proceso abierto e interactivo con una importante dimensión social y una constante forma de adaptación de las formas de conocimiento y aprendizaje para el mercado (Cazorla et al, 2013) (De los Ríos, Turek, & Afonso, 2013).

Un elemento importante del modelo WWP es la dimensión ética - social, este componente abarca el contexto de comportamiento, actitudes y valores de las personas que interactúan en las acciones, fomentar una gobernabilidad incluyente de las cadenas, potenciar la legislación y buenas prácticas agrícolas y comerciales y promover la innovación para mejorar las condiciones de agricultores menos beneficiados (IICA, 2006). Este componente se identifica con el subsistema social, que consiste en todas las relaciones interpersonales que tienen lugar.

El rendimiento de la producción, el comercio agrícola nacional e internacional y la actividad agroindustrial se hace más dependiente de la labor de la gobernanza en la integración de reformas políticas agrarias (Díaz-Bonilla & Reca, 2000) que permitan una mayor integración y desarrollo de sus actores.

Las relaciones directas entre los agroproductores y los actores del comercio permiten lograr acuerdos y llegar a un equilibrio que permite la generación de no solo de recursos para la cadena sino también el mejoramiento de la calidad de los agroproductos que permiten que los distribuidores comerciales cumplan con sus metas de calidad para los consumidores (Bojnec & Ferto, 2009), estas acciones son elementos que cubren la conducta y la moralidad de las personas que interactúan en estas acciones.

Las personas responsables del proceso de vinculación e integración de las partes, establecen los "fundamentos" para lograr el cumplimiento del modelo WWP, con el compromiso, la confianza y la ética que significa considerar el proyecto como no "neutral", pero basado en un ideal de servicio y guiada por valores. Este componente se integra en competencias conductuales con la ética y los valores (AEIPRO, 2009).

Finalmente el llegar a lograr una comunicación e interacción con estas características, el comercio agrícola será prospero y con una calidad de vida (Ardila, 2003) idealizada por los actores de este proceso, "agroproductores y comerciantes".

Conclusiones

Para lograr que exista un equilibrio entre los actores de la agroproducción y los responsables de la distribución, se requiere de una comunicación constante, un manejo de información abierta, la aplicación diaria de la apreciación de valores y la ética en cada acción (AEIPRO, 2009). Como menciona Wei, (1999), el análisis de las acciones proporciona insumos a las discusiones estratégica de las partes con el objetivo de ser más competitivos, cada uno en sus competencias.

El papel de la gobernanza es importante, las políticas de producción y comerciales deben ser de abajo hacia arriba, esta acción permite que el desarrollo de la dinámica transformadora sea responsabilidad de cada uno de los actores y las políticas emitidas tendrán los resultados esperados, aumento de la producción, mayor calidad de la

producción, canales de distribución mas eficientes, respuesta a los consumidores para satisfacer sus necesidades alimentarias en el momento oportuno y a precios competitivos.

El modelo WWP garantiza el bienestar social y el desarrollo sostenible en donde los esfuerzos de las partes vinculadas buscan satisfacer las necesidades apoyándose con el uso de tecnologías, conocimiento y su transformación en la innovación para garantizar el bienestar social y la prosperidad, fomento el empleo y la satisfacción laboral.

Finalmente el modelo WWP permite:

1. Mejorar los sistemas de producción agropecuarios.
2. Mejorar los canales de distribución.
3. Incrementar los ingresos producto de su producción en exceso y comercialización a través de una gestión equilibrada con los distribuidores.
4. Los intermediarios obtendrán una mejorar la calidad de los agroproductos.
5. Mejoran la calidad de vida de sus integrantes.
6. Entienden la prosperidad producto de una gestión equilibrada entre las partes.
7. Logran actividades agrocomerciales con mayor rentabilidad.
8. Adoptar el modelo WWP como parte básica de sus acciones diarias.

Bibliografía

- Acosta, L. A. (2006). Agrocadenas de Valor y Alianzas Productivas: "Herramientas en Apoyo a la Agricultura Familiar en el Contexto de la Globalización". *FAO* , 9.
- AEIPRO. (2009). *Bases para la Competencia de Dirección de Proyectos*. Valencia, Valencia, España: Editorial UPV.
- Ardila, R. (2003). Calidad de Vida: Una Definición Integradora. *Revista Latinoamericana de Psicología* , 161-164.
- Baumol, J. W., Litan, R. E., & Schramm, C. J. (2007). *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity*. Michigan, Michigan, United States: Yale University Press.
- Bojnec, S., & Ferto, I. (2009). Determinants of Agro-food Trade competition of Central European Countries with The European Union. *China Economic Review* , 327-337.
- Bonal, P., Bosc, P., Diaz, J., & Losch, B. (2003). Multifuncionalidad de la Agricultura y Nueva Ruralidad. ¿Reestructuración de las Políticas Publicas a la hora de la Globalización? (pág. 23). Bogota: Universidad Javeriana.
- Briz, J., & De Felipe, I. (2011). *La cadena de Valor Agroalimentaria. Analisis Internacional de Casos Reales*. Madrid, Madrid, España: Editorial Agrícola Española S.A.
- Casares, J., & Rebollo, A. (2002). La innovación en la Distribución Comercial. El papel de Mercasa y la red de Mercas. *Guía de Empresas y Servicios de la Red de Mercas* . , 23.

- Cazorla, A., De los Rios, I., & Salvo, M. (2013). Working With People (WWP) in Rural Development Projects: a Proposal from Social Learning. *Cuadernos de Desarrollo Rural* , 131-157.
- De los Rios, I., Turek, A., & Afonso, A. (2013). Project Management Competencies for Regional Development in Romania: Analysis from "Working With People " Model. *Procedia Economics and Finance* , 614-621.
- Diaz-Bonilla, E., & Reca, L. (2000). Trade and agroindustrialization in developing countries: Trends and policy impacts. *Agrocultural Economics* , 219-229.
- FMDR. (9 de abril de 2014). COPARMEX.ORG.MX. Obtenido de COPARMEX.ORG: www.coparmex.org.mx/contenidos/publicaciones/entorno/2001/oct01/inclusion.htm
- Gallego Bono, J. R., & Lamanthe, A. (2011). ¿Porque las Cooperativas no Dominan en los Sistemas Hortofutícolas Tradicionales? Una Comparación entre España y Francia. *Ciriec, España, Revista de Economía Publica, Social y Cooperativa.* , 9-42.
- Herrero, A. (2013). Las Cadenas Agroalimentarias y la Cadena de Valor. *Mediterraneo Economico. Colección de Estudios Socioeconomicos.* , 275-300.
- IICA. (2006). *Políticas para la Prosperidad Rural. La contribución de la Agricultura y de los Territorios Rurales a la creación de empleo y la reducción de la pobreza.* San Jose, San Jose, Costa Rica: Imprenta IICA.
- Martin Lopez, V., & Ruiz Guerra, I. (2011). Strategic Management for the Internationalization and Cooperative Markets. *ELSEVIER LTD* , 24, 769-780.
- Martinez, E. (2002). La Multifuncionalidad del Mundo Rural. *ICE Globalización y Mundo Rural* , 33-44.
- Mercados, G. E. (2011). *Estudio del perfil del Consumidor de Alimentos Ecologicos.* Ministerio del Medio Ambiente y Medio Rural y Marino. Madrid: GFK España.
- Nebreda, L. (1992). Analisis del Proceso de Decisión del Consumidor para la Estrategia Comercial de la Empresa. 75-96.
- Neu, J. L. (21 de abril de 2014). *Hugo Neu Corporation.* Obtenido de hugoneu.com: www.hugoneu.com/es/includes/pdfs/hugoneu_ne_recycleconf_spch_sp.pdf
- Porter, M. E. (1985). *Competitive Advantage. Creating and Sustaining Superior Performance.* New York, US: Free Press.
- Rodriguez, M. (2006). *Impactos Diferenciados de la Liberalización Comercial sobre la Estructura Agrícola de America Latina.* Santiago de Chile: CEPAL, ONU.
- RURAGRI ERA-NET. (2013). *Rethinking the links between farm modernisation, rural development and resilience in a world of increasing demands and finite resources.* Comision Europea. Ghent: RURAGRI ERA-NET.

Contribution h

“La prosperidad rural en una sociedad agraria: oreintación por proyectos desde el modelo WWP”

Title	Authors	Type of Contribution	Published/ Presented	Quality Criteria
La prosperidad rural en una sociedad agraria: oreintación por proyectos desde el modelo WWP	María Rivera; Ignacio de los Ríos; Carmen García	Oral presentation in an International Conference (2015)	XVIII Congreso Internacional de Dirección e Ingeniería de Proyectos Organized by the Asociación Española de Ingeniería de Proyectos and the International Project Management Association	International conference with blind peer-review

Related to chapter 2

La prosperidad rural en una sociedad agraria: orientación por proyectos desde el modelo WWP

Autores: María Rivera; Ignacio de los Ríos; Carmen García

Resumen

El concepto de la prosperidad está siendo redefinido desde un nuevo punto de vista que tiene en cuenta no sólo los aspectos económicos, sino también los sociales. Esta nueva visión de la prosperidad se estudia dentro de las tres dimensiones del modelo Working With People. El objetivo de este trabajo es ilustrar el concepto de prosperidad en los sistemas agrícolas mediante el análisis de SAT Camposeven, donde su nueva comprensión de la prosperidad en el medio rural y las nuevas formas de conocimiento y de aprendizaje han hecho que la sociedad sea un éxito y un ejemplo de buenas prácticas. Camposeven entiende la prosperidad, no sólo como rentabilidad económica, sino también como un modelo en el que la satisfacción del trabajador, la inversión en I + D + i y la preocupación por el medio ambiente son factores clave para que la explotación agrícola prospere. Esta nueva definición se logra a través de diferentes puntos de vista: agricultores, agentes del ámbito público, trabajadores y personas de diferentes organizaciones. Por ello, Camposeven se ha comprometido con la producción de agricultura ecológica y biodinámica con el fin de alcanzar una diferenciación a largo plazo en un entorno agrícola muy competitivo y tradicional.

Abstract

The concept of prosperity is being redefined from a new point view that takes into account not only economic aspects but also social ones. This new vision of prosperity is studied within the three dimensions of the Working With People model.

The aim of this paper is to illustrate the concept of prosperity in agricultural systems by analyzing a case study in the Region of Murcia, Camposeven, where their new understanding of prosperity in the rural environment and new forms of knowledge and learning have made the society a success and a good practice example.

The society Camposeven understands prosperity, not only as economic efficiency, but also as a model where worker's satisfaction, investment in R + D + i and concern for the environment are key factors for a farm to thrive. This new definition is achieved through different viewpoints: farmers, members of the public sphere, workers of the SAT and people from different agricultural organizations among others. Because of this, Camposeven has committed to organic and biodynamic farming in order to reach a long-term differentiation within a very competitive and traditional agricultural environment –they have

increased their sales significantly in just 7 years after its creation.

Keywords: Working With People; Prosperidad; Rural; Desarrollo; Conocimiento; Aprendizaje

1. Introducción

Convencionalmente, los conceptos de prosperidad y bienestar han estado fuertemente vinculados al rendimiento económico, y en consecuencia, el crecimiento se ha medido tradicionalmente a través del Producto Interior Bruto (PIB), basado en el aumento de la producción. Sin embargo, el crecimiento de la producción no representa con precisión el crecimiento del bienestar social, debido a que el PIB sólo tiene en cuenta los bienes y servicios que se comercializan en el mercado o que tienen precios adjuntos (Baumol, Litan & Schramm 2007; Darnhofer et al, 2014). El uso generalizado del PIB como indicador clave de la prosperidad ha sido ampliamente criticado ya que no tiene en cuenta servicios no remunerados (como el trabajo doméstico y el trabajo voluntario), las externalidades negativas (degradación del medio ambiente) y los cambios en la base de los activos que afectan a nuestras posibilidades de consumo, (Stiglitz, Sen & Fitoussi, 2009).

En consecuencia, desde 1970, se inició un proceso de reformulación de los conceptos clave y definiciones alternativas, y se desarrollaron indicadores para medir el progreso. Por ejemplo, Jackson (2009, p. 44) señala que, en un mundo con límites, algunos tipos de libertad son inmorales por ejemplo, la libertad de acumular bienes materiales sin fin a pesar de que ello conlleve trabajo infantil.

La comprensión de la prosperidad desde esta nueva perspectiva implica que el crecimiento económico a nivel regional y la eficiencia económica de las explotaciones no son signos propios de prosperidad en las zonas rurales. Por lo tanto, las grandes explotaciones especializadas ya no deberían ser el modelo ideal a seguir en las zonas rurales. Las pequeñas explotaciones pueden vincularse con hermosos paisajes, de pequeña escala y producción ecológica abandonando la producción intensiva (Darnhofer et al, 2014). Shucksmith y Rønningen (2011) ponen en relieve el hecho de que las pequeñas explotaciones pueden representar un soporte sobre el que los hogares rurales pueden sustentar sus medios de vida a través de la diversificación de la actividad y mantener, así, la población en zonas en las que, sin ellas, se hubieran perdido.

Con esto en mente, en este trabajo se analiza cómo una pequeña cooperativa agrícola, denominada Camposeven, que utiliza sistemas de producción biodinámicos y ecológicos, situada en el sureste de España (Región de Murcia), es capaz de prosperar sin seguir los sistemas convencionales de crecimiento económico y de eficiencia de las explotaciones. Tanto el proceso de evolución de la organización, así como las opiniones de los principales grupos de interés han sido analizados para incorporarlo a esta nueva reformulación del concepto, además de como las principales estrategias seguidas por la cooperativa con el fin de conseguir ser próspera. El análisis está basado en el marco conceptual Working With People (WWP) (Cazorla, De los Ríos & Salvo, 2013), cuyo objetivo es mejorar los valores de las personas y el intercambio de conocimientos para alcanzar prosperidad a largo plazo. En el núcleo del modelo de WWP, el equilibrio entre las tres dimensiones de competencias – competencias técnicas,

de comportamiento y contextuales - es básico. Este modelo conduce a un progreso considerable debido al equilibrio entre las funciones de los agentes y un empoderamiento en las cuatro (Cazorla, De los Ríos & Salvo, 2013). La prosperidad dentro del modelo WWP incluye los siguientes principios y valores: el respeto y la primacía de las personas; garantizar el bienestar social y el desarrollo sostenible; un enfoque multidisciplinario y de abajo a arriba; y un enfoque endógeno e integrado.

En definitiva, el objetivo de esta investigación es analizar, desde el mencionado marco conceptual WWP, cómo unos agricultores con gran experiencia en el sector comienzan un nuevo proyecto, Camposeven, y consiguen en siete años ser una cooperativa exitosa y próspera. Todo ello, basándose en valores tales como la confianza y la ética en los negocios, el trabajo en equipo y apostando por la calidad de sus productos y la salud de las personas mediante la producción de cultivos hortofrutícolas ecológicos y biodinámicos. Además, el estilo de liderazgo llevado a cabo tanto por el director gerente como por los responsables de cada uno de los departamentos de la organización, sigue el modelo IPMA en dirección de proyectos siendo fundamental en este proceso.

1.1 Proceso evolutivo de Camposeven

Camposeven, el caso de estudio de este trabajo, se encuentra situado en un área de la Región de Murcia denominada Campo de Cartagena. A nivel espacial, la escala territorial analizada es la Comunidad de Regantes del Campo de Cartagena (Cartagena, San Javier, San Pedro del Pinatar, Torre Pacheco, La Unión y Los Alcázares), aunque el pueblo de Pilar de la Horadada de la provincia de Alicante (Comunidad Valenciana) también está incluido. Esta zona presenta un sistema agrícola típico, que cuenta con 1.163 km² y una población total de 358.927 habitantes. En esta región la industria alimentaria tiene una larga tradición en la red de producción. El Campo de Cartagena, con el 12% de la superficie regional, concentra el 17% de las tierras de cultivo de la región, de los cuales 44% son cultivos de regadío, y cuenta con sistemas agrícolas altamente técnicos y competitivos. Los productos más importantes en términos de superficie de riego son: lechuga (5.268 ha.), melón (4.779 ha.), alcachofa (3.148 ha.), brócoli (2.442 ha.) y tomate (933 ha.). El cultivo en invernadero es el más predominante, ya que en el Campo de Cartagena, este tipo de producción, implica el 57% del total de cultivos (INFO, 2013).

La sociedad Camposeven fue fundada por siete agricultores en 2007. Anteriormente, durante más de treinta años, estos agricultores formaron parte de otra cooperativa también dedicada a la comercialización de productos hortofrutícolas, lo que implica que estos agricultores cuentan con una amplia experiencia en este sector y en la producción, transformación y comercialización de los cultivos. Asimismo, el actual director ejecutivo de Camposeven fue también director general de la cooperativa anterior hasta el año 2006. Por aquel entonces, dicha cooperativa contaba con, aproximadamente, 480 socios, 600 empleados, 60 millones de euros de ventas, y 83.000 toneladas de producción. Sin embargo, esta cooperativa sólo producía, y produce, productos convencionales. El año 2007 marcó un punto de inflexión para estos 7 agricultores que decidieron abandonar la antigua cooperativa y crear la suya propia, hecho que fue motivado por los desacuerdos sobre el modo de funcionamiento de la anterior cooperativa (todos los socios agricultores

manifestaron este motivo en las entrevistas). Estos siete socios querían formar una nueva sociedad, basada en la confianza y la transparencia, que se centrara más en la calidad de los productos que en la cantidad de producción. Es por ello que en la misión de la actual sociedad quedan reflejados perfectamente estos ideales: "favorecer la salud de las personas desarrollando líneas de productos ecológicos mediante técnicas sostenibles" (Camposeven, 2014). Debido a esto, el factor distintivo y la principal característica de Camposeven es que la mayoría de sus productos se cultivan siguiendo las normativas europeas de producción ecológica. Estos pilares han sido claves para adaptarse a un contexto complejo y adverso, superando, unidos, diferentes desafíos.

En sus comienzos, Camposeven fue formada por siete familias productoras que contaban con 200 hectáreas de tierra y 13 variedades de productos (Camposeven, 2014). Camposeven ha sido creado por los agricultores, y ellos son los que ejecutan y dirigen el negocio. Los agricultores son empresarios que tienen plena autonomía en Camposeven, esto significa que tienen el control total de los recursos los cuales incluyen la tierra, el trabajo, el conocimiento y las redes, siempre sobre la base de una relación de confianza y ética. En 2008, primer año de comercialización, el nivel de ventas alcanzó 7.056.871 euros (Camposeven, 2014). Su producto principal era y todavía es el pimiento, muy común en la zona del Campo de Cartagena por las favorables condiciones climatológicas de la zona. Sumergirse en esta aventura, justo en el comienzo de la crisis económica mundial, demuestra el carácter emprendedor de los agricultores. En 2011 el número de familias productoras aumentó a nueve, y el número de hectáreas a 350, lo que incrementó su producción a 17.000 toneladas (Camposeven, 2014). La apuesta de estos agricultores, y por tanto de Camposeven, por las nuevas tecnologías y la inversión en I+D+i siempre ha sido un rasgo distintivo de la organización. En 2014 la sociedad ya contaba con 125 trabajadores, 490 hectáreas de producción, 19.280 toneladas de 19 variedades de productos y 19.078.545 € de ventas, de las cuales el 90% corresponden a productos exportados a otros países de la UE, principalmente Alemania, Suiza, Inglaterra, Francia e Italia. A finales de este año, tanto los socios agricultores como la cooperativa recibieron la certificación, bajo la normativa internacional de producción biodinámica, Deméter, proporcionándoles una diferenciación absoluta del resto de productores de la zona. Las primeras ventas de este tipo de producción se llevaron a cabo en el último trimestre de 2014. Se vendieron 105.182 kg de productos, lo que equivale a 181.269 euros.

2. Metodología

Esta investigación se enmarca dentro de un proyecto de investigación transdisciplinar con el apoyo de la Comisión Europea y los organismos de financiación en 14 países englobados en el marco del 7PM y el RURAGRI ERA-NET llamado Rethink (Rethink, sf). Su objetivo es repensar los vínculos entre la modernización de las explotaciones, el desarrollo rural y la resiliencia en un mundo de crecientes demandas y recursos finitos. En este contexto internacional, los trabajos se desarrollaron con un marco de referencia común (Darnhofer et al., 2014) para el análisis de las especificidades de la prosperidad rural desde las cuatro dimensiones del modelo working with people (Cazorla, De los Ríos & Salvo, 2013).

El análisis consiste en dos tipos de datos: 1) información recogida con el objetivo

de examinar el proceso evolutivo de Camposeven y cómo llegó a ser una cooperativa exitosa, para lo cual se utilizó información primaria obtenida mediante entrevistas en profundidad a los socios y trabajadores de Camposeven. Para la recopilación y sistematización de este tipo de información, se llevaron a cabo entrevistas directas, de forma individual y cara a cara. Los cuestionarios constaban tanto de preguntas abiertas como cerradas, y cada entrevista duró entre 60 a 90 minutos cada una. Todas las entrevistas se llevaron a cabo en las instalaciones de Camposeven o en sus propias fincas. El número total de entrevistas realizadas fue de 22, y se llevaron a cabo entre el 23 de abril y 7 de julio de 2014. Después de llevar a cabo todas las entrevistas, se procedió al análisis de datos. Para ello, todas las preguntas y respuestas se clasificaron en los cuatro elementos que constituyen la metodología WWP: técnico-empresarial, ético-social, político-contextual, y aprendizaje social (Cazorla, De los Ríos & Salvo, 2013). Las preguntas cerradas se basaron en la metodología propuesta por Abad et al. (2011), que consiste en una prueba de rendimiento típico con los tipos de respuestas divididas en categorías ordenadas que permiten a la persona matizar aún más su respuesta. El tipo seleccionado fue el llamado "nivel de acuerdo" de "tipo Likert" para el que se establecieron los siguientes valores: 1. muy baja, 2. bajo, 3. alto y 4. muy alto. El resto de las preguntas abiertas se sometió a un análisis cualitativo (Timmermans & Tavory 2012).

2) información recogida con el objetivo de conocer y ampliar conocimientos sobre el contexto de la sociedad. Esta información fue recopilada de manera secundaria a través de datos estadísticos, estudios e informes económicos, entre otros, procedentes de fuentes oficiales tales como la consejería agricultura o asociaciones de cooperativas de la zona.

3. Resultados

Esta sección muestra el análisis cualitativo de las estrategias llevadas a cabo por el proyecto de Camposeven dentro de cada una de las dimensiones del Working With People.

Las siguientes secciones muestran el valor proporcionado por los principales socios de Camposeven a las diferentes estrategias adoptadas para alcanzar la prosperidad. Se dividen en 4 componentes: técnico-empresarial, ético-social, político-contextual y aprendizaje social (Cazorla, De los Ríos & Salvo, 2013). El apartado técnico-empresarial integra las estrategias clave que hacen a Camposeven una unidad de inversión capaz de generar servicios de calidad y que cumplen con los estándares de calidad (IPMA, 2010). El ético-social cubre todas las estrategias relacionadas con los comportamientos, actitudes y valores de las personas dentro del subsistema social (Cazorla, De los Ríos & Salvo, 2013). El político-contextual comprende las estrategias que facilitan la participación y la dinámica social de Camposeven con su contexto. Por último, el aprendizaje social actúa como componente de integración de los tres componentes anteriores de modo que consiga conectar el conocimiento experimentado (Hulme, 1989) de la población afectada con el conocimiento experto del planificador, generando así un aprendizaje mutuo (Cazorla, De los Ríos & Salvo, 2013).

Estos cuatro componentes analizados se engloban dentro de un estilo de liderazgo sin el cual, no hubiese sido posible el éxito y la prosperidad de la organización. El modo en el que está dirigida y funciona la cooperativa, y la manera en la que los agricultores gestionan y trabajan sus propias fincas, se basan en los principios del modelo IPMA de dirección de proyectos. Siguen este estilo aplicando una visión por proyectos en la que, no solo las competencias técnicas son relevantes sino que, se aprecia el valor que

también tienen las competencias de comportamiento y contextuales. El director gerente de Camposeven obtuvo en 2009 el “Certified Senior Project Manager” a través del sistema de certificación IPMA evaluando sus competencias personales mencionadas anteriormente de la Dirección de Proyectos. Además todos los responsables de los departamentos de la cooperativa asistieron en Febrero/Marzo de 2014 a un seminario-taller de dirección de proyectos impartido por profesionales de la UPM.

3.1 Elementos técnico-empresariales

Las principales estrategias utilizadas que han contribuido a la prosperidad rural desde un punto de vista técnico-empresarial, están relacionados con acciones orientadas hacia un uso sostenible de los recursos naturales y la diferenciación del producto. Hay tres estrategias que destacaron especialmente. El “uso sostenible de los recursos hídricos” fue mencionado por el 43,5% de los entrevistados. Es una respuesta esperada teniendo en cuenta que la falta de agua es el mayor problema para la agricultura en la Región de Murcia. Esta estrategia incluye acciones relacionadas con la producción, como la inversión en I + D y la modernización de las explotaciones a través del uso de riego por goteo, de plástico negro para retener la humedad, la construcción de embalses (tapados para evitar la evaporación), canales de recogida de agua, técnicas multicanal, variedades resistentes a la sequía, y la capacitación de personal para el uso sostenible del agua.

La segunda estrategia más mencionada, y por tanto, más importante es “la diferenciación a través de la producción ecológica” con un 34,8%. Esta estrategia tiene como objetivo promover la salud de las personas mediante el desarrollo de líneas de productos ecológicos (Camposeven, 2014). Esto sólo puede hacerse mediante el uso de técnicas sostenibles que cumplan con las normas europeas para productos ecológicos y biodinámicos, que afectan a todas las etapas del producto: producción, preparación y distribución.

El “reciclaje de residuos y subproductos” es la tercera estrategia utilizada más común para mejorar la prosperidad (valorada con un 22%). La agricultura ecológica debe basarse fundamentalmente en recursos renovables integrados en sistemas agrícolas locales (CE, 2007). Para ello, las acciones llevadas a cabo tienen como objetivo la generación de sus propios recursos para la producción agrícola, siguiendo ciertos principios: reducir al mínimo el uso de recursos no renovables, el reciclaje de residuos y subproductos vegetales (previamente triturado) a través de la deposición de los nutrientes de la tierra y utilizarlos como abono, y no quemando cualquier tipo de residuo.

Por otro lado, además de las estrategias más utilizadas, los socios agricultores han valorado una serie de influencias técnico-empresariales en la prosperidad, detalladas a continuación (Tabla 1), donde destacan la rentabilidad de la explotación, la diversidad

de productos y servicios y la calidad de los bienes y servicios.

Tabla 1. Influencias técnico-empresariales en la prosperidad

Ítem (%)	1	2	3	4
Rentabilidad de la explotación	0	17	17	67
La diversificación de productos y servicios	0	0	50	50
Calidad de los bienes y servicios	0	0	50	50
<i>La sostenibilidad ambiental del proceso de producción</i>	0	17	33	50
<i>Capacidad de comercialización colectiva de los bienes y servicios</i>	0	17	33	50
<i>Eficiencia en el uso de recursos</i>	0	0	67	33
<i>Alto rendimiento técnico del proceso de producción</i>	0	17	50	33
<i>Esfuerzo conjunto para alcanzar una distribución equitativa del valor añadido en la cadena de valor</i>	0	33	33	33
<i>La innovación de bienes y servicios, productos, tecnología, etc.</i>	0	0	83	17
<i>Visión coherente y estrategia de negocios</i>	0	17	67	17
<i>Emprendimiento</i>	17	0	67	17
<i>Reproducción autónoma de factores de producción</i>	0	67	17	17
<i>Reducción de costes de producción</i>	0	17	83	0
<i>Capacidad de comercialización individual de los bienes y servicios</i>	17	67	17	0

Fuente: Elaborado a partir de trabajo de campo e información de Camposeven, 2014

La rentabilidad de la explotación ha sido valorada con la mayor puntuación, 4, por el 67% de los socios. Aunque no es la estrategia principal, ni el objetivo único de esta cooperativa, dentro de la dimensión técnico-empresarial los socios agricultores consideran importante que la finca sea rentable de modo que puedan contar con recursos económicos suficientes de una campaña productiva a otra. Debemos tener en cuenta que en el sector agrícola los precios son muy volátiles y el mercado es incierto por lo que los agricultores son precavidos en este aspecto, además estos agricultores apenas cuentan con subvenciones públicas por lo que ellos asumen todo el riesgo. En segundo lugar, la diversificación de bienes y servicios y la calidad de los productos, son considerados elementos fundamentales de cara a la prosperidad de Camposeven, ya que ésta cuenta con una amplia gama de productos hortofrutícolas y su característica principal, que la distingue del resto, es la calidad de los productos que comercializa.

3.2 Elementos ético-sociales

Los elementos de la dimensión ético-social que influyen en la prosperidad (tabla 2) de las explotaciones agrícolas, de acuerdo con los socios principales, se muestran en la

tabla siguiente.

Tabla 2. Influencias ético-sociales en la prosperidad

Ítems (%)	1	2	3	4
Liderazgo en el territorio/sector	0	0	20	80
Capacidad de negociación de los actores clave	0	0	20	80
Actitud abierta a la cooperación y el trabajo en equipo	0	0	20	80
Orientación a resultados	0	0	20	80
Buena gobernanza y procesos democráticos	0	0	20	80
Oportunidades equitativas para todos	0	0	20	80
Confianza entre los actores clave y/o partes interesadas	0	0	30	70
Habilidad para la resolución de conflictos y crisis	0	0	30	70
Autonomía en la toma de decisiones	0	10	30	60
Sensibilidad y capacidad de apreciar los valores	0	0	60	40

Fuente: Elaborado a partir de trabajo de campo e información de Camposeven, 2014

A continuación se describen las razones dadas por los entrevistadores para dar estas valoraciones.

Liderazgo en el territorio/sector: los agricultores consideran que para lograr unión y trabajo en equipo, son necesarios líderes que inspiren confianza y que sepan cómo dirigir el proceso. Del mismo modo, cada agricultor debe ejercer su propio liderazgo para planificar, gestionar y ejecutar sus fincas con sus propios trabajadores. La junta directiva de Camposeven cuenta con un fuerte liderazgo que inspira confianza a todos los socios, lo que es fundamental para la comercialización de los productos y para ser capaces de relacionarse con las personas de la organización, como los propios trabajadores u otras partes interesadas.

