

**Agricultural Marginalisation in Portugal:
Threats and Opportunities for Sustainable Livelihoods**

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Dedicated to
the subsistence farmers of Portugal
and to all those who dare to do what is necessary,
even when it is frightening and
seems hopeless.

ABSTRACT

The decline of sustainable agricultural livelihoods has been a feature accompanying economic development all over the world. In Portugal, the decline has been particularly severe over the last century, leading to the displacement of the rural population and to environmental, economic and social losses. Action to address the problem so far has been unsystematic and largely limited to the amelioration of symptoms.

This study contributes to the development of a grounded understanding of the causes and consequences of agricultural marginalisation in Portugal, in order to find entry points to overcome the current impasse.

Multiple data collection tools were used to develop a case study on agricultural marginalisation in the Portuguese study area. Threats to farm viability and consequences for rural livelihoods were investigated. The social context of agricultural marginalisation was explored and the potential for developing Alternative Agri-Food Networks to improve farm viability was assessed. The perspectives on agricultural marginalisation of stakeholders from the agricultural and rural development sectors were recorded and the implications for future developments were discussed.

The results show that a limited problematisation of agricultural land abandonment and the endorsement of the ‘ideology of economic development’ by both, the rural populations and policy-makers, has kept agricultural marginalisation off the political agenda, despite 25% of the country experiencing extreme marginalisation. Action by the affected population itself is limited, and constrained by economic, legal and socio-cultural factors. A number of measures that could be pursued at various levels of agency are proposed and possible future developments are discussed.

Problematising agricultural marginalisation and challenging the illusion of the inevitability of agricultural decline will be essential to empower stakeholders to transform current drivers of marginalisation and develop more sustainable agri-food systems.

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LIST OF ABBREVIATIONS

- AAFN – Alternative Agri-Food Network
- AM – Agricultural Marginalisation
- AoA – WTO Agreement on Agriculture
- CAP – Common Agricultural Policy
- CSFP – EU Community Support Framework Program
- EEC – European Economic Community
- EU – European Union
- GATT – General Agreement on Tariffs and Trade
- GPPAA – *Gabinete de Política e Planeamento Agro-Alimentar* (Portuguese office for agro-food policy and planning, part of the MADRP)
- IFAP – *Instituto de Financiamento de Agricultura e Pescas* (Portuguese Institute for Financing Agriculture and Fisheries, part of the MADRP)
- IPM – Integrated Pest Management
- LAG – (ex-)LEADER Local Action Groups
- LFA – Least Favoured Areas
- MADRP – *Ministério da Agricultura, Desenvolvimento Rural e Pescas* (Portuguese Ministry of Agriculture, Rural Development and Fisheries)
- MAOT – *Ministério do Ambiente e Ordenamento do Território* (Portuguese Ministry of Environment and Spatial Planning)
- SME – Small and Medium Enterprise
- SPS – Single Farm Payment Scheme
- UAA - Utilised Agricultural Area
- WTO – World Trade Organisation

CHAPTER I

INTRODUCTION



1.1 The Agrarian Transition and the problem of high-impact livelihoods

Economic development drives profound changes in the agricultural sector. Agrarian societies, in which most individuals are engaged in subsistence production are transformed into consumer societies, in which individuals undertake highly specialised tasks and have to purchase most of what they need to live from the market (Goodman and Redclift, 1981; Bennholdt-Thomsen and Mies, 1999).

It has been estimated that 2.5 billion people in the world depend directly on natural resources to meet their livelihood needs (Pimbert, 2009). However, the increasing polarisation between industrial production and family farming endangers some of these livelihoods (Knickel, 1994). Between 1950 and 1990, agricultural employment in all developing countries taken together declined from 80% to 60% of the total workforce (Weis, 2007). The world's total agricultural population declined by 5% between 1990 and 2002 (Weis, 2007). This decline of agricultural livelihoods is associated with the declining ability of people to meet their food needs outside market relations (Weis, 2007).

The transition from agrarian to consumer societies is commonly portrayed, according to Modernisation theory, as a natural evolutionary process, from a backward condition to a more advanced form of social organisation (Giddens, 1985; Grigg, 1987; Rostow, 1990; Wood, 2002). However, a historical analysis shows that ideas of economic modernisation existed prior to any real change in the socio-economic organisation, and governments were active in promoting these ideas and pushed for changes from an early stage (Polanyi, 1944; Kuhnen, 1982). In order for the take-off of economic growth in agrarian societies to happen, it is first necessary to have a social elite that believes in the 'goodness' of promoting economic development (Rostow, 1990).

The agricultural sector plays a central role in industrialisation and in the take-off of economic growth. Southworth (1967) and Rostow (1990) emphasise that for these to happen, agriculture has to be transformed so that:

- a) it frees labour to be employed in the developing industrial sector;
- b) productivity is increased to feed the growing non-agricultural population;
- c) it produces resources that serve as industrial input;
- d) it contributes surplus capital to be invested in industries;
- e) it becomes a sector that consumes industrial output and contributes by effective demand to the development of industries.

Mechanisation and the use of external inputs were the main means of increasing productivity while cutting labour requirements. The mechanisation of agriculture led to a sequence of necessary transformations at farm level. The specialisation of production and increase in farm size was necessary to increase productivity sufficiently to pay off investments in machinery (Goodman and Redclift, 1981). Thus machines were no longer simply tools, but they came to be driving forces for the reorganisation of the farming system (Redclift, 1984). Specialisation required increased use of external inputs, causing a disruption of traditional integrated farming systems; instead of farm wastes being used productively on the farm, external inputs had to be imported while waste accumulation created pollution problems (Guzmán Casado *et al.*, 2000).

Mechanisation allowed large-scale farms to increase productivity and sell output at lower prices, giving them a competitive advantage compared to small farms. However, mechanisation also started a downward cycle of declining profitability of farms – the agricultural treadmill (Ward,

1993). The agricultural treadmill is the economic process of continually declining profit margins of farmers as they adopt new productive technologies. When productive technologies are introduced, productivity increases, leading to an increased supply of agricultural products. Increased supply, in a market of relatively stable demand, causes a decline in prices. Therefore, as farms become more productive, profits per unit of output decline. Farmers have to increase their productivity further in order to secure the income they had prior to the introduction of the initial technological innovation. As a result of declining prices, only high output farms that can invest in ever more productive technologies can derive enough income to secure a living for the farmer; less productive farms cannot compete and disappear (Ward, 1993).

The seeds for the modernisation of agriculture along the lines of maximising output and reducing labour costs were laid in the industrial revolution (Lains and Pinilla, 2009). However, after World War II, the modernisation of farming was boosted. In the European Economic Community (EEC) the Common Agricultural Policy (CAP) came into force in 1962, with the aim of achieving food security in the post-war period (Cardwell, 2004). At the same time, new plant breeding technologies were developed, allowing cultivars to be tailored to the demands of industrialised farming systems. These developments led to what has been called the 'Green Revolution', which is associated with a steep increase in farm output. Throughout the 1970s, the EEC saw food shortage problems substituted by problems of overproduction (Swinbank and Tanner, 1996; Pretty, 1998).

In agrarian societies, resources and energy use were confined to what was physically available in the inhabited ecosystem. Direct feedback mechanisms ensured that overall, the local culture would be kept within the limits of the ecosystem's carrying capacity (Boyden, 1987; Norgaard,

1994; Pereira *et al.*, 2004). Modern consumer societies, in contrast, are oriented towards ever increasing resource and energy use (Sachs *et al.*, 1998). The Western patterns of resource and energy throughput through the economy are inherently unsustainable, because the rates of resource consumption and waste production are outgrowing the natural regenerative capacity of ecosystems (O'Riordan, 1981; Boyden, 1987).

Evidence of the negative impacts of modern consumer society are mounting, and political as well as economic and social change is urgently needed (Jackson, 2009). Global climate change, rapid biodiversity loss, pollution and degradation of natural resources and desertification of agricultural soils are widely recognised consequences of the Western socio-economic model. Should current Western patterns of resource use be expanded to the entire planetary population, several planets would be required to sustain the population (Sachs *et al.*, 1998).

Although the extension of modern consumption patterns to the rest of the world is unlikely to be materially feasible, and evidence grows that this is socially and ecologically undesirable (Jackson, 2009), the modernist project of economic development still serves as a development blueprint for the rest of the world. Instead of pushing the economic modernisation agenda further, shrinking the ecological footprint of Western societies is necessary, so that these do not take more than their fair share of the planetary resources, and allow people of the global South to sustain themselves (Redclift, 1984; Chambers and Conway, 1991; Sachs *et al.*, 1998).

Large-scale integrated structural change at policy level to reduce resource use is slow and might not even happen voluntarily, and so concerned individuals are taking the initiative to build low-impact alternative lifestyles and communities (Jackson, 2009). For many people, providing for

one's basic needs through a sustainable agricultural activity appears to be as the key to reversing the destructive trends of ever increasing consumption and resource use (Tokar, 1987; Berry, 2000). By producing for one's own consumption in a sustainable manner, one is backing out of the dependence on high socio-ecological impact production and trading systems and can ensure that one's needs are met within the regenerative capacities of the land at one's disposal. At the same time as individuals are backing out of destructive high-consumption lifestyles, they are involved in the construction of alternative socio-economic systems. Living sustainably from the land is the main avenue found *not* to contribute to the existing destructive socio-economic system and to build a more sustainable alternative. However, it is not clear whether it will be possible to develop new sustainable agricultural livelihoods to a significant extent, while drivers of their decline are still in place.

For individuals in 'developed' countries it is difficult to reduce their ecological footprint, as they are profoundly integrated into a high-consumption socio-economic system on which they depend to meet their survival needs. The main option to reduce one's ecological footprint is a low-impact sustainable agricultural livelihood. However, as a result of the distortion of prices for agricultural products, it is difficult for individuals to make a living from sustainable agriculture alone, unless they are able to successfully enter specialised niche-markets for wealthier consumers. It may not be possible to develop sustainable agriculture beyond the extent of niche markets at present; higher production costs are associated with lower competitiveness and thus there is currently no real opportunity in the global market. The development of low-impact and sustainable agricultural livelihoods to a significant extent requires economic changes that again make it possible for a sufficient income to be earned through a sustainable agricultural activity or that

economic alternatives to the open market are developed to ensure the viability of sustainable farming and food provisioning (Groh, 1997).

Within the EU, Portugal has experienced the steepest decline of agriculture in the last few decades (Hespanha, 1996; Pretty, 1998) and is therefore an exemplar and one of the most urgent case studies of the process in a ‘developed’ country context. Economic modernisation began relatively late in Portugal. As a result, processes that have taken over two centuries in other European countries have happened in half a century in Portugal. Memories are fresh and the connections are more easily made.

In what follows, the key concepts of agricultural marginalisation and sustainable agricultural livelihoods are outlined. Then, trends of declining agricultural livelihoods in Europe and in Portugal are described according to the literature. Finally, detailed research questions are presented and a chapter outline is given.

1.2 The key concepts: Agricultural Marginalisation and Sustainable Agricultural Livelihoods

1.2.1 What is Agricultural Marginalisation?

The process of continuous decline of small-scale and extensive farming systems has been termed agricultural marginalisation (Brower *et al.*, 2008; Pinilla *et al.*, 2008; Pinto-Correia, 2008).

Agricultural marginalisation (AM) has been defined as “*the process by which an agricultural enterprise or system is continually driven to the margins of economic, ecological and social*

viability, ultimately leading to its end' (Brouwer, 2008). Although the concept has mainly been used to describe the economic decline of extensive and traditional farming systems, the definition includes all processes that lead to decreasing viability of agricultural systems, including the declining viability of industrial agriculture that results from declining profitability and declining productivity (for example as a result of soil erosion) (Kousis, 1998).

Agricultural marginalisation is a process that can be viewed as the opposite of the development of sustainable agriculture. While marginalisation means a decline of viability, the development of sustainable agriculture consists of an improvement in the ecological, social and economic viability of the agricultural activity. Factors that cause the marginalisation of an agricultural system challenge the system's sustainability (Pretty, 1998).

Some authors (Pinto-Correia, 1993; MacDonald *et al.*, 2000; Alves *et al.*, 2003) have described the process of decline of small-scale and extensive traditional farming systems and the expansion of industrial farming as a process of 'land abandonment', 'land-use change' or 'territorial dynamics'. However, these concepts have a purely descriptive character. The use of these concepts remains apolitical and does not address the social, economic and political causes driving observed changes. In contrast, the concept 'agricultural marginalisation' has been used to discuss the economic policy drivers that have promoted this uniform trend of the expansion of industrial farming at the expense of sustainable agricultural livelihoods.

The ultimate consequence of agricultural marginalisation is land abandonment. Land abandonment can occur to varying extents, from the abandonment of certain land uses to the

complete cessation of land management. In Mediterranean areas, withdrawal from land management has been a common development (Pinto-Correia, 1993).

1.2.2 What are Sustainable Agricultural Livelihoods?

Defining sustainable agricultural livelihoods

A livelihood corresponds to what is needed for an individual to secure his physical survival, through meeting the individual's needs directly from natural resources and/or by securing access to income that can then be used to acquire the necessary resources (Chambers and Conway, 1991).

The sustainable livelihoods approach places the means of individuals to sustain themselves at the centre of economic development; rather than focusing on increasing productivity and employment or on lifting people above the poverty-line, the access of individuals to the assets and capabilities necessary to make a living are the focus of development intervention (Chambers and Conway, 1991). Access to resources - natural or financial - is key for livelihood security. Access to resources is mediated by institutions and social organisation and therefore these play a central role in livelihood security (Scoones, 1998).

Sustainability of a livelihood implies that the means an individual uses to secure his livelihood do not interfere negatively with his ability and the ability of others to secure a livelihood in the future (Brundtland, 1987; IUCN, 2002), but rather "*a livelihood is sustainable when it maintains or enhances the local and global assets on which livelihoods depend, and has net beneficial effects on other livelihoods*" (Chambers and Conway, 1991, p.1). A sustainable livelihood

therefore is a livelihood with a low ecological footprint. Sustainable local production and marketing are cornerstones of sustainable livelihoods. Logically, sustainable agriculture plays a central role in sustainable livelihoods, as it allows for a significant part of human needs to be met with the least impact, and with potential social and ecological benefits. Bennholdt-Thomson and Mies (1999) have emphasised the centrality of subsistence production to secure sustainable livelihoods.

The concept of sustainable agricultural livelihood is used here to define livelihoods based mainly on sustainable agricultural production. Sustainable agricultural livelihoods can have different levels of food self-sufficiency and engagement in the formal market economy. At present no livelihoods in Europe remain disconnected from the market economy and therefore, to an increasing extent, the viability of sustainable agricultural livelihoods is directly dependent on the economic viability of the farm, under given socio-economic and legal-political conditions.

Sustainable agricultural livelihood systems are very diverse in terms of resource use and activities, but they are alike in that they use mainly unwaged family labour and produce diverse crops, in response to diverse household needs. Sustainable agricultural livelihoods and the associated agricultural systems, due to their intrinsic nature, have multiple benefits for farmers, consumers, the rural community and the environment (Boyce, 2004).

What makes sustainable agricultural livelihoods valuable?