Capacidad de negociación: los socios consideran que ser competitivo es esencial para la comercialización de los productos, tanto a nivel nacional como internacional. Todos coinciden en que el sector agrícola en general, y de la región de Murcia en particular, es cada vez más competitivo y los precios de compra y venta se negocian de forma continua en el mercado. La buena capacidad de negociación de Camposeven ha sido esencial para la sostenibilidad de la empresa y las actividades de sus socios, lo que a su vez les ha permitido superar situaciones adversas en tiempos de crisis y aumentar las ventas anuales desde su creación en 2007 hasta la actualidad.

Actitud abierta para la cooperación y el trabajo en equipo: la sostenibilidad y el éxito de la organización Camposeven no habría sido posible sin su capacidad de interactuar a diario, y de forma eficaz, con otros actores y partes interesadas, como clientes, proveedores, transportistas, instituciones públicas, asociaciones, etc., y, a nivel interno, con los propios trabajadores y socios de la organización. Los agricultores consideran que la manera en la que Camposeven está administrada y dirigida se basa en una actitud abierta hacia la participación, la cooperación y el trabajo conjunto, permitiendo la toma de decisiones colectivamente y la resolución de conflictos con soluciones satisfactorias. Esta actitud abierta hacia la cooperación y el trabajo en equipo se contempla también en la participación de Camposeven en las diferentes redes y plataformas agrícolas y de investigación, con Universidades y otras empresas, que les

proporcionan aprendizaje mutuo e intercambio de conocimientos.

Orientación a resultados: es muy importante establecer objetivos claros que puedan ser perseguidos por todos los socios y miembros del equipo. Este elemento está estrechamente relacionado con el éxito de un proyecto o plan.

Buena gobernanza y procesos democráticos: esta gobernanza se entiende no sólo a nivel de la organización empresarial, sino que se extiende a los responsables de las políticas locales y regionales, con procesos participativos y democráticos, que tienen en cuenta todos los aspectos de la sociedad, para este caso en particular, a los agricultores. Por tanto, esta buena gobernanza local se entiende como una práctica desarrollada conjuntamente entre los diferentes actores públicos y privados, que busca vincular el conocimiento y la acción a través de proyectos conjuntos, que además del valor técnico de la producción de bienes y servicios, también incorpora el valor de las personas que se involucran, participan y desarrollan el trabajo en los contextos territoriales de los proyectos.

3.3 Elementos político-contextuales

Los socios agricultores identificaron y valoraron los siguientes elementos según la influencia, que consideran, que tienen en la prosperidad de sus fincas (tabla 3). Los elementos más valorados fueron el mercado internacional y la competitividad en el mismo, la biodiversidad y el medio ambiente, y las nuevas tecnologías.

Tabla 3. Influencias político-contextuales en la prosperidad

Ítems	1	2	3	4
Mercado internacional	0	0	0	100
Competitividad a nivel internacional	0	0	30	70
Biodiversidad, medio ambiente	0	0	30	70
Cambio tecnológico (nuevas tecnologías)	0	0	30	70
Competitividad a nivel nacional	0	10	40	50
Conocimiento e información	0	20	40	40
Marcos legales y regulación	30	10	20	40
Subvenciones internacionales (incluidas UE)	60	10	0	30
Política de desarrollo rural de la UE	40	10	30	20
Mercado nacional	50	10	20	20
Solidaridad de la sociedad con la agricultura/ áreas rurales	40	30	20	10
Otras políticas europeas	50	20	20	10

Fuente: Elaborado a partir de trabajo de campo e información de Camposeven, 2014

A continuación se presentan las razones de los valores dados a los 4 primeros elementos. El primer elemento es la agricultura en los mercados internacionales (100%) obtuvo el valor 4 (muy alto). Los agricultores consideran que hoy en día, su actividad no tiene futuro si parte de sus productos no se comercializan en los mercados internacionales. No debemos olvidar que Camposeven produce productos ecológicos, los cuales tienen mayor demanda en los mercados internacionales; es por ello que el 90% de los productos de Camposeven son exportados, siendo estos mercados un pilar

fundamental para la organización.

En segundo lugar podemos encontrar tres elementos (70%): 1) Competitividad a nivel internacional, debido a la importancia del mercado internacional para Camposeven, es necesario que sean competitivos, hecho que consiguen mediante sus productos de calidad y precios atractivos, además cumplen con las normativas europeas para los productos ecológicos y biodinámicos, lo que les permite el acceso a dichos mercados. 2) la biodiversidad y el medio ambiente también se consideran aspectos de gran valor para la prosperidad. En Camposeven están concienciados con este tema y todos trabajan bajo el uso sostenible de los recursos naturales y respetando el entorno evitando prácticas nocivas para él. 3) El cambio tecnológico y las nuevas tecnologías son esenciales en la prosperidad de esta cooperativa, de hecho, la inversión en I+D+i es un pilar fundamental que les permite conocer nuevas técnicas y procesos más eficientes para sus cultivos.

Por otro lado, aunque no esté entre los cuatro primeros elementos destacados y aunque Camposeven solo comercializa en España el 10% de su producción, los socios también consideran la competitividad nacional importante para la prosperidad. Ellos se consideran competitivos, ya que han sido capaces de destacar entre las demás cooperativas, tanto regionales como nacionales, dentro del sector hortofrutícola, apostando por el trabajo en equipo y la innovación continua.

3.4 Elementos de aprendizaje social

- Las principales fuentes de conocimiento utilizadas por los agricultores tienen que ver principalmente con el conocimiento de los agricultores experimentados y de la propia tradición agrícola de la región. No obstante, las cinco principales fuentes identificadas a través de los talleres participativos son:
- La experiencia propia: La experiencia acumulada (conocimiento experto) de los agricultores que conforman Camposeven. El 100% de los socios agricultores experimentan con nuevos productos e innovan en sus propias fincas, utilizando el principio *learning by doing*. Más tarde estos resultados y el aprendizaje son compartidos con otros socios agricultores y técnicos de Camposeven.
- Otros agricultores: Entre los principios de funcionamiento de la organización se encuentra "recoger las ideas de todos" (Camposeven, 2014). Los mecanismos de participación se establecen para recopilar ideas y opiniones de otros agricultores vinculados a la organización compartiendo las experiencias y el aprendizaje para el bien común.
- Los actores del mercado, los consumidores y sus organizaciones: Por otra parte, la visión de Camposeven es "ser una empresa innovadora en gestión de procesos y negocios agrícolas diversos; investigar e innovar en productos y sistemas de producción; y desarrollar negocios orientados a satisfacer las necesidades de los clientes" (Camposeven, 2014). Por lo tanto los clientes (tanto nacionales como internacionales, y tanto las grandes superficies como los pequeños comercios) son una fuente muy importante de conocimiento para la organización. En este grupo, otros actores de la sociedad civil están vinculados con la organización, como Cooperativas Agroalimentarias, Federaciones y Asociaciones Regionales y Nacionales.
- Las universidades, institutos de investigación y redes de conocimiento: Camposeven participa en diversas plataformas y redes de cooperación que

tienen como objetivo integrar el aprendizaje y el conocimiento (experto y experimentado). La principal es la Plataforma Agroalimentaria, gestionada desde la Fundación General de la Universidad Politécnica de Madrid (FGUPM), así como su colaboración con el grupo de investigación GESPLAN también de la UPM. El director gerente de Camposeven es cofundador de esta plataforma, la cual ejerce de punto de encuentro para negocios, la identificación de problemas y oportunidades en el sector y la búsqueda de soluciones en colaboración con universidades y centros tecnológicos relacionados con la industria alimentaria.

- El gobierno regional (órganos administrativos). Finalmente la organización aprende y utiliza los conocimientos de los administradores públicos, para cumplir con la normativa y legislación vigente en cuanto a la certificación de productos ecológicos y estándares de calidad; utilizan las fuentes de información de las diferentes instituciones públicas pertinentes.

4. Conclusiones

En este artículo, se diseñó y aplicó un marco metodológico para estudiar cuáles son las principales estrategias que han llevado a una cooperativa agrícola hacia el éxito y la prosperidad. La prosperidad no entendida como un incremento de la producción, ya que no tiene en cuenta los servicios de no mercado y las externalidades negativas, y tampoco describe cómo los ingresos y la riqueza se distribuyen entre las personas (Darnhofer et al, 2014;. Jackson & Anderson, 2009; Stiglitz et al, 2009). Pero sí como un concepto que incluye aspectos no económicos que reconocen su multidimensionalidad (Chambers, 1997; Neff, 2007; Anand, Hunter & Smith, 2005).

Las principales estrategias técnico-empresariales observadas que se consideran esenciales para alcanzar la prosperidad en las zonas rurales es la protección del medio ambiente, el uso sostenible de los recursos naturales y la diversificación de productos. Esto se corresponde con las acciones que se cree que se deben promover para contribuir al desarrollo sostenible (Van Huylenbroeck & Durand 2003; Darnhofer et al, 2014, cap. 2, p. 21; Padel et al., 2010). La prosperidad en las zonas rurales requiere de la existencia de estructuras de negocios que sean capaces de generar bienes y servicios a la sociedad, para lograr el éxito sostenido de la organización y una mejor calidad de vida (Freibauer et al, 2011 p. 20, Sekulova et al 2013). Se trata de promover que las empresas incorporen valores sociales y ambientales para generar proyectos movilizadores de recursos, generar productos que satisfagan las necesidades de los mercados y garantizar un modo de subsistencia a los productores y empresarios de las zonas rurales. Además las principales influencias de esta dimensión para la prosperidad han sido la rentabilidad de la explotación, la diversificación de bienes y servicios y la calidad de los productos.

Dentro de la dimensión ético-social, destacan el aprendizaje mutuo a través del intercambio de conocimientos y el trabajo en equipo (tener una actitud abierta, cooperar). De hecho, según Poppe, Temeer y Slingerland (2009) la capacidad de comunicación efectiva incluida dentro de la capacidad para el compromiso entre los agentes territoriales que influyen en la prosperidad. Este compromiso es necesario para crear plataformas adecuadas, promover sinergias entre las partes involucradas, propiciar la creación de conocimiento y mejorar la capacidad de adaptación (Darnhofer et al, 2014, 2: 36). Además, el intercambio de conocimiento ayuda a la integración de las necesidades y expectativas de los grupos de interés y la promoción de alianzas estratégicas con instituciones

públicas, privadas, y de investigación (Shortall 2013).

En términos de estrategias político-contextuales, la existencia de colaboraciones sólidas (organizaciones o asociaciones), con capacidad para relacionarse con el contexto es clave (Dwyer, 2011). La idea detrás de las colaboraciones es formalizar alianzas y asociaciones basadas en la confianza mutua y el trabajo en equipo entre los diferentes individuos que libremente se unen y establecer objetivos comunes que permitan superar los problemas y aprovechar las oportunidades. Dentro de esta dimensión, la principal influencia para la prosperidad, de acuerdo con los socios agricultores, es ser competitivos en el mercado internacional. Esto se debe a que exportan, Camposeven, el 90% a otros países europeos, ya que el mercado de productos ecológicos en España todavía no tiene una gran demanda, no llega al 2% del consumo general (EFEverde, 2014).

Las estrategias de aprendizaje social son muy importantes, y en este caso de estudio proceden de muchas fuentes diferentes; sin embargo, las principales formas de aprendizaje son a través de su propia experiencia y la de otros socios de Camposeven que las comparten. Desafortunadamente todavía hay mucha desconfianza entre los agricultores de la zona y otros posibles competidores. La cooperación posiblemente mejoraría la prosperidad más que si guardan el conocimiento para sí mismos. Sin embargo, es posible observar una fuerte cooperación entre los agricultores y las instituciones formales como la Universidad Politécnica de Madrid, con la que han estado cooperando desde hace mucho tiempo. Como Berkes y Folke (2002) destacan, la prosperidad necesita buenas redes de cooperación y de I+D, capaces de integrar el conocimiento (experto y experimentado) y el aprendizaje (tanto formal como informal).

5. Referencias

- Abad, F.J., Olea, J., Soda, V., & García, C. (2011). *Medición de ciencias sociales y de la salud*. Síntesis. Madrid
- Anand, P., Hunter, G. & Smith, R. 2005. Capabilities and Well-being: Evidence based on the Sen-Nussbaum Approach to Welfare. *Soc. Indic. Res.* 74, 9–55.
- Baumol, W.J., Litan, R.E., & Schramm, C.J. (2007). *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity*, Law and Economics Workshop. Yale University Press, New Haven & London.
- Berkes, F. & C. Folke (2002). Back to the Future: Ecosystem dynamics and local knowledge. In: L.A. Gunderson and C.S. Holling (Eds.). *Panarchy: Understanding transformations in human and natural systems*. Washington: Island press.
- Camposeven (2014). *Documentos internos de la organización*. Sociedad Agraria de Transformación Camposeven. Murcia.
- Cazorla, A. De los Ríos, & I. Salvo, M. (2013) Working With People (WWP) in Rural Development Projects: a Proposal from Social Learning. *Cuadernos de Desarrollo Rural* 10 (70): 131-157
- CE (2007). Reglamento (CE) No 834/2007 del Consejo de 28 de junio de 2007 sobre producción y etiquetado de los productos ecológicos y por el que se deroga el Reglamento (CEE) no 2092/91
- Chambers, R., (1997). Editorial: Responsible Well-being—a Personal Agenda for

- Development. *World Dev.* 25, 1743–1754.
- Darnhofer, I., de los Rios, I., Knickel, K., Koopmans, M., Lamine, C., Olsson, G.A., de Roest, K., Rogge, E., Sumane, S., & Tisenkopfs, T. (2014). Rethinking the Links between Farm Modernisation, Rural Development and Resilience in a World of Increasing Demands and Finite Resources.
- Darnhofer, I., Lamine, C., & Knickel, K. (2014). Conceptual Framework. RETHINK project. 7th framework programme CE.
- Dwyer, J. (2011). UK land use futures: policy influence and challenges for the coming decades. *Land Use Policy* 28: 674–683.
- EFEverde (2014). BIOCULTURA VALENCIA. “Crece en España el consumo de productos ecológicos y el número de comercios”. Publicación de 7 marzo 2014 por EFEverde. <http://www.efeverde.com/noticias/crece-en-espana-el-consumo-de-productos-ecologicos-y-el-numero-de-comercios/>
- Freibauer, A. E. Mathijs, G. Brunori, Z. Damianova, E. Faroult, J. Girona i. Gomis, L. O'Brien & S.Treyer (2011). Sustainable food consumption and production in a resource-constrained world. Third SCAR Foresight Exercise. Brussels: European Commission - Standing Committee on Agricultural Research.
- Hulme, D. (1989). Learning and not learning from experience in rural project planning. *Public Administration and Development*, 9 (1), 1-16.
- INFO (2013). Área Cartagena. Living, working, enyoing... Instituto de Fomento de la Región de Murcia.
- IPMA (2010). *NCB - Bases para la competencia en dirección de proyectos. Versión 3.1*. Valencia (Spain): AEIPRO (Spanish Project Engineering Association).
- Jackson, T. (2009). *Prosperity Without Growth: Economics for a Finite Planet*. Earthscan, London.
- Jackson, T., & Anderson, V. (2009). *Redefining Prosperity—Essays in Pursuit of a Sustainable Economy*. Sustainable Development Commission. Earthscan, London.
- Neff, D.F., (2007). Subjective Well-being, Poverty and Ethnicity in South Africa: Insights from an Exploratory Analysis. *Soc. Indic. Res.* 80, 313–341.
- Padel, S., U. Niggli, B. Pearce, M. Schlüter, O. Schmid, E. cuoco, E. Willer, M. Huber, N. Halberg & C. Micheloni (2010). *Implementation action plan for organic food and farming research*. Technology Platform Organics. Brussels: IFOAM EU Group. www.tporganics.eu/
- Poppe, K., C. Termeer & M. Slingerland (eds) (2009). *Transitions towards sustainable agricultura and food chains in peri-urban areas*. Wageningen: Wageningen Academic Publishers
- Rethink (s.f). Consulted 2nd February 2015. <http://www.rethink-net.eu/home.html>
- Sekulova, F., G. Kallis, B. Rodríguez-Labajos, & F. Schneider (2013). Degrowth: From theory to practice. *Journal of Cleaner Production* 38: 1–6.
- Shortall, S. (2013). Using evidence in policy: The importance of mediating beliefs and practices. *Sociologia Ruralis* 53(3): 349–368.
- Shucksmith, M. & K. Rønningen (2011). The Uplands after neoliberalism? The role of the small farm in rural sustainability. *Journal of Rural Studies* 27: 275–287.
- Stiglitz, J., Sen, A., & Fitoussi, J.-P. (2009). The Measurement of Economic Performance and Social Progress Revisited. Reflections and Overview. Commission on the Measurement of Economic Performance and Social

Progress, Paris

Timmermans, S., & Tavory, I. (2012). Theory construction in qualitative research from grounded theory to abductive analysis. *Sociological Theory*, 30 (3), 167-186.

Van Huylenbroeck, G. & G. Durand (Eds.) (2003). *Multifunctional agriculture. A new paradigm for European agriculture and rural development*. Aldershot: Ashgate.

Contribution i

“La agricultura ecológica y su influencia en la prosperidad rural: visión desde una sociedad agraria (Murcia, España)”

Title	Authors	Type of Contribution	Published/ Presented	Quality Criteria
La agricultura ecológica y su influencia en la prosperidad rural: visión desde una sociedad agraria (murcia, españa)	Ignacio de los Ríos; Hilario Becerril; María Rivera	Scientific Paper (2016)	Published in: Agrociencia	JCR: Q3 SJR: Q3

Related to chapter 2

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LA AGRICULTURA ECOLÓGICA Y SU INFLUENCIA EN LA PROSPERIDAD RURAL: VISIÓN DESDE UNA SOCIEDAD AGRARIA (MURCIA, ESPAÑA)

ECOLOGICAL AGRICULTURE AND ITS INFLUENCE ON RURAL PROSPERITY: AN AGRICULTURAL COMPANY'S VISION (MURCIA, SPAIN)

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RESUMEN

La agricultura ecológica (AE) es una tendencia global que busca una relación natural y amigable con el ambiente para fomentar la biodiversidad vegetal y animal. El debate de la AE frente a la agricultura convencional se ha discutido a nivel internacional en numerosas investigaciones. Sin embargo pocos estudios se han centrado en abordar los efectos de la AE en relación con el concepto de prosperidad rural. En este artículo se analiza, desde un proceso de aprendizaje de casi 40 años de experiencia de una Sociedad Agraria de Transformación (SAT), la relación entre la AE y su influencia en la prosperidad rural. La metodología aplicada parte del modelo Working With People (WWP), integrando el conocimiento experto y experimentado a lo largo de las acciones de la SAT. La experiencia se centra en una de las regiones de España con mayor superficie de cultivo dedicada a la AE. Los resultados evidencian los efectos que tiene la AE en las distintas dimensiones de la prosperidad rural. La generación de confianza y el trabajo con la gente son las principales premisas que permiten generar prosperidad y desarrollo rural con una visión de sostenibilidad.

Palabras clave: Agricultura ecológica, cooperativas agrarias, prosperidad rural, WWP.

INTRODUCCIÓN

En la década de 1920 Rudolf Steiner comenzó a debatir sobre agricultura ecológica (AE) y biodinámica (Steiner, 2011; Paull, 2011); sin embargo estos términos aparecieron en décadas posteriores. La agricultura biodinámica se considera hoy

en día una forma de AE y ambos productos (ecológicos y biodinámicos) hoy pueden ser certificados en muchos países si cumplen una serie de prácticas específicas orientadas a asegurar la sostenibilidad de los recursos naturales (ECC, 1999). Lo que distingue la agricultura biodinámica respecto a la AE, es el uso de nuevos preparados biodinámicos, diseñados para mejorar los suelos y aumentar el rendimiento de los cultivos (Reganol, 1995; Turinek *et al.*, 2009; Chalker-Scott, 2013).

La AE, frente a la agricultura convencional, mejora la biodiversidad y conduce a una menor degradación ambiental (Howard, 1943; Guzman *et al.*, 2009; FAO, 2014; USDA, 2014). Algunos autores argumentan beneficios de la AE en relación con el efecto invernadero, al disminuir insumos químicos y el gasto de energía (Wood *et al.*, 2006), y el uso eficiente del agua (Groot *et al.*, 2010; Lapple y Rensburg, 2011; Altieri y Nichols, 2012). Otros estudios centrados en la agricultura biodinámica (Turinek *et al.*, 2009) muestran también mejoras ambientales en los sistemas de producción. En el caso de la AE, las limitaciones en el uso de productos petroquímicos y de métodos sintéticos es su principal característica (China, 2005; USDA, 2014). En general, estos dos sistemas de producción se consideran más sostenibles que los sistemas agrícolas convencionales (Edwards-Jones y Howells, 2001; Rigby y Cáceres, 2001; Mäder *et al.*, 2002; Danhofer, 2005; Patil *et al.*, 2014).

Desde el punto de vista económico, otras investigaciones han analizado las diferencias entre la AE y la agricultura convencional, mostrando que AE es más rentable a pesar de ser menos productiva (Lansink *et al.*, 2002; Azadi *et al.*, 2011; Argyropoulos *et al.*, 2012; Patil *et al.*, 2014). También se ha mostrado el valor social de la AE, al prestar también servicios no alimentarios vinculados al desarrollo rural (Darnhofer,

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2005; Gonzalez y Nigh, 2005; Gomez *et al.*, 2005). No obstante, en la actualidad la agricultura convencional sigue siendo necesaria para solventar las crecientes demandas alimentarias del mundo (Robertson y Swinton, 2005; USDA, 2014).

El término prosperidad rural, desde sus orígenes, se ha relacionado con aspectos económicos, influido por las doctrinas de los fundadores de la economía clásica Adam Smith y Sir James Stuart (Smith, 1776). Desde este enfoque económico, la prosperidad se define como la capacidad de las personas para generar crecimiento económico a través del consumo de productos y del aumento de bienes materiales (Jackson, 2009). El ideal del progreso indefinido (Friedman, 1987; Ballesteros, 2000) basado en la creencia del carácter ilimitado de los recursos naturales, ha influido en esta visión económica de la prosperidad (Ballesteros, 2000), fomentando el consumo desmesurado en las sociedades modernas (Arendt, 1998). Estas creencias llevaron a que los economistas modernos y la sociedad se despreocuparan por la ecología, deteriorando las relaciones del hombre con la naturaleza y dando origen al llamado *homo economicus*, que busca maximizar su utilidad (Faber *et al.*, 2002). Desde esta visión, la industria es la actividad económica más dinámica, y la agricultura se presenta como la antítesis de la prosperidad y la modernidad (Moore, 1984).

Esta visión de prosperidad, asociada al desarrollo económico y al proyecto moderno comienza a ponerse en tela de juicio y a decaer en los años 70 (Schumacher, 1976). El fracaso de la ideología del progreso indefinido, como eje de la prosperidad desde la modernización tecnocrática, es la principal causa del cambio (Cazorla *et al.*, 2013). A finales del siglo XX, surgen numerosos conflictos y un profundo malestar en la sociedad que busca nuevas formas de actuar en las relaciones hombre-naturaleza, dando origen a la reivindicación ecológica (Ramos, 1993). La agricultura basada en la alta tecnología entra en crisis, y se realzan los valores del medio rural, que deja de ser visto como un espacio exclusivamente productivo (Robertson y Swinton, 2005).

Esta revalorización de lo rural y lo ambiental hace que la AE se configure como un sistema alternativo, no solamente productivo, sino también orientado a la conservación del entorno y a la mejora de la calidad de vida (Williams y Jobes, 1990; Lapple y Rensburg, 2011). El uso de variedades locales muestra

a su vez una revalorización de lo rural y lo ambiental (Acosta y Rodríguez, 2013). Ante esta sensibilización por lo ambiental y la salud, en varios países se comienzan a generar grupos de individuos interesados en el consumo de productos ecológicos (Shepherd *et al.*, 2005) y se incrementa su demanda (Barrett *et al.*, 2002; Gracia y de Magistris, 2008). De esta forma, se consolida la AE como un modelo alternativo de producción que incide en la prosperidad de las zonas rurales, desde las distintas dimensiones —ambiental, social y económica— del desarrollo rural (Azadi *et al.*, 2011; USDA, 2014).

Este cambio en los sistemas de producción está influenciado por cambios en la actitud de los productores y de los agentes del mercado. En las sociedades desarrolladas, la prosperidad rural ya no equivale simplemente al crecimiento económico. Sin embargo, el aumento de ingresos por la venta de productos es un aspecto clave que sigue asociado con el sentimiento de prosperidad (Diener, 1993). Aunque el crecimiento económico no representa con precisión el bienestar humano, la dimensión económica es una dimensión clave de la prosperidad rural y los agricultores consideran que los recursos económicos incrementan las posibilidades de mejorar su calidad de vida (Baumol *et al.*, 2007). Ante las nuevas tendencias y los nuevos valores, la prosperidad rural se asocia con las capacidades de los individuos para mejorar su calidad de vida, desde un enfoque integrado basado en salud, educación, libertad personal y satisfacción con el entorno (Legatum Institute, 2014).

Esta nueva visión requiere que la sociedad y los planificadores del desarrollo incorporen la contemplación y el respeto a la naturaleza como claves para una visión integrada (Cazorla *et al.*, 2013). Desde esta nueva visión, el modelo Working With People (WWP) se presenta como una propuesta conceptual para abordar este enfoque integrado de prosperidad rural, desde la consideración de tres dimensiones: político-contextual, técnico-empresarial y ético-social (Cazorla *et al.*, 2013). Esta propuesta incorpora elementos clave de la planificación como el aprendizaje social a partir de la participación colaborativa y es fruto de 25 años de experiencia que aporta el grupo GESPLAN, en proyectos orientados a mejorar la prosperidad de las zonas rurales en contextos europeos y en países emergentes (Cazorla *et al.*, 2005, 2013; De los Ríos *et al.*, 2011, 2013).

MATERIALES Y MÉTODOS

Para este estudio se eligió la SAT Camposeven, formada por agricultores con más de 30 años de experiencia en producción, transformación y comercialización de cultivos hortícolas, orgánicos y convencionales en Murcia, España. Esta Sociedad Agraria presenta las siguientes características: 1) Promueve procesos de aprendizaje social entre productores orgánicos, empresas, organismos de investigación y gobiernos locales y regional; 2) está considerada como una experiencia exitosa de carácter asociativo y con una finalidad económico-social, orientada a la transformación de productos ecológicos; 3) cuenta con una estrategia de negocio innovadora reconocida con distintos premios (destacando el Premio Thanit 2007 por el Desarrollo y la Innovación Tecnológica); 4) existen distintas alianzas universidad-empresa para proyectos de I+D+i, destacando el proyecto europeo RETHINK del 7º Programa Marco de la Comisión Europea.

La metodología para la recolección y sistematización del análisis se diseñó a través de un panel de expertos compuesto por 38 investigadores de 14 países de la UE, en el marco del proyecto Europeo Rethink (Darnhofer *et al.*, 2014). Este marco metodológico común se basó en el análisis de la prosperidad rural a través de los elementos del WWP (Cazorla *et al.*, 2013; De los Ríos *et al.*, 2013). Esta propuesta va más allá de la visión técnico-económica tradicional, tratando de incidir en los comportamientos y en las competencias de los individuos en su contexto. El marco metodológico, desde el modelo WWP, integra procesos de aprendizaje social, para el análisis y la construcción de la prosperidad rural desde tres dimensiones, según se muestra en la Figura 1.

Desde la dimensión ético-social se considera el contexto de comportamientos, actitudes y valores de las personas que interactúan a lo largo de los procesos de producción, transformación y comercialización. La dimensión técnico-empresarial se orienta

a la generación de productos y servicios para la sociedad desde unos estándares de calidad y con elementos diferenciadores. La dimensión político-contextual permite que las organizaciones adapten sus prioridades y sus proyectos en los contextos en los que trabajan, para conseguir el éxito desde una gestión sostenible. Por último, la dimensión integradora de las tres dimensiones es el aprendizaje social (Friedmann, 1993).

Al partir de este marco metodológico común, los resultados de la investigación incorporan distintos instrumentos y fuentes de información. Por una parte, la recopilación y revisión de numerosas fuentes secundarias (literatura científica e información histórica de la SAT) sobre los conceptos anteriores y sobre Camposeven. Además, la investigación incorpora información empírica obtenida a través de entrevistas.

Para la recolección y sistematización del conocimiento experto y experimentado se utilizaron dos procesos participativos complementarios: 1) Entrevistas directas a las partes implicadas; 2) seminario-taller WWP. Para las entrevistas directas en profundidad se diseñó un cuestionario a partir del proyecto europeo Rethink (Darnhofer *et al.*, 2014), que fue validado desde el panel de expertos de 14 países. Los cuestionarios incluyeron cuatro secciones con preguntas en relación con las distintas dimensiones sobre la prosperidad rural: 1) La primera orientada a conocer la visión de los entrevistados sobre el concepto de prosperidad y su relación con la Sociedad Agraria; 2) un segundo bloque con preguntas sobre la dimensión ético-social de la prosperidad, para analizar los comportamientos, actitudes y valores de las personas que conforman la Sociedad Agraria; 3) un tercer bloque sobre la dimensión técnico-empresarial de la prosperidad, con preguntas en relación con la producción, transformación y comercialización; 4) una última sección sobre la dimensión político-contextual, con cuestiones orientadas a analizar las relaciones entre la organización agraria y su contexto socioeconómico y político.

El trabajo de campo se realizó de marzo a diciembre de 2014 por el equipo investigador del proyecto Rethink y se realizaron 42 entrevistas en profundidad: 100 % de los socios de la SAT (17) agricultores y propietarios de explotaciones; 100 % de los directivos de la SAT (5); 90 % de los proveedores y empresas colaboradoras (8); además se efectuaron entrevistas a agentes clave del ámbito público-administrativo de los gobiernos (4) y de la sociedad civil y asociaciones empresariales (8). También se llevó a cabo un seminario-taller sobre competencias profesionales con los directivos y trabajadores responsables de los distintos departamentos de la SAT. Las sesiones se impartieron durante cuatro días de trabajo en sus propias instalaciones, desde la técnica WWP, aplicada en distintos proyectos con organizaciones rurales (De los Ríos *et al.*, 2013, 2015; Cazorla *et al.*, 2013). Estos talleres permitieron reflexionar sobre los mismos aspectos analizados en las entrevistas y conocer en profundidad otros aspectos

Figura 1. Dimensiones de la prosperidad rural desde el modelo WWP.

en relación con los productos ecológicos y las estrategias de la organización.

Las personas seleccionadas en este proceso abarcan un proceso de aprendizaje de más de 30 años desde el conocimiento experimentado en el sector agroindustrial de la AE. Este proceso analiza la experiencia previa de los productores antes de formalizarse como SAT el año 2007.

RESULTADOS Y DISCUSIÓN

Aquí se analizan las estrategias en las cuales se basa la actividad de la SAT para lograr el éxito y la sostenibilidad de la organización, así como los elementos considerados más importantes para lograr la prosperidad rural. Los resultados generados desde la aplicación de la metodología expuesta se presentan ordenados de manera lógica, desde las tres dimensiones del modelo WWP (técnico-empresarial, político-contextual y ético-social).

Los ámbitos del sistema de relaciones sociales en la prosperidad rural

Los procesos observados evidencian una influencia en la prosperidad rural desde los agentes provenientes de los distintos ámbitos del sistema de relaciones sociales: sociedad civil, privado empresarial, público administrativo y político. Destacan (Figura 2) el ámbito de la sociedad civil (36 %) y el sector empresarial (36 %), por ejercer una mayor influencia en la generación de prosperidad rural. La interacción entre los agentes de estos dos ámbitos genera relaciones de confianza, creando una red de gran valor social y con escasa dependencia de las ayudas públicas.

Esta cooperación con agentes de la sociedad civil

Figura 2. Ámbitos de las relaciones socioeconómicas.

y del ámbito empresarial facilita a SAT Camposeven la participación en redes y proyectos de *I+D+i* orientados a la mejora de la AE. Las acciones de vinculación entre agentes y sectores productivos, facilitan además nuevas relaciones urbano-rurales que dan lugar a nuevos proyectos desde un enfoque integrado y multifuncional de la AE. El alto número de proveedores (4.5 por producto) y de empresas de logística (9 empresas transportistas) vinculadas a productos ecológicos que interactúan, influyen directamente en el desarrollo socioeconómico de la región. Además, los agentes del ámbito político y público-administrativo, son considerados menos relevantes, a pesar de que la administración pública (nacional, regional y local) es la responsable de las normativas relacionadas con la AE y la certificación de productos. La mayor influencia de los ámbitos de la sociedad civil y empresarial coincide con la nueva visión de prosperidad rural, que prioriza la necesidad fortalecer relaciones entre las personas (Jackson, 2009; Kasser, 2009; SDC, 2009).

En el Cuadro 1 se resume la valoración global de cada una de las dimensiones del modelo WWP en la prosperidad rural. En los apartados sucesivos se analizan los elementos de mayor influencia en la prosperidad rural.

Influencia de la dimensión ético-social en la prosperidad rural

La dimensión más valorada es la ético-social (valoración global de 37.8 %), desde donde se genera la confianza mutua para el trabajo en equipo y el éxito de la organización. Dentro de esta dimensión, los entrevistados destacaron los siguientes aspectos de cara a su prosperidad: satisfacción personal, felicidad y calidad de vida, cultura y educación.

Los socios argumentan que desde el año 2007 se ha mantenido el objetivo de generar confianza entre los socios, dando a las personas el máximo valor dentro de la SAT. La conducta y el comportamiento

Cuadro 1. Influencia de las dimensiones WWP en la prosperidad.

Dimensión	Valoración global
Ético-social	37.8
Político-contextual	31.6
Técnico-empresarial	30.6

de las personas se consideran claves, sentando los cimientos para el trabajo en equipo. Camposeven se constituye desde los principios de confianza y ayuda mutua, y sus acciones se guían por valores que son compartidos por todos sus socios. Estos valores son recogidos en la misión de la sociedad: promover la salud de las personas desarrollando líneas de productos orgánicos a través del uso de técnicas sostenibles (De los Ríos *et al.*, 2015). En esta dimensión también se integran las acciones de la SAT para la formación y el desarrollo de competencias de sus empleados, con procesos de certificación en dirección de proyectos según estándares de la *International Project Management Association*. De esta forma, frente a la visión tecnocrática y económica de la prosperidad, Camposeven promueve una cultura organizacional que incorpora y promueve la formación, los valores y la ética.

La Figura 3 muestra la valoración de los distintos elementos ético-sociales y el elemento más importante es el liderazgo en el territorio. Esta valoración se debe a que, desde la SAT, se ejerce un liderazgo que inspira confianza y promueve valores comunes entre sus socios, permitiendo transformar la agricultura de convencional a ecológica. El liderazgo es además un elemento clave para la comercialización de sus productos.

Los socios consideran que la capacidad de negociación es importante de cara a comercializar productos en los mercados nacional e internacional. Esto ha sido clave a la hora de superar adversidades en épocas de crisis, permitiendo incrementar considerablemente sus ventas desde el año 2007.

Otro aspecto clave muy valorado es la actitud abierta para la cooperación y el trabajo conjunto. Los agricultores consideran que la forma de gestionar y dirigir la SAT se basa en una "actitud abierta para la participación, la cooperación y el trabajo conjunto, permitiendo tomar decisiones colectivas y resolver los conflictos que surgen para llegar a una solución satisfactoria para todos" (Socio de Camposeven). La Figura 3 muestra todos los elementos identificados como motor de cambio y que influyen en la prosperidad rural.

Influencia de la dimensión político-contextual en la prosperidad rural

La dimensión político-contextual (31.6 %) incorpora una serie de acciones y elementos fundamentales para conseguir que los productores de AE generen y fortalezcan relaciones urbano-rurales. La prosperidad rural está relacionada con la capacidad de generar procesos de cambio organizacional y estructural que fomenten una adaptación hacia las prioridades y necesidades de las partes implicadas (Jackson, 2009). En esta dimensión destaca la *I+D+i* como elemento estratégico de la SAT desde el 2007, y desarrolla acciones orientadas a conseguir innovaciones en el ámbito de la producción ecológica. Con este objetivo, en el año 2009 la SAT estrecha relaciones con diversas organizaciones, creando la Plataforma Agroalimentaria con la UPM y empresas del sector. Después la SAT se vincula a Plataforma Europea Food for Life, formando un grupo de trabajo con empresas y centros de investigación del sector hortofrutícola. En

Figura 3. Elementos de influencia en la dimensión ético-social de la prosperidad rural.

el año 2013 se crea la Cátedra Fundación Ingenio, en colaboración con el grupo GESPLAN, desarrollando nuevos proyectos para mejorar técnicas de cultivo, innovar hacia la autosuficiencia energética y en el uso eficiente del agua.

En la Figura 4 se muestran los resultados de la valoración de la influencia los distintos aspectos de esta dimensión político-contextual, destacando el mercado internacional (11 %) como elemento más influyente. Esto se debe a que 90 % de la producción ecológica de la SAT se exporta al extranjero y el mercado internacional es uno de los pilares del éxito de la organización y de la prosperidad de las explotaciones asociadas.

La competitividad internacional y nacional es otro de los factores de alta influencia, para poder afrontar la creciente competencia internacional. Desde la experiencia se considera necesario que los productos de la SAT, puedan competir en el mercado internacional por calidad y precio, y diferenciarse a través de la certificación ecológica y biodinámica. La biodiversidad y la protección del medioambiente se fomenta en Camposeven a través de acciones orientadas a una gestión sostenible de los recursos naturales y a promover entre sus socios el empleo de técnicas sostenibles (mantenimiento y aumento de la biodiversidad del suelo). Esta gestión sostenible también contribuye a diferenciar a la SAT de la competencia, generando continuamente pequeñas innovaciones.

Los elementos de menor influencia en la prosperidad rural son las políticas públicas y las subvenciones nacionales. Los agricultores de la SAT, desde su experiencia acumulada, creen firmemente que la pro-

riedad de las explotaciones debe basarse en la competitividad y en la propia viabilidad de los productos. En otras palabras, en ser autosuficientes y depender lo menos posible del ámbito público administrativo.

Influencia de la dimensión técnico-empresarial en la prosperidad rural

La influencia de la dimensión técnico-empresarial, valorada en 30.6 %, se centra en las posibilidades que ofrecen los productos de la AE, para generar una corriente de bienes y servicios a la sociedad. A lo largo de los años, Camposeven se ha ido especializando, tanto desde el punto de vista técnico como empresarial, en la línea ecológica y biodinámica. La estrategia de la SAT es llegar a transformar la totalidad del producto a ecológico y biodinámico (actualmente, el 65 % de la superficie de cultivo es ecológica y el 35 % convencional). Esta especialización parte de las propias explotaciones familiares, que tienen una superficie media de 57.10 ha, y cuya propiedad comparten al menos dos personas. La especialización en las tareas ha llevado a diferenciar a dos tipos de socios: los socios agricultores, con dedicación a tiempo completo a la actividad agraria, y algunos socios no agricultores, dedicados a la gestión de la SAT. En ambos casos, la totalidad de los ingresos familiares de los socios proviene de la agricultura y de la actividad de la SAT (De los Ríos *et al.*, 2015).

Desde esta especialización técnica, Camposeven ha sabido diseñar una estrategia, con una clara función empresarial (Friedmann, 1993), orientada no solamente a generar productos ecológicos y bio-

Figura 4. Influencia en la dimensión político-contextual de la prosperidad rural.

dinámicos de alta competitividad en los mercados, sino también, a expandir conocimientos y valores ambientales y culturales (Kasser *et al.*, 2009). Su estrategia empresarial y comercial busca además, como factor del éxito de la SAT, la integración social de todos los actores: los agricultores (como principales actores de la producción de AE), la sociedad civil (a través de actividades de concienciación), y agentes de la *I+D+i* (para desarrollar conjuntamente innovaciones, nuevos productos y técnicas sostenibles). El modelo WWP, integrado en la gestión de SAT, ayuda a conseguir que la organización se comporte y actúe como un “sistema abierto”, capaz de entablar relaciones de diálogo y de trabajar con la gente para generar innovaciones (Cazorla *et al.*, 2013).

Los resultados del estudio evidencian la existencia de tres tipos de estrategias técnico-empresariales (Cuadro 2) adoptadas desde la SAT y que han influido en la prosperidad rural y en la sostenibilidad de la organización.

Desde el comienzo y para encaminarse hacia sus objetivos de diferenciación, Camposeven ha aplicado acciones en relación a la gestión sostenible de los recursos naturales (43.5 %), destacando el uso del

agua, como recurso de gran importancia en Murcia debido a su escasez. Entre las técnicas adoptadas destacan el riego por goteo, la siembra bajo protección de láminas plásticas, la construcción de embalses, canales para la recogida de agua, y uso de invernaderos multitúnel. En relación con las estrategias de conservación y mejora de los suelos se basan en la rotación de cultivos, control integrado de plagas y malezas, mediante medios biológicos y evitando pesticidas, el control mecánico, el uso de fertilizantes orgánicos, y la solarización en invernaderos.

Las estrategias de Camposeven se han centrado en conseguir una diferenciación de sus productos ecológicos y biodinámicos (34.8 %), desde diferentes sistemas de certificación a nivel europeo. Las acciones orientadas a la diversificación de productos y servicios, han permitido a Camposeven aumentar sus ventas en 16 millones de euros entre el 2007 y el 2013, a pesar de la crisis en España, durante la cual muchas empresas del sector cerraron (Figura 5).

Otras acciones de diferenciación se han centrado también en el área de la distribución de los productos SAT. De esta forma, para llegar a un público más amplio, los socios de Camposeven crearon la marca Freshvana, orientada a la venta de productos ecológicos on-line, de forma directa al consumidor.

Por último, las estrategias para la autogestión sostenible (21 %) tienen la finalidad de generar en las propias explotaciones la materia prima necesaria para elaborar preparados biodinámicos para la producción, mediante el reciclaje de residuos y subproductos de origen vegetal para su reutilización como abo-

Cuadro 2. Estrategias técnico-empresariales.

Estrategias Técnico-empresariales	%
Gestión sostenible de los recursos naturales	43.5
Diferenciación de productos y servicios	34.8
Autogestión sostenible de productos y residuos	21.7

Figura 5. Evolución de las ventas de productos ecológicos en Camposeven.

no. Todas estas estrategias se implementan desde una planificación conjunta y organizada entre los propios socios de Camposeven.

CONCLUSIONES

La conformación de una organización social (SAT) desde el modelo WWP, y orientada a la agricultura ecológica, ha generado procesos de innovación necesarios para persistir ante las adversidades en el contexto del desarrollo rural.

Desde la dimensión ético-social de la SAT se observa una gran influencia en la prosperidad rural. Las relaciones interpersonales y las conductas sientan los cimientos para que los agricultores —y otros actores de los ámbitos públicos y privados— trabajen y avancen hacia la prosperidad rural. Estos procesos permiten mejorar las capacidades y las competencias de las personas, con la ética y los valores como elementos fundamentales para superar posibles conflictos morales y poder trabajar en equipo. La prosperidad rural requiere un cambio de mentalidad en los agricultores, que les permita establecer alianzas público-privadas y vínculos con la sociedad civil.

La AE influye en la dimensión técnico-empresarial de la prosperidad rural, permitiendo la creación de estructuras empresariales sólidas que generan bienes y servicios a la sociedad. El éxito sostenido de estas organizaciones ecológicas se logra cuando además de buscar la rentabilidad, generan otros valores que inciden en la mejora de la calidad de vida de las personas. Las empresas agroecológicas incorporan también valores sociales y ambientales, y optimizan un medio de subsistencia a los productores de las zonas rurales.

Además la AE influye en la dimensión político-contextual de la prosperidad rural, contribuye a una visión estratégica territorial, mejora la gestión de los recursos naturales en un ámbito contextual, y facilita coordinar actividades y crear sinergias. Estas sinergias son muy eficaces cuando se realizan a través de cooperativas basadas en la confianza, el compromiso y la fiabilidad entre sus socios, creando ambientes favorables para la buena gobernanza. Las capacidades de estas asociaciones para establecer interrelaciones y negociaciones entre agentes públicos y privados regionales, nacionales o internacional y formar alianzas estratégicas, es un factor clave para la prosperidad rural. La experiencia de SAT genera una estrategia de

acción que influye en las dimensiones de la prosperidad rural, se confirma la necesidad de un equilibrio entre las dimensiones de la prosperidad rural, y se orienta la transformación de los sistemas convencionales hacia la AE.

LITERATURA CITADA

- Acosta N., R., y F. R. Rodríguez. 2013. La biodiversidad cultivada, actores sociales y estrategias en el contexto de la nueva ruralidad en España. *Agrociencia* 47: 115-130.
- Altieri, M., y C. Nichols. 2012. Agroecología: Única esperanza para la soberanía alimentaria y la resiliencia socioecológica. *Agroecología* 7(2): 65-83.
- Arendt, H. 1998. *The Human Condition*. Chicago: The University Chicago Press. 370 p.
- Argyropoulos, C., M. Tsiafouli S. Sgardilis, and J. Pantis. 2013. Organic farming without organic products. *Land Use Policy* 32: 324-328.
- Azadi, H., S. Schoonbeek, H. Mahmoudi, B. Derudder, P. De Maeyer, and F. Witlox. 2011. Organic agriculture and sustainable food production system: Main potentials. *Agric. Ecosys. Environ.* 144: 92-94.
- Ballesteros, J. 2000. *Postmodernidad: Decadencia o Resistencia*. Madrid: Tecnos. 185 p.
- Barrett, H., A. Browne, P. Harris, and K. Cadoret. 2002. Organic certification and the UK market: organic imports from developing countries. *Food Policy* 27: 301-318.
- Baumol, J. W., R. E. Litan, and C. J. Schramm. 2007. *Good Capitalism, Bad Capitalism, and the Economics of Growth and Prosperity*. Michigan, United States: Yale University Press. 3349 p.
- Cazorla, A., I. De los Ríos, and J. Díaz-Puente. 2005. The Leader community initiative as rural development model: application in the capital region of Spain. *Agrociencia* 39 (6): 697-708.
- Cazorla, A., I. De los Ríos, and M. Salvo. 2013. Working With People (WWP) in Rural Development Projects: a proposal from Social Learning. *Cuadernos de Desarrollo Rural* 10: 131-157.
- Chalker-Scott, L. 2013. The science behind biodynamic preparations: A literature review. *Horttechnology* 23(6): 814-819.
- China, N. S. 2005. Organic products. Taiwan: Standard administration of The People's Republic of China. The State Administration Republic of China. 9 p.
- ECC. 1999. COM. 1999. COM (1999) 22 Final. Brussels. p. 27.
- Danhofer, I. 2005. Organic farmer rural development: some evidence from Austria. *Sociologia Ruralis* 45(4): 308-323.
- Danhofer, I., I. De los Ríos-Carmenado, K. Knickel, M. Koopmans, C. Lamine, G. Almodred, and T. Tisenkopfs. 2014. Rethinking the links between farm modernisation, rural development and resilience in a world of increasing demands and finite resources. European Commission, RURAGRI. Ghent: ERA-NET. 45 p.
- De los Ríos-Carmenado, I., J. Díaz-Puente, and J. Cadena-Iñiguez, J. 2011. The initiative LEADER as a model for rural development: implementation to some territories of México. *Agrociencia* 45(5): 609-624.

- De los Rios-Carmenado, I., C. Garcia, A. T. Herrera, and M. Rivera. 2015. Innovation and social learning in organic vegetable production in the Region of Murcia. Camposeven, Spain. European Commission, RURAGRI. Ghent: ERA-NET. 52 p.
- De los Rios-Carmenado, I., A. Turek, and A. Afonso. 2013. Project management competencies for regional development in Romania: analysis from Working with People Model. *Procedia Economics and Finance* 8: 614-621.
- Diener, E., E. Sandvik, and L.D. Seidlitz. 1993. The relationship between income and subjective well-being: Relative or absolute? *Social Indicators Res.* 28: 195-223.
- Edwards-Jones, G., and O. Howells. 2001. The origin and hazard of inputs to crop protection in organic farming systems: are they sustainable? *Agricultural Systems* 67, 31-47.
- Faber, M., T. Petersen, and J. Schiller. 2002. Homo economicus and homo politicus in Ecological Economics. *Ecol. Econ.* 40(3): 323-333.
- FAO. 2014. The State of Food and Agriculture. Innovation in Family Farmer. ROMA: FAO. 161 p.
- Friedmann, J. 1987. Planning in the Public Domain: From Knowledge to Action. New Jersey: Princeton University Press. 229 p.
- Groot, J. C., A. Jellema, and W. Rossing. 2010. Design a hedgerow network in a multifunctional agricultural landscape character and implementation costs. *Eur. J. Agron* 32(1): 112-119.
- Guzman, G., and N. Gonzalez. 2009. Preindustrial agriculture versus organic agriculture, the land cost of sustainability. *Land use Policy* 26(2): 502-510.
- Howard, A. 1943. *An Agricultural Testament*. London: Oxford University Press. 362 p.
- Jackson, T. 2009. *Prosperity Without Growth. Economics for a Finite Planet*. Abingdon: Earthscan. 255 p.
- Kasser, T. 2009. Psychological need satisfaction, personal well-being and ecological sustainability. *Ecopsychology* 1(4): 175-180.
- Lansink, A.O., P. Kiosty, and S. Backman. 2002. Efficiency and productivity of conventional and organic farms in Finland 1994-1997. *Eur. Rev. Agric. Econ.* 29(1): 51-65.
- Lapple, D., and T. V. Rensburg. 2011. Adoption of organic farming: Are there differences between early and late adoption? *Ecol. Econ.* 70(7): 1406-1414.
- Legatum Institute. 2014. Legatum prosperity index. Legatum Institute Foundation. London: Legatum Institute Foundation. 56 p.
- Moore, M. 1984. Political economy and the rural-urban divide 1767-1981. *J. Develop. Studies* 20(3): 5-27.
- Patil, S., P. Reidsma, P. Shah, S. Purushathaman, and J. Wolf. 2014. Comparing conventional and organic agriculture in Karnataka, India: Where and when can organic farming be sustainable? *Land Use Policy* 37: 40-51.
- Paull, J. 2011. Attending the first Organic Agriculture Course: Rudolf Steiner's Agriculture Course at Koberwitz, 1924. *Eur. J. Social Sci.* 21(1): 64-70.
- Ramos. 1993. ¿Por qué la conservación de la naturaleza? Discourse of the opening reception of the Spanish Royal Academy of Exact Science. Madrid. España. 37 p.
- Reganol, J. 1995. Soil quality and profitability of biodynamic and conventional farming systems: A review. *Renew. Agric. Food Systems* 10(1): 36-45.
- Rigby, D., and D. Caceres. 2001. Organic farming and the sustainability of agricultural systems. *Agricultural Systems*. 68: 21-40.
- Shepherd, R., M. Magnusson, y P. Sjöden. 2005. Factores determinantes de la conducta del consumidor relacionados con los alimentos orgánicos. *AMBIO* 34(4-5): 352-359.
- Schumacher, E. F. 1976. *Small is Beautiful: A Study of Economics as if People Mattered*. University of Michigan: Abacus. 319 p.
- SDC. 2009. *Prosperity without Growth? The transition to a sustainable economy*. London: Sustainable Development Commission. <http://www.sdcommission.org.uk/publications.php?id=914> (Consulta: Abril 2015).
- Smith, A. 1776. *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: W. Strahan and T. Cadell. 691 p.
- Steiner, R. 2011. *Agriculture Course. Birth of Biodynamic Method*. Malta: Rudolf Steiner Press. 176 p.
- USDA. 2014. *Agricultural Act of 2014. Highlights and implications*. USDA, Economic Research Services. Washington: USDA. 45 p.
- Williams, A., P. Jobes. 1990. Economic and quality of life considerations in urban-rural migration. *J. Rural Studies* 6(2): 187-194.

Contribution j

“Informal Knowledge and Learning for Alternative modernization Pathways”

Title	Authors	Type of Contribution	Published/ Presented	Quality Criteria
Informal Knowledge and Learning for Alternative modernization Pathways	Sandra Šūmane, Karlheinz Knickel, Ilona Kunda, Ignacio de los Rios, Maria Rivera, Agnes Strauss, Talis Tisenkopfs	Oral presentation in an International Conference (2015) and indexed publication (2015)	Presented at: The XXVI European Society for Rural Sociology Congress. Places of Possibility? Rural Societies in a Neoliberal World. (Aberdeen) Published in: Proceedings of the XXVI Congress. ISBN 978-0-902701-14-4	International conference with blind peer-review

Related to chapter 3

The XXVI European Society for Rural Sociology Congress
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 18-21 August 2015, Aberdeen Scotland

Informal knowledge and learning for alternative modernisation pathways in agriculture

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Abstract – Developing alternative modernization pathways in sustainable agriculture requires a new knowledge base, which in turn is associated with an acknowledgment of the relevance of informal farmer knowledge. We use three case studies of organic and small-scale farming implemented in the international RETHINK research programme to explore farmer knowledge and learning practices and networks, their enabling and limiting factors and their (potential) contribution to a more sustainable and more resilient agriculture. The results show that most farmers studied use mixed knowledge sources, and, to a considerable extent, also informal knowledge and networks. These informal exchanges offer farmers not only verified, locally adapted knowledge and inspiration for innovations, but also strengthen their identities, communities, and professional and personal pride; they thus help to build social structures which contribute to advancing sustainable agriculture.

INTRODUCTION

Sustainable agriculture, due to its holistic, diverse and distinctive nature, requires also new content and forms of knowledge and learning (Curry & Kirwan, 2014; Pretty, 1995; Kloppenburg, 1991). The formal agricultural knowledge system does provide relevant contributions to sustainable agriculture. But it also reproduces the productivist model of agriculture grounded in standardised universal knowledge. Farmers who strive to take alternative paths, therefore tend to rely on alternative support networks, knowledge sources and modes of learning. Morgan & Murdoch (2000) in line with that point out that reassertion of local knowledge is necessary to establish sustainable pathways in agriculture. In this paper we analyse social processes and mechanisms through which informal knowledge is created and how it produces sustainable outcomes in agriculture.

By informal knowledge we understand farmer knowledge gained in informal settings by doing, self-educating or learning from other farmers or other actors. We point to the farmer's authorship of

knowledge and its local embeddedness in a specific situation which also makes clear its holistic nature, practical relevance and applicability.

The potential of informal knowledge to contribute to sustainability goals is explained in terms of its multiple embeddedness in local settings and its continuous updating in response to uncertainties and opportunities. Sustainable agriculture, which itself is context-specific, is a process for learning and perpetual novelty creation; it is a process of participatory learning as active involvement of all stakeholders is necessary in order to react to dynamic contexts and implement changes (Pretty, 1995). Indeed, the farmer is never alone in producing knowledge: s/he acts within the framework of the knowledge of prior generations, her/his peers, community, partners etc. The farmer is both an author and co-creator in a complex web of other "authors" who constantly negotiate their experience and knowledge.

In line with that, we analyse informal knowledge and learning in the frame of social learning networks. Contemporary sustainable agriculture is advanced by multi-actor knowledge networks, in which various knowledge are exchanged and new meanings and practises of farming are negotiated, learnt and institutionalised (Moschitz et al., 2015; Tisenkopfs et al., 2015; Wood et al., 2014; De los Rios et al., 2011; Knickel et al., 2009). Those knowledge and learning processes are embedded in farmers' daily relational structures which are largely self-organized, personalized and local (Wood et al., 2014). During those learning interactions actors co-create new meanings and rebuild their identities and cognitive frames of action. Therefore knowledge is not only instrumental, but it is also infused by values, cultural and social factors and everyday realities.

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METHODOLOGY

We base our paper on three case studies carried out in the international RETHINK research programme: organic farmers in Austria, Latvian small-scale farmers and Camposeven organic cooperative in Spain. The case studies use a common analytical framework, and the data were gathered by mixed methods involving semi-structured in-depth interviews and group discussions as well as relevant secondary data from surveys, statistics and previous research.

RESULTS

Knowledge sources

Farmers use various knowledge sources to meet their diverse knowledge needs which include technical aspects of farming, marketing, management, networking skills and administrative procedures. Among those knowledge sources, self-education (individual learning from own experience, reading literature, internet sources and other media) was commonly used for finding new solutions. Farmer knowledge (own experience, learning by doing, experimenting, self-education, using other farmers' experience) was the most prominent and trusted knowledge base. Its importance stems from the close engagement with local settings.

Market actors, in particular consumers and retailers with whom farmers have direct relations, are another important knowledge source. Farmers use also knowledge from formal agricultural institutions and various government bodies. Formal institutions are necessary also to stay informed about and comply with agricultural regulations or qualify for public support. But formalisation and standardisation of knowledge can be also restrictive for farmers' own knowledge and skills.

In their farming realities farmers integrate and use all kind of knowledge which they have access to and which they find relevant for their situations.

Knowledge networking

The various knowledge sources point to the presence of social links and networks which allow circulation of knowledge and learning. We identified farmers are operating in multi-actor knowledge networks consisting of various overlapping formal and informal sub-networks.

Farm families, in particular in Latvia, manifested themselves as core milieus of learning where knowledge is transferred from generation to generation and exchanged between family members and where curiosity, active learning and creativity are maintained.

Farmers and farmer organisations are another central node in farmers' learning networks. Austrian organic farmers and Latvian niche farmers show that farmer groups are particularly important in the pioneer phase of new agricultural approaches in order to spread knowledge and exchange experiences. But they continue to be essential sources of information and

innovation also later. Farmer organisations, like Camposeven, may also help connect farmers to formal knowledge institutes and international knowledge platforms.

Learning from other farmers often happen in informal settings like morning meetings in local bars. Informal knowledge exchanges can be also more purposeful, like calling other farmers for advice. Still more formal forms for mutual learning are also established, when knowledge networking and exchanges are perceived as a collective benefit. In Camposeven participatory mechanisms are set in place to share ideas, opinions and expertise among farmers and "learn for the common good".

The role of informal knowledge and learning

Practical, experiential knowledge is indispensable for farming. Knowing the land, cattle breed and crop variety, and knowledge which has been tested against reality tends to form a more reliable base for farming. Informal and endogenous knowledge is not automatically replicated, but it can inform innovations when revisited against the changing context. Informal networks reduce knowledge gaps in the formal knowledge system. They are a trusted and valued source of knowledge as farmers adopt more easily new ideas and practices which are known to and applied by other farmers.

Informal knowledge and learning have also other socio-cultural implications. Direct contacts and informal knowledge exchanges serve for community building, they are source of professional and personal satisfaction, pride, regeneration of local socio-cultural values, norms and identities.

CONCLUSIONS

The holistic nature of sustainable agriculture as well new societal demands require new knowledge and skills from farmers. Personal curiosity and willingness to learn together with social networking and supportive formal knowledge institutes appeared as central elements for successful learning, creation of knowledge and innovation.

The changing nature or vision of agriculture and the multiple dimensions of rural development require also the development of mixed networks with both agricultural and non-agricultural actors. The research confirmed complementarity and interplay of local and external knowledge from various fields, the networking character of knowledge and learning processes for sustainable agriculture.

Knowledge sharing and combining helps to overcome the limits of personal knowledge and it contributes to community building. Within social knowledge interactions a sense of community, common values and goals, shared ideas, mutual trust and identity are developed. Knowledge interactions therefore do not only provide a sounder knowledge base but also strengthen social structures and mechanisms for advancing sustainable agriculture.

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REFERENCES

- Curry, N., & Kirwan, J. (2014). The role of tacit knowledge in developing networks for sustainable agriculture. *Sociologia Ruralis* 54 (3), 341-361.
- Knickel, K., Brunori, G., Rand, S., & Proost, J. (2009). Towards a better conceptual framework for innovation processes in agriculture and rural development: From linear models to systemic approaches. *Journal of Agricultural Education and Extension*, 15 (2), 131-146
- Kloppenburg, J. (1991). Social Theory and the De/Reconstruction of Agricultural Science: Local Knowledge for an Alternative Agriculture. *Rural Sociology*, 519-548.
- De los Ríos, I., Díaz J.M. & Cadena, J. (2011). The Initiative Leader as a model for rural development: implementation to some territories of México. *Agrociencia* Vol 45: 609-624. 2011.
- Morgan, K., & Murdoch, J. (2000). Organic vs Conventional Agriculture: Knowledge, power and innovation in the food chain. *Geoforum* 31, 159-173.
- Moschitz, H., Roep, D., Brunori, G., & Tisenkopfs, T. (2015). Learning and Innovation Networks for Sustainable Agriculture: Processes of Co-evolution, Joint Reflection and Facilitation. *The Journal of Agricultural Education and Extension* 21 (1), 1-11.
- Pretty, J. N. (1995). Participatory Learning for Sustainable Agriculture. *World Development* 23 (8), 1247-1263.
- Tisenkopfs, T., Kunda, I., Šūmane, S., Brunori, G., Klerkx, L., & Moschitz, H. (2015). Learning and Innovation in Agriculture and Rural Development: The use of the concepts of boundary work and boundary objects. *The Journal of Agricultural Education and Extension* 21 (1), 13-33.
- Wood, B. A., H. T. Blair, D. I., Kemp, P. D., Kenyon, P. R., Morris, S. T., & Sewell, A. M. (2014). Agricultural Science in the Wild: A Social Network Analysis of Farmer Knowledge Exchange. *PLoS ONE* 9 (8), doi: 10.1371/journal.pone.0105203.