Sustainable agricultural livelihoods have inherent characteristics that make them highly valuable in ecological, social and economic terms. The main benefits derived from subsistence-oriented

farming systems, and that underline the importance of their maintenance, are summarised in what follows:

- a) Subsistence-oriented farms are by definition diverse, as they are aimed at satisfying the diverse requirements of a household. Usually plant and livestock production coexist and the diversity of both is high in comparison to specialised industrial farming systems. Diversity at farm level is a precondition for a sustainable agriculture; it allows for synergies between different productions, permitting the farmer to make the best use of farm resources by reusing and recycling different outputs within the agricultural system. Local consumption and recycling of waste materials reduces the exportation of soil nutrients, maintaining soil fertility in the long term (Reijntjes et al., 1992).
- b) Subsistence-oriented farms are crucial for the maintenance of agrobiodiversity. Agrobiodiversity provides specific benefits to non-commercial farms, thereby preserving the genetic diversity essential for animal and plant breeders to develop new varieties. Without this source of genetic material, industrial agriculture could not persist, as high yielding varieties are generally very short lived and the development of new varieties depends on existing diversity (Boyce, 2004).
- c) Subsistence-oriented diverse farming systems tend to be more labour intensive than industrial farms. Labour intensive practices are more sustainable as small-scale activities imply small-scale impacts and low environmental and social externalities. Manual work can substitute for fossil fuel driven machinery and toxic chemicals. Currently unemployment turns labour into an abundant resource, while environmental degradation makes natural assets scarce. Sustainable agriculture can contribute significantly to

reversing this situation, by using labour intensive, resource conserving practices (Morison *et al.*, 2005).

- d) Subsistence farming can contribute to healthy human development and constructive social relations¹. It relies on a diversity of manual skills and ecological knowledge that are maintained and passed on through use. Food self-sufficiency, to whatever extent, can give the producer a feeling of empowerment by being able to assure his own survival, independently of external forces (Wainer and Chesters, 2000). Subsistence farming generally includes tasks that are difficult to be carried out individually. Also, the management of common resources requires cooperation, and in this way subsistence farming activities contribute to the development of social bonds and interpersonal trust (Pereira *et al.*, 2005).
- e) A centralised agri-food market chain requires a well developed, extensive transport network and transportation results in several important environmental problems. Consumption of locally grown food minimises transportation's impact on the environment (Pretty *et al.*, 2005).

Sustainable agricultural livelihoods allow individuals, the environment and society at large to reap the previously mentioned benefits. It seems therefore that these farming and livelihood systems ought to be preserved. However, as the next section points out, the opposite has been the case over the last 250 years.

¹ The terms human and social capital, that could be used instead, are avoided in this thesis, as the term 'capital' implies a reduction of human capabilities and social relations to their instrumental, productivist use (Fine, 2007). Such a point of view cannot be endorsed by the author, but a contribution to a critical or alternative stance was beyond the scope of the present work.

1.3 The decline of agricultural livelihoods

To set the scene of declining agricultural livelihoods in the study area, first the general context of agricultural decline in the EU is outlined. Then the Portuguese historical context that led to recent trends of declining agricultural livelihoods is presented, and these trends are described in the last section.

1.3.1 Trends of declining agricultural livelihoods in the EU

In Europe, the decline of agricultural livelihoods has been steep and continuous since the industrial revolution. Rural depopulation became problematic in the 1860s in countries such as the UK and France, but nearly one century passed until similar problems were experienced in Italy, Spain and Portugal (Pinilla *et al.*, 2008).

In the last 10 years (since 2000), the agricultural population in the EU has declined by 25%, which corresponds to a loss of 3.7 million agricultural work units for the EU27. Only 4.7% of the active population in the EU works in agriculture, a 2% decline from the previous year (Eurostat, 2010). The real income per agricultural worker has declined by 11.6% since 2009. This has been associated with a “*sharp fall in the value of agricultural output*” at producer prices. In real terms, producer prices have declined by 10.5% between 2009 and 2010 (Eurostat, 2010).

At present, trends of agricultural decline are most severe in the countries that have acceded to the EU in the last 10 years. Among the newest member states, Estonia has experienced the steepest decline of farming – it has seen a 55% decline of its agricultural labour input since its accession.

Portugal is the only older EU member-state undergoing similar trends of agricultural decline as the new member-states (Eurostat, 2010).

The areas in which agriculture is declining most are areas that are physically unsuitable for the development of industrial farming or historically far removed from urban centres and marketing networks and where poverty has prevented farmers from modernising their farms (MacDonald *et al.*, 2000). These areas have been classified as “Less Favoured Areas” (LFA) and have received specific support since 1975 (DG Agriculture, 2009). In 2005, LFAs made up 52% of the EU15 Utilised Agricultural Area (UAA) (IEEP, 2006).

The scientific literature often focuses on agricultural marginalisation as a process typical to mountain areas (Conti and Fagarazzi, undated). In Europe, about 20% of the UAA and 27% of all farms are located in mountain areas (Dax, 2002). The high importance of mountain ecosystems and their preservation has been recognised in Agenda 21 (UNCED, 1992). Human management through sustainable farming may be key to protecting these areas.

1.3.2 Historical change in Portuguese Agriculture

From the ‘Estado Novo’ to European integration

It is difficult to trace exactly when agricultural livelihoods began to decline in Portugal, as a number of drivers induced gradual changes, whose accumulated consequences produce agricultural marginalisation. Until the early 20th century, land use in Portugal was very intense, with few patches suitable for farming left to plough (Lains, 2009). The overpopulation of rural areas and intense land use degraded natural resources, causing soil erosion and consequent

abandonment of agricultural land (Varela, 1992; Carvalho *et al.*, 2002).

In 1928, Salazar became the effective head of state, and would remain in power for 40 years. Salazar established a dictatorial regime, the '*Estado Novo*', that lasted until the *Revolução dos Cravos* (Carnation Revolution) in April 1974. During the dictatorship, the Portuguese economy became ever more closed and less competitive in the international markets. The agricultural sector became extremely protected and the state invested heavily in agricultural infrastructure (Gallagher, 1979; Lains, 2009).

No specific agricultural policy existed during the *Estado Novo*, and agricultural strategies were part of the 5 year national development plans (called *Planos de Fomento*). Therefore, while wheat cultivation in the southern plains was thought to be strategic for the country and was supported, subsistence agriculture in the northern minifundia was taken for granted and largely neglected. The maintenance of subsistence agriculture was even regarded as "*an offence*" by some modernists (Castro Caldas, 1957 in Amaral, 1994), as it worked against the interests of the development of industry (neither producing resources for industry, nor buying its products), that was thought to be crucial for Portugal's progress. It was advocated that for the sake of industrial progress, agriculture had to become "*mechanised and motorised*" and come into "*great dependence on the industrial sector*" (Castro Caldas, 1957 in Amaral, 1994).

Landholding structure has evolved differently in different parts of the country. In the arid southern plains, extensive agri-forestry exist in latifundia, whereas in the wetter and mountainous north, intensive small-scale farming predominates. To put the land into more efficient use, two

national projects were launched: the *Campanha do Trigo* (Wheat Campaign) in the South and the forestation of the commons in the North.

In 1929, the Wheat Campaign was launched, promoting the country's wheat production with the aim of achieving wheat self-sufficiency. There was a subsidy to bring scrubland under wheat cultivation (*subsídio de arroteia*), and thus highly unproductive and unfertile land was brought under cultivation, with short-term negative environmental impacts, such as soil erosion and biodiversity loss (Estevão, 1983).

In 1937, the *Junta de Colonização Interna* (Office of Internal Colonisation) was created and soon a large programme of afforestation was launched with the *Lei do povoamento florestal* (Law of afforestation) of the same year (Estevão, 1983). This afforestation program consisted of the expropriation of the commons (*baldios*) from local communities, to establish mainly pine plantations (Varela, 1992).

The rural population north of the river Tagus was particularly dependent upon the commons for their livelihoods. The commons provided grazing grounds for the animals, animal bedding that was later used as fertiliser for the fields, and firewood. The landless and the poor households also cultivated parts of the commons to secure a livelihood (Black, 1990). The expropriation and afforestation of the commons dramatically reduced the livelihood viability of the populations in mountain areas. A mass rural exodus and emigration ensued, reaching its peak in the 1960s. The agricultural population declined from 50% of the total population in 1950 to 28% in 1974 (Amaral, 1994). Emigration started with the landless, such as day labourers, shepherds and small

tenants, who were the first to leave rural communities (Reis and Nave, 1986). Then sharecroppers and small farmers followed (Black, 1990). These groups made up the bulk of migrants.

Emigration did not free privately owned land for the establishment of larger, industrialised farms, because the emigrants did not sell their landholdings. This decision was the result of job insecurity abroad, because only part of the family emigrated or because emigrants envisaged returning (Black, 1990). In fact, most emigrants intended to earn money abroad in order to buy or improve landholdings in their village of origin: buying land and building a house were the main investments made by emigrants (Reis and Nave, 1986).

Frequently emigration was accompanied by an ongoing agricultural activity in the village of origin (Reis and Nave, 1986), however as emigration reduced the availability of farm labour, changes land management practices occurred that were detrimental to soil fertility (Black, 1990). Emigration has contributed significantly to the maintenance of otherwise economically non-viable farms and allowed for the rise of a certain autonomy of farms from national agricultural policies (Cabral, 1986). Emigration during the 1960s and 1970s was, to some extent, a way to resist agricultural marginalisation, as subsistence production could be continued because it was backed up with remittances and salaries of temporary labour abroad (Cabral, 1986).

The development of agriculture took different courses in the north and the south of the country. In the south, the *Campanha do trigo* led to a certain degree of modernisation of agriculture, whereas the afforestation of the commons in the north marginalised subsistence farming, rather than modernising these farming systems. Unlike countries that were experiencing agricultural

modernisation, the overall decline of the agricultural population in Portugal was not directly related to the modernisation of Portuguese agriculture (Lains, 2009).

In 1946, Law no. 2017 of “*Agricultural improvements*” was approved. This law already favoured large and more modern farms above small-scale farming, by helping them to acquire machinery and conduct investments. This support encouraged farmers to shift towards less labour-intensive technologies (Amaral, 1994). While farming became more mechanised and less labour intensive, industrial development was not creating enough employment to absorb the labour force that was no longer needed for agricultural work, and therefore emigration was the main option to escape poverty (Amaral, 1994).

Cabral (1986) sets 1962 as the year when Portuguese policies underwent a major change: they no longer aimed at national food self-sufficiency. From this time onwards small-scale farms were no longer seen as valuable and it was advocated that they should not be subject to special protectionism, but rather be integrated into the industrialising farming sector. From 1962 to 1973, protection of the agricultural sector was reduced and the state intervened less in terms of price control, subsidies and investments in infrastructure. This led to a decline in agricultural output and increased imports. However the government was initially not very concerned as the state financial deficit did not increase substantially, because remittances from emigrants compensated largely for costs of importation (Amaral, 1994; Lains, 2009).

Only after the oil crisis in 1973 did import dependence become worrisome for the government, as recession, reduction of emigration, the 1974 revolution and the independence of the colonies affected the inflow of capital (Lains, 2009). This justified a new period of national interventionist

agricultural policies, which continued until Portugal accessed the European Economic Community (EEC) in 1986.

European integration and the Common Agricultural Policy

Until the 1980s, rural families generally divided their labour force between agriculture on smallholdings and temporary wage-labour (Riegelhaupt, 1973; Varela, 1992). Portuguese agriculture was still largely traditional, or at least lagging behind in terms of modernisation in relation to other EEC countries (Black, 1992). It was characterised by low levels of marketable output. Portugal was a net food importer when it applied in 1977 to accede to the EEC (Varela, 2007).

Portugal was going through a period of political instability, with 9 changes of government between 1974 and 1985. This negatively affected the coherence of the negotiations for adhesion to the EEC, the transposition of Community law and the way in which pre-adhesion measures were implemented (Varela, 2007). This situation also resulted in a lack of monitoring of policy implementation and thus limited adaptation to the Portuguese context (Varela, 2007).

Portugal had negotiated favourable terms with regard to European integration, with a 10 year long transition period for its agriculture and special rights claimed under the concept of the “*specificity of Portuguese agriculture*”. Portugal was the first country to receive pre-adhesion support to restructure its agricultural sector previous to its official accession. Nevertheless, Portugal did not achieve the systematic restructuring of its agricultural sector to increase its competitiveness, as the Portuguese government had hoped for (Varela, 2007). This was in part a

result of the governmental instability in Portugal, which challenged consistent policy development and implementation, and partly due to the fact that at the time of Portugal's accession to the EEC, the CAP was being reformed to reduce agricultural overproduction. Portugal therefore, instead of being supported to increase its food production, had to adopt measures aimed at limiting its agricultural productivity (Varela, 2007).

As Portugal was a net importer of food, it was clear that it would lose out financially by adopting the CAP. Because support was coupled to production, food producing and exporting countries benefitted from financial support, whereas food deficitary countries received low levels of support for their agriculture and had further expenses with food imports. With accession to the EEC, Portugal became bound to community preference, and thus was no longer allowed to source most food imports from the world market, but had to purchase the more expensive EEC products. For Portugal, Community preference alone amounted to a yearly extra expenditure of 15 million ECU (Varela, 2007).

The transition period came to an end 3 years earlier than planned, in 1993, with the full integration of Portugal into the Single European Market. The end of the protection of Portuguese agriculture accelerated the decline of its agricultural population. The integration of Mediterranean areas into the European Union (EU) has sharpened the trends of land abandonment, as international competition in a common market has given economic disadvantages to the physically constrained areas of the Mediterranean region where productivity never reached the levels attained in Central Europe (Pinto-Correia, 1993; Bazin and Roux, 1995; Guerreiro, 2001). The WTO Agreement on Agriculture that came into force in 1995 increased

external competition and associated trends further, but information on its specific impacts on Portugal is scarce.

1.3.3 Trends of agricultural decline in Portugal

Demographic trends

The population is distributed very asymmetrically in Portugal. Most people (85%) live in the coastal areas, where the major cities and industries are also located (Breman and Pinto-Correia, 2004). This trend is heightened by the population decline in the interior of Portugal, from where many people migrate to coastal and urban areas or abroad. Figure 1.1 illustrates the negative population growth in the interior of Portugal between 1981 and 2001, a trend continued up to the present day (INE, 2010). The agricultural population is concentrated in the interior north and centre of Portugal, where the population decline has been most severe.

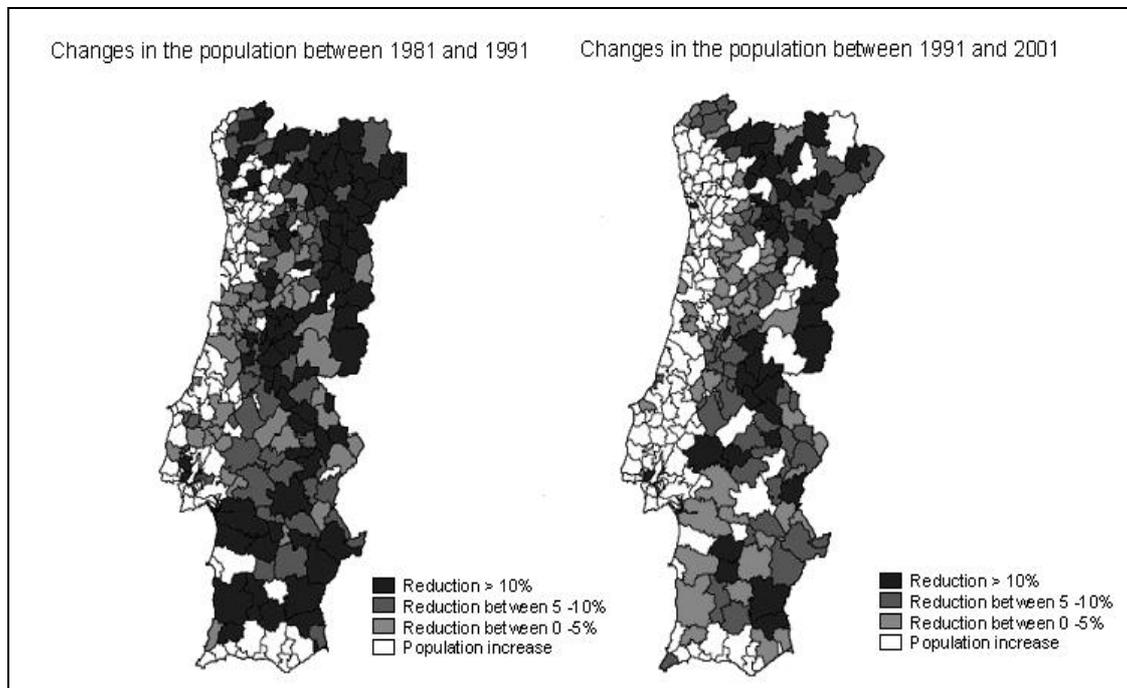


Figure 1.1 – Changes in the population of the Portuguese continental territory between 1981 and 2001 (Source: INE Censos 2001).