Annex 2: **Other relevant documentation**

Annex 2 includes relevant documentation related to the Rethink Project:

2.1. Rethink's Flyer:	Summary leaflet of the whole project
2.2. Camposeven's Poster:	Presented at the Final Conference in Brussels (December 2015)
2.3. Spanish Case Study:	Short summary of the Spanish Case Study
2.4. Analytical Framework	Used for the analysis of the CS
2.5. Reporting Template	Used for interview preparation

2.1. Rethink's Flyer

rethink

RETHINK is a transdisciplinary research project supported by the European Commission and funding bodies in 14 countries under the umbrella of FP7 and the RURAGRI ERA-NET.

Questions How do market forces, societal demands and resource constraints interact to create opportunities and constraints for agriculture and rural areas across Europe? Where are the links between farm modernization, rural development and resilience and how can we shape them positively? And, how can we develop the relationships between rural areas and urban centres in ways that increase overall resilience?

In addressing these questions the RETHINK project explores the meaning of agricultural modernization. It does so at a time of potentially profound change - when the agricultural sector must finally respond to increasing resource scarcity and distributional demands, and when economies, production systems and lifestyles must be transformed. RETHINK explores the connections between the development of agriculture and the wider societal and policy goal of vibrant and prosperous rural areas, explicitly recognizing the complexity of the challenges, the diversity in situations, and the multidimensionality of strategies for a more balanced development.

Case studies The analyses to be carried out are based on a set of common research questions. These have been used to select 14 major case studies, one in each participating country. The case studies will improve our understanding of the many factors that contribute to rural prosperity and resilience. Each case is an expression of an innovative development trajectory, highlighting potential synergies between farm modernization and sustainable rural development.

A joint analytical framework will ensure the comparability of case study analyses and allow for recommendations to be made at a European level.

research

Analysis The international comparative analysis builds on the national level analysis of the case studies and related workshops. The analysis will be structured around four themes, each of which will be led by two partners with a solid track record for the theme:

- 1 **Resilience:** *this analysis will draw on a socio-ecological perspective. Particular attention will be paid to the role of diversity in farming systems, farming styles and land uses, adaptive capacity and the (co)production of ecosystem services. Lead: Gunilla Almered Olsson (SWE) and Ika Darnhofer (AT).*
- 2 **Prosperity:** *here we will explore the shift from a focus on costs of production, productivity and cost-efficiency (i.e. input-output relations) to effectiveness (i.e. the ability to meet a specific goal such as quality of life). The potential contribution of integrating agriculture with other economic and non-economic functions will be explored. Lead: Kees de Roest (IT) and Ignacio de los Ríos (ES).*
- 3 **Governance:** *we will explore the shift in the role of the state from 'provider' to 'enabler'. The role of cooperative approaches and multi-actor networks will be examined. Particular attention will be paid to ways to mobilize actors so that they are in a position to develop strategic agendas collaboratively. Lead: Guido van Huylenbroeck (BE) and Marguerite Paus (CH).*
- 4 **Knowledge and learning:** *the role of human resources, social learning and of different knowledge bases in the case studies will be explored. We will examine how knowledge is accessed and/or generated. Particular attention will be paid to the role of learning and innovation networks which will contribute to the operationalization of the new European Innovation Partnerships (EIP) policy at the European, national and regional levels. Lead: Talis Tisenkopfs (LV) and Karlheinz Knickel (DE).*

RETHINK combines an explorative perspective with an action-oriented policy and governance orientation. Decision-makers from the public and private sectors will help shape its implementation. The comparative analysis and synthesis will focus on issues that are highly relevant for decision-makers, including factors that enable and encourage the creation of synergies, and the roles of agency and institutional structures.

RETHINK will be organized as an open research process that connects with and integrates other ongoing work. The project will facilitate informed and productive interactions between industry, government, academic institutions, civil society organizations and farmers. It provides a key and strategic opportunity for all actors involved in to contribute to the existing discourse about the future of European agriculture.

Institution	Case study	Contact persons	Website / Email
DE IfLS – Institute for Rural Development Research at Johann Wolfgang Goethe University, Frankfurt/Main, Germany	Opportunities for creating an eco-economy? Lessons learned from the Regional Action Scheme about the factors that enable farm development to contribute to this	Karlheinz Knickel (Scientific Coordinator) Simone Schiller (Project Manager)	www.ifls.de knickel@em.uni-frankfurt.de
AT BOKU – University of Natural Resources and Life Sciences, Institute of Agricultural and Forestry Economics, Vienna, Austria	What impact does a high share of organic farming have on resilience, adaptive capacity and innovation networks?	Ika Darnhofer Nikola Patzel Agnes Strauss	www.wiso.boku.ac.at/afo.html ika.darnhofer@boku.ac.at
BE UGent – Ghent University, Department of Agricultural Economics, Faculty of Bioscience Engineering, Ghent, Belgium	Alternative financing mechanisms to promote multifunctional agriculture and increase the resilience of farming systems	Guido Van Huylenbroeck Evy Mettepenningen	http://www.ugent.be/bw/agricultural-economics/en Guido.VanHuylenbroeck@UGent.be
CH AGRIDEA – Swiss Association for the Development of Agriculture and Rural Areas, Lausanne/Lindau, Switzerland	Suburban food procurement systems in a Swiss municipality	Marguerite Paus David Bourdin Sophie Reviran	http://www.agridea.ch/ Marguerite.Paus@agridea.ch
DK KU – Copenhagen University, Danish Centre for Forest, Landscape and Planning, Copenhagen, Denmark	Developing landscape strategies: a framework for place-based local development strategies	Jørgen Primdahl Lone Kristensen Kamilla Hansen-Møller	http://sl.life.ku.dk/English.aspx jpr@life.ku.dk
ES GESPLAN – Technical University of Madrid, Technical College of Agriculture, Madrid, Spain	Innovation and social learning in intensive vegetable production in the Murcia region	Ignacio de los Ríos Adolfo Cazorla Jose María Díaz	http://ruraldevelopment.es/index.php ignacio.delosrios@upm.es
FR INRA-SAD – Institut National de Recherche Agronomique, Sciences pour l'Action et le Développement, Ecodéveloppement, Avignon, France	Trajectories of combined specialization and diversification in fruit and vegetables production in the south of France	Claire Lamine Naoufel Mzoughi Claude Napoleone Mireille Navarrete	http://www.sad.inra.fr/en/ Claire.Lamine@avignon.inra.fr
IE TEAGASC – The Agriculture and Food Development Authority, Johnstown Castle Research Centre, Wexford, Ireland	Towards the sustainable intensification of grass-based production: the role of innovation in the Agricultural Catchments Programme (ACP)	Ger Shortle Cathal Buckley Paul Murphy	http://www.teagasc.ie/agcatchments/ Ger.Shortle@teagasc.ie
IL ARAVA / SACOG – Central and Northern-Arava Research and Development Sustainable Agriculture Consulting Group, Tel Aviv, Israel	Managing arid land for water-efficient, high value, crop production: the central role of knowledge systems	Raanan Katzir Eviatar Eidel Rivka Ofenbach	http://www.arava.co.il/haklout/English/welcome.html# rannan@zahav.net.il
IT FSRC – Fondazione Studi e Ricerche CRPA, Reggio Emilia, Italy	Extensive pig production systems: the role of local breeds and innovation in meeting urban demand for quality pork	Kees de Roest Claudio Montanari Paolo Ferrari	http://www.crpa.it/nqcontent.cfm?a_id=1109&lang=en k.de.roest@crpa.it
LT ASU – Aleksandras Stulginskis University, Kaunas, Lithuania	Resilient farming systems and market differentiation: challenges and opportunities in farmers' markets	Romualdas Zemeckis Vilma Atkočiūnienė Vidmantas Spruogis	http://www.asu.lt/ev/en/ romualdas.zemeckis@asu.lt
LV BSC / LUA – Nodibinajums Baltic Studies Centre and the Latvian University of Agriculture, Faculty of Economics, Riga, Latvia	Development trajectories for small-scale farming: valorization of local knowledge and learning	Tālis Tisenkopfs Sandra Sumane Irina Pilvere	http://www.bscresearch.lv/ talis.tisenkopfs@lu.lv
SE GU – University of Gothenburg, Global Sustainability Studies, School of Global Studies, Gothenburg, Sweden	The sustainability of developmental trends in agricultural landscapes, assessed through ecosystem services	Gunilla Almered Olsson Anders Wästfelt Karl Bruckmeier	http://www.globalstudies.gu.se/english/ gunilla.olsson@globalstudies.gu.se
TR SDUZF / BATEM – Süleyman Demirel University, Faculty of Agriculture, West Mediterranean Agricultural Research Centre, Turkey	The role of farmer organizations in strengthening the resilience and competitiveness of farming	Fatma Handan Giray B. Karlı, T. Bal, M. Gül B. Sayın, E. Öztürk	http://www.sdu.edu.tr/Katalog.aspx?tip=blrim&id=17 handangiray@sdu.edu.tr

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2.2. Camposeven's Poster

Innovation and social learning in an organic cooperative: Camposeven Spain, Murcia

Carmen García, María Rivera, Ignacio De los Ríos
GESPLAN Research Group. Technical University of Madrid (UPM)

2.3. Spanish Case Study Summary

Innovation and social learning in organic vegetable production in the Region of Murcia Camposeven, Spain

Summary Camposeven is an organic cooperative located in the southeast of Spain, in a region with a strong agricultural tradition that counts with perfect climatic conditions for farming. The cooperative was created in 2007 by 7 farmers with more than 25 years of experience in the sector, and it produces and commercializes organic and biodynamic fruits and vegetables to other European countries. Resource autonomy which has given them great flexibility, together with their adaptive capacity based on product diversification and different commercial strategies, has allowed them to be resilient when facing changes and difficulties. Their values and principles are the main pillars for the effective functioning of the cooperative generating a favorable environment for the exchange of knowledge and learning. The decision making process is based on a participative governance model, not hierarchical, where farming partners make decisions. Reaching a sound quality for the farmers and rural prosperity for the region are the foremost aims of the cooperative.

→ Find the complete case study report at www.rethink-net.eu.

Introduction

The case study topic

The study focuses on how a small cooperative that produces organic and biodynamic products is managing to succeed and be resilient. The analysis shows a collaborative model and we look closely at the strategies that make them successful. Their input towards promoting regional's prosperity as well as the challenges they have had to overcome are also examined.

Farming partners, founders of Camposeven, 2007
(Source: own elaboration)

The case study region

The Region of Murcia is one of the main areas of citrus and stone fruit in Spain (mainly lemon, apricot and peach). Murcia is the autonomous community of Spain with more acres dedicated to organic farming (INFO 2014), with an area of 58,820 ha which account for 10% of the regional agricultural area and 3.7% of the national organic agricultural area. And 0.26% is the organic agricultural area of Murcia within the whole of Agricultural lands of Spain.

Agricultural systems are typical of the so-called Campo de Cartagena which has an area of 1,163 km² and a total population of 358,927 inhabitants. In this region the food industry has a long tradition in the production network. The region of Cartagena, with 12% of the regional surface, concentrates 17% of the farmland in the region, of which 44% are irrigated crops, and agricultural systems that are highly technical and highly competitive. The most important products in terms of

irrigated hectares are: lettuce (5,268 ha.), melon (4,779 ha.), artichoke (3,148 ha.), broccoli (2,442 ha.) and tomato (933 ha.). Greenhouse cultivation stands out as main cultivation technique, as in Campo de Cartagena 57% involves this type of production (INFO 2013).

Main lessons learned

Work based on the concept of “family”

Camposeven is a young cooperative that counts with experienced farmers that used their knowledge to make it leader in the area both in the production and commercialisation of organic and biodynamic products basing their work on innovation, diversification, respect, autonomy and care for the environment.

Key features of resilient agricultural systems

The key factors for the resilience of the cooperative are:

Diversity offers an alternative in the case that an activity, product, or other resource, fail. Camposeven focuses its activity on agricultural production and marketing, without combining it with other activities such as rural tourism. However, the cooperative is very diverse in other areas such as product variety (20 different products), production systems (open air and greenhouse), certifications (organic and biodynamic agriculture), marketing strategies (9% correspond to long chains, that is, more than one intermediary, 57% are medium chains, just one intermediary, and 34% are short chains, products marketed directly to final

customers through online sales), and types of clients

(national, international, supermarkets, final consumer).

Autonomy Non-dependence on subsidies or other public revenues means that the products the cooperative has in its commercial portfolio, are profitable for themselves, namely, self-reliant products.

However, farming partners recognize the importance of subsidies for the modernization of infrastructure, farm machinery and R & D. On the other hand, **teamwork** based on values such as **trust**, **compromise** and unity, where **leadership** is a key competence, is another element that provides resilience to the cooperative. For this agrarian organization there is a mission, a vision and operating principles and values that are shared amongst all, which leads them all to work together for a common goal. Betting for the **investment in R & D** from the beginning through interacting with other agents, is a strategic element for innovation and change. These investments have focused both on improving the production and marketing as well as in the fight against pests. This search increases productivity and provides answers to the demands of consumers. Finally, **caring for the people, training and capacity building** of their workers has proven to be a key pillar of resilience. A differential element of this cooperative is its bet for project management competences. The processes generated seek to improve capabilities and the behavioural skills of the people.

Development pattern enhancing prosperity

The five most important aspects of the prosperity concept for Camposeven's farmers are: satisfaction and life quality of the workers, capacity building, profitability, respect for the environment and most importantly the importance of investment in R & D. Through this study it has been shown how the traditional economic view is gradually being abandoned giving more prominence to social aspects. Particularly in this cooperative, the role of trust is central as it is the cornerstone of the success of all other processes, activities and relationships taking place in Camposeven.

Besides the definition of the concept, the most representative influences for a farm's prosperity are:

sustainable use of natural resources and differentiation of production through organic and biodynamic production; personal development, mutual learning; sense of belonging of the actors involved and the importance of being competitive both at national and international levels.

Strengths and weaknesses of regional governance structures

Governance in Camposeven takes into account all actors involved. Farming partners make decisions together, mostly by consensus, linear and participatory. This process is motivating for all of them as it makes them feel part of a common project, promoting, this way, everyone's commitment. Although the final decision lies with farming partners, all staff parties involved is kept in mind to achieve thus the maximum satisfaction of all stakeholders.

The main factors contributing to the success of this governance's model are trust between all partners, efficient communication between partners and workers, and transparency in the process.

Role of different sources of knowledge and forms of learning, and the related networks and institutions

Members that make up the structure of Camposeven base their training on different types of knowledge and ways of learning, such as training courses, formal and informal meetings, queries to technical staff, experiences exchange and experiments on their own farms.

Informal knowledge networks mainly refer to local events such as fairs and festivals, and lunches with other farmers from the area or even workers from other sectors. To increase and improve their knowledge, they

also find very useful to collaborate with universities and research groups. These collaborative networks and R & D are key to achieve the constantly adaptation the company requires to changing realities and market demands as well as to seek joint solutions.

'Rethinking' modernization

Through this case study we attempt to find out which strategies and ideals are making a small organic agricultural cooperative be successful and contribute to their own prosperity as well as to their community's prosperity. Many farmers appreciate environmental integrity not just for the gains it provides, but also in its own sake, taking pride in the ecosystem. Other strategies such as diversification aim at ensuring the profitability of the cooperative. The existence of strong partnerships with capacity to relate to the context has also proven to be key. The idea behind partnerships is to formalize alliances and associations based on mutual trust and teamwork between different individuals that freely unite and establish common objectives that allow overcoming problems and seizing opportunities. Farmers highlighted autonomy as a key characteristic that allows them to be more flexible and adaptive before challenges, opportunities and problems. This engagement is necessary to create adequate platforms, promote synergies between the parts involved, propitiate knowledge creation and enhance the adaptive capacity. We can conclude that cooperative collective management together with a constant flow of knowledge and learning contributes to create more sustainable and resilient agricultural models and prosper rural areas by raising awareness on environmental, technical, economic and social issues.

Some key recommendations

- Integrate R&D and innovation policies with civil organizations that have action capacities, limiting bureaucratic processes
- Promote social learning and cooperative work based on bottom-up planning models framed within "Working With People"
- Support the valorisation of the role of small farms in protecting the cultural and natural heritage of regions and their role in rural prosperity
- Promote the active participation of civil society in the design of financing instruments through a continuous monitoring of policies and the R&D system
- Promote alternative development paths that not only focus on economic growth and efficiency but that also on social and environmental factors

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Disclaimer: The content of this publication is the sole responsibility of the implementing partners of the RETHINK project and can in no way be taken to reflect the views of the European Union.

Case study: Innovation and social learning in organic vegetable production in the Region of Murcia, Camposeven, Spain

2.4. Analytical Framework

Authors: Ika Darnhofer, Ignacio De los Ríos, Karlheinz Knickel, Marlinde Koopmans, Claire Lamine, Gunilla Almered Olsson, Kees de Roest, Elke Rogge, Sandra Šūmane and Tālis Tisenkopfs

1. Transversal elements to rethink agricultural modernisation

1.1 Understanding dynamics

In RETHINK we build on **complexity thinking**, which emphasizes nonlinear, context- and contingency-specific interactions. While this frame of reference is increasingly understood, its implications for research and for understanding practical action are rarely taken into account (Rogers et al. 2013). In RETHINK this means that we will focus on a *relational understanding*: rather than one-sidedly privileging states ('being') we need to put more attention on the process ('becoming'). Issues such as environmental sustainability, economic viability, fair prices or resilience need to be examined in their relationality: rather than being static objects or sets of relationships, they emerge from political, cultural and historical processes (McMichael 2009).

As Carolan (2013) points out, this **focus on relationality** is a clear departure from the rather linear trajectory that underlies many conceptual frameworks¹¹. Indeed, until the 1980s a linear understanding of agrarian change dominated, which ignored issues of historical, spatial and social contingency. In a relational view of the world, causality and explanation lies in the relationships that are formed through the various actors¹² and the 'enacting' that takes place. It opens up the very real possibility that multiple 'things' are going on simultaneously, different projects pursued by different networks.

The goal of the research is thus less about producing a more accurate representation, than about *identifying new configurations that challenge conventions*, that are in the process of **rethinking farm modernisation**, of making new agro-food chains possible and new practices doable, of opening up new modes of thinking. It will contribute to making diversity more visible, thus increasing the space of decision (Gibson-Graham 2008). Our goal is thus not to explain why farmers are 'locked-in', but to uncover the possible, to explore how modernisation could be rethought. While highlighting the wide variety of practices on-farm or networks in a region may not automatically produce new ways forward, it may generate new possibilities and suggest different strategies.

¹¹ For example, the debate around the 'conventionalisation' of organic agriculture has shown that what is often framed as a 'grand binary', can be replaced by possibility and multiplicity. This requires taking a more reflexive, situated and relational approach, thus questioning the arrow of linearity and the implied inevitability (Carolan 2013).

¹² Including researchers! As Campbell and Rosin (2011) show, the engagement between a research team and diverse actors enabled a whole new set of theoretical questions that opened up new areas of politics, contestation and elaboration of commercial forms of organic agriculture.

Looking at these configurations and how they emerged from a specific context and history, will allow underlining the *contingency* (rather than the linear inevitability) of any specific ‘development’. It will allow capturing diversity of farm types and of models of engagement with the market, as well as how these models interact in a territory. We will highlight what barriers they face and how they seek to overcome them. We will analyse how these models redefine (implicit) assumptions and values.

This **non-deterministic approach** allows coming to grips with heterogeneity and allows the inclusion of actors and agency (van der Ploeg et al. 2008). It builds on an understanding that structures do not determine action; rather structure is understood as multiple, contingent, variable and actor-dependent. Similarly, actors face a range of routines, vested interests, shared expectations that they have to deal with, without being completely governed by them. This does not deny the relevance of wider patterns within which a farm or region is embedded; what is crucial is how these wider patterns are perceived, translated, faced, mediated and countered (van der Ploeg et al. 2008).

We do not understand change as the result of one single logic that necessarily unfolds into one unified trajectory. Rather, on one farm or in one region, there are many different and often mutually contrasting development projects. Each project builds on a particular resource combination, involves particular actors, implies specific interrelations, follows particular directions and relates with interests in specific ways. The interrelations between these competing projects can provide a complex, and often unstable interplay.

Case study questions: How will you capture the diversity of projects that are present in your case study area? Will you focus on one specific coalition of actors and their project? Which time-scale are you going to take into account?

1.2 Networks: within a territory and along food chains

In RETHINK the case study analysis will in most cases be performed at both the farm-level and the community/territorial level. The **boundaries** of the territory will depend on what spatial scale the actors perceive as being relevant (i.e. it does not need to fit with administrative boundaries). For example, the spatial scale might be linked to the perimeter of action of a dairy. If the ‘territory’ refers to actors along a food chain, the territorial level may not necessarily refer to a contiguous space.

Taking a territorial approach also means that the analysis will include other actors of the territorial agri-food system such as extension services, local authorities and the civil society. The challenge will be that different actor groups (e.g. environmental protection, administrators, collectors and processors) are likely to consider different boundaries as relevant.

Taking into account the territorial level allows capturing **networks** such as cooperation between farms (e.g. sharing machinery) and collective measures (e.g. irrigation infrastructure, social learning, marketing). The territorial level will also allow capturing different types of diversity (e.g. individual farms might specialize, but in different areas, thus still keep high level of diversity at regional level). We will strive to consider the whole range of relevant initiatives in a given territory, and capture the changes and interactions within and between them (Lamine et al. 2012).

The analysis of networks might include:

- *interdependencies within a territory*, such as the interactions between local networks, cooperation between farmers (diversification at territorial level, not just at farm level), cooperation with regional stakeholders, interaction between agricultural and non-agricultural population.
- *interdependencies along the food chain*, e.g. taking into account the strategies of processors, retailers, consumers; producer-consumer relations; drawing attention to social issues, e.g. is there any discussion about what is a fair price for farmers and other stakeholders? What mechanisms are used to coordinate the actors along the chain?
- *interdependencies between institutions*, e.g. policy makers, research, extension services, Chamber of Agriculture, (dominant) Farmer Unions, farmer associations, public authorities, civil society. Are there new actors emerging? Are there relevant public policies? Are collaborative efforts encouraged, e.g. through coordination platforms?

The spatial scale of the analysis needs to be clearly identified, not least because it is likely to impact the results relative to the four themes. For example, looking at resilience might well lead to different insights if assessed at the farm-level (the disappearance of that farm indicate low resilience), or at the regional level (the disappearance of a farm might enable a restructuring), or if the focus is on the resilience of a specific type of production in the region (e.g. horticulture and how it has changed and adapted).

Case study questions: How will you choose the boundary of your case study? Which relations, which actors will you include? As you might not be able to study all networks in the same level of depth, how will you decide which to focus on and which to exclude?

1.3 From efficiency to effectiveness

As was briefly reviewed in the conceptual framework, farm modernisation was driven by the search for **efficiency**, which mostly refers to the notion of production efficiency in neoclassical micro-economics. Production efficiency has two components: technical efficiency (i.e. the input/output relationship) and allocative efficiency (i.e. the point of the production function where marginal benefit equals marginal costs). Increasing the *technical efficiency* has been the target of much of the research in agricultural sciences (animal production, crop sciences) so as to increase the production per animal or per hectare of land. The *allocative efficiency* has played a role especially in relation to labour and capital. As a result of this understanding, efficiency is often seen as synonymous with economies of scale. Increase in the economic efficiency of farms has become a goal in itself, i.e. a more efficient farm or production method is always ‘better’.

In rethinking modernisation, we need to *question this prevailing conception of efficiency*. For example, industrial agriculture’s exceptionally high levels of productivity per unit labour, plant and animal go together with various unaccounted, ‘externalised’ costs. If these were internalised, other agricultural models might be more ‘efficient’. Also, a very different conception of efficiency would emerge if agricultural systems were designed with goals such as minimizing greenhouse gas emissions, the toxicity of inputs or agriculture’s footprint on the landscape. Or if they were designed with goals such as

maximizing soil conservation, providing space for wildlife habitat and human recreation. Including these goals would lead to a much greater range of measurable costs and ‘outputs’ thus shifting the assessment as to which farming system is most ‘efficient’.

This might be achieved through **redefining** which production processes are ‘efficient’ (e.g. in view of animal welfare, a shift from milk/cow/lactation to milk/life of cow). It might also be achieved by a more comprehensive definition of the inputs and outputs produced (as done e.g. in life cycle analyses). It might also require the inclusion of ethical aspects in economics, e.g. taking into account the responsibility of the producers for the ecological integrity of their land.

Furthermore, the question is not only whether a farming system is ‘efficient’, but also whether it is adequate to accomplish purposes beyond production (e.g. protection of ecosystem services, climate change mitigation, prosperous rural areas), i.e. whether it is **effective**. The question then shifts from the efficiency of a specific production process to the effectiveness of this type of farming to achieve societal goals.

In a broader context, given that resources are limited, the question is also whether a farming system should contribute to ‘*sufficiency*’, i.e. accepting that in many areas ‘growth’ cannot be pursued for ever, and that we need to reduce the consumption of materials and energy. Indeed, we need to focus on agro-ecological innovations, and on social innovations such as a different organisation of supply chains and behavioural changes to reduce material consumption, to protect the environment and be able to meet the world’s food demand in 2050 (Freibauer et al. 2011: 20, Sekulova et al. 2013). There is thus not only the question of the ‘efficient’ use of resources, and of the effectiveness of farming systems to contribute to societal goals, but also the fact that many of these resources are limited. The question is thus whether the case study shows creative ways to address limits.

Case study questions: How will you define efficiency in your case study? What criteria do stakeholders use? What values underlie these conceptions? Are there elements that indicate a shift towards effectiveness and sufficiency?

1.4 Appreciating transformative diversity

Diversity in all its forms can be seen as a ‘*resource pool*’, whether in the development of technologies, products, strategies and competences. It is seen as a major factor in fostering of innovation and the principal means to mitigate the effect of ‘lock-in’ in terms of technological trajectories. It is also a potentially effective response to some fundamental problems of social choice, as it allows accommodating different interests and values typically associated with modern pluralistic societies (Stirling 1998).

However, the notion of diversity tends to be ambiguous, not least because it is used differently by different disciplines. To clarify the ambiguity, Stirling (1998: 39ff) proposes **three properties** of diversity: *variety*, which refers to the number of categories into which the quantity in question can be partitioned; *balance*, i.e. the pattern of apportionment of that quantity across the relevant categories; and *disparity*, which refers to the nature and degree to which the categories are different from each other.

Furthermore Stirling (1998) points out that the issue is not simply a matter of the diversity of options, but also the degree to which they are **interconnected** in the overarching

techno-economic and socio-cultural networks. Indeed, there may be synergies between some options, or certain options might be mutually incompatible, with the performance of one reducing the performance of the other.

If harnessed, diversity can strengthen adaptive capacity as it enables the reconfiguration of resources and thus the ability to take advantage of opportunities as they arise. It can also contribute to building knowledge **networks** that foster social learning and innovation, that create opportunities for cooperation between a range of rural stakeholders (e.g. care farming, direct marketing, recreation). However, this is only possible if there are *complementarities* and mediators at the territorial level, which allow for and facilitate such synergies. In other words, diversity needs to be harnessed through integration, diversity needs coherence, it needs coordination. Indeed, links and connections are key in complex systems.

Within a territory, diversity is also likely to cover some elements of the ‘eco-economy’ and some of the ‘bio-economy’ (Kitchen and Marsden 2011). While the two paradigms may be conceptually opposed, in practice it is likely that the various eco-ecological strategies and practices will be co-evolving with the bio-economic model. The **balances and contestations** between them will be partly conditioned by their own internal logics, and partly by how consumers and government bodies react to their diverse expressions in space and time. The question is then how the relationships and contestations driven by diversity play out in various rural areas.

Case study questions: How do farmers manage and valorise diversity (on their farm, in their region)? How will you capture diversity? Can you test empirically whether diversity benefits farms and rural areas in your case study? How will you compare the benefits from diversity with the benefits of specialisation?

2. The case studies and the four core themes of RETHINK

Four core themes (resilience, prosperity, governance, knowledge and learning) will structure the international comparative analysis in WP4, and thus need to be taken into account during the national-level analysis of the case studies (in WP3). The aim is to rethink farm modernisation and to identify factors that enable and encourage the creation of synergies between farms and rural development, thereby contributing to rethinking modernisation.

Table 1: Indication of the extent to which each team will contribute to the four core themes (source: Minutes of the Kick-off meeting held in Ghent in Sept. 2013).

	Short title of case study	Resilience	Prosperity	Governance	Knowledge/learning
D	Eco-economy	xx	xx	xx	xxx
A	Organic farming and resilience	xxx	o	o	xx

BE	Multifunctional land use: Alternative financing mechanisms	x	x	xx x	xx
C H	Sub-urban agriculture and food procurement	xx	xx	xx x	x
D K	Strategy making	xx	x	xx x	xx
ES	Intensive vegetable production	xxx	xx	xx	x
FR	Fruit and vegetables production	xxx	x	xx x	x
IE	Nutrient management in grass production	xx	xx	o	xxx
IL	Water efficient crop production	xx	x	x	xx
IT	Alternative pig production	xx	xx	x	xx
LT	Challenges and opportunities in farmers' markets	x	xxx	xx	x
L V	Small scale farming	xx	x	x	xxx
SE	Land use changes and ecosystem services	xxx	x	x	x
TR	The role of farming organizations	xx	x	xx x	xx

The four core themes are:

- Building on social-ecological **resilience**, we will pay particular attention to the role of diversity. The aim is to identify process of diversification and adaptation of agricultural practices to meet the local social and ecological conditions.
- In the framework of **prosperity**, we will explore the shift from a focus on costs of production, productivity and cost-efficiency towards effectiveness. We will explore the integration of agriculture with other economic and non-economic functions in the agricultural landscape so as to promote synergies and integrate socially fragmented communities.

- With the shift of the role of the state from ‘provider’ to ‘enabler’, innovations in **governance** will be analysed as to their ability to achieve balanced rural development. Among other, we will assess the potential of partnerships with private and voluntary sectors and of flexible alliances and networks. Particular attention will be paid to ways to mobilize actors so that they are in a position to develop strategic agendas collaboratively.
- We will explore the role of social **learning** and of different **knowledge** bases. We will assess how knowledge is accessed and generated to advance agriculture and its positive linkages with rural development. Particular attention will be paid to the role of networks for innovation (esp. in the light of European Innovation Partnerships).