The Portuguese population is affected by gentrification. Gentrification is particularly severe in the interior of Portugal, where emigration of the young leaves behind an elderly population (GPPAA, 2004). Gentrification affects the agricultural population the most: 48% of the agricultural labour force is over 65 years old (INE, 2010).

According to the last Population Census (INE, 2001), more than 1.1 million people in Portugal live on agricultural holdings. From this agricultural population, about 1 million work in agriculture. In rural territories in Portugal, 35% of residents live on farms (PEN, 2006). Since 1999, one third of agricultural holdings have vanished and the agricultural population has decreased by 27% (INE, 2010). Agricultural labour input has declined by 31% in the last 10 years (INE, 2010). As this decline of agricultural labour opportunities is not associated with the

creation of alternative income sources, it severely affects the livelihoods of the rural population (Lains, 2009; Breman, 2005).

The loss of small family farms accounts for the bulk of the decline of the agricultural population. Farms of less than 1 *ha* saw a 41% decline since 1999, and farms with 1 to 5 *ha* of UAA saw a decline of 24% (INE, 2010).

Farm income

Agriculture and forestry were for a long time the main economic activities in rural areas, providing the income for the majority of the population in these areas (Breman and Pinto-Correia, 2004). The decline of these economic sectors has led to the outmigration and gentrification of the rural population, making the remaining residents largely dependent on public funds (Breman and Pinto-Correia, 2004). Only 6% of farmers in Portugal derive all their income from farming, whereas 64% of the agricultural labour force live mainly on pensions and retirement allowances (INE, 2010).

Farm viability in Portugal is highly dependent on subsidies. The downward trend of farm numbers and agricultural population is fastest in the areas where the percentage of income derived from subsidies is lowest. The profit margin both per farm and per *ha* of UAA is smallest in the Beira Interior agricultural region, followed by Beira Litoral and Trás-os-Montes. The profit margin per *ha* of UAA is in fact smallest in the Alentejo region, but as farms are large and heavily subsidised, total farm profit there is still the highest of all agricultural regions (Pinto-Correia *et al.*, 2006a; INE, undated).

Land use change

Farms occupy 50% of the Portuguese territory. Between 1999 and 2005, 92,000 farms were lost (INE, 2006). Since 1999, a total of 450,000 *ha* of farmland have been abandoned (INE, 2010). The UAA per farm has increased and reached an average of 11.4 *ha* in 2005. This is mainly the result of the abandonment of the smallest farms and size increases of large-scale farms. In 2006, 2% of farms occupied more than 50% of the total UAA of the country (INE, 2006).

Portuguese agriculture is amongst the least productive agricultures of Europe (INE, 2006). Mediterranean areas in general face severe ecological constraints for modern agricultural production: about half of the Mediterranean land has been characterised as marginal due to environmental factors such as steep and rocky uplands and poor soils (Pinto-Correia, 1993). 84% of the Portuguese total UAA has been classified as Less Favoured Area (RAAD, 2010).

Between 1999 and 2005, the reported decrease of total UAA was only 3.7%. The reduction of UAA varied significantly according to agricultural region. The fact that total UAA decreased relatively little in a period in which the number of farms and the agricultural population decreased so much is explained by the increase of UAA in certain agricultural regions and by the difficulty of assessing land abandonment as such, especially when relying on self-reporting surveys² (Baptista, 1995; Alves *et al.*, 2003; Pinto-Correia *et al.*, 2006a). Half of the UAA is made up of productive systems connected to semi-natural habitats, such as pastures, olive groves and fallow land. The area of permanent meadows and pastures increased by 76% between 1989 and 1999 (GPPAA, 2004). Permanent pastures occupy nearly half the UAA, 75% of which are

² The negative social connotation of land abandonment among farmers leads to under reporting.

natural pastures, with no ‘agricultural improvements’ (INE, 2006; INE, 2010). These reported changes in land use could be signs of extensification of farming, but they may also hide actual land abandonment.

Typology of the Portuguese territory according to marginalisation processes

Breman and Pinto-Correia (Breman and Pinto-Correia, 2005; Pinto-Correia *et al.*, 2006a) have studied land use and demographic changes in the Portuguese continental territory in detail. They defined 4 different types of territorial dynamics (see Figure 1.2).

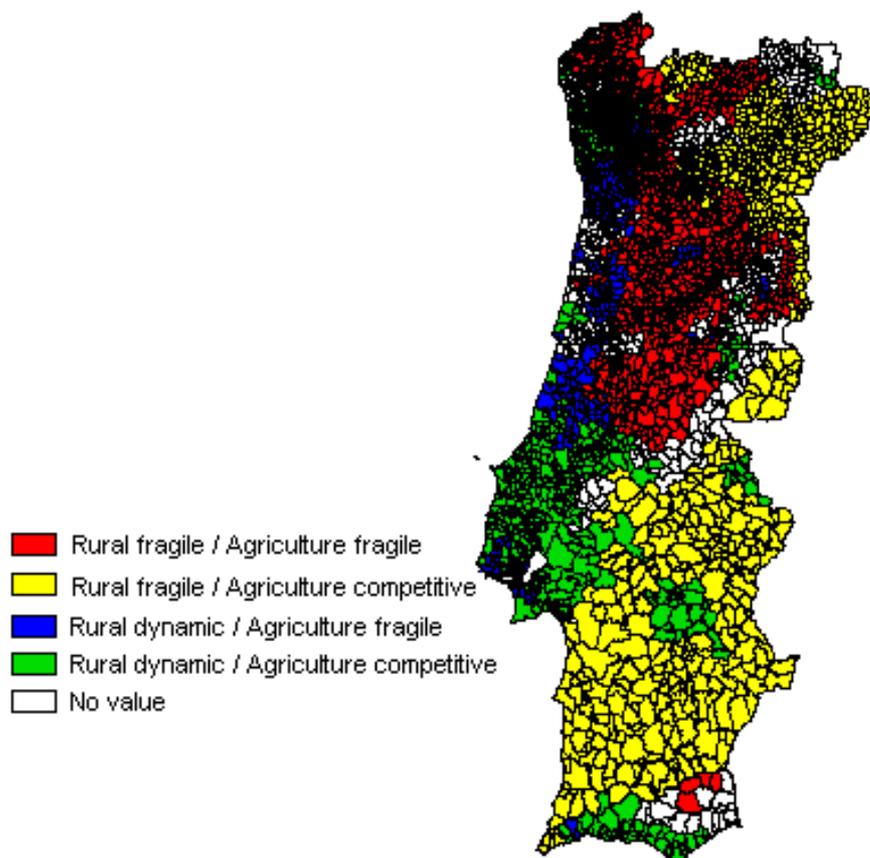


Figure 1.2 – Spatial distribution of different territorial dynamics in continental Portugal, according to Breman and Pinto-Correia (2005).

The different typologies of territorial dynamics distinguished have been named according to the processes of agricultural and demographic change, and characterised as follows:

1. *Rural dynamic, agriculture competitive* – In the proximity of urban centres and along the coast, where services are most developed and the population is growing due to immigration from interior rural areas. Employment is available outside the agricultural sector.

2. *Rural dynamic, agriculture fragile* – In the proximity of urban centres where a relatively young population exists and employment opportunities exist outside the farming sector. Agriculture is predominantly small-scale and the level of mechanisation is low; agriculture survives mainly as a part-time activity.

3. *Rural fragile, agriculture competitive* – A strong decline of rural communities occurs despite the existence of a competitive agriculture, as a result of the concentration of landownership. Absentee ownership is common, farms are extensively managed and heavily subsidised and profits leave the area. Agriculture is profitable for the few who own the land but rural society at large does not benefit from it and, as a consequence, whole communities are ageing and disappearing, services decline and isolation is augmented.

4. *Rural fragile, agriculture fragile* – The agricultural activity is losing importance and socio-economic dynamism is reduced. The lack of profitability of agriculture leads to land abandonment. As no alternative employment opportunities exist in these rural areas, emigration is common. These areas correspond mainly to the mountains of northern and central Portugal, and are isolated areas with physical constraints to farming.

The proportion of the territory undergoing each of the land use changes described above is illustrated in Figure 1.3. 35% of the territory is suffering major problems as a result of the lack of competitiveness of its agriculture (*Agriculture fragile*) and only 21% of the continental territory is to be considered viable both in terms of agriculture and rural community dynamics.

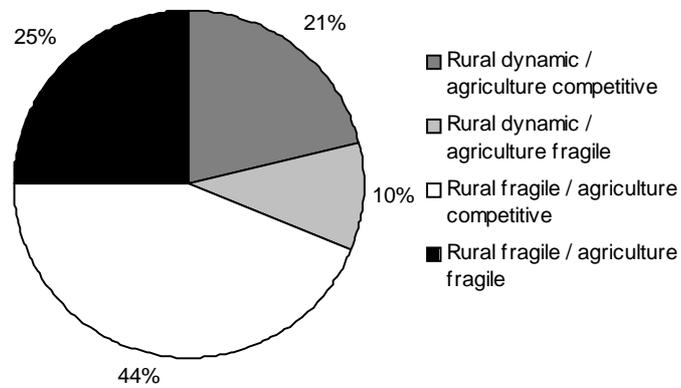


Figure 1.3 - Percentage of the Portuguese Continental territory, according to each marginalisation process studied for the decade of the 1990s (Source: Breman and Pinto-Correia, 2005).

For the present study, the *Rural fragile/Agriculture fragile* areas, which make up 25% of the Portuguese continental territory, were selected as the focus of investigation, as these are clearly the areas that have suffered the most from marginalisation processes and insights into potential solutions are very much needed.

1.4 Impacts and responses to agricultural marginalisation

1.4.1 Ecological and social impacts of agricultural marginalisation

Ecological consequences of agricultural marginalisation

The consequences of farmland abandonment for local ecosystems remains controversial, as the ecological consequences of land abandonment are difficult to assess, since they vary along temporal and spatial scales (Pereira *et al.*, 2005) and are dependent on the particular conditions of the agricultural system being abandoned (Baudry, 1991). However, the overall ecological consequences of land abandonment are to be considered negative, as the reduction of production at local level leads to increased dependency from external goods and services, which are likely to cause environmental degradation and pollution, due to more intensive production methods used elsewhere to yield surpluses, and due to transportation associated with supraregional trade (Norberg-Hodge *et al.*, 2002).

Traditional land use systems have environmental advantages compared to industrialised forms of farming. They are characterised by the low use of external inputs and by high levels of agrobiodiversity (Bernaldez, 1991; Pretty, 1995b; Uphoff, 2002; Boyce, 2004; Jackson *et al.*, 2005). It has been reported that poorer farmers use more labour intensive practices because they cannot pay for external inputs, making their farms environmentally more sustainable than farms that yield higher revenues (Black, 1990). The areas threatened by soil erosion are in general those where intensification and mechanisation have taken place, rather than the areas where small farms are predominant (Black, 1990).

The main ecological consequences of land abandonment at local level in Portugal are biodiversity loss and increased fire risk. Biodiversity loss results from the reduction of landscape patterns or mosaics that are produced by traditional agricultural land management. Traditional management resulted in the coexistence of different succession stages and therefore in a high diversity of habitats and species (Bernaldez, 1991). The abandonment of agricultural land in Portugal is followed either by afforestation, mainly with *Eucalyptus globulus* (Tasmanian Blue Gum) or *Pinus pinaster* (Maritime Pine), or by the spontaneous development of scrublands. Both changes are associated with lower levels of biodiversity than those existing in traditional agro-ecosystems and with increased fire risk (Pinto-Correia, 1993).

Social and economic consequences of agricultural marginalisation

Depopulation and land abandonment are perceived as having negative consequences on social wellbeing. A study conducted in the northern Portuguese parish of Sistelo (Pereira *et al.*, 2005) found that rural inhabitants considered themselves to be better off in the present regarding material wellbeing and freedom of choice, but worse off regarding social wellbeing and joy, as compared to their situation 30 years ago. The reduction of sociability was in part associated with the disappearance of certain communal work related to agriculture. However, some people also felt that having fields has a negative impact on wellbeing because fields implied more work and worries (Pereira, *et al.*, 2005). In general, people said they preferred to live in the village of Sistelo rather than in urban areas, as they especially valued the possibility of being self-sufficient and having a sense of place and freedom. Rural exodus and land abandonment caused people to express the future of Sistelo in a fatalistic way: “*Sistelo is dead*” was the expression used. People believe that the decline is irreversible (Pereira, *et al.*, 2005).

The increased separation between the places where goods are produced and where they are consumed has been referred to as *de-territorialization* (Jenkins, 2000) and it leads to the *disconnect* described by Pretty (2002). This disconnection from the local territory results from the cessation of a productive interaction with it, and its consequences are that people lose their understanding of and care for the land. This disconnection can be the basis for the over-exploitation of the land and for its appropriation for interests foreign to the local community.

One important personal consequence of marginalisation is that people who have been engaged in sustainable agricultural livelihoods cease to be able to secure their living from these. Individuals feel that they lose control over their own life, as external forces become critical for their livelihood security (Black, 1992). In an economic climate in which unemployment is rising and jobs are insecure and low-paid, becoming dependent on wage employment has been associated with mental ill health (Wainer and Chesters, 2000).

The shrinking of the rural population makes the local delivery of public services such as schools and health care increasingly costly and many public services have therefore been closed (Pereira *et al*, 2005).

1.4.2 Responses to agricultural marginalisation

Policy measures to ameliorate agricultural and rural marginalisation

Sustainable rural development is receiving increased attention in EU agricultural policy making, as the negative consequences of past policies need to be tackled and international trade

agreements demand a reduction of market distorting interventions (Potter and Burney, 2002; Cardwell, 2004). In the 1992 CAP reform, agri-environmental measures were introduced, providing specific financial support for environmentally sound forms of farming. Later, Agenda 2000 introduced a second pillar into the CAP, aimed at rural development. Agenda 2000 recognised the multifunctionality of agriculture but focused on the diversification of the rural economy, as it assumed that agriculture could not provide the employment and growth needed to stabilise rural economies (European Commission, 1999).

The policies aimed at maintaining sustainable farms in marginal areas are of three types:

1. Financial support for structural adjustment and modernisation of marginal farms – CAP Pillar 2, Axis 1 policies aimed at increasing the competitiveness of farming, and improving market integration.
2. Financial support for the maintenance of farms – measures with increasing importance, but not aimed at making farms independent of this income support. The Less Favoured Area scheme currently regulated by Council Regulation (EC) 1689/2005 gives specific support to farms in mountain areas, areas threatened by depopulation and areas affected by specific natural handicaps.
3. Investment support for the diversification of farm income sources – improving the viability of farms, but through the development of alternatives to agriculture. On-farm and off-farm diversification of income sources has been encouraged by CAP Pillar 2, Axis 3. On-farm

diversification includes quality production, adding value, and provision of farm-based services.

The Portuguese government, and in particular the Ministry of Agriculture, Rural Development and Fisheries (MADRP), have been concerned about land abandonment and rural depopulation (Breman, 2005), supporting research and setting up specific policy measures. The most important policy measures in place are:

1. *Medidas de apoio à interioridade* (Interiority support measures) – agricultural and rural marginalisation have been associated with the Portuguese inland (*interior*) and the concept ‘interiority’ has become the politically correct term to discuss the specific problems of these areas (Pinto and Dornelas, 1997). The ‘*medidas de interioridade*’ correspond to fiscal and social security exemptions, given to firms established in the Portuguese hinterland during their starting-up phase. These measures are not directly related to agriculture.
2. Installation of young farmers – A support measure for the first installation of young farmers through the CAP is enshrined in EC Reg. 1698/2005 and has been transposed to Portuguese law. Its aim is to counter the gentrification of the agricultural population that is occurring in the entire EU (AJAP, 2005; Silva, 2006; INE, undated). In Portugal this measure corresponds to two entitlements, a premium for the installation of the young farmer and investment support. This measure is not specific to areas threatened by land abandonment.
3. *Programa de apoio às explorações agrícolas localizadas em áreas com risco de abandono da actividade agrícola* (programme of support for farms located in areas threatened by land

abandonment) – this program defined by the *Portaria n.º 763/2009* of 16th July consists of one support measure. The support consists of a per *ha* payment for farms located in municipalities or *freguesias*³ threatened by land abandonment, attributed in addition to the entitlement of the Single Payment Scheme (SPS) (Silva, 2009).

Although non-production functions of traditional farming systems are increasingly being recognised in Portugal (Alves *et al.*, 2003), policies under the 2007-2013 Community Support Framework Programme (CSFP) allocate most financial resources to measures aimed at increasing the competitiveness of farming (MADRP, 2007a). Agri-environmental measures aimed at preserving traditional farms, such as the subsidy for the maintenance of traditional polycultures, have been discontinued (Guerreiro, 2001; MADRP, 2007b).

Despite the introduction of a number of measures that directly or indirectly support sustainable farms and counter land abandonment, consistent policy integration, to promote sustainable rural development and address agricultural and rural marginalisation has not as yet been achieved, neither at Portuguese nor at EU level. In fact, different policy measures within the CAP tend to have contradictory effects on LFAs: measures to increase competitiveness of farming further marginalisation processes, whereas several Pillar 2 measures try to amend the problems resulting from this (Jenkins, 2000). Friedmann described the future direction of political support to small-scale farming as follows: “*While farmers will no doubt continue to be forced off the land, at least some will be supported as a combined rural welfare and tourism project*” (Friedmann, 1993 p. 48).

³ *Freguesia* is the lowest level of local government, corresponding to a small number of villages only. Several *freguesias* make up a municipality.

The central role of agriculture in society and for rural development still appears to be underestimated at policy level (Marsden, 2001). Agriculture is considered to be equal to any other industrial sector, and it is accepted that other economic activities can take its place with no substantial difference in the potential level of sustainability that can be achieved (Berry, 2000). Therefore the development of multifunctionality in farming has mainly been conceptualised in terms of promoting pluriactivity at farm level (Pinto-Correia, 2006). However, diversifying farm income sources does not address the problem of low producer prices.

Alternative agri-food networks to improve the economic viability of sustainable farms

It has been argued that more radical approaches than those currently undertaken at policy level are needed to ensure food sovereignty and sustainable land use (Sevilla-Guzman, 2000; Marsden, 2001; Norberg-Hodge *et al.*, 2002; Sachs and Santarius, 2007; Sevilla Guzmán, undated). Groh and McFadden (1997) have suggested that agriculture has to be taken out of the capitalist market economy altogether to secure the Human Right to Food and prevent the profit motive undermining the sustainability of agricultural practices. To maintain sustainable farms, a whole new approach to how food is produced and distributed is necessary (Groh and McFadden, 1997).

Discontent among farmers and consumers regarding the conventional agri-food chain system and its governance is increasing and, in response, strategies to improve the economic viability and ecological sustainability of farms are being developed. Actions include the development of farmers' markets, Community Supported Agriculture, box schemes and farmer and consumer cooperatives. These food production and provisioning systems have been called Alternative Agri-Food Networks (AAFN) (Goodman, 2004, King, 2008).

AAFNs have many advantages. They allow farmers to obtain a bigger share of the price paid by consumers, improving farmers' income and thereby boosting the economic viability of farms. Costs for farmers to enter local direct markets may be lower than those of meeting the production volumes and standards set by big retailers (van der Ploeg, 2010). Thus, small-scale producers are not excluded from AAFNs, but instead, they are ideally suited to produce diverse high-quality produce for these markets. AAFNs also deliver goods and services that consumers want (such as organic food and sustainable production practices) and they reconnect consumers and producers (Douthwaite, 1996; Pretty, 1999; Hinrichs, 2003; Higgins *et al.*, 2008). Direct marketing also shortens the distance travelled by food from farm to plate, reducing the environmental externalities resulting from food transportation (Pretty *et al.*, 2005).

AAFNs create added value for producers and consumers. Unlike transnational corporations (TNCs) that compete to put the cheapest possible foodstuffs on the market, purchasing food in AAFNs follows a less strict economic rationality of cost minimisation, as quality, social embeddedness, environmental benefits and territorial specificity play a more important role in purchasing options than they do in conventional agri-food markets. However, AAFNs are still embedded, to varying extents, in the monetary economy, and consumer income is an important factor that determines their participation in AAFNs (Higgins *et al.*, 2008).

The potential of bottom-up strategies to improve farm viability has received increasing scholarly attention (van der Ploeg, 1994; Bazin and Roux, 1995; Groh and McFadden, 1997; Knickel *et al.*, 2007). The potential of such strategies is highly context dependent and needs to be analysed and adapted to local conditions on a case-by-case basis. In Portugal, such 'alternative' solutions are in

the early stages of experimentation and research specifically addressing the potential of bottom-up approaches to improve farm viability is scarce.

1.5 Research questions and thesis outline

A number of studies have focused on the problem of agricultural marginalisation in Europe and specifically in Portugal. These studies can be grouped into the following themes:

- a) Ecological impacts of land use change (Baudry, 1991; Bernaldez, 1991; MacDonald *et al.*, 2000; Moreira *et al.*, 2001);
- b) Trends of land use change (Pinto-Correia, 1993; Breman, 2005; Pinto-Correia *et al.*, 2006a; Pinto-Correia, 2006);
- c) Development of mountain areas (Dax, 2002; Arias, 2003; Conti and Fagarazzi, undated),
- d) Potential of strategies to improve farm viability, such as diversification, cooperation and direct marketing (van der Ploeg *et al.*, 2000; Brower *et al.*, 2008; Wiesinger, 2008).
- e) Impact of agricultural policies and globalisation (Knickel, 1994; Hespanha, 1996; Carvalho *et al.*, 2002; Moreira, 2002).

In Portugal, studies on agricultural decline and rural depopulation have rarely used a comprehensive theoretical framework to explain agricultural marginalisation. The limited theoretical understanding of land abandonment and rural depopulation has also led to uncritical analyses of potential solutions.

The literature suggests that agricultural marginalisation, specifically in the Portuguese context, is a little understood and theorised problem and that the development of integrated approaches to solutions is embryonic. Therefore the present study aims at:

1. deepening the theoretical understanding of agricultural marginalisation, and
2. exploring potential solutions to enable the maintenance and development of sustainable agricultural livelihoods in the areas most affected by agricultural marginalisation in Portugal.

The core research questions addressed are:

1. What are the main drivers of agricultural marginalisation as experienced at farm level? How do drivers interrelate and impact on the ground?
2. What is the potential of local initiatives to improve the viability of sustainable agricultural livelihoods? How can such local initiatives be fostered?
3. What changes are necessary to improve the viability of sustainable agricultural livelihoods? What can be done and by whom?

Each chapter focuses on agricultural marginalisation from different angles, and as a result, the chapters complement rather than build upon each other. Despite addressing specific, different research questions, all chapters contribute to answering the main research questions by building an in-depth understanding of the context of agricultural decline, identifying threats to agricultural farm viability and by exploring the potential for action to improve farm viability/ reverse trends of agricultural marginalisation.

Chapter 2 describes the methodology employed for this study. A case study approach integrating Ethnography with normative elements typical of Critical Theory was used to generate a grounded understanding of agricultural marginalisation in the interior and mountain areas of Portugal.

Chapter 3 explores the current conditions at the farm and individual livelihood level in interior and mountain areas of Portugal, generating a foundation for the further analysis of problems and solutions. First, the current status of farming and livelihood systems are described. Second, the main threats to farm viability are identified, allowing for a clear definition of areas that require policy change to create a more enabling environment for sustainable agricultural livelihoods. Thirdly, the motivations of farmers to achieve farm viability and secure agricultural livelihoods are presented. Finally, the impacts of the declining viability of agricultural livelihoods on the individual are discussed.

The normative stance was taken that structural conditions should be such that sustainable agricultural livelihoods are economically viable. By exploring the potential and the limitations of bottom-up action to improve farm viability, threats and opportunities for sustainable agricultural livelihoods are explored further in Chapters 4 and 5.

Chapter 4 explores the potential for the development of alternative agri-food networks (AAFNs), as these have been identified as a most promising approach to secure small farm viability (Guzmán Casado *et al.*, 2000; Ilbery, 2001; Hinrichs, 2003; Kloppenburg, 2005; Knickel *et al.*, 2007). Two key factors are a precondition for AAFNs to be developed. These are that a) there are individuals who seek sustainable agricultural livelihoods and who can become active in setting

up AAFNs and b) consumers are willing to engage in proximity-based food sourcing to support local agricultural systems. The existence of these preconditions is investigated in Chapter 4.

In Chapter 5, the opportunities and constraints of local-level organisation, such as that necessary to set up AAFNs, are investigated in detail. As the active work on developing AAFNs is very limited in the study area, the participatory projects more relevant for improved viability of sustainable agricultural livelihoods were studied. The findings are of direct relevance to individuals and groups who wish to organise AAFNs.

Chapter 6 explores how land abandonment – the ultimate outcome of agricultural marginalisation in Portugal - is perceived by different stakeholders from the agricultural and rural development sector, with the aim of providing a realistic assessment of likely future action. Awareness of stakeholders' perceptions is essential for gaps in understanding of marginalisation processes to be identified and remedied, so that effective action can be developed. First the chapter presents the way in which stakeholders make sense of land abandonment, then current action and possible solutions are explored from the stakeholders' perspective. Finally a typology of stakeholders' understanding of agricultural marginalisation is presented and implications for future action are discussed.

Chapter 7 uses the literature and findings from the present research to contribute to a historical and theoretical understanding of the development of agricultural marginalisation. Entry points to improve the viability of sustainable agricultural livelihoods in the Portuguese interior and mountain areas are listed, addressing the main threats to farm viability as identified by the present research.

CHAPTER II

METHODOLOGY



2.1 Methodological approach and research strategy

2.1.1 Methodological approach

The literature review on AM and land abandonment in Portugal revealed that only a small number of authors (notably Black, 1992) have studied the phenomenon from a critical political economy perspective and that a comprehensive grounded understanding of the process was lacking. A solid understanding of the process of AM was deemed essential for addressing current problems and developing constructive action. Hence, it was decided that the present study should contribute to develop such a needed critical and grounded understanding of the process.

The present research focuses on a complex problem in a transdisciplinary way and therefore the research strategy chosen can best be described as a Transdisciplinary Case Study (Scholz *et al.*, 2006). Recognising the widespread occurrence of AM (MacDonald *et al.*, 2000; Brouwer *et al.*, 2008; Pinto-Correia, 2008), this study does only investigate one relatively homogeneous case of this process. Case studies are the method of choice when ‘how’ or ‘why’ questions are asked; no experimental manipulation is possible and the phenomenon under investigation cannot be separated from its context (Scholz *et al.*, 2006; Yin, 2009; Lune *et al.*, 2010). Case studies use multiple sources of data and triangulate data from different sources to establish new evidence. The present transdisciplinary case study has used elements of Critical Theory, Grounded Theory and Ethnography.

A critical analysis of the present situation in contrast to a moral and ethical ideal, that is to be brought forth, represents the core of the Critical Theory method (Strydom, 2011). This study is guided by the normative stance that it must be possible for individuals to derive a livelihood from

sustainable agriculture, endorsing the ideal of peasant self-determination as advocated by the Food Sovereignty movement (Desmarais, 2007). The current situation is assessed critically from this standpoint.

For generating a well-grounded understanding of the causes, consequences and possible solutions to land abandonment, the best unit of analysis is the level of the agricultural livelihood, which is directly affected by farm viability. It is at the individual livelihood level that different drivers interact and ultimately cause the abandonment of the land. To study such a complex process occurring at the farm and livelihood levels, the Grounded Theory literature (Glaser and Strauss, 1967; Glaser, 1998; Charmaz, 2006; Bryant and Charmaz, 2007) provided guidance to develop an appropriate research strategy. The following approaches from Grounded Theory were adopted:

- a) A focus on primary data over theories – no predetermined hypotheses;
- b) A critical use of the literature - rather than using it as authoritative ‘fact’ for developing hypotheses;
- c) Diversity sampling instead of random sampling of the population - to obtain an overview of the whole spectrum of factors affecting the problem situation rather than a representative sample of the population.

The commitment to develop a grounded understanding of the problem of AM made it necessary to introduce elements of Ethnography into the present research, as the worldview and culture of the affected populations is, in part, a cause and a consequence of how AM plays out in the study area. My long-term involvement in the study area, numerous informal conversations during fieldwork, the practice of eliciting explanations on answers received by earlier respondents from

subsequent interviewees and participant observation have made it possible to grasp and report on local meanings (Punch, 2005).

The research encompassed a wide range of disciplines, including sociology, economics, politics, ecology and psychology, falling mainly into the disciplines of rural and environmental sociology.

2.1.2 Selection of the study area

The study area selected corresponds to the interior and mountain areas of central Portugal, defined as *Rural fragile/Agriculture fragile* by Breman and Pinto-Correia (Breman and Pinto-Correia, 2005). These are the areas of the Portuguese continental territory (excluding the archipelagos of Madeira and the Azores) in which trends of agricultural land abandonment and rural depopulation overlap and marginalisation trends are most severe.

The study area was not rigidly defined, but rather it was decided to collect data as widely as possible within the area categorised as *Rural fragile/Agriculture fragile* (25% of the Portuguese mainland). Figure 2.1 indicates where the study area is located. Comparative maps of areas threatened with land abandonment, Portuguese orography and main data collection sites are presented in Appendix 1.



Figure 2.1 – Map of Portugal, highlighting the study area (Source: Google maps, 2011).

2.1.3 The research journey

Although the overarching research question “*What can be done to develop sustainable agriculture in a scenario of agricultural marginalisation?*” was clear from the outset, the detailed questions to be asked to orient data collection were emergent during the research process. After each fieldwork session, the data obtained were analysed and written up in reports. Both the methods used and the data collected influenced the research strategy taken up during the next fieldwork period. Given the fact that the research strategy was emergent, a summary overview of the main decisions is given here.

Being a natural scientist by training, I started out with the belief that my research, in order to be regarded as objective, trustworthy and overall “scientific”, had to produce quantitative and statistically significant evidence. This approach resulted in a difficult start, as it constrained the initial exploration of the problem-situation. After a first visit to the study area in July 2007, I designed three structured interviewing tools. These were the following:

- d) Semi-structured interview to professional farmers⁴ – aimed at finding transferrable practices that would improve farm viability;
- e) Questionnaire to newcomers to farming – to investigate whether there is a demand for agricultural livelihoods;
- f) Questionnaire to consumers - to assess consumer current and potential support for local agri-food systems.

Data from the interviews to professional farmers and newcomers to farming was useful to generate a general picture on the problem situation (Chapter 3) and investigate the demand for agricultural livelihoods (Chapter 4), however, a qualitative approach with broad checklists to start with would have yielded richer and more detailed information on these issues.

In March 2008, data collection using the largely quantitative semi-structured interviews and questionnaires was begun. Purposive sampling was used to gather the highest number possible of the small and hidden populations defined (professional farmers and newcomers to farming).

However, still it was difficult to obtain large enough sample sizes for statistical data analysis.

Therefore, the semi-structured interview to professional farmers was widened, to include an

⁴ ‘Professional farmer’ was the term used to describe individuals who are engaged in agricultural production as a means to generate an income, and for whom agricultural production is an important component of their livelihood.

exploration of livelihood strategies of rural entrepreneurs in general. The difficulties to obtain significant sample sizes made a quantitative approach seem inappropriate for studying these populations and a qualitative analysis of the data was used instead. Only the questionnaire to consumers was continued in order to increase sample size, and this was later analysed using statistical methods.