We are well aware that the four themes interact (e.g. locally-adapted and flexible governance structures may enhance resilience, esp. adaptive capacity; and redefining prosperity might be essential to achieve social-ecological resilience); and they may overlap to some extent (for example: resilience heavily depends on learning). Also, while not all case studies will contribute to each of the four themes in equal depth, it seems desirable at this stage that each case study considers the implication of their analysis for each of the four themes.

3. Resilience

Resilience, in its everyday meaning, refers to the ability to recover readily from adversity, i.e. to rebound or ‘bounce back’ (Alexander 2013). Within various scientific domains, resilience has evolved into conceptual frameworks for understanding how complex systems (e.g. an ecosystem, a community) buffer shocks and change over time¹³. The focus is thus always on the interplay between persistence and transformation; emphasizing non-linear dynamics, uncertainty and surprise.

Resilience is a term that has risen in popularity with policy makers in the last couple of years, based on the recognition that social systems need to be able to cope with change. The term is also attractive due to its ambiguity and fuzziness, so that it may be used to convey superficial coherence between essentially opposing interests. This confusion is fuelled by the debate in how various authors define ‘resilience’, and how it overlaps with (or includes) terms such as ‘robustness’, ‘adaptability’, ‘transformability’ and ‘vulnerability’.

3.1 Social-ecological resilience

The scientific concept of resilience in ecological sciences owes much to the theoretical work of C.S. Holling (1973), which was later refined by various researchers of the ‘Resilience Alliance’¹⁴. They build on the concept of the **social-ecological system** (SES),

¹³ The existing literature on resilience spans several disciplines, e.g. psychology, regional sciences, planning, management, and literature on community resilience. However these are not reviewed here.

¹⁴ See: www.resalliance.org

which is a system that includes societal and ecological subsystems in mutual interaction and can be defined at any scale, from a farm, a local area, to regional and global (Berkes and Folke 1998, Gallopín 2006). The concept of the SES “reflects the idea that human action and social structures are integral to nature and hence any distinction between social and natural system is arbitrary” (Agder 2006: 268).

In the context of social-ecological systems **resilience** has been defined as “the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks” (Walker et al. 2004: 4). While this definition may be somewhat abstract, it’s meaning has been specified by distinguishing three aspects of resilience: persistence, adaptability and transformability (Walker et al. 2004, Folke et al. 2010)¹⁵:

- *Persistence* refers to the ability to buffer shocks and still maintain function, i.e. resistance to change and conservation of existing structures, in this it is akin to ‘bouncing back’ after a disturbance. In this sense persistence is similar to robustness¹⁶.
- *Adaptability* refers to the ability to deal with challenges, including uncertainty and surprise. It implies the capacity for renewal, re-organisation and change, the capacity to learn, combine experience and knowledge, to adjust responses to changing external drivers and internal processes. The focus is on continuing to develop within the current stability domain, within the current regime.
- By contrast, the concept of *transformability* refers to radical change, i.e. the capacity to create a fundamentally new system when ecological, economic or social structures make the existing system untenable. Transformability thus refers to the ability to steer away from undesirable trajectories, innovate and steer towards trajectories that sustain and enhance ecosystem services, societal development and human well-being. Transformational change thus involves a change in the nature of the system, e.g. through the introduction new defining variables. For example when a farm shifts from production-only to multifunctionality, or when a region moves from an agrarian to a resource-extraction economy. Transformational change often involves shifts in perception and meaning, in social network configurations, in patterns of interactions among actors

¹⁵ These three aspects of resilience could be linked to different kinds of learning (Argyris and Schön 1978): ‘persistence’ can be linked to ‘single loop learning’ in which there are incremental improvements of established routines; ‘adaptability’ can be linked to double-loop learning characterised by a process of reconsidering underlying assumption, i.e. the interpretive frames are questioned; and ‘transformability’ can be linked to triple-loop learning where values and beliefs are reconsidered and thus the context of choices redefined.

¹⁶ Robustness is a term often used in a different context, esp. in disaster recovery literature, where it is understood as the opposite of vulnerability (e.g. Anderies et al. 2013). In this context, robustness is often discussed in relation to cost-benefit trade-offs associated with systems designed to cope with large (but infrequent and uncertain) shocks. Other works in the context of disaster preparedness and environmental hazards (e.g. in the context of climate change) pair vulnerability with adaptation and adaptive capacity of communities (e.g. Smit and Wandel 2006).

including power relations and associated institutional arrangements. Generally, systems with a high transformative capacity are more likely to be able to deliberately initiate transformational change.

In other words, in the context of SES, resilience means more than the ability to recover from disturbances, it includes adaptive capacity (Walker et al. 2002) and transformative capacity (Walker et al. 2004). These three aspects of resilience are helpful to better illustrate the range of behaviours that are required for a system to be able to remain ‘dynamically stable’. They also explain why it is not always clear what is meant when it is said that a system is ‘resilient’ as one or several of the three aspects might be dominant and impair another (e.g. a high buffer capacity might delay transformational change, so that a ‘window of opportunity’ is missed). The key is thus for a system to be able to display all three aspects, and implement one or the other when it seems most appropriate.

Resilience implies active capacity building. Thus, the **learning** component is central in resilience, esp. for the ability to restructure the system in response to disturbances. This includes both individual and social learning, as deliberation is often a critical process for a resilient system (Lloyd et al. 2013). Davoudi et al. (2013) have thus proposed to add learning to the resilience as a conceptual framework, not least to highlight the fact that the dynamic interplay between persistence, adaptability and transformability is not deterministic, but allowing humans intervention through technologies, ingenuities and foresight (Fig. 1). This four-dimensional framework suggests that in the face of either sudden or slow burning disturbances, complex adaptive social-ecological systems can “*become* more or less resilient depending on their social *learning* capacity” (Davoudi et al. 2013: 311, emphasis in original).

Figure 1: The three aspects of resilience linked by learning (Source: Davoudi et al. 2013:311)

It might be important to clarify that **disturbances** are not necessarily seen as ‘negative’ events. Indeed, a shock might open up opportunities for reevaluating the current situation, trigger social mobilization, recombine sources of experience and knowledge for learning. As such a crisis can be a ‘window of opportunity’, which might enables transformative change. Both at farm and at territorial level, different types of disturbances (distinct in predictability, amplitude, and duration) will require different strategies to ensure resilience (Darnhofer et al. 2010). It is also important to keep in mind that shocks and stresses may stem from a shift in actors’ understandings of the system, or from shifting conditions in the systems (Scoones et al. 2007: 38).

Folke et al. (2003) have identified four **critical factors** that interact across temporal and spatial scales that seem to be required for dealing with dynamics:

- (1) *Learning* to live with change and uncertainty (i.e. not shying away from disturbances but seeing them as an opportunity, learning from crises, and ‘expecting the unexpected’).
- (2) *Nurturing diversity* for reorganisation and renewal (spreading risk and creating buffers, seeing diversity as providing a bundle of components that enable innovation following a disturbance, as providing a frame for creativity and adaptive capacity).
- (3) *Combining different types of knowledge for learning* (i.e. draw on diverse reservoirs of practices, institutions, values, worldviews; combine experimental and experiential (social) learning, building process knowledge into institutions).
- (4) *Creating opportunity for self-organisation* (recognizing the interplay between diversity and change, dealing with cross-scale dynamics and how institutions create cross-scale dynamics).

Other authors have proposed more detailed but similar lists. For example Cabell and Oelofse (2012), who propose 13 behaviour-based indicators for assessing the resilience of agroecosystems (understood as including both the physical space of production and markets, institutions and people involved in producing and distributing food). Or Biggs et al. (2012), who propose seven generic principles for enhancing resilience of ecosystem services in the face of disturbance and ongoing change.

3.2 Resilience and vulnerability

A term that might be important to clarify (esp. in relation to resilience) is vulnerability. Generally, in the social sciences, **vulnerability** is the state of susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt (Adger 2006). Vulnerability is usually described by three elements: (1) exposure to stressors, (2) sensitivity to these stressors (thus defining the potential impact) and (3) the coping capacity or capacity of response. The coping capacity is the potential to implement adaptation measures so as to avert the potential impacts. The coping capacity depends on awareness, ability and action, and is dependent on the stock of assets or ‘capitals’ (economic wealth, technology, information, skill, infrastructure, institution, social capital, etc.) actors dispose of. For agricultural production vulnerability has always been linked to bio-physical conditions. These will include soils, climate, relief, and natural drainage and in areas with marginal conditions agriculture will – everything else being equal – be more vulnerable than in areas with favourable ones. The concept of vulnerability has been a “powerful analytical tool for describing states of susceptibility to harm, powerlessness, and marginality of both physical and social systems, and for guiding normative analysis of actions to enhance well-being through reduction of risk” (Adger 2006: 268)

The relationship between vulnerability and resilience is not well articulated and contested (Cutter et al. 2008). A number of authors (e.g. Gallopín 2006, Miller et al. 2010) see resilience and vulnerability as **two related yet different approaches** to understanding the response of systems and actors to change (with resilience originating in ecology and

emphasizing ecological-biophysical dimensions; and vulnerability originating in social sciences and emphasizing social-political dimensions). These authors propose terms such as ‘robustness’ as the antonym of vulnerability, and resilience as a separate concept (i.e. there is high/low vulnerability, which may or may not be linked to high/low resilience). Indeed, Reghezza-Zitt et al. (2012: 33) point out that in the context of disasters it is possible “to be vulnerable to an impact while being perfectly resilient”, as indeed, a city might be affected by a disaster (hence it is vulnerable), yet manage to rebound and reconstruct fairly quickly (hence being resilient). They even point out that it may be because a society or a territory is vulnerable that it will suffer crises, and that it will have to bounce back, adapt and learn from the disaster, thus potentially strengthening resilience (Reghezza-Zitt et al. 2012). Other authors (e.g. Adger 2000: 348) see vulnerability as a loose *antonym* of resilience (i.e. vulnerability and resilience are at opposite ends of one spectrum). For example, Folke (2006: 262) states that “a vulnerable social-ecological system has lost resilience”, thus clearly linking the two terms as antonyms.

However, the discrepancies in definitions and understanding may be due primarily to **reinterpretations** by one research community of terms used by another research community, using their own language and invariably situating their own concepts on a higher ground and the other’s as derivative (Miller et al. 2010). Indeed, both the ‘**resilience community**’ and the ‘**vulnerability community**’ focus on understanding the response of systems and actors to slow creeping changes, shocks and surprises. But while interpretations of vulnerability within the resilience community tend to focus on the physical vulnerability of ecosystems, the interpretations of resilience in the vulnerability community tend to stress social aspects such as networks, access to assets and learning (Miller et al. 2010).

However, as Gallopín (2006: 301) points out, while the specific nature of the relation between vulnerability and resilience is not obvious, they are both **related properties** of an SES. Indeed, vulnerability, resilience, adaptive capacity, and robustness are “different manifestations of more general processes of response to changes in the relationship between open dynamical systems and their external environment. This suggests that an interesting and useful line of research could be represented by the investigation of the general dynamics of change in SES” (Gallopín 2006: 302)

Also, the conceptual fuzziness is not necessarily negative, as it fuels debate and innovation and is part of any process of conceptual development.

3.3 Resilience and social sciences

Social-ecological resilience builds on the understanding that ecosystems and the social systems that use and depend on them are inextricably linked, so that the **feedback loops** among them determine the overall dynamics. Yet, the focus in most of the literature on social-ecological resilience is on the resilience of the ecosystem. Characteristics of the social systems are frequently taken into account only as far as they have a (direct) impact on the resilience of the ecosystem.

Indeed, despite the label ‘social-ecological system’, resilience has not fully integrated social and ecological systems into a coherent whole, and has been criticised for its sometimes shallow treatment of the **social dimensions** of social-ecological systems. As Kinzig (2012: 323) notes, it is unclear whether it is possible to fully integrate the two domains: “social and ecological systems are not the same – the role of foresight and

culture in human societies has no real compelling parallel in ecological systems, and while humans along with all other organisms are products of natural selection, their preferences and goals often run contrary to maximising the basic biological definition of fitness”. She thus points out that the principles governing the dynamics of ecological systems often do not translate seamlessly to social systems, not least because humans can and read (and misread) environmental signals, sometimes with unintended outcomes, or (un)willingly ignore the dependence on ecological processes.

Davidson (2010, 2013) highlights that especially **agency** is a concept not present in ecological systems, and consequently not reflected in the framework of social-ecological resilience. Indeed, since ecosystems or their components cannot act consciously, many causal mechanisms can reasonably be treated as deterministic, i.e. under the same set of conditions, an ecosystem can be expected to respond in a consistent manner. However people can and do act in a purposive, intentional way. Humans thus have a certain degree of autonomy within a structure, can be reflexive and learn. They may take conscious, transformative steps to change incentives to attenuate negative environmental effects once they recognize that adaptation is necessary. This enables them to postpone the effects of ecological disruption in space or in time, possibly leading to greater disruption being imposed on people elsewhere or *elsewhen* (Davidson 2010:143).

A key issue in social science is that agency is unequally distributed, i.e. privileged elites tend to exercise **power**, influencing decisions on e.g. the management of natural resources to fit their interests and ideology (Davidson 2010, 2013). The concentration of power and control may limit the ability of other societal groups to act. Also, hierarchical structures may stifle feedback mechanisms, e.g. constraining the autonomy of farmers and their ability to respond to ecological signals. This aspect thus links resilience to the ‘governance’ theme, and the potential effect of multi-layered governance and globalisation (i.e. the distance between decision makers and the ecosystem) on resilience of farms and rural areas.

Regarding resilience thinking, the overall the consensus seems to be that many concepts which originated in ecology can be fruitfully applied in the social domain. So far they have been used mostly as heuristic devices and as **metaphors** (e.g. the adaptive cycle as a metaphor for the dynamics of change which includes both continuous and abrupt change). In other words: while it is useful to discuss the resilience of social-ecological systems at general level, when it comes to the empirical and analytical level, there are distinct logics in the social sciences as compared to ecological sciences. The challenge within RETHINK is thus to identify ways operationalize resilience thinking in the context of farming. To achieve this, the social component of the integrated social-ecological systems needs to be rethought so as to reflect a much broader understanding of social sciences, which includes agency, social stratification, control of resources, and links to the wider world as important dynamic forces (Widgren 2012).

When applying resilience at the farm level (see Darnhofer 2014), it thus might be helpful to integrate some insights from e.g. **management sciences**, where the ability to cope with change has preoccupied many researchers. One of the concepts that could be useful to adapt to farm resilience is the concept of *dynamic capabilities* developed by Teece (2007). He posited three generic dynamic capabilities as the foundation of the evolutionary fitness of the enterprise: sensing (and shaping) opportunities and threats; seizing opportunities; and reconfiguring assets and structures to maintain competitiveness. Indeed, it is not just the resources a farm family may have that play a role, but what they make of them, how

they combine them, how they develop them. In the choice of a new activity, it is thus not only important what *resources* are available, but of equal importance is the process of how they are *recombined and exploited*. As Grande (2011) points out, establishing a new activity often means looking at the farm's resources (e.g. personal skills and preferences, knowledge, physical assets such as land and building, rights such as quotas) in new manners such that new attributes and characteristics may be discovered and developed. These can be used to re-orient a farm, through e.g. deepening, broadening or regrounding (Knickel et al. 2004). In this reorientation process, the resources are combined in different ways, to develop new activities. Depending on which uses and for whom, a resource might have significantly different values for different people and businesses.

The 'dynamic capabilities' are thus related to a farm's ability to integrate, build, and reconfigure itself to address an environment that changes in unpredictable ways. This dynamic, **process-orientation** thus focuses not so much on what a farm 'is' but what it makes of its assets and how it purposely creates, extends and modifies these assets to address both internal changes (e.g. linked to the farm family life cycle) and external changes (e.g. linked to new customer demands or CAP reform). In this the ability to recognize and seize opportunities is key, as is the ability to reconfigure assets and competencies (Augier and Teece 2009). Building on these insights, the resilience of a farm or of a region is only partly due to the characteristics of the farm or region, and partly due to processes.

At the territorial level, resilience may be linked to the **concept of 'potential'** as discussed in Shucksmith and Rønningen (2011: 277). They point out that 'potential' is *pluralistic*, acknowledging multiple voices and visions, and *emergent* in that it encourages new ideas, opportunities and possibilities to emerge and to be woven into the trajectory of changing places. Place-shaping processes thus involve processes that permit flexibility and adaptation to challenges and opportunities as they arise, but which at the same time maintain or open up options and choices for future generations.

Overall, **farms and rural communities are facing a wide range of changes**, which challenge their resilience. The changes include those induced by shifts in climate, food markets, public policies and various forms of urbanisation. Indeed, climate change (including changes in temperature, precipitation, extreme events) may limit or expand vulnerability. Expanding food markets combined with agricultural policy reforms may increase competition, and integration into globalized food chains may increase the dependence of farms on external factors. The de-coupling of agricultural support to some degree implies a re-coupling of dependence on bio-physical conditions, which in some regions leads to a marginalisation of agriculture. Important policy changes are to be expected: besides the de-coupling of agricultural support measures, also the expansion of the rural development measures, more environmental regulation (especially concerning water resources), as well as the impacts of energy and climate policies. Urbanisation may change the overall social conditions for agriculture and for rural services, whereas counter-urbanisation may create both more opportunities and more disturbance in terms of competition for land and social segregation. All of these are likely to challenge the resilience of farms and rural communities.

Case study questions:

- Which aspect of resilience seems most relevant to your case study?

- Will you focus on farm resilience or on regional resilience, or on both? How do farmers define ‘resilience’? What do they think contributes to the resilience of their farms? How do regional stakeholders define a resilient region?
- How do you define the social-ecological system (SES) in your case study? How can the SES be described in terms of resources used; resource user groups; governance systems/regulations? Note that farms/regions may be seen as multi-scale systems that connect in manifold ways to regional, national, global systems.
- Which disturbances can be foreseen? What is the time scale, intensity, frequency of the expected changes?
- How does the de-coupling of the CAP affect resilience of agriculture or rural communities in your case study?
- To understand resilience a vulnerability analysis can be helpful: which are the vulnerable components of your system?
- Which farmers choose which adaptation strategies and what sorts of constraints limit their efforts? Do shocks reduce the capacity for reflexive agency or enhance it?

In WP 4, the comparative analysis for the ‘resilience’ theme across the national case studies will be led by: Gunilla Almered Olsson (SE) and Ika Darnhofer (AT).

4. Prosperity

4.1 Defining prosperity

A new understanding of prosperity was elaborated in the framework of the Sustainable Development Commission (see SDC 2003, Kasser 2007, Sardar 2007, Rapp 2008, Wall 2008, SDC 2009). This new understanding was popularized by Tim Jackson (2009: 35ff). It builds on a vision in which human beings flourish, achieve a greater social cohesion and find higher levels of **well-being** while reducing their material impact on the environment. This contrasts with the conventional understanding of prosperity as building on economic growth, driven by consumption. Conventionally, growth is measured in the Gross Domestic Product (GDP), i.e. based on increasing material throughput. Growth of output does not accurately represent the growth of human welfare. GDP counts only goods and services that are traded in the market or have prices attached (Baumol et al. 2007). As it fails to account for non-market services (like household and voluntary labour), for negative externalities (like environmental degradation), and for changes in the asset base which affect our future consumption possibilities, the widespread use of GDP as a key indicator of prosperity has been widely criticized (e.g. Stiglitz et al. 2008). Indeed, prosperity for the few, founded on ecological destruction and persistent social injustice is no foundation for a civilized society (Jackson and Anderson 2009).

Jackson (2009:44) points out that in **a world of limits**, certain kinds of freedoms are either impossible or immoral, e.g. the freedom to endlessly accumulate material goods at the expense of child labour or the freedom to find meaningful work at the expense of a collapse in biodiversity. He thus proposes that we need to be aware that our freedom is *bounded*. These limits are established by two critical factors: the finite nature of ecological resources (e.g. fossil fuels, minerals, water, land); and the scale of the global population: those who share the planet with us are entitled to their fair share, which applies to future generations and other species. The point is thus to aim for *fair and lasting prosperity*. This vision of prosperity may serve us better than the narrow materialistic one that has ensnared us so far (Kasser 2007), and it might direct us away from aggregate quantitative growth, towards qualitative development (Herman 2008).

Jackson (2009) thus proposes to **redefine prosperity** along two main issues: ecological and social. In his vision he accepts that prosperity has material dimensions to ensure adequate supply of food, water, shelter, clothing, etc. But for human beings to flourish, prosperity needs to take into account psychological and social dimensions. Indeed, we need meaning and purpose in life, and the ability to participate freely in the life of society, e.g. by caring for our family, enjoying the respect of peers, contributing useful work, having a sense of belonging and trust in the community.

Jackson (2009:37ff) builds on the three understandings of prosperity elaborated by Amartya Sen (1984):

- a) *Prosperity as opulence*: this corresponds to the conventional understanding that prosperity is about material satisfaction, i.e. an increase in the volume flow of commodities represents an increase in prosperity.
- b) *Prosperity as utility*: recognizing that – given a diminishing marginal utility of goods – ‘more is not always better’. This second understanding of prosperity builds on the satisfaction which commodities provide. Recognizing that the use to which we put material commodities are social or psychological in nature (i.e. providing us with identity), rather than just material, and points out the challenge of measuring ‘utility’.
- c) *Prosperity as capabilities for flourishing*: i.e. the capability (or freedom to) function in a context and e.g. ensure nutritional health, take part in the life of the community, use their education, find worthwhile jobs, appear in public without shame, visit friends and relations.

Understanding prosperity as **capability for flourishing** implies the need to clarify what is meant by humans to ‘flourish’. Since it is a contested term, the understanding will need to be negotiated in open dialogue. But two central elements are a sense of community and meaningful work. Prosperity should thus be understood as a qualitative condition defined by inclusion, indeed by membership of the defining group, that part of society that sets the benchmark for opportunity, fulfilment of aspiration, ease and comfort – the good life (Sardar 2007, Baumol et al. 2007). The aim is thus to find farming models where humans can flourish, achieve greater social cohesion, find higher levels of well-being, while at the same time reducing their material impact on the environment though transparent,

properly-regulated markets which promote both social equity and personal prosperity (SDC 2003).

And indeed, one of the prime features of *quality of life in rural areas* is linked to a social life characterized by networks, shared norms, rules and expectations which facilitate interactions and thus the ability to get things done collectively and a ‘sense of belonging’ (van der Ploeg et al. 2008). Similarly, *alternative agri-food movements* can be seen as initiatives where farmers and consumers innovate and seek alternative models, not just to eat differently, but to re-embed food in family, community, and local landscape. In this context, food self-provision is not a sign of poverty, but a meaningful, skilful task, which enables participants to live a simpler and more sustainable life. Such initiatives are thus laboratories for social change, for a redefinition of what quality of life implies.

This new understanding of prosperity thus implies a recognition that economic growth at the regional level and economic efficiency at **farm-level** are not suitable indicators for flourishing rural areas. While large, specialized farms may well have a role to play – and may have become the only type of farm in some regions – they should no longer be the unquestioned ideal. Specifically, this means rethinking the role of *small (family) farms* and their *contribution to prosperous rural areas*. Small farms, especially in ‘less favoured areas’ can often be linked with beautiful cultural landscapes, based on small-scale, low-intensity, environmentally-friendly farming. These farms can also be vital to maintaining public goods, including the natural and cultural heritage, landscape, and biodiversity. This managed countryside is not only important to maintain potentialities for future generations, it is also fundamental to tourism, which is often vital in more remote areas. Shucksmith and Rønningen (2011) point out that small farms might provide a base from which rural households are able to sustain their livelihoods through pluriactivity keeping ‘lights in the windows’ and retaining populations in areas from which they would surely have been lost if farm amalgamation had proceeded. While the role of pluriactive small farms has been pointed out (Bryden et al. 1993, 2011), especially their role in fostering vibrant rural communities, there is often little more than lip service to them in rural policy. Indeed, policy is often geared towards an ideal of full-time farms, treating small farms as obstacles to productivist agriculture. At the same time there are regions in which small (family) farms have almost disappeared, and where their contribution to rural prosperity might be defined differently. In other words: social capital is one of the most important determinants of prosperity. The term ‘social capital’ encompasses factors such as social cohesion and engagement, as well as community and family networks (Legatum Institute 2012).

4.2 The ‘Working With People’ framework

Working with People (WWP) is a conceptual framework which synthesizes the evolution of the ‘modern project’. It proposes a ‘new approach’ for prosperity in post-modernity in rural areas (Cazorla and De los Ríos 2013). Key to the WWP conceptual framework is ‘planning as social learning’ and a ‘new postmodern sensibility’ (Cazorla et al. 2005, De los Ríos et al. 2011, Cazorla et al. 2013). The name *Working With People* was chosen to convey the need to overcome the traditional technical-economic vision of prosperity, and the need to focus on individuals’ behaviour and the context in which they work.

Within the WWP model, prosperity results from the balance between three dimensions of competences: technical, behavioural and contextual. The aim of this approach is to

achieve a balanced integration of various actors and an empowerment in the four areas of a social relationship system: political, public, private and social. In its application in the framework of rural development project, the WWP model builds on the following **principles and values**:

- *Respect for and primacy of the people*: they are the main elements to be considered in any development strategy and in the design of any technical innovation. Everyone involved are thus committed to respect the fundamental rights of the people, their traditions and cultural identity. Respect and social sensitivity must extend to the people in charge of managing the rural development projects, which must be defined and negotiated through participative processes of social integration.
- *Guarantee social well-being and sustainable development*: WWP requires that the technical investment and efforts made must be directed to satisfy the needs of the rural population, focusing on social well-being and the sustainable development of rural communities. Technology, knowledge and their transformation into innovation constitute determining factors to guarantee social well-being and prosperity, not least through encouraging job creation and work satisfaction.
- *Bottom-up and multidisciplinary approach*: WWP builds on the subsidiary principle, in which rural development projects are the responsibility of rural community actors. The aim of the bottom-up approach is to reinforce people's ability, knowledge and practices, to ensure a sustainable development of their territory, and to allow a better efficiency of public investments. To achieve this, it is necessary to build a network which facilitates a thorough knowledge of the territory, as well as the action of multidisciplinary teams that offer different approaches and diverse perspectives.
- *Endogenous and integrated approach*: The WWP project requires a global approach, which will take into account all aspects, and therefore allow the creation of new combinations and synergies generating new projects and new activities, with the intervention of socio-economic agents and managers through pluri-sectorial interventions.

Building on these principles, the WWP model proposes to redefine rural prosperity along three main components: **ethical-social, technical-entrepreneurial and political-contextual**. These three components interact through social-learning processes (Fig. 2). These three components include the four fields of a social-relationship system as defined by Friedmann (1992): the political field, the public administration field, the private and entrepreneurial field, and finally the civil society field. The apparent simplicity of WWP involves a large social complexity (De los Ríos et al. 2013) given the richness of the relationships and lessons that occur between the three components of the model.

Figure 2: In the WWP framework, prosperity builds on three main components: ethical-social, technical-entrepreneurial and political-contextual, which interact through social learning processes (Source: Cazorla et al. 2013)

4.3 Rethinking prosperity

According to the principles set up within the WWP framework, the following aspects need to be considered when rethinking prosperity:

Firstly, prosperity is connected with the **contextual and political dimension**. While the WWP has four principles and values (see previous section), the best approach for any particular circumstance is dependent on the objectives of the intervention and the specific context. The contextual competence elements are critical to enable an appropriate integration of the project team within the context of the project and within the permanent organization. Unfortunately, most national and international development agencies assume that there is one approach (their existing policy) which is the best and they miss the essential first stage of the project cycle, by not asking the question: what type of intervention approach is best suited to this type of issue in this context? The conceptual framework outlined in this WWP model provides a means to address this question, and contribute to 'new ways' and 'experience lessons'. This approach will contribute to the strengthening of the conceptual framework that underpins rural development action.

Secondly, prosperity is related to the **technical-entrepreneurial dimension** of the rural development project. Indeed, such a project is an innovation unit and 'technical' tool capable of generating a flow of goods and services and to meet some targets, according to requirements and quality standards. The technological innovation – from the fundamental technical competence – has dominated debates concerning prosperity and development. WWP conceives prosperity as a process of social learning that includes new human relations, new management, administration and negotiation systems, new forms of learning, new ways of structuring and sharing information and knowledge among all social agents that bring innovation. Of relevance in this context is the technological innovation process occurring within economic districts characterized by a territorial network of relationship between economic actors. The persistence of the small farm lies in the presence of economies external to the farms that are generated within the district. The external economies of technological innovation will only be internalized when the relationship between the farms are based on reciprocal cooperation and trust (Dei Ottati 1987). Innovation as a process of social learning might be therefore understood, as an open and interactive process with an important social dimension, which means a constant

adaptation of the forms of knowledge and learning to the market and the technological conditions that are constantly changing (Cazorla et al. 2013).

Finally, the **ethical-social** dimension comes into play in RETHINK's prosperity. This component covers the context of behaviour, attitudes and values of people who interact to promote, manage or direct a project. This component is identified with the social subsystem, consisting of all the interpersonal relationships that are taking place within society. The ground of the social system that surrounds a project is to cover the conduct and moral behaviour of people and it sets out the 'foundations' to make people, both from the private and public fields, to come to work together, with commitment, confidence and personal freedom. The incorporation of ethics, means considering the project as not 'neutral', but based on an ideal of service and guided by values. This component integrates behavioural competences with ethics and values as appropriate elements to overcome potential moral conflicts related to the parties involved in the project (IPMA 2010). Facing the technocratic view of the modern project, which tended to exclude moral considerations the project seen from this dimension tries to achieve the best for a greater number of people. Yet, the participation of the beneficiaries is essential for the effective development of an intervention, but it is only one element of a systematic approach. Social learning processes require a collective dimension, integrating different knowledge in decision making. The new tendencies point towards an acceleration and important changes in the ways of learning, towards processes based on action – learning by doing– as well as competence-based learning (De los Ríos et al. 2010) in the training of values and abilities.