In March 2008 work on case studies on local level impacts and projects dealing with agricultural marginalisation were also started. The aim was to generate an in-depth understanding of the local socio-cultural dynamics as affected and affecting agricultural marginalisation and to explore the potential of participatory and collective-action to develop bottom-up solutions to AM.

One case study, regarding land expropriation for development in the village of Cambarinho⁵, directed my attention towards the importance of the perceptions of actors to determine outcomes (Woodgate and Redclift, 1998; Long, 1999). Given the importance of stakeholder perceptions to deal with AM I started a pilot in-depth qualitative interview in December 2008 and, after improvement of the interview schedule, extended data collection to a wide range of actors from the agricultural and rural development sectors to understand their perceptions of agricultural land abandonment. Data collection for this interview was completed in September 2009.

Once all data was collected and analysed separately, emerging themes and overlapping information was extracted. This produced an overview of central themes that needed to be described in separate chapters. Findings from different sources of evidence largely overlapped and complemented each other, allowing for triangulation (Pretty, 1995a; Bryman, 2008).

⁵ As a result of limited space and overlaps with the findings from the two other case studies, this case study has not been included in the present work.

Information that did not fit in with the overall descriptions was confirmed or rejected using secondary data and the literature. The last step was to review the literature that had become relevant as the findings emerged, to find whether similar relationships had been found in other contexts and to set the results in a wider perspective (Glaser, 1998).

Table 2.1 summarises what research tools were used to collect data to answer the different research questions. The initial data collection tools, as mentioned before, had a slightly different initial aim from what they were used for later in the text.

Table 2.1 - Research aims and methods used for data collection (2007 to 2009).

Data collection tool	Initial aim	Used for
Semi-structured interview to professional farmers	Find successful strategies for farm viability in marginal areas	Understanding current situation and problems to farm and rural livelihood viability (Chapter 3)
Semi-structured interview to rural entrepreneurs	Find successful strategies for land-based livelihood viability in marginal areas	
Questionnaire to newcomers to farming	Assess demand for agricultural livelihoods	Define profile of newcomers to farming (Chapter 4)
Consumer questionnaire	Assess current and potential support of consumers for local agri-food systems (Chapter 4)	
Case studies	Understand context of agricultural marginalisation and potential to develop sustainable agriculture (Chapter 5)	
Qualitative interview	Explore perceptions of agricultural marginalisation and implications for change (Chapter 6)	

2.2 Data collection and analysis

2.2.1 Semi-structured interviews

Two semi-structured interviews (SSIs) were designed, to investigate the situation of professional farmers and rural entrepreneurs. Semi-structured interviews were the method of choice as they lead to the same information on pre-determined issues to be collected from all interviewees, and thus quantification of the various responses is possible. At the same time, SSIs allow for open-ended and *ad hoc* follow-up questions, being more open to new information than questionnaires (Ritchie and Lewis, 2003).

SSI to professional farmers

An SSI to professional farmers was designed to explore the key issues affecting the maintenance or cessation of the agricultural activity, as experienced at the level of individual farms.

Professional farmers were defined as individuals who dedicate themselves to agricultural production as a means to generate a livelihood (including both, production for the market and for domestic use), regardless of modes of agricultural production in use (i.e. traditional, sustainable or conventional farming practices). Thus, the interview to 'professional farmers' included subsistence and entrepreneurial farmers in its sample. The interview sought to answer the following questions (see Appendix II for interview form used):

1. What are the current income sources of farm households?
2. What are the motivations of farmers to stay in farming rather than to abandon the land?
3. What are the enterprises and marketing strategies that allow for farm viability?
4. What are the main threats to farm viability?

5. How sustainable is the farm?
6. How satisfied is the farmer with his or her livelihood strategy?

The aim was to sample individuals who practised agriculture as their main income source, so that other income sources would not significantly interfere with farm viability. However, difficulties with finding respondents confirmed the advanced state of gentrification and agricultural marginalisation in the study area and justified broadening the interview to include anyone with a part-time agricultural activity for sale. Snowballing and web searches were initially used to find respondents, but to increase participation it was decided to send out interviews by post to those remote farmers willing to take part in the study. A 57% response rate was achieved, resulting in a total of 20 interviews to professional farmers.

The sample was comprised mainly of individuals over 50 years old (15 out of 20) and no farmer under 30 was present in the sample. 16 farmers were male and only 4 were female. Regarding the level of schooling, half of the sample population had 4 years or less of schooling with only 4 individuals having undertaken higher education. Out of the 4 individuals with higher education, 2 were locals who had taken agriculture-related degrees, the other two individuals were foreigners who have moved into the area.

SSI to Rural entrepreneurs

After difficulties with sampling professional farmers it was decided to widen the scope of the interviews and study not only agricultural livelihoods but also other livelihoods that included a

farming component and were based mainly on the use of local natural resources.

The interview guide is attached in Appendix III. The topics addressed were:

1. demographic indicators;
2. income sources and livelihood strategy;
3. motivation to live and work in the rural area;
4. livelihood satisfaction.

It was defined that interviewees should be self-employed to ensure that the activities they develop are not dependent on external agents and therefore suitable to be taken up by other independent individuals. These specifications of the sample immediately resulted in the narrowing down of the number of potential interviewees and an initial web-search made it evident that the sample would be constituted mainly of local craftsmen and farm-based enterprises. The sample was found through web-searches and subsequent snowballing, whereby rural development associations interviewed for another purpose provided most helpful contacts. Interviews were conducted in person and data was collected in two stages: first in January and then in March 2009.

Data collection was stopped after 16 interviews had been conducted, as categories investigated appeared to be saturated (Glaser and Strauss, 1967). Pooled together with the data of SSI to professional farmers, this SSI allowed for a better understanding of rural livelihood strategies in marginal areas.

Semi-structured interview data analysis

For each of the semi-structured interviews, a database was constructed in SPSS version 16 software and data was analyzed both quantitatively and qualitatively. For the quantitative analysis simple statistics were calculated. The qualitative analysis followed standard strategies of coding common themes and comparing results (Ritchie and Lewis, 2003). A draft write-up of the results was completed for each of the two interviews and a separate database was then built, integrating the overlapping primary data from both semi-structured interviews for aggregate analysis of livelihood strategies, motivations and threats to livelihood viability. This analysis was conducted by quantifying frequencies and coding qualitative data for subsequent content analysis.

2.2.2 Questionnaires

Questionnaires are the methods of choice when specific information is to be collected from a large sample in a time-effective fashion. Questionnaires yield large amounts of quantitative data that can easily be analyzed statistically using standard procedures (De Vaus, 2002).

Questionnaires were used to investigate the situation of newcomers to farming, because it was important to simplify participation, as a sample had to be obtained from a hidden population that was reached via online searches and snowballing. With regards to the assessment of consumers support for local farming systems, a small number of discrete variables was investigated and thus questionnaires seemed appropriate. Questionnaires were also preferred because they allow for efficient data collection with a large number of participants.

Questionnaire to Newcomers to farming

A questionnaire was directed at individuals who were seeking to establish an agricultural livelihood – these were defined as individuals at various stages of setting up an agricultural livelihood, from individuals with concrete plans to individuals who had started farming during the previous 5 years. The aim was to explore the existence of interest in agricultural livelihoods, as this seemed to be an essential factor enabling the revitalisation of marginal areas. The questionnaire (Appendix IV) covered the following main topics:

1. demographic profile of newcomers to farming;
2. motivation to farm;
3. income sources;
4. farm enterprises and farm viability strategy;
5. main problems encountered and solutions found so far to establishing an agricultural livelihood.

Newcomers to farming were identified using on-line snowballing, sending a request for participation to relevant mailing lists and personal contacts. Data collection was carried out by e-mail, with the questionnaire sent to individuals willing to participate. As the target population is a hidden population that had to be found on-line (to increase sample size), it was decided to accept participants from the whole of Portugal, instead of only from the study area. The data is nevertheless relevant for the study area, as systems of support to farmers and challenges and opportunities for setting up an agricultural enterprise do not vary significantly in the entire country⁶. However, the data was used with care and no inferences from the national picture were

⁶ Certain conditions do vary, such as the existence of organised market chains for specific products in

made for the study area without appropriate triangulation of the information, to ensure validity of findings for the study area. The response rate was 48% and only a small sample (n=24) could be retrieved.

The sample was made up of 15 men and 9 women, comprising individuals of working age. Half of the sample was made up of individuals between 30 and 45 years of age, followed by the younger age group (15 to 29) and only one individual over 60.

Questionnaire to Consumers

To investigate rural consumers' support for local agri-food systems, a questionnaire was designed addressing the following issues (for more detail see Appendix V):

1. current food sourcing habits of consumers;
2. consumers' food purchasing criteria;
3. consumers' willingness to buy food directly from local farmers;
4. consumers' perceptions of the current role of local agricultural systems.

Current food sourcing practices of consumers (point 1) were investigated by asking consumers about the different sources of food from their weekly food basket.

Regarding aim 2. of the questionnaire, initially individuals (n=101) were asked how often they chose foodstuffs according to a variety of criteria. However, interviewees sometimes found it

coastal areas, that result in easier marketing conditions for newcomers to farming. Challenges such as difficulty of accessing state support, high initial capital investments and barriers to access to land are similar.

difficult to understand the question and estimate the relative importance of various criteria for their choices. Also there was the possibility that the question might lead to individuals giving answers that they believe to be desirable, rather than saying what they actually do. Therefore, this question was rephrased to address what the perceived importance of the same number of criteria was in food purchasing (n=58). The criteria assessed were the preference/importance of: freshness, low price, appearance, perceived quality, perceived healthiness, national produce, regional produce and organic produce. It was assumed that preferences for fresh, regional, national and organic produce would be favourable for consumers purchasing local sustainably produced foodstuffs, whereas preference for low price and standard appearance would work against local sustainable produce. Importance attributed to perceived quality and healthiness would indicate a general preoccupation with food choice and awareness of the importance of food for health and wellbeing.

Consumers' willingness to buy food directly from local farmers (point 3) was investigated in an open-ended question and the response to this was triangulated using two Likert scale questions.

In order to understand the perceptions consumers have regarding the links between agriculture, farm viability and the environment (aim 4 of the questionnaire), 4 Likert scale questions were asked:

- a) *“Portuguese landscapes are special because of family farming”*;
- b) *“Pesticides are a real risk for farmer and consumer health”*;
- c) *“Farmers are facing difficulties in achieving economic viability for their farms”*;
- d) *“Buying food directly from local farmers is good for the local economy”*.

Because the aim of the questionnaire to consumers was to investigate the current and potential support for local agri-food systems of consumers in the study area, it seemed appropriate to interview consumers on the streets, rather than approaching specific consumer groups that might be less representative of the average consumer in the study area. The option to conduct random sampling of households in selected towns and villages was rejected because of the suspicion an unknown caller would cause, time limitations and safety issues for the researcher. It was decided instead to sample as widely as possible in the study area. In the villages it was difficult to find consumers on the street and available to answer a questionnaire (suspicion regarding being interviewed was clearly greater in villages than in towns), thus the questionnaire was conducted in the towns only.

A total of 159 individuals were interviewed on the streets of 20 small towns in the study area. Data collection was ongoing during all study visits for fieldwork, from March 2008 to September 2009. The majority of interviewed individuals were women (81%), because they are normally in charge of the domestic food supply and were thus more readily willing to answer the questionnaire, whereas men often pointed out that their wives were in charge of food purchases and they did not know the answers to my questions. In addition, the researcher's discomfort in approaching unknown males on the street in rural areas may have heightened this gender bias.

The majority (68%) of individuals were living in the towns where the questionnaire was conducted and 32% came from the surrounding villages. Almost half the individuals (47%) had less than 6 years of schooling, and only 8% had a higher degree qualification. Regarding occupation, most individuals (52%) worked in the private sector, followed in number by

individuals dependent on social security transfers (retired and unemployed) (21%), with another 11% employed in the public service sector.

Questionnaire data analysis

A database was constructed using SPSS software and quantitative data analysis was undertaken following Pallant (2007) and de Vaus (2002). As the data were predominantly categorical, the χ^2 test for statistical significance was used in most cases to test for association between variables.

A score of awareness of links between agriculture, farm viability and the environment was calculated by adding up the values corresponding to the answers to the 4 Likert scale questions, and dividing this sum by 4. The score varied between 1 and 5, whereby 1 expressed limited awareness and 5 maximum awareness of connections in the agri-food chain.

2.2.3 Case studies

Two case studies were conducted with the aim of yielding information on the social context of AM as well as exploring best practice with regard to collective action projects aimed at maintaining sustainable agricultural livelihoods in the study area.

Selection of case studies

Two detailed case studies were undertaken to study the social context of agricultural marginalisation and promising collective action projects for improving farm viability and

developing sustainable agriculture in the study area. In the early stages of fieldwork, a list of projects working on farm viability and sustainable agriculture was compiled. From this list, two projects representing best practice were selected:

1. The *Criar Raízes* project was selected because this project is probably the most well-known and most comprehensive initiative existing in the study area aimed at maintaining subsistence-oriented agriculture and revitalising a marginal village.
2. The Neo-rurals case study was started because the existence of increasing numbers of foreigners actively introducing sustainable agriculture ideas and practices seemed to be of relevance for developing sustainable farms in the study area. Therefore it was desirable to discover more detailed information on their activities and achievements than what had been found previously through the ‘newcomer to farming’ questionnaire.

Data collection

Criar Raízes / Covas do Monte case study

This case study was based on three visits to the village of Covas do Monte, carrying out participant observation (participating in village level activities promoted by *Criar Raízes*) and interviews (see Appendix VI for the interview guide). Interviews were conducted with villagers (one formal, several informal conversations) and *Criar Raízes* project staff (3 members interviewed). Informal conversations with key informants (2) and secondary materials (websites, reports, newsletters, e-mails) were also used.

Neo-rurals in the central mountain range

This case study focused on a loose network of mainly foreign neo-rurals living in the central Portuguese mountain range. Four interviews were conducted with individuals from different sustainable living and permaculture organisations (see Appendix VI for the interview guide) and participatory observation was possible in two of the four projects (participation in workshops, one collective work day and one meeting to set up a network). Data was also gathered from key informants who were loosely connected to the projects. The names of the 5 key informants contributing to this case study have been changed. Table 5.2 below gives an overview of the informants.

Table 5.2 – Respondents' changed name ('R' denotes Recently moved to the area, 'L' denotes Long term residence in the area), nationality and time in present location (in August 2009).

Name given	Nationality	Time in present location (years)
Anne R.	Dutch	3
Marie L.	Dutch	15
Linda R.	British	1
Sophie L.	British	10
Luís	Portuguese	Born in the area

Case study data analysis

The case studies were conducted and the data was analysed using recommendations by Yin (2009) and Gerring (2007). All the data collected was summarised according to the main emergent themes. The resulting themes were then reorganised to allow for a comparison between the two case studies. Finally, the case studies were written up according to the core contents of the overarching themes (Robson, 2002; Ritchie and Lewis, 2003). To protect the confidentiality of interviewees, they have remained anonymous or their names have been changed.

2.2.4 In-depth interviews on perceptions of land abandonment

Data collection

An in-depth interview guide (see Appendix VII) was developed to collect data on the perceptions of a wide variety of actors from the agricultural and rural development sectors on agricultural marginalisation. The interview covered the following topics:

1. perceived main causes of land abandonment;
2. perceived main consequences of land abandonment;
3. current and potential action to counter land abandonment at various levels of agency;
4. interviewees' ideal vision for the study area.

The term 'agricultural land abandonment' (*abandono agrícola*) rather than 'agricultural marginalisation' was used as the topic of the interview. Agricultural land abandonment coincides with the ultimate consequence of agricultural marginalisation and is a concept that is widely used and understood by the entire range of actors interviewed.