This approach to rural development research enables us to consider questions of how knowledge can be better connected to action. In WWP – in the same way as the European rural development LEADER initiative – the innovation is essentially defined as a process (Cazorla et al. 2005), and is mainly obtained from the local knowledge, which is as appropriate for the action as the knowledge obtained from the professionals and the external input (Uphoff 1990). In the same way, by accepting and encouraging 'intangible' investments, this approach helps to reinforce the social, cultural and environmental sectors, and to promote a new understanding of prosperity, which has as main aim to know and observe the realities. This is done based on a respect towards the others (Cazorla et al. 2001), on the appreciation of their values, on the ability to understand their point of view. These aspects are also a path for a new understanding of prosperity. Understanding prosperity from this approach requires the professionals of development to give up their own ideas and to create a new social sensibility, as well as covering the ability to communicate with them and to be receptive to their opinions, value judgments, and **ethical standards**. From the understanding of these questions it will be possible to move forward to enhance prosperity, making the rural development project and the interventions more effective and human.

Case study questions:

- How does each of the three WWP components (ethical-social, technical-entrepreneurial, and political-contextual) contribute to rural prosperity in your case study?
- What is the role of social learning?
- How do you define 'prosperity' and a 'flourishing' farm and/or rural area in your case study? Can this be linked to a shift from a focus on costs of production and cost-efficiency (i.e. input/output

relations) to effectiveness (i.e. adequacy to accomplish a purpose such as quality of life)?

- How do the stakeholders in your case study define ‘prosperity’ and a ‘flourishing farm’? How does their understanding relate to the three WWP components?
- How do large, specialised farms contribute to rural prosperity and what might be their limitations?

In WP 4, the comparative analysis for the ‘prosperity’ theme across the national case studies will be led by: Kees de Roest (IT) and Ignacio de los Ríos (ES).

5. Governance

Within RETHINK the aim is to reflect on the dynamics that can be observed within the case studies and **determine characteristics, constraints and possibilities** for the development of governance mechanisms that enhance sustainable development and thereby foster the resilience and prosperity of rural areas and its agricultural communities at the regional level.

We first describe how the role of the state in agriculture and rural areas has changed over the last decades and the shift from government to governance. Next, we define governance as concept, describe its principles that enhance sustainable development but also indicate the weaknesses. To conclude, we elaborate on four characteristics that form the basis of a structural analysis of governance mechanisms in the case studies.

5.1 The changing role of the state

After the Second World War there was a tendency of **top-down centralized planning** (Rogge et al. 2013). The states in Western Europe developed large policy programs to bring their nations back to prosperity. To ensure food security the governments took many measures to encourage better productivity, market stabilization and ensure a fair standard of living to the agricultural community¹⁷. Within this top-down planning, the state used centralized planning to install various measures and was thus deeply involved in the modernization of agriculture¹⁸ (Grin 2012). Among other, the state structured the agricultural knowledge system, installed extension services and took policy measures that fostered the mechanization of agriculture. Through industrialization and investments in infrastructure, the main intention was to exploit and control nature, resulting in standardized production processes, convergence between rural areas and a disconnection of producers and consumers (Ward and Brown 2009, Wiskerke 2009).

This development was thus driven by the **productivist paradigm**, which was also tightly linked to the capitalist logic¹⁹. However the productivist paradigm follows narrow definitions of agricultural functions, product quality and causes selectivity in research. Furthermore, the role of small-scale farming in the social fabric of rural areas, its

¹⁷ http://ec.europa.eu/agriculture/cap-history/index_en.htm

¹⁸ See the Conceptual Framework for a description of the modernization of agriculture

¹⁹ The capitalist logic is closely linked to a generalization of market dependence: workers are hired, inputs are purchased on the market, and output sold on the market. This logic is opposed to the peasant mode of production, which seeks autonomy, i.e. the ownership of the means of production (land, labour) and self-sufficiency in seed, feed, fertilizer, etc., with only the surplus being sold on markets.

landscape and rural economy is undervalued (Bryden et al. 1993, Shucksmith and Rønningen 2011). During the past decades, a wide range of citizens (e.g., farmers, consumers, entrepreneurs) questions this imperative and search for alternative practices where agriculture has a more multifunctional role in the rural areas.

Indeed, new technologies and societal demands offer new possibilities for value creation in agriculture. This resulted in a shift from a specialized, intensified and concentrated agricultural sector to a **more diversified multifunctional sector** with the production of energy and fibres and attention for the provision of public services such as recreation, amenity care and ecosystem services (Rogge et al. 2013). Next to these changes within the agricultural sector, different social, economic and political change processes have transformed rural areas throughout Europe (Shucksmith et al. 2011).

Alternative modes of farming (e.g. those linked to short food chains) create linkages between farming and rural nature, cultural landscapes and local resources and therefore re-socialize and re-spatialise food production (Renting et al. 2003, Kirwan 2004: 395). Furthermore, there is a need for social innovation, as this new rural reality requires the mobilization of **multiple stakeholders** around a common project (e.g. nature management). Indeed, farmers are no longer the predominant actors in the countryside and agricultural development is intersecting with other processes affecting rural development, first of all urbanization (Primdahl et al. 2014). Rural development has become a multi-actor, multi-level and multi-sector process (van der Ploeg and Marsden 2008) and combinations of conflict management and place making in rural landscapes through new ways of policy making and spatial planning must be developed (Primdahl, forthcoming)

These changes have **challenged policy making**, because the traditional steering mechanism of the central state can no longer deal with this complex situation (Böcher 2008). Rethinking agriculture therefore means to look for new governance mechanisms that can orchestrate the multi-actor, multi-level and multi-sector rural development trajectories.

Two different policy processes affecting rural areas can already be observed: a vertical and a horizontal rescaling of statehood (Messely et al. 2014, Ward and Brown 2009). Firstly, there has been a *vertical rescaling* of statehood. Power is shifted from nation-state to supra-national bodies such as the European Union (Adshead 2005). For example the Common Agricultural Policy influences decision-making processes at farm level. At the same time we can observe a process of regionalization, where the authority is shifted to the local scale (e.g. in land use planning). Secondly, there is a *horizontal rescaling* of statehood that resulted in the shift from government to governance (Stoker 1998). Governments have the power to legally enforce their activities, rules and policies. Yet single policies from the government imposed on territorially heterogeneous populations do not efficiently address the heterogeneity at regional level (Hooghe and Marks 2003, van der Meer et al. 2005). Instead, we see new governance mechanisms in the development of new alternative modes of farming. Such new mechanisms are carried by pro-active networks involving a variety of public and private actors and institutions. Furthermore, such new governance mechanisms are often more spatially embedded and context dependent (Marsden 2013).

5.2 Defining governance

In RETHINK **governance** focuses on the dynamic and complex mechanisms that structure the design and implementation of policy (Dwyer 2011). The concept has been defined as “the development of governing styles in which boundaries between and within public and private sectors have become blurred” (Stoker 1998: 17). It denotes “non-hierarchical elements and the participation of private interests and actors in the formulation and implementation of public policies and the provision of collective public goods” (Héritier 2002: 351, in van der Meer et al. 2005). In other words policy making is exercised on multiple levels and involves multiple actors and multiple sectors (Rogge et al. 2013: 330). This means that while the government sets incentives to activate self-governing responsibilities of regions (Böcher 2008), stakeholder partnerships play an important role in the design and implementations of policy (Dwyer 2011).

In the literature five **principles of governance** have been described to enhance sustainable development and thereby foster the resilience and prosperity of rural areas and its agriculture communities at the regional level. Firstly, multi-stakeholder partnerships allow new governance mechanisms to *deal with the increasing uncertainty and complexity* in a multi-level world (Berkes 2007). Secondly it is argued that the involvement of a diversity of participants including social movements and civil actors in policy making processes could provide a counterbalance to the current dominant agenda of economic development in rural areas. New governance regimes thereby could exceed the economic imperative and include *social and environmental criteria* (Davidson and Lockwood 2008, Heley 2013). Thirdly, multi-stakeholder governance creates institutional capital in the form of rich *social networks* that allow the development of new initiatives to be taken rapidly (Healey 1998 in Heley 2013). Furthermore, these social networks could enable room for experimentation and social innovation, encouraging cooperation and solidarity rather than one-sided economic competition. Fourthly, the participation of a great variety of stakeholders in governance processes gives access to *different kind of knowledge*, which could be vital for finding innovative solutions to overcome institutional barriers (Berkes and Folke 2002). Fifthly, multi actor involvement makes it more likely that *preferences of people affected* by the policies are taken into account, which could lead to collective efforts to re-imagine a region and more effective socially accepted solutions (Shucksmith 2010).

Nonetheless, the participation and cooperation of different actors proves **not to be an easy exercise**. As Rogge (2013: 330) argued “there is often considerable tension between different policy domains, sectors and stakeholders”. Actors’ positions within such networks are socially produced, as is the justification for their interventions. In a continuously changing environment *stakeholders have changing and different priorities*, and actors in multi-stakeholder partnerships will have to modify and renegotiate their goals in an ongoing fashion (Davidson and Lockwood 2008). As a result one needs to manage tensions between individual interests and the collective good. In this context it can be expected that not all governments are willing to give up their steering role, and if they would like to do so they might not always have the *knowledge and skills to allow for more participation of local stakeholders*. Finally also the local actors might lack skills to organize themselves and face difficulties to develop resilient strategies.

Moreover, as Swyngedouw (2005) argues, the shift from government to governance does not necessarily mean a shift towards more citizen empowerment and socio-economic decision-making. It could also strengthen the **power of economic elites** and disempower

groups promoting non-economic societal objectives. As Swyngedouw (2005: 2003) notes: “these modes may prove to be a Trojan horse that reinforces the ‘market’ as the principal institutional form”.

5.3 Capturing the dynamics of governance mechanisms

In relation to rural development, Shucksmith and Rønningen (2011) argue that sustainability necessitates keeping open the potential of rural areas to become different things in the future, according to changing circumstances and values which were not well recognized by neoliberalism. ‘Potentiality’ means **keeping options open**, social and economic as much as environmental, allowing differences and variety so that future generations have possibilities of reaching their sustainability aims. In terms of governance, stakeholders have changing and different priorities, and actors in multi-stakeholder partnerships will have to modify and renegotiate their goals in an ongoing fashion (Davidson and Lockwood 2008). This creates a very dynamic context, in which it is important for researchers and policy-makers to avoid the trap to develop new blueprint approaches (Ostrom 2007).

In RETHINK, gathering data on a wide variety of European cases should allow us to go beyond the development of blueprint approaches and should enable us to get a more profound insight into governance mechanisms that are able to respond to a dynamic environment. To structure the analysis and still capture the full complexity of governance processes we will use the four dimensions of governance that were described by Pahl-Wostl (2009). She developed a systematic approach to analyse characteristics of governance regimes and their adaptive capacity. In the next section the key attributes identified by Pahl-Wostl are shortly explained and operationalized in the context of rethinking farming and rural development.

(1) Institutions: formal and informal. Studies have underlined the role of external factors that influence policy outcomes (Andersson and Ostrom 2008). These ‘external’ factors relate to the institutional environment in which new forms of governance are developed. Institutions, defined as ‘rules governing the behaviour of actors’ (North 1990) can be formal and informal. *Formal institutions* refer to rules that are defined in regulatory frameworks and can be enforced by legal procedures. On the other hand *informal institutions* refer to socially shared rules such as cultural norms, values and belief systems. Informal rules are often not written down and are enforced ‘outside of legally sanctioned channels’ (Pahl-Wostl 2009: 356). The characterization of existing formal and informal institutions is important when we want to understand drivers and barriers for change. For example, formal rules about nature management could potentially conflict with informal norms and values of farmers. Such contradictions could be a driver or a barrier for change. Furthermore the relative strength of either formal or informal rules will also influence *the power relations* among actors involved. As Davidson and Lockwood (2008: 647) argued: “The absence of formal rules may obscure inequalities of power and mask the agendas of dominant interests, while the assumption of ‘benignness’ means that they usually embody few means of resolving conflicts.”

(2) Actor networks, emphasizing the role and interactions of state and non-state actors. The role of actors becomes blurred as: “actors are involved in designing the institutions that (are supposed to) govern their behaviour” (Pahl-Wostl 2009: 357). Yet as was argued earlier the involvement of multiple non-state actors in the design of formal institutions

increases the complexity of policy development. It could increase compliance and effectiveness but participatory processes are also resource consuming and sometimes less efficient. It is therefore important to question what actors are involved, on what terms they are involved, and who does not take part in the governance process (Healey 2013). Also interdependence among participants is an important factor for successful processes and outcomes and should be included in network analysis (Innes and Booher 2010). Furthermore, attention should be given to ways used to mobilize actors so that they are in a position to develop strategic agendas collaboratively. The concept of ‘spatial strategy making’ (Healy 2009) has proven to be highly relevant for rural landscapes as well (Primdahl et al. 2013).

(3) Multi-level interactions across administrative boundaries and vertical integration. Polycentric systems, involving many centres of decision-making at different levels are argued to have “a higher adaptive capacity and to be less vulnerable to disturbance” (Pahl-Wostl 2009:357). Nonetheless, Borowski et al. (2008) found that problems with the multiple dimensions of newly established partnerships between multiple-stakeholders and the partners of more traditional governments at multiple levels, proves to be a barrier for the implementation of new developed strategies. Also Mosterd et al. (2007) found in their case study that integration across scales and policy domains was one of the major challenges to participatory processes that come in hand with multi-stakeholder partnerships. Therefore in our analysis we will focus on how stakeholders look for solutions to overcome barriers for vertical coordination (Pahl-Wostl 2009).

(4) Governance modes: bureaucratic hierarchies, markets, networks. Pahl-Wostl (2009) argues that governance regimes vary along two dimensions: in the degree of formality of institutions, and in the role of state versus non-state actors. She argues that governance regimes based on mainly informal institutions where both state and non-state actors participate, have great advantages in terms of their adaptability in processes of change due to their power distribution over multiple actors, their connections and flexible membership. However due to their informality they tend to lack permanence and predictability (Pahl-Wostl 2009). In agricultural and rural development actors need a certain level of permanence and predictability to be able to develop sustainable solutions and gain their own experiences. In our analysis we are therefore interested in the balance between formal and informal relations between actors, and the level of formality of institutions that can be observed in the governance regimes of case study regions.

Case study questions:

- What type of governance mechanisms do you observe and how do they deal with change?
- To what degree and in what ways are different policy domains integrated within the case study area (esp. agricultural policy, environmental policy and spatial planning??)
- What type of actors are involved in the stakeholder partnerships you observe in your case study region and how do they interact?
- How is the collaboration between public authorities and the local community? (e.g.: who takes initiatives, who has the responsibility/ownership of policies and plans produced?)
- How is authority (to make decisions) divided within the governance regime (e.g. bottom up/top down)?

- How do actors deal with individual interests and the collective good? Are there signs of reciprocity?
- What important formal and informal rules influence(d) the governance regime in your case study region?

In WP 4, the comparative analysis for the ‘governance’ theme across the national case studies will be led by: Guido van Huylenbroeck (BE) and Marguerite Paus (CH).

6. Knowledge and learning

Under this analytical theme we are aiming to explore how learning and knowledge are mobilised to rethink modernisation and improve agricultural resilience and rural prosperity.

6.1 Definitions

Knowledge is generally understood as an awareness or familiarity gained by experience or education. It involves meaningful information, facts and skills an individual or a collective possess (so knowledge can be both individual and collective property). There is broadly acknowledged distinction made between explicit (also referred to as codified, standardised, formal) knowledge and tacit (or implicit, context-dependent) knowledge. *Explicit knowledge* is knowledge that can be easily articulated, codified, stored and transmitted to others. Regarding agriculture and farming, explicit knowledge is often associated with standardised solutions proposed by formal knowledge institutions or global market actors. *Tacit knowledge* is difficult to adequately verbalise and it is transferred and exchanged by common experience with trust as a crucial precondition. In the context of agriculture, tacit knowledge refers to specific local knowledge embedded in local contexts. Although tacit knowledge is often not well aware even by its possessors and it is also more difficult to capture for researchers. In RETHINK we aim at considering both these types of knowledge. In addition, also other knowledge forms can be identified: practical, experiential, traditional, popular etc. Their relevance in each case study may differ and their authors may consider which are applicable for them.

We want to draw attention to existing hierarchy or differing acknowledgement of various knowledges. There are knowledges that are recognised and valued and other that are found as less relevant or even ignored. Such attitude has implications also to farming practices and their outcomes and therefore we invite to pay attention also to discarded knowledge. Finally, such concepts as ignorance and non-knowledge, which denote correspondingly unrealized and realized limits of knowing (Gross 2007), can be useful to understand farming in uncertainty conditions and how agricultural resilience is strengthened.

Learning is the experience of gaining new knowledge and skill. Learning entails accessing or sharing knowledge already existing within the wider community and it might be also exploring the unknown and new knowledge horizons. In RETHINK we wish to take into account all relevant learning forms, whether it is formal (organized and controlled by formal curriculum), non-formal (organized learning outside the formal curriculum) or informal (based on experience) learning. Learning can happen at individual or collective level. *Collective* (collaborative) *learning* occurs in interactions

and when beneficiaries of learning is the whole group, organisation or network; for instance, it is learning within peer-to-peer groups during joint action, discussions and reflection. However, as it will be outlined below, we propose to regard several learning forms in the framework of *social learning*, which considers learning as social, i.e. interactive collective process embedded in the particular social relations. It illuminates and helps to understand how the diversity of knowledge is actually used, exchanged, created and put in practice through social, organisational and institutional interactions.

Three general questions form the guidelines to analyse knowledge and learning processes in agriculture:

- How knowledge and learning contribute to renewed modernisation, resilience and prosperity?
- What is relation between knowledge, resilience, prosperity and governance?
- How to activate learning and creation and application of knowledge for resilience?

Knowledge occupies a central place in rethinking and reorienting modernization. Only by learning and generating knowledge about modernization, its intended and unintended consequences in agriculture and beyond it (as they are outlined in the Conceptual Framework), one can act upon them and possibly change the modernisation's path and so do contribute to agricultural resilience and rural prosperity in more appropriate ways.

6.2 Linear knowledge transfer vs. joint knowledge production

But also the very understanding of knowledge and learning as well as knowledge practices employed to advance modern agriculture may need revision and re-orientation. Modernisation project in agriculture has led to continuous disembeddedness of agricultural production practices from diverse local contexts and knowledges, and instead they have become increasingly dependent on rather uniform (paid) external experts' knowledge. Despite that, farming has become knowledge intensive and demands from farmers a broad range of knowledge (not only production-related, but also about regulation, book-keeping, marketing, finances etc.). Winter (1997) argues that modern agriculture is under-knowledged and farmers might need not only learn but also unlearn to adopt more sustainable practices. This results from the fact that modernisation has rested primarily on scientific and technical knowledge, and the **'linear model' of knowledge transfer** with the major narrow goal to increase agricultural productivity. In this model, researchers develop new technologies, products or production methods, which are then transferred to farmers through extension services. The 'knowledge transfer' model is a top-down, state-driven process, based on the principle that the 'right knowledge' is produced by official research centres (Brunori et al. 2013). It thus favours laboratory-based techno-scientific innovation, and is intimately linked to capital-intensive innovation for economic competitiveness, and the development of inputs subject to protection of intellectual property.

While the knowledge transfer model is still the dominant in many extension services and agricultural and education policies in general, it has been criticized, not least for devaluing implicit and practical knowledge, for favouring the technical over the social dimensions of innovation, and for its one-sided focus on agricultural production rather

than addressing the diversity in farming (esp. in its combination with tourism, on-farm processing, direct marketing or energy production) (Knickel et al. 2009).

As a result, the simplistic view of ‘knowledge transfer’ is currently being replaced by the model of **‘joint knowledge production’ or network learning**. This model builds on (often informal) networks, within which expertise is recognised through reputation and trust, not as an attribute of belonging to a specialised research body (Brunori et al. 2013). Network approach allows acknowledgement and integration of various knowledge sources, types and processes and learning modes. It shifts from monoculture of scientific knowledge towards ecology of knowledge which assumes the diversity of knowledge and their composite character (Santos et al. 2007). Therefore it crumbles the hegemony of scientific knowledge and makes present other alternative knowledges, which have often been marginalised, ignored, discredited and devaluated. Especially local, tacit and farmer knowledge have been subjugated to ignorance. Network model acknowledges that farmers have important knowledge, esp. regarding natural resources and the local agro-ecological system. It aims at developing low-external input farming systems and agro-ecological methods. It can lead to the enhancement of local capabilities, while accommodating diversity and complexity (Padel et al. 2010).

Next to farmers, the network model also allows introducing consumers, rural residents, market enterprises, NGOs, policy makers and other actors into agricultural knowledge system. As Oreszczyn et al. (2010) show, farmers’ learning happens in complex social systems, which involve many people and organisations also outside farming, and agricultural community who have impact on actual farming practices. All together they represent a great diversity of available knowledge resources which are used in agricultural and rural development practices: technical and economic, production and marketing oriented, codified and tacit, local and distant, farmers and expert created, issue specific and more generic, necessary for the solution of specific problems and systemic transformation, etc. They show the complexity of agricultural knowledge system and indicate that there are also other knowledge systems available that might be used in modernising the farming practices, like sustainable food systems, social services, public health, energy etc.

By that the network model also involves a different approach to knowledge, especially regarding what is seen as valuable knowledge: it is not only scientifically tested and approved knowledge, but also experiential, practical, tacit, traditional or indigenous, popular knowledge.

The need to combine various knowledge sources draws attention to incompleteness of knowledge. No individual actors or even their collectives can possess all stocks of knowledge. Actually absolute knowledge is barely possible; especially if the uncertainty of conditions is considered and even if those uncertainties are ‘manufactured’ by human decisions (Beck 1999). The unintended consequences of modern agriculture in terms of environmental, social and also economic damages are striking examples of the limits of knowledge. In addition, together with scientific, professional and societal dynamics the knowledge pool is constantly changing and enlarging, as new kinds of knowledge come into operation and old knowledge fades out. Every new knowledge adds to our understanding, but it also increases proportionally the perceived amount of non-knowledge (i.e. of what is considered as not known yet) (Gross 2007). Operation under dynamic uncertainty conditions demands adaptability, which is based on actors’ active learning capacity.

Network model revises also the learning process, what is learning and how new knowledge is gained. Instead of the linear knowledge transfer model which considers individual farmers as learners who are presented as passive absorbers of the purposefully disseminated knowledge, network model rather advocates active social learning (Wenger 2000). Social learning reveals learning as happening in interactions of various actors who share some interest (and by that forming so called communities of practices (Lave and Wenger 1991) and who bring together and exchange their different life-worlds. During those learning interactions they co-create new meanings and rebuild their identities. As such, learning finds expression as social participation and it is situated or embedded in particular social contexts in which it takes place (Wenger 2009). Actually learning is a permanent life experience as it is accompanying whatever experiences, but it can take also a more formal form and be the very explicit aim of interactions.

Social learning approach reveals better the human base of knowledge – knowledge is appropriated by people who attach meaning to it and make use. Therefore knowledge is not only instrumental, but it is also infused by values, cultural and social factors (embeddedness) and everyday realities of farming life.

Network and social learning models stresses the collective nature of learning: learning happens not only at individual level but also at collective one when the beneficiaries of learning are all the involved. But both learning modes are complementary and interact.

Learning requires specific socio-technical structures and mechanisms of communication. Depending on the level of interconnectedness among actors, the structure and strength of their ties, social learning takes form of communities of practice (Lave and Wenger 1991) or networks of practice (Brown and Duguid 2001) or web of influencers (Oreszczyn et al. 2010). There is a great variety of social mechanisms employed to encourage learning. Just to mention some of them: meetings, conversations, projects, experiments, study programmes and visits, seminars, exhibitions, working groups etc.

Solinsa²⁰ research shows that there is a link between learning structures and modes and types of learning employed: learning process follows various stages of network development and responds to emerging needs and learning opportunities. Learning is less formalised when networks are fragmented or it happens in smaller groups of farmers, and there are few links with agricultural knowledge systems (AKS) and learning is not defined as a priority. High level of coordinated and formalised learning are associated with more structured networks with strong links to the formal AKS and when there is the need to achieve formal accreditation or certification and uniform knowledge (for instance, when large scale agricultural network is being transformed into an association or partnership).

In addition to social mechanisms, technical infrastructure is crucial to ensure learning. Together with increasing accessibility of the internet, various online tools are applied to facilitate knowledge dissemination and exchange and learning. Many agricultural organisations and networks use internet-based communication, operate websites, mailing lists, emails etc.

Network approach invites to take into account the hybridity of learning networks, its social and technical elements, multiplicity of knowledge and learning forms and multi-

²⁰ SOLINSA is an FP7-funded research project: 'Support of Learning and Innovation Networks for Sustainable Agriculture', see: www.solinsa.net

directionality of knowledge flows. The diversity of actors and processes involved may be not only enriching but also bring about different, even contradictory interests, motivations, views, or values, which can make learning processes conflictual and turn them into demonstrations of power (Eshuis and Stuiver 2005). This is the case also regarding sustainable agriculture and rural development that are complex and much contested concepts with many meanings attributed which then are transferred into a wide range of practices (Pannell and Schilizzi 1999, Bruckmeier and Tovey 2008).

Diversity and conflicts can be enriching and facilitate creativity and innovation at the end, but they can also block up new ideas and initiatives if common interest and language among actors cannot be established. Therefore this claims for the need of management or enabling knowledge processes. In order to improve connections of different life worlds and facilitate transgressive learning and innovation, boundary work, knowledge brokers and boundary objects come forefront (Klerkx et al. 2012, Klerkx and Leeuwis 2009).

This joint knowledge production model is also linked to a broader view of agricultural innovation, which is seen as a co-evolutionary process, i.e. combined technological, social, economic and institutional change (Knickel et al. 2009, Klerkx et al. 2012).

It is increasingly accepted that production and exchange of (technical) knowledge is not the only prerequisite for **innovation**, it also needs to integrate alternative ways of organising, i.e. social innovation. This interactive view is reflected in the concept of ‘agricultural knowledge and innovation system’ (AKIS)²¹, which is understood as including four sets of actor: research, extension, support system and extension (EU SCAR 2012: 26). (More recently this foursome has been complemented also by industry, financial institutions and informal learning and innovation networks for sustainable agriculture called LINSIA (Brunori et al. 2013)) As each of these sets of actors is guided by specific paradigms, conflicts and tensions arise as to priorities in research and preferred processes. Thus while the demand for an interactive, joint knowledge production model is increasing, implementation remains a challenge, not least because the established education and training institutions tend to neglect skills in communication, cooperation and facilitation. As a result many extension agents still see their role as advising farmers in technical or economic matters, rather than as knowledge brokers who facilitate links among actors and set up frames to evaluate and select relevant information; or as facilitators for local innovation, through building informal networks.

The shift from knowledge transfer to joint knowledge production has also proven difficult because they build on different visions, different innovation trajectories and even different visions of farming. They also build on different power relations between farmers, the agro-input supply industry and research institutions (Levidow 2012).

Still, it is increasingly recognized, that while science-driven research and scientific knowledge has an important role to play, so does practical and place-based **knowledge**. To achieve resilient farms and prosperous rural areas we need a wider understanding of the knowledge base, and need to span the boundary between knowledge generators and users (EU SCAR 2012: 32, 42). This implies that expertise is sought in multiple forms

²¹ The concept of AKIS has been developed in the early 1990s and is being used in policy discourses at OECD and FAO. At EU-level, there is a working group on AKIS within the framework of the Standing Committee of Agricultural Research (SCAR), see Dockès et al. (2012).

from academics, practitioners, businesses, land managers and the public, all of whom can make valuable contributions.

In RETHINK we will explore the role of human resources, social learning and of different knowledge bases in the case studies. We will examine how knowledge is accessed and generated to advance agriculture and its positive linkages with rural development. Particular attention will be paid to the role of learning and innovation networks, social capital and the question of an efficient collaboration between regional authorities, farmers, research and extension (Knickel et al. 2009, von Münchhausen et al. 2010, Compton and Beeton 2012). This particular research component will in many ways contribute to the operationalization of the new European Innovation Partnerships (EIP) policy at European and at national and regional level.

Indeed, the **EIP ‘Agricultural productivity and sustainability’** (EIP 2013: 8) clearly recognizes the central role of knowledge systems, which are understood as evolving towards innovation networks. Collective and creative learning processes are understood as key, not least for social innovation, in which rural and urban actors develop new skills, products and/or practices, as well as new attitudes and values which allow them to address the sustainability challenge in rural societies. It recognizes that “trust building and knowledge exchange involving processes for capturing, collecting and sharing explicit and tacit knowledge and the advancement of skills and competences are of utmost importance (EIP 2013: 16).

To capture and analyse knowledge and learning in RETHINK case studies and their contribution to resilient modern agriculture, we propose to look at knowledge and learning as happening in iterative cycles (see Figure 3).

Figure 3: Learning cycles

Learning is embedded into real-life situations where some constraints or opportunities urge actors to obtain new knowledge. The possibility to satisfy those knowledge needs depends on actors’ access to various knowledge sources and networks. Actual learning and knowledge creation happens in ongoing interactions during which various knowledge sources are accessed, mixed and new knowledge synergies obtained. In order to call

learning successful, the newly gained knowledge should be applied into practice. It can take the form of an adapted behaviour or, in more radical cases, it can lead to innovation. This new behaviour then has consequences, intended or not, on real-life situations which are transformed accordingly and may provoke further new knowledge needs. In addition, it has to be taken into account that these learning processes are happening into, and therefore are influenced by, broader contexts of various paradigms, regimes, values etc.

Case study questions:

- What are actors' knowledge needs (technical, economic, organisational, etc.) in the particular case? How, from what situations have those needs emerged? What are actors' motivations to acquire that particular knowledge?
- How are these knowledge needs met? What knowledge sources and networks are mobilised and used to meet those needs?
 - What kind of knowledge (explicit, tacit; universal, local; scientific, farmer...) is used in your case study? Is some important knowledge ignored, not available or otherwise absent?
 - What learning modes are used (individual/collective; formal/non-formal/ informal...)?
 - What is the role of AKS (i.e., research, education, extension and support organisations) in providing knowledge and stimulating farmers learning?
 - What role does local government play in social learning associated with rural development?
 - Is there a collaboration and collaborative learning happening between regional authorities, farmers, civil society organisations, research and extension, market and other actors? How is this collaboration enabled? Does it lead to social learning? How does it happen?
 - What do those learning and knowledge modes practised tell about the accessibility and legitimacy of various knowledges?
 - How are diverse sources of knowledge integrated?
- Is learning and knowledge converted into innovations? If yes: how? What innovations are they (technical, social; product, process; radical, incremental...)?
- What relations are there between learning and other key themes:
 - In what ways does learning increase resilience?

- How are new modes of governance learned? What is the role of learning in implementing new (i.e. multi-level and multi-stakeholder) governance regimes? How do existing governance regimes enhance or hamper learning?
- How does knowledge and social learning redefine prosperity? How does it contribute to it?
- How does learning redefine itself? How are 'legitimate' and 'non-legitimate' knowledges reconsidered?
- In your case study, how does learning and innovation contribute to the redefinition and reorientation of modernisation?

In WP 4, the comparative analysis for the 'knowledge and learning' theme across the national case studies will be led by: Talis Tisenkopfs (LV) and Karlheinz Knickel (DE).

7. References

- Adshead, M. (2005). Europeanization and changing patterns of governance in Ireland. *Public Administration* 83: 159–178.
- Alexander, D.E. (2013). Resilience and disaster risk reduction: An etymological journey. *Natural Hazards and Earth System Sciences* 13: 2707–2716.
- Agder, W.N. (2000). Social and ecological resilience: are they related? *Progress in Human Geography* 24: 347–364.
- Agder, W.N. (2006). Vulnerability. *Global Environmental Change* 16: 268–281.
- Anderies, J., C. Folke, B. Walker and E. Ostrom (2013). Aligning key concepts for global change policy: Robustness, resilience and sustainability. *Ecology and Society* 18(2): 8. <<http://www.ecologyandsociety.org/vol18/iss2/art8/>>
- Andersson, K.P. and E. Ostrom (2008). Analyzing decentralized resource regimes from a polycentric perspective. *Policy Sciences* 41: 71–93.
- Argyris, C. and D. Schön (1978). *Organizational learning: a theory of action perspective*. Reading, MA: Addison Wesley.
- Augier, M. and D. Teece (2009). Dynamic capabilities and the role of managers in business strategy and economic performance. *Organization Science* 20: 410–421.
- Bate, R. (2009). *What is prosperity and how do we measure it?* American Enterprise Institute for Public Policy Research. Development Policy Outlook. No. 3, 7 pp. <<http://www.aei.org/article/society-and-culture/poverty/what-is-prosperity-and-how-do-we-measure-it/>>
- Baumol, W., R. Litan and C. Schramm (2007). *Good capitalism, bad capitalism, and the economics of growth and prosperity*. Newhaven: Yale University Press.
- Beck, U. (2009). World risk society and manufactured uncertainties. *European Journal of Philosophy and Public Debate* 1: 291–299.
- Berkes, F. (2007). Community-based conservation in a globalized world. *PNAS* 104(39):15188–193.
- Berkes, F. and C. Folke (2002). Back to the Future: Ecosystem dynamics and local knowledge. In: L.A. Gunderson and C.S. Holling (Eds.). *Panarchy: Understanding transformations in human and natural systems*. Washington: Island press.
- Biggs, R., M. Schlüter, D. Biggs, E. Behensky, S. BurnSilver, G. Cundill et al. (2012). Towards principles for enhancing the resilience of ecosystem services. *Annual Review of Environment and Resources* 37: 421–48.
- Böcher, M. (2008). Regional governance and rural development in Germany: The implementation of LEADER+. *Sociologia Ruralis* 48: 372–388.
- Borowski, I., J.-P. Le Bourhis, C. Pahl-Wostl and B. Bernhard (2008). Spatial misfit in participatory river basin management: effects on social learning. A comparative analysis of German and French case studies. *Ecology and Society* 13(1): 7 <<http://www.ecologyandsociety.org/vol13/iss1/art7/>>.
- Brown, J.S. and P. Duguid (2001). Knowledge and organization: A social-practice perspective. *Organization Science* 12: 198–213.
- Bruckmeier, K. and H. Tovey (2008). Knowledge in sustainable rural development: from forms of knowledge to knowledge processes. *Sociologia Ruralis* 48: 313–329.
- Brunori, B., D. Barjolle, A.-C. Dockes, S. Helmle, J. Ingram, L. Klerkx, H. Mochitz, G. Nemes and T. Tisenkopfs (2013). CAP reform and innovation: The role of learning and innovation networks. *EuroChoices* 12(2): 27–33.
- Bryden, J., C. Bell, J. Gilliatt, E. Hawkins and N. MacKinnon (1993). *Farm household adjustment in Western Europe 1987-91*. Final report of the Research Program on Farm Structures and Pluriactivity. Luxembourg: Commission of the European Communities.
- Bryden, J., S. Efstratoglou, T. Ferenczi, K. Knickel, T. Johnson, K. Refsgaard, K. Thomson (Eds.) (2011). *Towards sustainable rural regions in Europe. Exploring relationships between rural policies, farming, environment, demographics, regional economies and quality of life using system dynamics*. Studies in Development and Society, New York: Routledge.
- Cabell, J. and M. Oelofse (2012). An indicator framework for assessing agroecosystem resilience. *Ecology and Society* 17(1): 18 <<http://www.ecologyandsociety.org/vol17/iss1/art18/>>.
- Carolan, M. (2013). The wild side of agro-food studies: On co-experimentation, politics, change and hope. *Sociologia Ruralis* 53: 413–431.
- Cazorla, A., I. De los Ríos (2001). The new social sensitivity engineering of rural development. Paper presented at the AGENG International Conference of Agricultural Engineering. Tampere, Finland.

- Cazorla, A., I. De los Ríos, and J.M. Díaz-Puente (2005) The LEADER community initiative as rural development model. *Agrociencia. Colegio de Postgraduados* 39: 697–708.
- Cazorla, A., I. De los Ríos and M. Salvo (2013). Working With People (WWP) in rural development projects: A proposal from social learning. *Cuadernos de desarrollo rural – International Journal of Rural Development* 10(70): 131–157.
- Cutter, S., L. Barnes, M. Berry, C. Burton, E. Evans, E. Tate and J. Webb (2008). A place-based model for understanding community resilience to natural disasters. *Global Environmental Change* 18: 598–606.
- Compton, E. and R. Beeton (2012). An accidental outcome: Social capital and its implications for Landcare and the ‘status quo’. *Journal of Rural Studies* 28: 149–160.
- Darnhofer, I. (2014). Resilience and why it matters for farm management. *European Review of Agricultural Economics* (in press).
- Darnhofer, I., J. Fairweather, H. Moller (2010). Assessing a farm’s sustainability: Insights from resilience thinking. *International Journal of Agricultural Sustainability* 8: 186–198.
- Darnhofer, I., C. Lamine and K. Knickel (2013). Conceptual Framework. Rethinking the links between farm modernisation, rural development and resilience in a world of increasing demands and finite resources. RETHINK project document.
- Davidson, D. (2010). The applicability of the concept of resilience to social systems: Some sources of optimism and nagging doubts. *Society and Natural Resources* 23: 1135–1149.
- Davidson, D. (2013). We still have a long way to go, and a short time to get there: A response to Fikret Berkes and Helen Ross. *Society and Natural Resources* 26: 21–24.
- Davidson, J. and M. Lockwood (2008). Partnerships as instruments of good regional governance: innovation for sustainability in Tasmania? *Regional Studies* 42: 641–656.
- Davoudi, S., E. Brooks and A. Mehmood (2013). Evolutionary resilience and strategies for climate adaptation. *Planning Practice and Research* 28: 307–322.
- De los Ríos, I., J.M. Díaz-Puente and J. Cadena (2011). La Iniciativa LEADER como modelo de desarrollo rural: aplicación a algunos territorios de México. *Agrociencia. Colegio de Postgraduados* 45(5): 609–624.
- De los Ríos, I., J. Guillén-Torres and A.T. Herrera-Reyes (2013). Complexity in the management of rural development projects: Case of LASESA (Spain). *Cuadernos de Desarrollo Rural* 10(71): 167–186.
- De los Ríos, I., A. Cazorla, J. Díaz-Puente and J. Yagüe (2010). Project-based learning in engineering higher education: two decades of teaching competences in real environments. *Procedia: Social and Behavioral Sciences* 2(2): 1368–1378.
- Dei Ottati, G. (1987). Il mercato comunitario. In: G. Beccatini (Ed.). *Mercato e forze locali: il distretto industriale*. Bologna: Il Mulino.
- Dockès, A.-C., T. Tisenkopfs and B. Bock (2011). WP1: Reflection paper on AKIS. Collaborative Working Group – Agricultural Knowledge and Innovation Systems <<http://ec.europa.eu/research/agriculture/scar/pdf/akis-wp1-final.pdf>>
- Dwyer, J. (2011). UK land use futures: policy influence and challenges for the coming decades. *Land Use Policy* 28: 674–683.
- EIP (2013). *Strategic implementation plan*. European Innovation Partnership “Agricultural productivity and sustainability”. Adopted by the High Level Steering Board on 11 July 2013 <http://ec.europa.eu/agriculture/eip/pdf/strategic-implementation-plan_en.pdf>
- Eshuis, J. and M. Stuiver (2005). Learning in context through conflict and alignment: Farmers and scientists in search of sustainable agriculture. *Agriculture and Human Values* 22: 137–148.
- EU SCAR (2012). *Agricultural knowledge and innovation systems in transition – a reflection paper*. Brussels: Standing Committee on Agricultural Research (SCAR), Collaborative Working Group AKIS.
- European Parliament (2013). *Semi-subsistence farming – Value and directions of development*. Study IP/B/AGRI/IC/2012-65. DG for Internal Policies, Policy department B: Structural and cohesion policies; Agricultural and Rural Development.
- Folke, C. (2006). Resilience: the emergence of a perspective for social-ecological systems analysis. *Global Environmental Change* 16: 253–267.
- Folke, C., J. Colding and F. Berkes (2003). Synthesis: building resilience and adaptive capacity in social-ecological systems. In: F. Berkes, J. Colding and C. Folke (Eds.). *Navigating social-*

- ecological systems. Building resilience for complexity and change.* Cambridge: Cambridge University Press, pp. 352–387.
- Folke, C., S. Carpenter, B. Walker, M. Scheffer, T. Chapin, and J. Rockström (2010). Resilience thinking: integrating resilience, adaptability and transformability. *Ecology and Society* 15(4): 20. <<http://www.ecologyandsociety.org/vol15/iss4/art20/>>
- Freibauer, A. E. Mathijs, G. Brunori, Z. Damianova, E. Faroult, J. Girona i. Gomis, L. O'Brien and S. Treyer (2011). *Sustainable food consumption and production in a resource-constrained world.* Third SCAR Foresight Exercise. Brussels: European Commission - Standing Committee on Agricultural Research.
- Friedmann, J. (1992). *Empowerment: The politics of an alternative development.* Cambridge, MA: Basil Blackwell.
- Gallopín, G.C. (2006). Linkages between vulnerability, resilience and adaptive capacity. *Global Environmental Change* 16: 293–303.
- Gibson-Graham, J.K. (2008). Diverse economies: performative practices for 'other worlds'. *Progress in Human Geography* 32: 613–632.
- Grande, J. (2011). New venture creation in the farm sector – Critical resources and capabilities. *Journal of Rural Studies* 27: 220–233.
- Grin, J.J. (2012). The politics of transition governance in Dutch agriculture. Conceptual understanding and implications for transition management. *International Journal of Sustainable development* 14: 72–89.
- Gross, M. (2007). The unknown in process: Dynamic connections of ignorance, non-knowledge and related concepts. *Current Sociology* 55: 742–759.
- Healey, P. (2004). The treatment of space and place in the new strategic spatial planning in Europe. *International Journal of Urban and Regional Research* 28: 45–67.
- Healey P. (2010). In search of the 'strategic' in spatial strategy making. *Planning Theory & Practise* 10: 439–457.
- Heley, J. (2013). Soft spaces, fuzzy boundaries and spatial governance in post-devolution Wales. *International Journal of Urban and Regional Research* 37: 1325–1348.
- Herman, D. (2008) A steady-state economy. Think-piece for the SDC workshop 'Confronting Structure'. Held in April 2008. London: Sustainable Development Commission <www.sd-commission.org.uk/pages/redefining-prosperity.html>
- Holling, C.S. (1973). Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics* 4: 1–23.
- Holling, C.S. (2001). Understanding the complexity of economic, ecological, and social systems. *Ecosystems* 4: 390–405.
- Hooghe, L. and G. Marks (2003). Unravelling the central state, but how? Types of multi-level governance. *American Political Science Review* 97: 233–243.
- Innes, J. and D. Booher (2010). How can theory improve practice? In: *Planning with complexity. An introduction to collaborative rationality for public policy.* Oxon: Routledge, pp. 15–40.
- IPMA (2010). NCB - Bases para la competencia en dirección de proyectos. Versión 3.1. Valencia (Spain): AEIPRO (Spanish Project Engineering Association)
- Jackson, T. (2009). *Prosperity without growth. Economics for a finite planet.* London: Earthscan.
- Jackson, T. and V. Anderson (2009). Redefining prosperity – Essays in pursuit of a sustainable economy. Sustainable Development Commission. London: Earthscan.
- Janssen, M. A. and E. Ostrom (2006). Resilience, vulnerability and adaptation. *Global Environmental Change* 16: 237–239.
- Kasser, T. (2007) A vision of prosperity. Think-piece for the SDC's Redefining Prosperity project. London: Sustainable Development Commission
- Kirwan, J. (2004). Alternative strategies in the UK agro-food system: interrogating the alterity of farmers' markets. *Sociologia Ruralis* 44: 395–415.
- Kitchen, L. and T. Marsden (2011). Constructing sustainable communities: a theoretical exploration of the bio-economy and eco-economy paradigms. *Local Environment* 16(8): 753–769.
- Klerkx, L., S. van Bommel, B. Bos, H. Holster, J.V. Zwartkruis and N. Aarts (2008). Design process outputs as boundary objects in agricultural innovation projects: Functions and limitations. *Technovation* 28: 364–378.

- Klerkx, L. and C. Leeuwis (2009). Shaping collective functions in privatized agricultural knowledge and information systems: The positioning and embedding of a network broker in the Dutch dairy sector. *The Journal of Agricultural Education and Extension* 15: 81–105.
- Klerkx, L., B. van Mierlo, C. Leeuwis (2012). Evolution of systems approaches to agricultural innovation: concepts, analysis and interventions. In: I. Darnhofer, D. Gibbon and B. Dedieu (Eds.). *Farming systems research into the 21st century: The new dynamic*. Dordrecht: Springer, pp. 457–483.
- Knickel, K., H. Renting and J.D. van der Ploeg (2004). Multifunctionality in European agriculture. In: F. Brouwer (Ed.). *Sustaining agriculture and the rural environment. Governance, policy and multifunctionality*. Cheltenham: Edward Elgar, pp. 81–103.
- Knickel, K. and K. Bruckmeier (Eds.) (2009): Public policies and the multiple functions of agriculture and rural space: A state of the art review of conceptual frameworks and practices in policy formulation and evaluation. Special issue of the *Journal of Environmental Policy and Planning* 11: 269–367.
- Knickel, K., G. Brunori, S. Rand, J. Proost (2009) Towards a better conceptual framework for innovation processes in agriculture and rural development: From linear models to systemic approaches. *Journal of Agricultural Education and Extension* 15: 131–146.
- Knickel, K., K. Lehmann, M. Kröger (2011) Multifunctionality in agriculture and rural development: an empirical analysis based on survey data from eleven European regions. In: J. Bryden et al. (eds). *Towards sustainable rural regions in Europe. Exploring relationships between rural policies, farming, environment, demographics, regional economies and quality of life using system dynamics*. Studies in Development and Society, New York: Routledge, 82–113.
- Lamine C., H. Renting, A. Rossi, H. Wiskerke and G. Brunori (2012). Agri-food systems and territorial development: innovations, new dynamics and changing governance mechanisms. In: I. Darnhofer, D. Gibbon and B. Dedieu (Eds.). *The farming systems approaches into the 21st century: The new dynamics*. Springer, pp. 229–256.
- Lave, J. and E. Wenger (1991). *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Leach, M., G. Bloom, A. Ely, P. Nightingale, I. Scoones, E. Shah and A. Smith (2007). *Understanding governance: pathways to sustainability*. STEPS Working Paper 2. Brighton: STEPS Centre.
- Legatum Institute (2012) The 2012 Legatum Prosperity Index. <http://webapi.prosperity.com/download/pdf/PI2012_Brochure_Final_Web.pdf> and <www.prosperity.com>
- Levidow, L. (2012). Contending agendas for agricultural innovation. In: M. Barbier and B. Elzen (Eds.) *System innovations, knowledge regimes and design practices towards transitions for sustainable agriculture*. Paris: INRA. <www4.inra.fr/sad_eng/Publications2/Free-e-books/System-Innovations-for-Sustainable-Agriculture>
- Lloyd, M.G., D. Peel, R.W. Duck (2013). Towards a social-ecological resilience framework for coastal planning. *Land Use Policy* 30: 925–933.
- Marsden, T. (2013). From post-productionism to reflexive governance: Contested transitions in securing more sustainable food futures. *Journal of Rural Studies* 29: 123–134.
- McMichael, P (2009). A food regime genealogy. *Journal of Peasant Studies* 36: 139–169.
- Mettepenningen, E., and G. van Huylenbroeck (2008). Benefits and pitfalls of the polycentric governance structure related to local identity in Belgium. Presented at the conference ‘Rural futures: dreams, dilemmas, dangers’ held 1-4 April 2008 at Plymouth, UK.
- Messely, L., J. Dessein and E. Rogge (2014). Governing regional branding projects for rural development in Flanders (Belgium). *Tijdschrift voor Economische en Sociale Geografie*, submitted, in revision.
- Miller, F., H. Osbahr, E. Boyd, F. Thomalla, S. Bharwani, G. Ziervogel, B. Walker, J. Birkmann, S. van der Leeuw, J. Rockström, J. Hinkel, T. Downing, C. Folke and D. Nelson (2010). Resilience and vulnerability: Complementary or conflicting concepts? *Ecology and Society* 15(3): 11 <www.ecologyandsociety.org/vol15/iss3/art1>
- Mosterd, E., C. Pahl-Wostl, I. Rees, B. Searle, D. Tabara and J. Tippet (2007). Social learning in European river-basin management: Barriers and fostering mechanisms from 10 river basins. *Ecology and Society* 12(1):19. < <http://www.ecologyandsociety.org/vol12/iss1/art19/>>
- North, D.C. (1990). *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.

- Oreszczyn, S., A. Lane and S. Carr (2010). The role of networks of practice and webs of influencers on farmers' engagement with and learning about agricultural innovations. *Journal of Rural Studies* 26: 404–417.
- Ostrom, E. (2007). A diagnostic approach for going beyond panaceas. *PNAS* 104(39): 15181–15187.
- Padel, S., U. Niggli, B. Pearce, M. Schlüter, O. Schmid, E. cuoco, E. Willer, M. Huber, N. Halberg and C. Micheloni (2010). *Implementation action plan for organic food and farming research*. Technology Platform Organics. Brussels: IFOAM EU Group. <www.tporganics.eu/>
- Pahl-Wostl, C. (2009). A conceptual framework for analysing adaptive capacity and multi-level learning processes in resource governance regimes. *Global Environmental Change* 19: 354–365.
- Pahl-Wostl, C., M. Craps, A. Dewulf, E. Mostert, D. Tabara and T. Taillieu (2007). Social learning and water resource management. *Ecology and Society* 12(2): 5. <www.ecologyandsociety.org/vol12/iss2/art5/>
- Pannell, D. J. and S. Schilizzi (1999). Sustainable Agriculture: A Matter of Ecology, Equity, Economic Efficiency or Expedience? *Journal of Sustainable Agriculture* 13: 57–66.
- Primdahl, J. (forthcoming). Agricultural landscape sustainability under pressure. Policy developments and landscape change. *Landscape Research* (in press).
- Primdahl, J., L. Kristensen and S. Swaffield (2013). Guiding rural landscape change. Current policy approaches and potentials of landscape strategy making as a policy integrating approach. *Applied Geography* 42: 86–94.
- Primdahl, J., E. Andersen, S. Swaffield and L. Kristensen (2014). Intersecting dynamics of agricultural structural change and urbanisation within European rural landscapes – Change patterns and policy implications. *Landscape Research*. <http://dx.doi.org/10.1080/01426397.2013.772959>
- Rapp, H. (2008). Fulfilment and prosperity: a new-Gandhian vision. Fourth opinion piece for the Redefining Prosperity seminar "Visions of Prosperity." London: Sustainable Development Commission, <<http://www.sd-commission.org.uk/publications.php?id=737>>
- Reghezza-Zitt, M., S. Rufat, G. Djament-Tran, A. Le Blanc and S. Lhomme (2012). What resilience is not: uses and abuses. *Cybergeo: European Journal of Geography* 621 <cybergeo.revues.org/25554>
- Renting, H., T. Marsden, and J. Banks (2003). Understanding alternative food networks: Exploring the role of short food supply chains in rural development. *Environment and Planning* 35: 393–411.
- Rogers, K., R. Luton, H. Biggs, R. Biggs, S. Bligaut, A. Choles, C. Planer and P. Tangwe (2013). Fostering complexity thinking in action research for change in social-ecological systems. *Ecology and Society* 18(2): 31. <www.ecologyandsociety.org/vol18/iss2/art31/>
- Rogge, E., J. Dessein and A. Verhoeve (2013). The organisation of complexity: A set of five components to organise the social interface of rural policy making. *Land Use Policy* 35: 329–340.
- Santos, B. de Sousa, J. A. Nunes and M. P. Meneses (2007). Opening up the canon of knowledge and recognition of difference. In B. de Sousa Santos (Ed.) *Another knowledge is possible: Beyond Northern epistemologies*. London: Verso.
- Sardar, Z. (2007). *Prosperity: A transmodern analysis*. Think-piece for the SDC seminar 'Visions of Prosperity', November 2007. London: Sustainable Development Commission, 8 pp. <<http://www.sd-commission.org.uk/publications.php?id=739>>
- Scoones, I., M. Leach, A. Smith, S. Stagl, A. Stirling and J. Thompson (2007). Dynamic systems and the challenge of sustainability. STEPS Working Paper 1. Brighton: STEPS Centre.
- SDC (2003). *Redefining prosperity: Resource productivity, economic growth and sustainable development*. London: Sustainable Development Commission <<http://www.sd-commission.org.uk/publications.php?id=41>>
- SDC (2009). *Prosperity without Growth? The transition to a sustainable economy*. London: Sustainable Development Commission. <<http://www.sd-commission.org.uk/publications.php?id=914>>
- Sekulova, F., G. Kallis, B. Rodríguez-Labajos, F. Schneider (2013). Degrowth: From theory to practice. *Journal of Cleaner Production* 38: 1–6.
- Sen, A. (1984). The living standard. *Oxford Economic Papers* 36: 74–90.
- Shucksmith, M. (2010). Disintegrated rural development? Neo-endogenous rural development, planning and place-shaping in diffused power contexts. *Sociologia Ruralis* 50: 1–14.
- Shucksmith, M. and K. Rønningen (2011). The Uplands after neoliberalism? The role of the small farm in rural sustainability. *Journal of Rural Studies* 27: 275–287.

- Shucksmith, M., H. Talbot and R. Lee (2011) Meta-narratives as heuristic generalizations of rural change. In: A. Copus and L. Hörnström (eds). *The new rural Europe: towards rural cohesion policy*. Nordregio Report 2011:1. Stockholm: Nordregio, pp. 19–52.
- Smit, B. and J. Wandel (2006). Adaptation, adaptive capacity and vulnerability. *Global Environmental Change* 16: 282–292.
- Stiglitz, J., A. Sen and J.-P. Fitoussi (2008). Report by the Commission on the Measurement of Economic Performance and Social Progress. <www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf>
- Stirling, A. (1998). *On the economics and analysis of diversity*. SPRU Electronic Working Papers Series, Paper No. 28. Science Policy Research Unit. Brighton: Univ. of Sussex.
- Stoker, G. (1998). Governance as theory: five propositions. *International Social Science Journal* 50(155): 17–28.
- Swyndgedouw, E. (2005). Governance innovation and the citizen: The Janus face of governance-beyond-the-state. *Urban Studies* 42: 1991–2006.
- Teece, D. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal* 28: 1319–1350.
- Uphoff, N. (1990). Paraprojects as new modes of international development assistance. *World Development* 18: 1401–1411
- van der Meer, M., J. Visser and T. Wilthagen (2005). Adaptive and reflexive governance: The limits of organized decentralization. *European Journal of Industrial Relations* 11: 347–365.
- van der Ploeg, J.D., R. van Broekhuizen, G. Brunori, R. Sonnino, K. Knickel, T. Tisenkopfs and H. Oostindie (2008). Towards a framework for understanding regional rural development. In: J.D. van der Ploeg and T. Marsden (Eds.). *Unfolding webs: The dynamics of regional rural development*. Assen: Van Gorcum, pp. 1–28.
- van der Ploeg, J. and T. Marsden (2008). *Unfolding webs: the dynamics of regional rural development*. Assen: Van Gorcum.
- Walker, B., S. Carpenter, J. Anderies, N. Abel, G. Cumming, M. Janssen, L. Lebel, J. NORberg, G.D. Peterson, and R. Pritchard (2002). Resilience management in social-ecological systems: A working hypothesis for a participatory approach. *Conservation Ecology* 6(1) <www.consecol.org/vol6/iss1/art4>
- Walker, B., C.S. Holling, S. Carpenter, and A. Kinzig (2004). Resilience, adaptability and transformability in social-ecological systems. *Ecology and Society* 9(2): 5. <<http://www.ecologyandsociety.org/vol9/iss2/art5>>
- Wall, D. (2008). Prosperity without growth, economics after capitalism. The first opinion piece for the Redefining Prosperity, third seminar "Confronting Structure - achieving economic sustainability". London: Sustainable Development Commission <<http://www.sd-commission.org.uk/publications.php?id=771>>
- Ward, N. and D. Brown (2009). Placing the rural in regional development. *Regional Studies* 43: 1237–1244.
- Wenger, E. (2000). Communities of practice and social learning systems. *Organization* 7: 225–246.
- Wenger, E. (2009). A social theory of learning. In: K. Illeris (Ed.) *Contemporary theories of learning. Learning theorists... in their own words*. London: Routledge, pp. 209–218.
- Widgren, M. (2012). Resilience thinking versus political ecology: understanding the dynamics of small-scale, labour-intensive farming landscapes. In: T. Plieninger and C. Bieling (Eds.). *Resilience and the cultural landscape*. Cambridge: Cambridge University Press, pp. 95–110.
- Winter, M. (1997). New policies and new skills: Agricultural change and technology transfer. *Sociologia Ruralis* 37: 363–381.
- Wiskerke, J. (2009). On places lost and places regained: Reflections on the alternative food geography and sustainable regional development. *International Planning Studies* 14: 369–387.

2.5. Reporting Template

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RETHINK

Rethinking the links between farm modernization, rural development and
resilience

in a world of increasing demands and finite resources

Case study

"(Short title)", (Country)

D3.3 | Version 1 | August 2014

(Authors)

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Note on preparing the case study report

Please provide a coherent case description in your report and take particular care of the following:

In the introduction the case study objectives/questions addressed are presented. The introduction builds on and further elaborates previous CS reports. The text you have prepared for the first case study reports can therefore be used as a starting point. In the template at hand it is indicated what previous text sections will match.

Aim at a thorough analysis for two or, even better, three CCTs (four is of course possible).

In the relevant sections of this reporting template, each issue is being addressed through specific questions, tabular overviews and/or charts. The tables are often only meant to get a quick first overview; identifying the key issues. Most important is the discussion of the main issues below each table.

Please try to collect information on the questions raised in your case studies and report accordingly (including references to data sources; see below). Take care to relate to the context in which you present your more detailed information.

Sections for ‘additional case study-specific issues’ allow you to include information that you consider relevant but does not fit in the other sections of the template.

The text in grey is to provide some background and explanations, and give you an idea of what you might want to consider when you answer the questions. Please delete the grey instructions text once you have completed a section. Please also delete the CCT that you are not dealing with.

Very important is to provide empirical evidence with explicit references to methods and sources of data. The most important sources of information will be expert interviews, results from workshops and/or focus groups, discussions in your national stakeholder group, official statistics and survey data (NOT just best professional judgment and simply answering the questions as you feel).

Please also include a good number of quotes (!) from key actors/practitioners/stakeholders and graphical material for illustration of findings and more effective communication (incl. photos, images).

Refer to other studies wherever helpful (with complete references please).

The concluding section is very important as it relates the main results of your CS back to our overarching research interests and project goal.

Overall we should aim at approx. 25 pages, not more (if needed plus appendices for background data); so make sure reporting is succinct, to the point and evidence-based.

We will organize 1-2 rounds of internal review among us to assure a high quality of CS reports.

At a later stage we aim at publishing each case study with a focus on the most interesting findings. Please keep this in mind when writing. Publication means that there will be an external peer-review.

Deliverables D.1 (CS profiles) and D.2 (summary report on progress and CS characterisation) will at a later stage be compiled on the basis of this report here (D.3) and in particular the 2-pages summary.

8. Introduction: definition of the social-ecological system studied

8.1 What is the case study about and who are the key actors?

(Max. 2 pages + tables etc.)

You may use here (as a starting point) the text from the 1st case study report (formerly sections 1.1-1.3): 'What themes/issue(s) do you focus on?' / 'What kind/type of case study do you work with?' / 'Which actors will be included?'

E.g. project(s), initiatives, programmes etc. the case study is associated with: objectives, contents, duration etc.

Actors involved and their constellations (see AF, section 1.2, p.4): organization, interaction, networks, interdependencies e.g.

- along the value-added chain (food/non-food)
- interdependencies within a territory
- interdependencies between institutions

Describe the typical farming system in your case study area and the type of farms your CS focuses on

This may cover: farm size, land ownership, family farming/corporate farms, full-time/part-time farming, crop/livestock, dependence on purchased inputs, commodity markets vs. direct marketing, role of urban areas, level of mechanization, role of machinery rings, and cooperation between neighbouring farms.

What is the time and spatial scale focused on in the case study?

You may use here (as a starting point) the text from the 1st case study report (formerly sections 1.4, 1.5 and 1.8)

'What time span is observed?'

'What is the spatial scale of the case study?' Please specify type of territory (e.g. catchment area; area in which a project / programme / initiative is implemented; administrative region; landscape unit). Note that what constitutes the 'territory' (or 'region') will ideally build on what the key actors in the particular case consider the most relevant spatial entity for their 'initiative'. In general, the 'region' / 'territory' should not be larger than necessary. Some of the questions that will follow will relate to the particular 'region' / 'territory'. Please

therefore make sure to define the spatial scale of the case study well.