A combination of opportunistic and quota sampling was used. Initially, a stakeholder typology according to occupation and geographic location was defined, to cover the whole diversity of actors in the agricultural and rural development sector. Then a list of potential interviewees fitting into each stakeholder typology was compiled through web searches, personal contacts and snowballing. Interviews were conducted in person in the work or home setting of the interviewee. All interviews were recorded and transcribed by the researcher.

Data analysis

To facilitate data handling, the raw interview data were reduced into summaries, following the approach outlined by Robson (2002) and Ritchie (2003), whereby key quotes were copied and maintained for later illustrative purposes. These summaries were loaded into MaxQDA qualitative data analysis software. Initially, thematic coding was conducted, whereby themes equalled the main interview questions. In a second analytical step, the thematic codes were further refined. Subsequently the refined codes were analysed, theme after theme, whereby the diversity of points were listed and described and *who* mentioned *what* was registered as 0 or 1 entries in an Excel spreadsheet that was later used to quantify the relative frequency of different viewpoints and to construct stakeholder typologies.

Stakeholder typologies were constructed by first identifying the codes that seemed to differentiate stakeholders. Secondly, using the χ^2 test, it was tested whether associations between stakeholder demographic indicators and occurrence of selected codes was significant. Distinctive significant associations between codes and stakeholder demographics were then grouped to define stakeholder typologies.

Three indicators were developed using the demographic information collected. The aim was to assess proximity to farming and political power of interviewees in order to relate these to their perception and to implications for future action. The indicators constructed were:

1. *Indicator of proximity to farming* – calculated by summing the scores as listed in Table 2.2 below. The possible scores varied between 0 and 6, whereby 0 stands for no connection to farming and 6 stands for maximum connection to farming.

Table 2.2 – Scores attributed to demographic variables to calculate an indicator of interviewee’s ‘proximity to farming’.

Variable	Possible options	Attributed score
Occupation	Farming	3
	Directly connected to farming	2
	Indirectly connected to farming	1
	Non-farming	0
Father’s occupation	Farming	0.5
	Non-farming	0
Mother’s occupation	Farming	0.5
	Non-farming	0
Place of origin	Rural	1
	Urban	0
Place of residence	Rural	1
	Interior urban	0.5
	Urban other	0

2. *Indicator of policy-making influence according to occupation* – obtained simply by attributing scores (see Table 2.3) according to whether the interviewee’s occupation was directly, indirectly or not related to political decision-making.

Table 2.3 – Scores attributed to interviewee’s employment category to calculate an indicator of interviewee’s role in political decision making.

Variables	Possible options	Score attributed
Occupation	Not related to political decision making	1
	Indirect relation to political decision making (academics, staff of associations and regional/local MADRP ⁷ offices)	2
	Directly related to political decision making	3

⁷ Portuguese Ministry of Agriculture, Rural Development and Fisheries.

3. *Perceived influence in political decision making* – the interviewee’s own perception of their influence in political decision making was calculated by multiplying the score attributed to the geographical impact of their influence by the weight of their perceived impact, using the scores listed in table 2.4. The possible scores vary between 0 and 20, whereby 0 corresponds to no perceived influence in the political decision making processes and 20 corresponds to maximum perceived influence in political decision making.

Table 2.4 – Scores attributed to interviewee’s perceived impact on political decision making to calculate an indicator of interviewee’s ‘perceived influence in political decision-making’.

Variables	Possible options	Score attributed
Geographic level of political influence	Freguesia ⁸	1
	Municipality	2
	Region	3
	National	4
	National & International	5
Weight of political influence	No influence	0
	Low importance	1
	Unknown	2
	Intermediate	2
	Important	3
	Very important	4

Stakeholder typologies defining stakeholder’s overall problem perception regarding agricultural land abandonment were constructed in the following way:

1. An Excell spreadsheet was prepared listing individual stakeholders (demographic indicators and aforementioned indicators of proximity to farming, power related to occupation and own perception of influence in political decision-making) and the stakeholder typologies to which they belonged, for each theme explored (e.g. typology regarding perception of causes of land abandonment);

⁸ Lowest level of state administration, corresponding to a small number of villages.

2. Then the table was reorganised to group stakeholders according to commonalities in terms of thematic stakeholder typologies to which they belonged (e.g. all stakeholders from the “endogenous causes” stakeholder typology together) to generate a visual pattern of associations to be tested;
3. The table was converted into an SPSS worksheet and, using the χ^2 test for statistical significance, it was tested whether there were significant associations between thematic stakeholder typologies (e.g. do “endogenous causes” occur together with the “managerial perspective” on the role of agriculture?). Significant associations were grouped into overarching problem perception stakeholder typologies;
4. Finally, the predominance, in terms of frequency, of stakeholder specific indicators was used to describe the problem perception stakeholder typologies.

The sample population

45 in-depth interviews were conducted, with the most diverse possible types of stakeholders in the agricultural and rural development sectors. Some stakeholders had several functions that made them interesting for interview purposes. However, these overlaps of functions made it more difficult to devise a clear-cut typology of stakeholders according to the type of functions they held. Table 2.5 gives a simplified overview of the type and number of interviewees present in the sample.

Table 2.5 – Summary of stakeholder groups present in the sample.

Stakeholder group	Stakeholder group description	Number of interviewees
Local actor (LA)	Farmers, rural entrepreneurs, other actors with relevant experience	11
Non governmental organisations (NGOs)	Agricultural and other associations, LAGs, Cooperatives	10
Academics	University-based researchers	6
Local government	Municipality level staff	5
Local and Regional MADRP and MAOT ⁹	Local and regional MADRP office staff, MAOT office staff	9
National government	MADRP staff	4
Total		45

Two-thirds of the sample were males, and only one-third were females. This gender distribution may be explained by the predominance of men in entrepreneurial and administrative positions in the agricultural sector. Regarding age, the sample was normally distributed and slightly skewed towards the higher age groups, with 38% of stakeholders in the 30-44 age group and 42% in the 45-60 age group. 7% were less than 30 years old and 13% were over 60 years of age.

The level of schooling was rather high in the sample; half the interviewees held a university higher degree and 27% had a postgraduate degree. Only 20% of interviewees had 12 years or less of schooling. This high level of education in the sample is related to purposive sampling, namely to the selection of academics and staff from the MADRP – all of whom have attended higher education. Local actors (LAs) had the lowest levels of schooling (6 individuals with less than 12 years of schooling). In relation to the place of residence, 42% of the sample lived in cities (Lisbon, Coimbra, Guarda, Viseu and Vila Real) and 38% resided in villages. The remaining 20% lived in the small towns of the interior (such as Aguiar da Beira, Oliveira do Hospital and Gouveia).

⁹ Portuguese Ministry of Environment and Spatial Planning.

2.3 Further considerations: ethics, positionality and the validity of findings

2.3.1 Ethical considerations

The present research relied on human participants and thus a careful consideration of the ethical implications was necessary (Silverman, 2010). The following issues were addressed:

- Informed consent of participants - potential participants were contacted and asked to participate in the study, explaining clearly what was required from them if they would choose to participate;
- Clear outline of research project – to all participants an A4 page with an outline of the research project was sent in advance or given at the start of the interview, so that interviewees were aware of the scope of the research. The project was discussed with participants if they wished. These measures prevented unrealistic expectations to develop.
- Confidentiality – confidentiality was assured to all participants at the start of interviews and names of informants have been changed to ensure anonymity;
- Type of questions asked – for questionnaires and semi-structured interviews all questions were carefully designed to obtain the necessary information without intruding into sensitive and private areas.

For the participant observation used for the two case studies not always all participants were aware that I would potentially use the insights they provided for a research project. This was a result of random interactions providing useful information, and special care was given to keep interviewees unidentifiable. The impracticality of obtaining informed consent from all informants

when doing participant observation has been recognized as a necessary exception, acceptable when special precautions are taken to minimise potential harm to participants (Lune *et al.*, 2010).

Ethical approval for the study was obtained from the University of Essex Ethical Committee.

2.3.2 The researcher's positionality and interactions during fieldwork

All research is influenced by the life experience, opinions and expectations of the researcher (Ritchie and Lewis, 2003). Therefore, an explicit and reflective description of the positionality of the researcher is necessary (Chambers, 2008).

Positionality

I consider being in a privileged position to study the socio-cultural dimensions of agricultural marginalisation in the interior and mountain areas of Portugal as a result of my long term immersion there. As a child of a German couple that moved to the area in 1987, I was brought up in the study area, getting to know local traditions intimately. However, my different cultural upbringing made me remain always a somewhat detached observer of local culture. My parents were involved in subsistence and sustainable agriculture and therefore I quite naturally accompanied the development of the organic movement in Portugal from early on, while I also witnessed the continuous decline of neighbouring traditional farms.

My interest in nature conservation inspired me to study Biology at the nearby University of Coimbra, where I subsequently researched ecological impacts of agricultural land use change.

My keen interest in sustainable agriculture and nature conservation then made me take up the Master's in Environment, Science and Society at the University of Essex. For my master's dissertation I investigated the factors affecting the development of organic farming in central Portugal. When concluding this research, I questioned the pragmatism of my investigation: how could organic farming be developed in an area in which every form of farming is in decline? Do the drivers of decline of farming not also affect and maybe hinder the expansion of organic farming? Thus the problem situation to be studied for my Ph.D. research emerged. I spent another year involved in a research project dealing with agricultural marginalisation in Portugal before I came back to the University of Essex to take up the present study.

My conviction of the importance of maintaining and developing sustainable forms of agriculture and my empathy for subsistence farmers are the motivating forces for conducting the present research.

Interactions during fieldwork

The relationship established with interviewees varied along the research process and with different data collection tools. I always introduced myself as a student and made no claims of expertise or authority to solve any of the concerns of interviewees. Generally even level conversations developed, whereby older interviewees often assumed a paternalistic attitude towards me.

In SSIs and questionnaires the interaction with respondents was normally one-off and of a short duration. Although interesting conversations developed with a number of interviewees, in general

these interviews corresponded to what has been criticized as ‘data extraction’ (Chambers, 2008), with no benefit to the respondent. This changed significantly with respondents from case studies and in-depth interviews. With them I perceived a mutually beneficial exchange to occur, as I was able to engage them in fruitful reflections about their activities and beliefs about land abandonment. This was generally appreciated and enabled several interviewees to decide on changes in future activities. Also, after the interviews I frequently answered specific questions from the interviewees, in accordance with the evidence I had obtained so far. I kept in touch with a number of interviewees, having sent them useful information or connected them to sources of support. In addition, I hope to feed results back to informants, contributing to their greater understanding and empowerment.

2.3.3 The researcher’s influence and concerns with the validity of results

To ensure maximum neutrality and objectivity the following strategies, recommended for example by Chambers (2008) and Plano-Clark and Cresswell (2008), were used by the researcher:

- Stating the researcher’s standpoint – particularly the methodology chapter and the argumentation developed in the introduction clarify my standpoint;
- Adopting an attitude of openness - being ready to drop preconceived beliefs and explore contradictory information;
- Selecting samples to explore the existing diversity, rather than a group somewhat preferred or of easier access to the researcher;
- Describing the research methods and process as clearly and accurately as possible, to allow the reader to draw his own conclusions on the validity and trustworthiness of findings;

- Presenting data as close to its original form as possible to allow the reader to scrutinise the conclusions drawn from them.

The data was kept in its original Portuguese form during data analysis as long as possible to ensure accuracy of original meanings. When quoting from this data, the original had to be translated. Given the cultural and context specific meaning of phrases, quotes that were practically 'untranslatable' are also cited in the original in Portuguese.

2.4 Summary

The present research is a case study of agricultural marginalisation in Portugal. A bottom-up approach was employed to identify the key factors affecting agricultural livelihood viability at present and to study what is required to enable stakeholders to take effective action to improve farm viability to maintain agricultural livelihoods. Different data collection tools were used and a range of stakeholders were interviewed.

The data collected was grouped into four major themes that constitute the core of each of the result chapters. These themes are:

- a. Agricultural livelihood viability (Chapter 3);
- b. The potential to develop alternative agri-food systems (Chapter 4);
- c. The potential of collective action to improve farm viability (Chapter 5);
- d. Stakeholders' perceptions of AM and implications for action (Chapter 6).

Although each chapter answers a specific set of questions, each chapter also contributes to a wider understanding of the context of agricultural marginalisation and of potential ways forward to improve the viability of sustainable agricultural livelihoods.

CHAPTER III

**FARM VIABILITY AND CHANGING
RURAL LIVELIHOODS**



3.1 Introduction

There is ample evidence of the decline of agriculture in the study area, both in terms of declining agricultural land use and in terms of a declining and gentrifying agricultural population (GPPAA, 2004; INE, 2006; INE, 2010). However, as yet there have been few studies conducted on the farm level drivers of land abandonment and the implications of these trends for individuals. This lack of a systematic analysis of the impacts of agricultural change on rural livelihoods has been the cause of a limited problematisation of agricultural decline in Portugal. The level of individual livelihoods is most appropriate as the unit of analysis for understanding the impact of economic development policies. The viability of agricultural livelihoods is directly related to farm viability, and therefore both, livelihoods and farm viability, are investigated together.

Exploring drivers and impacts of agricultural decline at the level of individual livelihoods in marginal rural areas is an essential first step to bring to light the issues that matter to the rural population itself (Pimbert *et al.*, 2005). This chapter provides such an overview by addressing the following questions:

- a) What are the existing land-based livelihood strategies?
- b) What are the main threats to farm viability?
- c) What are the main factors for keeping land under cultivation?
- d) What is the impact of declining agricultural livelihoods on individuals?

This chapter is based on findings from several sources so as to generate understanding of AM in the interior and mountain areas of central Portugal. Interviews of both professional farmers (n=20) and rural entrepreneurs (n=16) (see Section 2.3.1 for methodology) provide the core

information that was complemented and triangulated using data from the newcomers to farming questionnaire (Section 2.3.2) and evidence from the qualitative interview on agricultural marginalisation (Section 2.3.4). Secondary data and field observations have also been drawn upon.

The chapter begins with an overview of present agricultural systems, and then the prevalent land-based livelihoods are described, followed by a description of the main factors challenging farm viability and thus the maintenance of agricultural livelihoods. This is followed by a presentation of individuals' motivations for keeping up these economically vulnerable activities and a discussion of the impacts of declining livelihood viability.

3.2 The agricultural system

The interviewees described the existence of two main different types of agricultural systems in the study area. The names given to each type of farming varied, showing that there is no single clearly defined concept, but rather flowing and overlapping concepts. In the interior and mountain areas, the prevalent form of farming is *agricultura familiar* (family agriculture), 'traditional agriculture' or 'subsistence agriculture'. These forms of farming were contrasted with 'entrepreneurial agriculture', 'commercial agriculture' or 'professional agriculture', which are now rare or absent in the area. Although descriptions of each type of agriculture overlapped within each of the two main categories, some minor differences were noted in the descriptions.

Some said that *agricultura familiar* farms were those that practised a traditional form of agriculture, as practices were passed on from generation to generation. However, economic

pressures and reduction of farm labour have resulted in a change of traditional practices, with the introduction of machinery and external inputs, and the ecological sustainability of *agricultura familiar* is now variable (Black, 1990) and it is not possible to equate these production systems with sustainable forms of agriculture.

‘Subsistence agriculture’ was normally described as being focused purely on production for domestic consumption with no sales. However, a goatherd described subsistence farming systems as being those “*that close the circle*”, that is to say, produce all productive inputs on the farm and incorporate waste products into the production process, being highly self-sufficient. Some interviewees had a clear preference for subsistence farming as they explained that it uses less synthetic inputs and is done with care (“*é mesmo caseirinho*”), which results in healthier and higher quality food and environmental benefits. This view was strongly defended by individuals who mistrusted the quality of industrially-produced foods.

Subsistence production generally follows traditional polycultural practices in which vegetable crops are grown in terraces or small parcels bordered by either wine or olive trees (see picture 1). The main vegetable crops are potatoes, cabbages, beans, corn, onions, pumpkins and lettuce. Chickens, rabbits and pigs are the most common livestock, but many households also keep some sheep or goats. The number of cattle, donkeys and horses has declined steeply during the 1980s and 1990s (RGA 1989/99). Most *farming households*¹⁰, although they now focus on subsistence production only, formerly sold their surplus at local markets.

¹⁰ Farming household – here defined as rural households in which a farming component is present in the livelihood strategy, either for sale or for household consumption.



Picture 1 – Illustration of the small-scale farming system in the study area (Malhapão de Cima, Serra do Caramulo, July 2007).

The descriptions of the less common market-oriented farms did not vary considerably. A young domestic producer described entrepreneurial agriculture in comparison to subsistence agriculture thus: *“this would already be a more advanced agriculture, such as we don’t have in the region. But these then are financed agricultures, with state funded projects (...) whereas traditional farming and agricultura familiar are not financed by any sort of project.”* This reflects the fact that hardly any entrepreneurial farms in the interior and mountain areas have been set up independently of state funding.

In the study area, commercial farms that still yield some profit are specialised in a single product, either using modern production practices (in the case of apples in Aguiar da Beira) or producing a high quality product historically associated with the region (such as the cheese of Serra da Estrela), or a combination of both, such as a regional product produced using modern farming practices (for example, the wines from the Dão and Douro regions). What product a farm can

profitably market depends on the region where the farm is located. The specialisation of a territory in a certain agricultural product depends on a combination of factors, such as ecological conditions, the existence of established marketing chains and other historical and cultural factors.

For the sake of clarity, a consistent use of terms throughout this text is necessary. It was decided that the term small-scale farming would be used to refer to small scale or extensive farming in general. ‘Subsistence-oriented farming’ would be used to describe small-scale production systems aimed mainly at the maintenance of the farming household, and in contrast with profit-oriented farming. The original Portuguese ‘*agricultura familiar*’ will be used when the specific current circumstances of this type of farming in Portugal are referred to. The choice to use the original Portuguese phrase is due to the inexistence of an adequate English term to describe the specificity of this farming system. The direct translation ‘family farming’ is inadequate and confusing as it may remind the reader unfamiliar with Portuguese agriculture of American or Australian family-owned industrial farms. The terms ‘commercial’ or ‘industrial’ farming will be used in contrast to refer to high-input, specialised and mechanised production systems, following a profit maximisation rationale. Table 3.1 gives an overview of the different terms and meanings in use.

Table 3.1 – Terms used for the two main types of farming existing in the study area.

Types of agriculture	Local synonyms	Characteristics
Commercial or industrial farming	Entrepreneurial agriculture Professional agriculture Capitalist agriculture	Profit-oriented, specialised productions for sale, usually high external input farms
Small-scale ¹¹ or subsistence-oriented farming	<i>Agricultura familiar</i> Traditional agriculture Subsistence agriculture	Production for household consumption and some sales, diverse farms, family labour

¹¹ Small-scale in terms of acreage or productive output (in the case of extensive farming systems).

3.3 Land-based livelihood strategies

Although most residents in the interior and mountain areas have some connection to farming, individuals living purely from agricultural production are very rare. Livelihood strategies in marginal areas usually comprise a mix of wage labour, emigration and subsistence production. In remote villages or where no employment opportunities exist, the majority of the resident population is retired, as the active population has had to leave the area in search of paid work.

Most people who work full-time in farming are already retired, and young entrepreneurs are a rare exception. In households with a full-time farmer, it is common for other members of the family to work outside the farm. The main employment opportunities in the rural areas are the public sector, construction work, industry and some private businesses. Many households maintain a high level of food self-sufficiency alongside full-time employment outside the farm (INE, 2010).

An analysis of the income sources and marketing strategies was conducted using information from 36 interviews of farmers and rural entrepreneurs (whose activity relied on the use of local resources). Agriculture was the most common single income-generating activity due to the nature of the sample; however, an even greater number of people were engaged in multiple activities to secure an income. The most common combined income strategy was the association of agriculture with self-employment. These cases correspond generally to farming households with a component of adding value or an off-farm entrepreneurial activity.

On-farm diversification is almost non-existent in traditional farms and only incipiently present in some entrepreneurial farms. Although on-farm diversification is promoted at EU and Portuguese policy level as a means to circumvent the economic squeeze on farmers, the know-how and the investment needed to diversify may only exist in better-off farms.

3.3.1 Typology of land-based livelihoods

A typology of existing land-based livelihood strategies was constructed and these were compared to livelihood satisfaction as stated by interviewees. The interviewees could be grouped into three typologies. Each of these 3 types was then divided further into ‘traditional’ and ‘entrepreneurial’ sub-groups. The ‘traditional’ groups were defined by typical local production and marketing methods. These groups comprised mainly individuals with low levels of schooling and no specific training or previous work experience in their current income-generating activity. The ‘entrepreneurial’ groups, on the other hand, were comprised of individuals with higher levels of education, formal markets and specific work experience or training in their current field of activity. Table 3.2 summarises the livelihood typologies found in the sample.

Table 3.2 – Livelihood typologies in the study area and their main characteristics (n=36).

Livelihood typology	Traditional type	Entrepreneurial type	% of individuals
Craftsmen	Traditional crafts Direct marketing network	Quality craft products Direct and indirect marketing	17
Pluriactive individuals	Self-sufficiency and self-employed Direct and informal marketing	Employed or self-employed	33
Farmers	Staple crops Direct sales or sale to traditional institutions	Specialised productions Formal sales to retailers	50

Craftsmen – individuals living from crafts (n=6) and subsistence farming for domestic consumption only. All craftsmen relied on a mixed marketing strategy, combining direct in-house sales and sales on craft fairs, with sales to specialist retailers or internet sales being common among the more entrepreneurial craftsmen. Direct marketing was of central importance to all craftsmen. Thus a marketing network built up through social relations is a key feature of the viability of these livelihoods. All craftsmen work in their area of origin (only one had moved in through marriage 38 years ago) and a family background in the respective traditional craft is typical (potters, wooden spoon makers, et cetera), which makes them well known in their area, attractive due to their speciality and economically viable due to limited competition. As their work is connected to historically and culturally relevant memories, these craftsmen still manage to subsist even though they rely on small niche markets only. The more entrepreneurial craftsmen, who are producing high quality goods and innovating on local traditions, are more likely to represent a transferable livelihood strategy than the traditional craftsmen, who are willing to accept a low income and standard of living in order to stay in their area of origin and to continue a family tradition.

Pluriactive individuals – individuals engaged in more than one income-generating activity (n=12), with varying importance of farming. The traditional group was made up of highly self-sufficient individuals engaging in a variety of self-employed activities, including agriculture, wild harvests, adding value, crafts, agriculture related services and training. Informal sales through the social network were common and important, as in the case of traditional craftsmen. The entrepreneurial group was made up of 8 individuals with full-time employment or self-employment outside the farm and for whose income farming played a minor role only.

Farmers – individuals engaged only or predominantly in agricultural production as a means to generate a livelihood (n=18). This group was also divided into 2 sub-groups; traditional farmers and entrepreneurial farmers.

Traditional farmers were generally elderly, sometimes retired individuals with low levels of schooling (4 years of schooling or less), living in their area of origin. These farmers mainly produce staple crops, olives and wine which they use for domestic consumption and sell to local cooperatives or itinerant retailers, continuing a traditional agricultural activity without adapting much to the new production and market circumstances. Traditional farmers are the stakeholder group that is most directly and severely affected by the processes of AM.

Entrepreneurial farmers comprised a diversity of younger and/or higher educated individuals than the group of traditional farmers, with more formal or better established market chains. Six farmers in this category were involved in sustainable production methods and these farmers were the most highly educated and all had experience of living abroad or in urban areas. These farmers were actively engaged in marketing and set up their own marketing network, relying mainly on professional retail enterprises but also engaging to some extent in direct sales.

Agricultural subsidies played a minor role in the income of most farmers, as aggregate farm subsidies in the area are low. Only for the large-scale farms in the plains of Castelo Branco did the income from subsidies make a significant contribution to income and farm viability.

3.3.2 Livelihood satisfaction and opportunities for livelihood viability

Interviewees were asked about key factors for livelihood viability, their level of satisfaction and their perception of future livelihood viability. More than half (56%) considered their motivation, dedication and hard work to be the key factors in explaining the viability of their livelihood strategy.

Traditional farmers often stressed their connection to the land and their motivation to farm as the key to the viability of their livelihood strategy. They said farming was unprofitable or even “*a jolly way of getting poor*”. Some individuals of this group were involved in organic or “*all natural*” forms of farming, as they called it, giving further evidence of their connection and care for the land. Despite their strong ties to farming and the land, traditional farmers were clearly pessimistic about their livelihood’s viability. Asked about success factors in keeping their livelihood, two farmers answered “*there is no reason for success because there is no success*”. Among traditional farmers, only shepherds and goatherds who had a well-established informal marketing network were satisfied with their livelihoods.

Producing quality products and selling for specific markets were other factors perceived to be important for the relative success of the livelihood. Relevant training or work experience also seemed to contribute to the viability of the livelihood strategy. In addition, starting capital, in the form of an inherited farm and/or state funding, were considered to be central for setting up a viable agricultural livelihood.

Livelihood satisfaction was closely associated with livelihood economic viability and the willingness of individuals to keep up their current income-generating activities; no satisfied individual spoke about giving up farming or of moving away from the area, whereas unsatisfied individuals frequently did. When livelihood satisfaction was reduced, individuals were generally dissatisfied with their income level. However, some individuals had high levels of livelihood satisfaction despite living on a very low income. Pluriactive farm-centred individuals would live at a subsistence level and be highly satisfied, whereas entrepreneurial farmers with a full time job besides farming, who were likely to have a higher income, were less satisfied. This seemed to point to the existence of two additional factors, besides income, to determine livelihood satisfaction; intangible benefits of the pursued lifestyle and personal inclinations. A pluriactive woman who had always lived in the same village and had to be very inventive to generate an income was highly satisfied. In autumn she spends weeks harvesting a small wild fruit for which she is paid only €0.40 per kilogram. What could be considered a hard and underpaid activity was reported as being “*extremely pleasurable*”; “*it is a very beautiful fruit and I like to be out in the mountains on my own*”.

In summary, the most promising aspects for securing a land-based livelihood are a combination of motivation, relevant work experience or training, specialised production and a good marketing strategy. Profitable combinations of production and marketing strategies are outlined in Table 3.3.

Table 3.3 – Profitable combinations of production systems and marketing strategies.

Production system	Product type	Market
Traditional	High-value quality products	Direct marketing Certification for niche markets
Sustainable agriculture	Organic	Mainstream markets Certification for niche markets Direct marketing networks
Industrial	Conventional	Mainstream markets

The two most common problematic components weakening the livelihood strategy were identified as a) focusing on production regardless of the market situation and b) selling to traditional dysfunctional institutions.

3.4 Threats to farm viability

The main challenges to achieving economic viability of farms, and thus to securing agricultural livelihoods, were reported by interviewees and are explained below.

3.4.1 Inadequacy of existing production systems for modern agri-food chains (or vice versa)

With regard to marketing, two different reasons for the limited economic viability of farms were evident; on the one side, farmgate prices are low and the organisation of modern agri-food chains is not helpful for small-scale farms as they exist in mountain areas. On the other hand, farmers themselves were not always doing ‘their part’ to engage with modern agricultural markets.

Firstly, a brief description of the modern agri-food chain will be given to show how small-scale farmers are excluded.

Large retail and food discount enterprises have been taking over the once local food provisioning chains, mainly since the early 1990s (Domingues, 2004). But small-scale or extensive farms find they cannot integrate these modern food chain systems. The barriers to entry are in the main related to high entry costs resulting from legal requirements of production, (defined according to the needs of industrial production systems (see section 3.4.8) and standards set by retail

companies (Moreira, 2002; van der Ploeg, 2010), such as the volume of production needed to be able to sell to big retail operations.

Of the professional farmers interviewed, only one organic farmer (with over 20 employees) sold to a supermarket chain. The majority of farmers and domestic producers did not meet the requirements to enter that market. In one case a supermarket chain was interested in marketing regional produce in its stores in Viseu, but it required that the farmers take the produce to the central stores in Alcanena (over 200 km away), which farmers could not afford.

As a result of conventional agriculture's increased dependence on external inputs and the increasing concentration of food retail enterprises, farmers' profits are declining (Weis, 2007). The prices of agricultural inputs have been climbing and almost doubled between 2008 and 2009. While raising prices for inputs increases production costs, retailers want to pay less. The increasing concentration of food retail enterprises gives them a significant buyer-power to negotiate farmgate prices. Farmers in the field were very clear about the fact that "*input prices are very high and farmgate prices very low.*" Paradoxically, farmers have to adopt expensive industrial high-input modes of production¹² to enter mainstream market chains, in which buyers offer extremely low farmgate prices.

In addition to not being able to sell to the new large-scale retailers, small-scale farmers also ceased to be able to sell locally, because of the increased competition with cheap imports and increasingly restrictive regulations. Because the international and highly centralised agri-food chains and corresponding legislation pose a barrier to the entry of small-scale and extensive

¹² To increase volume of production, homogenise productivity and produce standard uniform produce.

farmers, farmers prefer to work outside the farm to generate an income. Depending on employment availability, these farmers can maintain a part-time agricultural activity for domestic consumption, or they can give up farming altogether, in the cases when they have to move to find employment.

3.4.2 Marketing practices and economic viability

In recent years, farmers have had growing difficulties selling their produce and some have not been able to sell much of what they have produced. A farmer gave an account of “*having opened the wine barrel and let 200 litres of wine run down the road into the gully*”. Such stories were not uncommon, a farmer explained: “*The prices we are offered are ridiculous, it seems people are making fun of us. Me, I prefer to feed the potatoes to the pigs than to sell them below production costs.*” It was agreed that low prices paid to farmers are the main constraint to economic viability of agricultural livelihoods. However, a close observation also revealed that farmers themselves are not always ‘doing their part’ to market their produce and achieve economic viability of the farm enterprise.

The group of *traditional farmers* (as outlined in section 3.3.1) would generally not engage actively in marketing; they would produce mainly traditional staple crops and hope that someone would come to them to buy their produce. Several farmers complained that “*in earlier times, wholesalers would travel through the villages at the end of summer and purchase our products at the farmgate, but there is no one who wants our produce now...*” Asked “*do you negotiate with potential buyers to achieve a good deal?*” one farmer replied cynically “*buyers are not coming at all*”, giving evidence of the fact that he was rather passive about marketing his produce. Asked

whether he has a business plan, another farmer answered he does not need one because “*according to the time of year I know what I need to plant*”, revealing a limited awareness of the possibility of engaging in market-oriented production.

The limited engagement in marketing is understandable insofar as the farming households are mainly comprised of elderly people with limited literary skills, little knowledge of marketing and reduced resources to invest in finding a buyer. One farmer said: “*people farm to be occupied*”, stressing the limited economic goal orientation of small-scale farmers. Also, historically, farmers in Portugal did not need to engage in marketing. Until recently (1980s) local and regional markets were functional, urban areas would take up rural output and pre-1974, specific products were exported to the colonies. Then, with the CAP price guarantee mechanism, farmers were able to sell all their produce for a minimum guaranteed price. A farmer remembered with nostalgia, “*I would take all my cereal to the state storage hall in Viseu and they would hand a cheque over to me.*”

There also seems to be a disconnection between consumer demand and markets. In urban areas the demand for national and traditionally/sustainably grown produce is increasing, but national products do not always reach these newly emerging niche markets. Especially in the case of organic produce, the bulk of it is imported, even if it is, or could easily be, produced in the country. Rural producers are not yet very aware of the new markets, or are unable to explore them. It seems traditional farmers are mainly aware of the modern centralised agri-food chains that are taking over traditional regional food systems, and in which they cannot compete, while being oblivious or unable to explore the new opportunities emerging in the form of quality product niche markets.