Please summarize the key territorial characteristics of the case studied

Spatial type	Agricultural sector	Landscape characteristics	Population
<ul style="list-style-type: none"> - Rural - Urban - Peri-urban - Other (please specify) 	<ul style="list-style-type: none"> - % of agriculture in the regional economy <ul style="list-style-type: none"> a) by GDP b) by employment (incl. family labour) - Farm structures (% of farms < 20ha, > 50ha) - Main production outputs 	<ul style="list-style-type: none"> - Bio-physical features - Land cover - Other (please specify) 	<ul style="list-style-type: none"> - Population density (number of inhabitants per km²) - Issues of in-/out-migration - Issues of ageing rural population - Other (please specify)

8.2 Demands and resource constraints that are addressed

(Max. 0.5 page)

You may use here (as a starting point) the text from the 1st case study report (formerly sections 1.6 and 1.7): ‘What is the background for the selection of your case?’ / ‘Which of the problems/opportunities linked to modernized agriculture will you address in your case study?’; and (formerly sections 2.1 and 2.2): ‘Socio-economic and cultural context of agriculture in the region/country in question’ / ‘What structural barriers to change do you foresee in your case study?’

E.g.: natural resources (soil, water, land etc.); economic resources (external production inputs such as mineral fertilizer, pesticides, feed concentrate etc.; jobs/labour [e.g. on-farm seasonal labour], market power); social/socio-cultural resources: access to networks etc.

Please differentiate between the farm and higher levels (e.g. project, value-added chain, region) in the description of demands/pressures faced, describing e.g. exposure to market pressure, demographic issues (outmigration from rural areas, ageing population of rural areas) etc.

8.3 Cross-cutting themes analysed in-depth in the case study

(Max. 0.5 page)

You may use here (as a starting point) the text from the 1st case study report (formerly sections 4.1 and 4.2): 'Which of the four themes (resilience, prosperity, governance, knowledge & learning) will your study contribute to?' / 'Which and how?' / 'Which not or only to a limited extent?' Please provide some reasoning on the selection.

8.4 Methodological approach

(Max. 0.5 page)

Description of the methods applied (interviews of various kind, map analyses, data and document analysis, workshops, etc.). The role of the stakeholder partnership group is explained and references to previous studies that are related directly to the case study area/problem are given.

9. Results and discussion: addressing constraints, responding to change

Results are to be presented in clear and concise ways, also using the tables and figures provided. Almost always interpretations will be needed and references to the particular context. The meaning/significance of the results is discussed in sufficient detail and related to other findings of relevance. Tables and ranking are often only meant as an entry point into the discussion.

9.1 'Resilience'-related findings

(Max. 5-7 pages plus tables etc.)

Key issues are persistence (robustness), adaptability (flexibility), transformability (innovativeness) and preparedness (learning).

The resilience of a **farm** is linked to the sustainable use of natural resources, the organization of the farm, the learning processes within the farm family, and the (social, economic) context in which the farm operates. The resilience of a **region** is linked to the flow of resources in and out of the region (taking into account their environmental impact and the dependencies involved), the diversity of activities and the linkages between activities, as well as the

governance system (i.e. the institutions present and how they work). Resilience implies a balance between exploiting current strengths in the particular context, and exploring new options as they emerge, which is strongly linked to individual and social learning.

Please keep in mind that resilience cannot be deduced from the **characteristics** of a farm or a region. While certain characteristics (e.g. diversity) are important, resilience is above all about enabling open-ended **processes**, i.e. a disposition that emphasizes bridging differences, coalescing around common interests, considering alternatives, nurturing relationships, reflecting critically on values and beliefs. All these strengthen the ability to learn and to adapt to ‘whatever may come’. A metaphor might help to illustrate the complementarity between characteristics (i.e. available resources) and processes: when playing cards it is not only important which cards you get served, but also how you play your cards, when you play them, and how the others play! To assess resilience, we thus need you to briefly characterize each of a range of aspects, which are formulated as questions. Please answer the questions by discussing them within the national RETHINK team and as much as possible with practitioners, other experts and the national stakeholder group.

Please also refer to studies or statistical data (e.g. farm types and their shares, degree of specialization, levels of input use, indebtedness of farms, etc.). Please give **specific examples** to illustrate your description. It would also be great if you could include e.g. a quote, proverb or **popular saying** that conveys a widespread belief, a ‘popular wisdom’ or a ‘rule of thumb’.

9.1.1 Adaptability and transformability

Adaptability and transformability rely heavily on **diversity** (both within the farm and in the region), as these highlight potential different pathways (that might be important should the economic/social context change).

Please briefly describe the diversity of activities on-farm (6-7 sentences)

E.g.: Full-time/part-time farming, on-farm (tourism, care farming) vs. off-farm activities (paid employment), specialized farm/diversified; type of diversity, e.g.: crop/livestock, food/energy, high diversity of crops, diversity of crops, serves various markets or has different marketing channels

Please briefly describe the diversity of farms in the region and/or spatial heterogeneity (6-7 sentences)

Diversity of farms, e.g.: Are most of the farms similar? Is there a diversity of farm types with a fairly even distribution between the types? Is there a majority that follows the modernization paradigm, but also a (small?) minority which is ‘different’ (e.g. organic, low-external input, no tillage, direct marketing)?

Please briefly describe the diversity of economic activities in the region (6-7 sentences)

E.g.: Is the region heavily dependent on one type of economic activity (e.g. farming, mining or tourism) or is there a diversity of activities that are fairly unrelated (i.e. should one sector be in crisis it is unlikely to affect the others)

Existence of networks and social-economic connections within the region: e.g. farmers and consumers organizing co-ops, farmer markets, community sustainability associations, community gardens, etc.

Collaboration vs. hierarchies (6-7 sentences)

Please assess whether authorities, experts, interest groups and the public interact effectively to manage natural resources and agricultural development efforts? Is there a true, integrative and collaborative effort, or is it rather top-down and characterized by bureaucratic hierarchies?

Please also provide information on the interconnections and interdependence between farms/enterprises and between different production types and activities within the landscape/region. E.g. if an activity such as farm tourism will disappear will other farm activities remain, vanish or increase? Or are the links between farms/enterprises weak so that changes in one farm will not affect others?

Is there a favourable environment for social learning? (6-7 sentences)

Social learning is essential for developing and sustaining the capacity of different authorities, experts, interest groups and the public to manage their natural resources effectively. This implies that they are able to negotiate about goals, about how to achieve them and to translate them into action.

To what extent are there platforms that enable multi-party interactions and cooperation, and thus social learning? Are there feedback loops, so that learning takes place? Are there farmer-advisor networks? Or is there a centralized system and commercialization and/or a rigid bureaucratic system characterized by poor public access to information?

What is the balance between permanence and change? (6-7 sentences)

For a system to work, it needs an appropriate balance between change and permanence. Absence of change results in the inability to adapt. Absence of permanence, and predictability, results in the inability of actors to coordinate collective action and improve routines and practices. Please describe how your system (farming / the region) has changed (e.g. new networks, new actors or new values) and how it ensures predictability (e.g. traditions, established routines and networks).

Are there informal networks? (10-15 sentences)

Informal networks have been shown to be important for double-loop learning (i.e. changing the frame of reference, calling into question the guiding assumptions) and triple-loop learning (i.e. a transformation of the structural context and factors that determine the frame of reference, e.g. change in regulatory framework). Indeed, key leaders and shadow networks can prepare a system for change by exploring alternative system configurations. Such networks are influential and can break away from existing power networks leading to a new understanding and new approaches to farming. Informal settings are important as they open innovative discourses (rather than the bargaining and defending of entrenched positions that characterize formal settings). What can you say about such informal networks in your region? Have they existed in the past? What do (did) they try to achieve?

9.1.2 Autonomy and (network) embeddedness

To what extent are farms autonomous? Autonomous in relation to what? (6-7 sentences)

For a farm to be resilient, it needs to balance autonomy (enabling it to change) and being embedded in networks (enabling efficiency and providing it with information).

E.g.: Are the farmers striving to be (more) autonomous in their use of inputs (e.g. close nutrient cycles, use crop rotations) or are they mostly purchasing inputs on markets? Are they dependent on advice from companies and advisory systems or do they (also) experiment on their farm and exchange knowledge with other farmers? Have they initiated a (informal) network of like-minded farmers? Are they heavily reliant on direct payments or does the farm family get income from different sources? Are they heavily reliant on one company to sell their produce? Are they innovative and have started new processes before they were recommended by advisory services or scientists?

What networks and platforms exist in the agricultural/farming community? (6-7 sentences)

E.g.: Is there a strong sense of community and neighbourly help? Is there a diverse set of associations (farmer association, hunters, fire brigade, etc.)? Are farmers and non-farmers member of such associations? Are there regular fairs, events, or community places where people meet and exchange information?

To what extent is the region autonomous? Autonomous in relation to what? (6-7 sentences if relevant)

E.g. global links and dependence: To what extent is the region dependent on inputs in the form of resources for production (e.g. raw materials) or dependent economic activity (e.g. international tourism)? To what extent are national, regional or European subsidies and incentives received and important for the region and/or landscape maintenance?

9.1.3 Development over time

What are the main tensions, fears, threats and challenges that the farms and/or the region faces?

(3-4 paragraphs)

E.g.: What changes (e.g. sudden loss of key resources) occurred in the past and how were they responded to? Are farmers under pressure from new (urban) demands? Do dairy farmers feel uncertain in the face of the abolition of the milk quota system in 2015? Do vegetable farmers fear a continued pressure on producer prices? Do farmers feel uncertain due to an often unpredictable revision of existing or emergence of new regulations and standards? Is there a lack of young farmers willing to take over the farm? Are farms faced with a high level of debt (linked e.g. to investment in machinery or animal housing)? Fear of the impact of climate change? Fear of rises in energy cost? Fear of price shocks (e.g. prices for animal feed increasing, but price of milk decreasing)? Fear of unrealistic expectations by urban consumers?

Try to separate ***disturbance*** (occurs over some time and might be foreseen) and ***shock*** (unexpected significant change).

What do you think is the main strength of your region? (3-4 paragraphs)

A diversity of economic activity? A diversity of farming systems? A collaborative attitude? Limited dependence on external resources (goods, money, markets)? A high level of ecosystem services and environmental protection? A proven ability to adapt (provide an example of an implemented change)? A proven ability to buffer shocks (e.g. how did it buffer the effect of the 2008 or other crisis)?

Please provide concrete information on specific resources in the case study region.

What allowed the farms in your case study to persist, adapt and prosper over the last 50 or 20 years?
(3-4 paragraphs)

E.g.: Produce high quality food, have close and trustful relationship with processor/ retailer/customers; have a high education level; have good understanding of farm economics; have high technical skills; a strong sense of identity; are member of a close-knit community; are self-reliant and resourceful; have gone through collective learning before and know how to cooperate (rather than only competing against each other); are diversified; have a good understanding of ecological processes and cycles; have shown that they can adapt to changes in the context (e.g. policy changes, quality requirements, consumer preferences, price shocks, droughts); are able to self-organize (e.g. initiate associations, food-coops, direct marketing, etc.); there is a high level of trust between actors (e.g. farmers, advisory service, processors, consumers, government agencies).

What are the main sources of resistance to change? (3-4 paragraphs)

E.g.: people find it difficult to agree on one project (collective action is very difficult); there is a high level of inertia in institutions, i.e. they are reluctant to change how they work; institutions and organizations have vested interests and fear that change could lead to a loss of influence/markets; farms have a high debt load and thus only limited financial resources to invest in a new activity; the members of the farm family have a very high workload; everybody is very busy so that people have no time to meet and to discuss ideas; innovative ideas are usually viewed with suspicion ('this will never work' is easily said); it is very difficult for young farmers or new entrants to start farming so there is little renewal (and little influx of new ideas).

9.1.4 Additional case study-specific issues related to the 'resilience' theme

9.2 'Prosperity'-related findings

(Max. 5-7 pages plus tables etc.)

'Prosperity' can be seen as a condition of greater social cohesion, higher levels of well-being and reduced impact on the environment. Using the 'Working-With-People' (WWP) framework²² (see AF) we will examine four broad issues:

- 1) Stakeholders' conceptualisation of prosperity
- 2) The technical-entrepreneurial dimension of prosperity in agriculture and rural areas
- 3) The ethical-social dimension of prosperity
- 4) The political-contextual dimension of prosperity

Please answer the following questions integrating *expert knowledge* (specialized info) and *practical knowledge* (the experience and perception of practitioners) - as in the other sections with references to information obtained from workshops, focus groups, expert interviews, etc.

9.2.1 Stakeholders' and key actor's views about 'prosperity'

This section aims to define prosperity from the stakeholder's and/or key actor's perspective.

What is the influence of the following four domains on 'prosperity' from stakeholder's point of view? Please explain for each domain with 4-5 sentences.

- a) Political field
- b) Public-administrative field
- c) Civil society
- d) Private-entrepreneurial field

²² Based on the WWP (Working With People) approach, the following tools and information sources should be used: **Primary information sources**: participative processes carried out by the teams, using a variety of methods and instruments for the collection of information including on the experience and perception of the stakeholders: surveys (to beneficiaries, to experts and key informants), and **Focus Groups** and/or expert panels. **Secondary information sources**, including scientific literature, legislation, documentation, data from recent statistics, monitoring and evaluation.

Please identify the Top 5 elements that must be included in a meaningful rural prosperity concept from stakeholders and/or key actors points of view (in order of importance). Please explain each with 4-5 sentences.

- (1) ...
- (2) ...
- (3) ...
- (4) ...
- (5) ...

9.2.2 Technical-entrepreneurial dimension

The aim of this section is to analyse how the **technical-entrepreneurial dimension** contributes to prosperity in agriculture/rural areas through different strategies. We ask how human, economic and natural resources are mobilized and how resource uses are negotiated relevant actors.

In what ways does the most predominant production strategy in your CS contribute to prosperity in agriculture/rural areas?

Please explain in 4-5 key points.

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In what ways does the processing, preservation and preparation of agricultural goods and services for intermediate and final consumption as observed in your CS contribute to prosperity in agriculture/rural areas?²³

Please explain in 4-5 key points

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²³ Covering a broad area of postharvest activities, comprising artisanal, minimally processed and packaged agricultural raw materials, the industrial and technology-intensive processing of intermediate goods and the fabrication of final products derived from agriculture (FAO, 2008).

ANNEX 2: Other relevant documentation

▪

In what ways does the marketing/commercialization strategy in your CS contribute to prosperity? (Please consider distribution, strategic partners, distribution channels and marketing strategies)?

Please explain in 4-5 key points.

▪
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▪
▪
▪

How important are different technical-entrepreneurial influences on farm/agricultural prosperity in the CS?

Important note:

The tables in the 'prosperity' section only provide an entry point for your team and the workshops/focus groups you'll have with key actors. They are to help identify key issues. Most important is the discussion on the most important items/issues following each table.

(Please assess from 1-4; 1 low, ... 4 high)

Item	Value (1-4)
Coherent vision and business strategy	
Joint effort of reaching a fair distribution of value added in the value chain	
Innovation in goods and services, products, technology, etc.	
Diversification of goods and services	
Quality of goods and services	
Environmental sustainability of production process	
Production cost reduction	
Farm profitability	
Resource use efficiency	
Capacity of individual marketing of goods and services	
Capacity of collective marketing of goods and services	
Entrepreneurship	
High technical performance of the production process	
Independence from input markets (autonomous reproduction of production factors)	
Other (please specify)	

Please explain the Top 4 in more detail (1-2 paragraphs per item)

9.2.3 Ethical-social dimension

This section aims at answering how **ethical-social** mechanisms contribute to fostering social capital, promoting business values and actions, empowering key actors and/or enhancing cooperation between the stakeholders involved.

What intangibles are relevant for prosperity in the CS at community/'regional' level?

(Please assess from 1-4; 1 low, ... 4 high)

Intangible aspects	Value (1-4)
Development of personal and community values	
Improved information and knowledge	
Mutual learning and knowledge exchange	
Skills and competencies	
A strong sense of belonging among the actors involved	
<i>Other (please specify)</i>	

Please explain the Top 2 in more detail (1-2 paragraphs per item)

How important are different ethical-social influences on farm/agricultural prosperity in the CS?

(Please assess from 1-4; 1 low, ... 4 high)

ANNEX 2: Other relevant documentation

Items	Value (1-4)
Sensibility and capacity to appreciate values	
Trust between key actors and/or stakeholders	
Leadership in the territory / sector	
Autonomy in decision making	
Negotiation capacity of key actors	
Open attitude to cooperation and joint work	
Result orientation	
Ability to overcome conflicts and crisis	
Community promotes and encourages diversity	
Good local governance and democratic processes	
Equitable opportunities for all	
<i>Other (please specify)</i>	

Please explain the Top 4 in more detail (1-2 paragraphs per item).

How much and how are the prosperity of farms and the prosperity of 'the region' linked?
Or in other words how much does 'the region' depend on a flourishing agriculture?

Please explain in 4-5 key points.

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9.2.4 Political-contextual dimension

This section aims at describing how the political-contextual dimension contributes to prosperity in agriculture/rural areas taking the CS and the particular context into account. Related questions concern the integration of the stakeholder's interests, relations with political organizations and public-administrations, the management and quality of change processes, etc.

What role do public policies (in particular agricultural and rural development policies) play for prosperity in the CS? Do they have a positive or negative influence?

Please describe in terms of 4-5 particularly positive and negative aspects.

Positive aspects	Negative aspects
<ul style="list-style-type: none"> ■ ... ■ ... ■ ... ■ ... ■ ... 	<ul style="list-style-type: none"> ■ ... ■ ... ■ ... ■ ... ■ ...

Please assess the influence that of each of the elements within the political-contextual dimension have on prosperity in your CS (farms/agriculture)

(Please assess from 1-4; 1 low, ... 4 high)

Items	Value (1-4)
Domestic market	
International market	
National grants	
International grants (including EU)	
Rural development policy of the EU	
Other European policy	
Competitiveness at national level	
Competitiveness at international level	
Biodiversity, environment	
Technological change (new technologies)	
Legal frameworks and regulation	
Knowledge and information	
Solidarity in society with agriculture/rural areas	
Other (please specify)	
.....	

Please explain the Top 4 in more detail (1-2 paragraphs per item).

9.2.5 Additional case study-specific issues related to the 'prosperity' theme

9.3 'Governance'-related findings

(Max. 5-7 pages plus tables etc.)

The development and implementation of 'projects' and policies involves multiple actors and multiple sectors and is often exercised on multiple levels. The 'Governance' theme aims to clarify the following four issues in each case study:

- 1) The role and interests of actors in the most relevant governance constellation in the case studied (see DEF. 'governance partnership' below)
- 2) The organizational characteristics of the most relevant governance mechanism(s)
- 3) The role of the institutional environment
- 4) The role of new governance models in agricultural and rural development as expressed in the case studied

9.3.1 The role and interests of key actors

In this section the aim is to identify what factors in the development of the governance partnership are important to your case study. Focus is on the role and interests of actors in the most relevant governance constellations in the case studied.

DEF. 'governance partnership': In all our cases we can identify key actors and stakeholders - state and non-state (farmers, advisors, researchers, representatives from CSOs, agro-industry, etc.). They are those that are steering the particular development that we study, managing an innovation process, making decisions. And they are normally working together as partners, often organized as a (multi-actor) network. We use the term 'governance partnership' to capture this or just speak about 'cooperation', 'partnership' or 'network'.

Please shortly list - and, if you like, map - the cooperation/partnership/network that is involved in the governance of your case.

What actors are involved and what is their role in the governance partnership?

Who	Type of actor (e.g. farmer, inhabitant, local politician)	Objectives?	Role in the governance process?

Note:

Who. Please indicate who is/are the coordinators of the stakeholder partnership (if there is one).

Type of actor: Indicate who the actor represents; e.g.: private actor representing a business (e.g. a farm), a civic actor representing an organization (e.g. NGO), public actor representing a public institute (e.g. school) or maybe you find other forms of representation.

Objectives: In order to understand how actors are mobilized we would like you to shortly describe why the actor is involved, what are his/her objectives?

Role in the governance process: This can be informed about decisions, advising, takes part in decision process (but no final responsibility) or takes decisions.

How was the governance partnership established?

Please indicate the important milestones in the development of the partnership and indicate why they are so important. Please make sure to include who initiated the process, and how actors got involved.

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Are actors missing? If yes, indicate what type of actors are missing and shortly explain why

Please explain in max. 1 paragraph.

9.3.2 Organizational characteristics of the most relevant governance mechanism(s)

In this section we would like to identify important characteristics of organizational structures that can contribute to effective governance.

Please shortly describe the organization and decision making process within the governance partnership

Please explain in 2-3 paragraphs.

Please describe for each of the actors what their role in the decision making is

Please explain in 2-3 sentences per actor.

Position the decision-making process in the following scale:

Informal - 1 2 3 4 5 - Formal
Please explain this score (4-5 sentences)

To what extent would you characterize the governance system as 'polycentric', i.e. complex, modular, where different units and organizations interact to form a self-organized governance regime? Or do you think that the decision-making authority is concentrated in a few institutions/bureaucracies?

Complex, modular - 1 2 3 4 5 - Highly concentrated, top-down
Please explain this score (4-5 sentences)

What factors are key in the successful management of a governance partnership in the long term?

Please indicate the four most important factors and explain why in 3-4 paragraphs.

E.g. role of trust, transparency, financing, power, accountability etc.

9.3.3 The role of the institutional environment

In this section we want to identify the role of the institutional environment, and of the government and its policies, in the governance of agricultural and rural development.

We would like to get an overview of the most important policy strategies for agricultural and rural development in each country. We would like you to carry out a short analysis of the 1 or 2 key policy/strategic documents about agricultural and rural development that are relevant for the case study region.

Identify and rank the Top 3 goals (based on your own assessment) for agricultural and rural development

Agricultural development	Rural development
<ul style="list-style-type: none"> ▪ ... ▪ ... ▪ ... 	<ul style="list-style-type: none"> ▪ ... ▪ ... ▪ ...

Compile a table with information on the three strategies that have received most funding within the agricultural and rural development programme in the most recent funding period:

Goal	Budget
<ul style="list-style-type: none"> ▪ E.g. supporting the farmers through investments in their holdings ▪ ... ▪ ... 	<ul style="list-style-type: none"> ▪ E.g. 47% of total budget (46.052.865 euro) ▪ ... ▪ ...

Are the top three goals (as named above) coherent with the allocation of the highest amount of funding (as named above)? If not could you explain why?

Please explain in 4-5 sentences.

Have governmental policies encouraged or supported the organization and development of the governance partnership in your case study?

Please explain in 2-3 paragraphs.

E.g. potential subsidies, support in organization, legal advice etc.

Have governmental policies complicated or hindered the organization and development of the governance partnership?

Please explain in 2-3 paragraphs.

E.g. limiting influence in landscape planning, limiting regulations etc.

Based on the experiences in your case study, what should be expected from the government in order to develop innovative and successful governance constellations?

Please explain in 2-3 paragraphs.

9.3.4 The role of newly formed and/or innovative governance models

In RETHINK we want to capture successful governance mechanisms that support and create synergies between rural and agricultural development. Please explain the role of newly formed and/or innovative governance models in agricultural and rural development as expressed in the case studied.

What is the main objective of the governance partnership?

Please explain in 1 paragraph.

How does the objective of the governance partnership address the challenges of the region?

Please explain in 2-3 paragraphs.

9.3.5 Additional case study-specific issues related to the 'governance' theme

9.4 'Knowledge and learning'-related findings

(Max. 5-7 pages plus tables etc.)

This section is aimed to identify the persisting knowledge needs and the related driving forces of learning and innovation as illustrated in the particular case.

9.4.1 Knowledge needs in a complex world

What knowledge needs are manifest and/or a particular focus in the CS?

Type of knowledge	Rank Top 3 (1., 2., 3.)	Specify deficits more precisely for Top 3
Technical knowledge and skills		
Marketing knowledge and skills		
Management knowledge and skills		
Farm strategic planning knowledge and skills		
Cooperation, networking, social skills		
Other (please specify).....		

What challenges or opportunities at farm/ community level do they address? And: How, by whom are they defined?

Please explain in 4-5 sentences / a paragraph.

9.4.2 Knowledge sources and the role of knowledge infrastructure, organizations and institutions

We would like to better understand the interplay of different sources of knowledge, different agricultural learning and innovation support infrastructure, and organizations and networks. Particular emphasis is on the role of different organizations and institutions including extension, research, education, market actors and NGOs.

What knowledge sources/actors are used to meet the needs referred to in the previous section?

Checklist on knowledge sources and infrastructure; identify the Top 5: 1., 2., ... 5.

Knowledge sources	More specifically:				
Farmers:	Own experience, learning by doing	Other farmers	Farmer organizations, cooperatives		Other (please specify):
AKIS:	Agricultural advisory service	(Agricultural) schools	Research institutes	Universities, agricultural faculties	Other (please specify):
Market actors:	Consumers, their organizations	Suppliers	Processors	Retailers	Other (please specify):

ANNEX 2: Other relevant documentation

Civil society :	Local community groups	Environmental NGOs	LEADER groups		Other (please specify):
Administrative bodies:	Local municipality	Regional government	National government, ministries and public bodies	EU institutions	Other (please specify):
Other (please specify):					

Why are the sources you ranked specifically relevant? (Do they correspond best to particular knowledge needs? Are they the only sources available? ...)

Please explain in 4-5 sentences / a paragraph.

CHART: Please prepare a chart which shows the key elements, information flows and interplay of the different sources of knowledge (and actors/institutions referred to in the above table). You may draw a figure or a network map illustrating the most typical knowledge flows between actors in your CS.

What (multi-actor/stakeholder) learning networks are present in your CS (farmers' networks, farmers-AKIS networks, mixed multi-actor networks)? What is their contribution to farmers' learning?

Please explain in 2-3 paragraphs.

Are some knowledge sources/actors strikingly missing? Why?

Please explain in 4-5 sentences / a paragraph.

What is specifically the role of informal, tacit and endogenous knowledge sources: local, community, farmers', traditional, other non-codified knowledge? How are they manifest in the case?

Please explain in 4-5 sentences / a paragraph.

How do the various knowledge sources named above contribute to innovation and resilience?

Please explain in 4-5 sentences / a paragraph.

9.4.3 Effective forms of learning and knowledge networks

The rationale is to capture successful knowledge production and learning forms and practices in agricultural knowledge networks and in particular to understand the role of social learning and how collaboration between various actors supports positive developments?

What forms and practices of learning can you observe in your CS?

E.g., study tours, field days, direct consultations with researchers, participation in study groups, peer exchange, peer to peer learning, experience sharing, training courses and other specific forms and practices of learning.

Please indicate also which ones you think are more effective/efficient and why.

Please explain in 3-4 paragraphs.

What modern communication tools and infrastructures are used by farmers in their learning practices?

E.g., Internet, emails, electronic advice provision, e-subscription lists, newsletters, online training activities, etc.

Please explain in 4-5 sentences / a paragraph.

What lessons can be drawn on the conditions of successful learning in agricultural contexts from your case?

This may involve such issues as organization, participation, leadership, transparency, relevance for participants, etc.

Please explain in 2-3 paragraphs.

9.4.4 Additional case study-specific issues related to the 'knowledge/learning' theme

9.5 Interrelations between these different dimensions

(Max. 2 pages)

9.5.1 Interrelations between 'knowledge & learning' and 'governance'

Please explain in 3-4 paragraphs.

9.5.2 Interrelations between 'prosperity' and 'resilience'

Please explain in 3-4 paragraphs.

9.5.3 Contribution of 'knowledge & learning' and 'governance' to 'prosperity' and 'resilience'

Please explain in 4-5 paragraphs / a page.

10. Conclusions

(Max. 3-4 pages plus tables etc.)

As a starting point: Please check again the text from the 1st case study report (formerly section 3.): 'What will we learn from the case study in a RETHINK perspective?' / 'Which of the problems/opportunities linked to modernized agriculture will you address in your case study?'

10.1 What are the main lessons learned from the case study?

Please list no more than 7 items.

10.2 Links between rural development, farm modernization and resilience

Please elaborate in 1 page.

10.3 Importance of conventional understanding of farm modernization

Tick (x) the most appropriate answer. The answers reflect your best professional judgement in the RETHINK team; they do not need to be based on statistics.

How dominant is the conventional understanding of ‘agricultural modernization’? i.e. selling commodities (large uniform batches of crops/milk), maximizing productivity (high yield), increasing scale and/or specialization to reduce production costs and ensure economic viability		
	In (official) advisory system	Among farmers
Very dominant: there is a clear view that there is <u>one</u> right way to do things		
Dominant: most elements are promoted, but a few not because they are not suited to the area (which elements are not suited?)		
Mixed: some elements are promoted, others not; it mostly depends on the individual farm		
The various elements of the modernization paradigm play a minor role in the technical and economic advice provided		

What shares of farms implement most of the elements of the modernization paradigm?

	0 – 25%
	25 – 50%
	50 – 75%
	75 – 100%

Are there ‘alternative’ networks/associations that promote a ‘different’ way to farm? (e.g. use on-farm resources as far as possible, low-external inputs, reduce capital intensity, direct-marketing, extension agents are facilitators rather than providers of expert knowledge/solutions)

	Yes, there are 3+ different networks promoting a variety of approaches. They are well established, everybody knows about them (e.g. through fairs, events, publish newsletters/magazines)
	Yes, there are 1-2 networks. They are well-established and active (at fairs, events, publish newsletters/magazines)
	Yes, there are 1-2 networks, but they are struggling or emerging, and not very visible (i.e. many/most farmers are not aware of them)
	No, a farmer who would search for a ‘different’ way to farm would not find a network in the region. But there are a few individual farmers who are ‘different’
	No. A farmer who would be interested in something ‘different’ would not find an established network, or individual farmers who are ‘different’. S/he would need to seek advice outside the region

How strong is the integration of agriculture with other sectors/activities in the area? (i.e. is agriculture rather a sectoral or a territorial affair?)

	Very limited: agriculture is the dominant activity in the area, so most rural inhabitants are farming families
	Limited: agriculture is definitely dominant. There are some towns or people with urban roots living in the area, but farmers do not really interact with them.
	It is mixed. Some farmers interact mostly with other farmers (i.e. follow the modernization paradigm); but others have close links with non-farmers and other sectors of the economy (i.e. are multi-functional)

	High level of integration: farms are clearly multi-functional: many farmers are part-time (thus have an off-farm job) or there is tourism, direct-marketing, care farming, etc.
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10.4 Particularly interesting issues for the comparative analysis

3-4 issues (and paragraphs)

10.5 Implications for future research and policy

3-4 issues (and paragraphs)

11. References

Please list all data sources (incl. workshops, expert interviews), publications referred to, website URLs, etc.

12. SUMMARY

We think it would be helpful - both for teams and for RETHINK as a whole - if each team after preparing this report writes a two page summary (1000 words) on the case study and its results - focusing on how the experiences from the case study contribute to rethinking farm modernization and rural development.