3.4.3 Dysfunctional traditional institutions

Traditional marketing institutions have declined and many are no longer functional. The main institutions to which farmers sold their products in the past were itinerant merchants and cooperatives. The merchants travelled between villages and bought from farmers, without any established contract between them. Retailers concentrated the produce and resold it to local and urban grocery shops and restaurants. Through the increased competition with supermarket chain stores, with their own concentration and redistribution networks, these merchants became redundant. As supermarkets also outcompeted small shops, merchants lost that market as well.

Regarding cooperatives, to which farmers used to sell their grapes and olives, insolvency is common and trust has been lost. With the new regulations on hygiene and food safety, cooperatives had to make investments to be able to adapt their facilities to the new requirements. Usually bank loans were taken up to modernise the facilities. However, at the same time as these regulations came into force in the early 1990s, market liberalisation increased, meaning that local produce was no longer competitive. As a result, cooperatives could not earn the income needed to pay loans back. Farmers lost trust in cooperatives because they were not paid on time. Some farmers continue to sell to cooperatives, but face long waits to be paid. Cases of three years without pay have been reported. Directors of cooperatives frequently have low literacy levels and therefore managing complicated modernisation programmes and devising a viable business plan is difficult.

It is apparent that traditional farmers are still very attached to the long established marketing institutions and find it hard to explore the opportunities of new markets. To do so, cooperation

among farmers would be helpful, first as a way of concentrating production to allow for sales to large-scale retailers and second, to set up alternative local and regional marketing networks, more suited to the conditions and needs of small-scale and extensive agriculture. The importance of cooperation is well grasped among farmers; one of them said “*Marketing is our main problem. The solution would be for us all to unite and sell directly to consumers.*” However, there are deep-seated barriers to cooperation.

3.4.4 Barriers to cooperation among farmers

Instances of cooperation among farmers were said to be rare. The rural population has largely given up on generating an income through agricultural production and the motivation to cooperate to improve farm viability is therefore low. Also, it is typical for the agricultural population to aim at high levels of self-reliance. Farmers were described as “*individualistic*” or even “*selfish*”, due to the prioritisation of their own production and mistrust of the potential of cooperation.

Farmers themselves stated that they find it difficult to trust other individuals when the viability of their livelihoods and profitability are at stake. Some farmers said they were afraid of being taken advantage of if they engaged in cooperation. Also the possibility of neighbours interpreting a farmer’s efforts for a collective aim as the farmer allowing others to exploit him was reported with discomfort: “*Imagine I always do my bit, but the other person neglects his responsibility? People will say I am a fool and I am working for him*” a goatherd explained.

According to the interviewees, these blockages to cooperation lead to many missed opportunities to improve livelihoods. Although farmers wanted to see cooperation happen, there was reluctance to risk individual resources and independence for cooperation. The issue of cooperation is further explored in Chapter 5.

3.4.5 Access to land

The difficulties of accessing land are limiting factors for restructuring existing farms and setting up new viable agricultural enterprises. The main problems in accessing land are related to speculative prices, land fragmentation and the fact that a significant proportion of landholdings are owned by several individuals as a common property.

Frequently a number of heirs agreed to share land amongst themselves even when they could not formally register the individual pieces of property defined by them. To collate a reasonable sized farm together, one normally has to negotiate with a number of property owners, and the difficulty of this is compounded by the fact that frequently some of the owners have emigrated. An organic farmer recounted how he had to negotiate over a couple of years with about 50 individuals, in order to purchase 2 *ha* of land in the mountains. Often properties are not registered in the name of the current owners, but in the name of former owners; such as the deceased great-grandparents. As there is a tax payment to be made to change the property register, in the past people were frequently reluctant to update the records.

The problem of speculative land prices is caused by high levels of emotional attachment to the land, the widespread use of bank loans to purchase land and the hope of locals to sell their farm

as a holiday home to rich foreigners or urbanites. Emotional attachment to the land was seen as a blockage to land being traded and put to productive use. This made an agricultural engineer, advisor to the mayor of a municipality, say he wished that in the future “*people would have no emotional attachment to the land and would treat it as a commodity only*”. The term ‘emotional attachment’ however meant more than just the connection of land owners to their particular piece of land. A number of interviewees mentioned, in their words, that ‘money cannot be eaten’ and that the value of owning land and having access to its resources, thus being able to secure one’s own and one’s family’s survival, could not be translated in monetary terms. Therefore owning land, even when it is abandoned, gives an important feeling of security to its owners, as emigrants think they can always return to their village of origin and survive off subsistence farming.

Renting land is not always an easy option either, because the land rental laws mean that landlords have to issue long-term contracts and the tenancy cannot be stopped at short notice. Farmers’ low levels of literacy also lead to a certain mistrust regarding the signing of contracts and renting out land, as farmers are scared they may lose their lands. Thus even if it is possible to borrow land for a season with a verbal agreement, it is much more difficult to get a contract issued. However, rental contracts are required if the tenant farmer wants to apply for subsidies. Frequently farmers reported they had enough land available that they could use, for example for grazing livestock, but, as only a small proportion of the land was actually owned by them and they were unable to obtain rental contracts, state support had not been granted to them.

3.4.6 Access to capital

Often farmers and newcomers to farming faced difficulties in starting up or restructuring an existing enterprise, due to lack of financial resources and difficulties in making a productive investment. The need to invest in infrastructure and machinery is in part related to a variety of legal requirements necessary to engage in legal agricultural activity (see Section 3.4.8). The costs of these requirements can be a prohibitive barrier for farmers starting up or legalising existing enterprises. It was found that newcomers to farming sometimes decided what agricultural enterprise to start up on the basis of the lowest cost requirements for a legal activity. A number of young farmers in the interior started up free range beef production for this very reason.

3.4.7 Difficulty in accessing state support

Farmers in the study area face three main difficulties in accessing financial support from the government:

- a) *Limited support available for small-scale farmers* - subsidies available are in general directed at large-scale, industrial farms, with the justification that public money should not flow into farms on the verge of bankruptcy but into farms able to invest and contribute to the overall economic development of the country. Thus economically viable farms have a variety of state support measures at their disposal, whereas vulnerable and small-scale farms are not eligible for most state support measures, as these require a minimum Utilized Agricultural Area (UAA) or a minimum annual income.

- b) *Lack of information on available supports* – farmers find it difficult to access the relevant information on available subsidies, eligibility criteria and the rules to which they have to comply in case they are granted support. This is related to a lack of technical staff from the MADRP in rural areas and the lack of simple informative materials and clarification sessions that are understandable for the farming population.
- c) *Bureaucratic time-consuming procedures* – for many farmers it is difficult to understand and carry out the written application procedures. Farmers have to collect a variety of documents to prove and confirm their circumstances, which is a time and money consuming endeavour. Frequently the staff that receive the applications are not sufficiently competent to inform on the detailed rules of the application. Once a farmer's application is considered complete, he has to wait an undetermined length of time to receive the answer of whether his application has succeeded or not. In this time span, which can be a year or more for investment support, the farmer is normally unable to proceed with work on his planned enterprise. When the maintenance of a farm depends on the success of a new productive investment, a year of waiting can be too much, and the farmer may have to give up his farm and seek a different income source in the meantime.

Once the subsidy has been attributed, farmers can be fined if they do not comply with all the rules in their contract. A problem is that farmers are never completely sure about what is required and so they live in a constant fearful ignorance of having to pay the subsidy back or being fined. Some farmers also mentioned that they fear being perceived as dishonest by their neighbours and being treated as such by inspectors, if those were to find them breaching a rule farmers were not

aware of. Frequently the requirements that have to be fulfilled to receive a small subsidy are considered to be too tiresome and costly, such as keeping track records of milk production for every single sheep. All these issues are important reasons why many small-scale farmers opt out of applying for the state support they would be eligible to receive.

It is not uncommon for farmers to believe that there are lies and corruption in the system of attribution of subsidies. The non-transparency of the long bureaucratic string can contribute to farmers having this impression. One farmer, less prone to endorse this view of corruption said *“the problem is the constant breach of contracts with farmers, by the Ministry of Agriculture.”* However, even when farmers believe the MADRP has not kept its part of the contract, they generally find it difficult to know and assert their rights and thus just keep waiting for action from the Ministry of Agriculture. One farmer commented *“I don’t know why, but I haven’t received the subsidies for 2007 yet...”* (in April 2008).

The frequent changes in agricultural support measures causes great instability in the agricultural sector, as the economic viability of a certain farm enterprise depends largely on the availability of subsidies. At the same time, because of the changing support, it is a high risk to orientate the production according to the availability of subsidies. The unstable policy environment adds to the already risky conditions of farming related to the unpredictability of markets and the climate.

3.4.8 New regulations not adapted to subsistence-oriented farming systems

Since the integration of Portugal into the EU, regulations on agricultural and food production have expanded into formerly unregulated areas, making many common practices illegal. There

are now legal requirements for almost every phase of the production, processing and marketing process. The problem for farmers in the interior and mountain areas is that most of these regulations are not suited to small-scale or extensive farming systems, burdening them with excessive costs that are often perceived to be unnecessary. Most regulations have been designed from the perspective of assuring consumer health and safety in a large-scale international agri-food chain. Therefore these regulations are not suited to small-scale farming systems, local and direct sales, and imperil them as a consequence.

A farmer and co-director of a farmer's cooperative was angry about the way regulations are currently affecting farmers, arguing that the "*new regulations for everything*" are the main cause of agricultural marginalisation. He described how a friend of his was 'caught' by fiscal inspectors when transporting wood from his forest to his house: as he did not possess a receipt for buying the wood nor an authorisation to transport it, he was fined €200.

According to the category into which farmers fall, either independent workers (if their yearly sales amount to less than a certain sum - less than €5000 in 2010) or agricultural enterprises, different rules and regulations apply. The head of one cooperative explained that her parents had a registered agricultural enterprise, and thus had to comply with all the regulations applying to agricultural enterprises, which made their operations very expensive. However, these registered entrepreneurial farmers sell at the same markets as subsistence farmers do, and the latter do not need to comply with a number of investment intensive regulations. Entrepreneurial farmers therefore feel they have unfair competition from subsistence farmers.

The regulations to protect farm workers have ended with most of the traditional agricultural day-

labouring system, because hiring day-labourers has become too expensive. A farmer recounted:

“To employ people we have to insure them and to pay their contribution to the social security. And we don’t dare to hire them without insurance anymore, out of fear something could happen. This is the reason I hear people commenting in the coffee shop ‘opá, let it be, one does what one can, what we can’t do stays undone’. And I do it like that, I mean, if it is time to harvest, I go with my wife. What we can’t harvest remains to be harvested. That is more profitable than to employ someone. With the sale of the product I can’t pay someone to come and help with harvesting¹³.”

For day labourers, this has caused a drastic reduction in work opportunities and this profession has almost disappeared. As a result, the remaining farmers and newcomers to farming have difficulties finding skilled workers. A specific, more affordable insurance and social security scheme for farmers and farm workers may be needed (related also to section 3.4.10 below).

Changes in the regulations, even in the direction of making them simpler, are not always easy for farmers to take. For example, the regulation on food calibration required entrepreneurial farmers to invest in equipment for sorting fruits and vegetables according to size. In 2009, the regulation was amended and a number of products no longer need to be calibrated, as long as that fact is explicitly mentioned when the produce is on sale (EC Reg. No. 1221/2008). Now farmers who have invested in the equipment to calibrate their produce realise that their investment, which they might still be paying off, was in vain.

These examples suggest that regulations need to be individually fine-tuned to the specific circumstances where they are to be applied, or they will adversely affect local specificities of

¹³ In the Portuguese text, the expressions used by the farmer suggest that he feels the need to excuse himself for not cultivating and harvesting all his fields. In the coffee shop, farmers seek mutual release from this traditional social norm.

agriculture. In fact, efforts have been ongoing both at EU and at Portuguese level to adapt regulations to be less discriminatory of small-scale and territorially specific systems, but these adaptations appear to have come late and have sometimes been insufficient to preserve valuable production systems.

Besides the costs of the investments necessary for farmers to comply with new and changing regulations, similar problems apply as those discussed with regards to access to state support. The information on regulations is not easily accessible to farmers, is difficult to comprehend, and the staff of institutions responsible for licensing are not always sufficiently knowledgeable, or are not allocated enough time to guide farmers through the process of licensing their various farm enterprises and keeping up with established norms.

3.4.9 Lack of technical support

In Portugal there is no agricultural extension service, and the main contact point between the MADRP and farmers used to be the municipality level offices of the MADRP. Even though the staff of these offices would usually not go out into the fields, it would be available to give advice to farmers and deal with the applications for subsidies. In 2007, the municipality level offices were closed or merged into regional level offices. The reduction of human resources at the level of local MADRP offices resulted in a distancing between the MADRP and farmers.

As the MADRP retracted from rural areas, the application for subsidies and technical support for farmers was left to agricultural organisations. To encourage farmer's associations to take over functions that have previously been assured by the MADRP, a number of different types of

associations were eligible to receive financial support from the MADRP, to start up and for 5 years of maintenance costs. The idea was that these associations would become financially independent during this period. The problem is that technical support to poor farmers does not pay for the associations, and therefore has never been set up in agricultural marginal regions, or was among the first activities to be given up when financial resources declined.

The more experienced established farmers often said they did not need technical support regarding production methods, however, farms on the verge of economic viability and newcomers to farming almost invariably felt very lost for not having reliable advisors on their specific problems.

3.4.10 Inadequacies in the system of taxes and social security

Farmers in Portugal have to contribute to the Social Security System as ‘independent workers’. This category considers that the minimum income of this group is €628 per month and elicits ca. 25% of that income, equating to between €160 and €200 per month from each farmer. According to a survey by the National Confederation of Farmer’s Associations (CNA, 2009), subsistence farmers achieve an average income of €150 to €200 per month, and therefore having to pay a similar amount for social security may correspond to 90 to 100% of monthly income. Evidence of this problem was found during fieldwork, when traditional farmers said that they have to take up jobs outside the farm only to be able to make the compulsory payment to the social security service.

Tax obligations are also a hindrance for the establishment of small and medium enterprises (SME) that could play a crucial role in the revitalisation of the rural economy (McElwee, 2005). Enterprises accrue a number of contributory obligations, mainly the corporate tax that is 12.5% of profits for enterprises earning less than €12,500 annually and 25% for enterprises earning more. A fixed annual tax for SMEs applies; of €1,200 - this is equal to three months work at the minimum wage.

Small-scale farmers may not be able to survive on less than €5,000 per year, as a big part of that income would flow to pay contributions to social security, but because of the fixed tax obligations, it is not worthwhile for them to go fully into business and register as an agricultural enterprise, unless they are able to increase their profit margin significantly. This might only be possible with significant productive investments that normally cannot be conducted without state support. Because of the fixed social security and tax payments farmers have to comply with, farming can only yield a sufficient income above a certain minimum income level, which is difficult to achieve on a small-scale farm.

3.5 Motivations to farm and live in marginal rural areas

In spite of the previously outlined difficulties, the extent of the agricultural area used around villages in the interior and mountain areas is still important. Knowing that most of that production is not profitable, exploring farmers' motivations to engage in these production systems seemed important in order to explain current patterns of land-use and abandonment and to shed light on the impacts of the declining viability of agriculture.

3.5.1 Economic role of farming

The views of farmers on the value of their farming system are very much related to the economic benefits that farmers can derive from the land. Economic benefits in this context are related both to the direct contribution to farmers' livelihoods and to the monetary income derived from the land. As a result, the farmers' perceptions of the economic benefits of farming were twofold and sometimes contradictory. Particularly, domestic producers and retired farmers thought that small-scale farming was no good because it did not provide them with an adequate income, but at the same time they valued agricultural production because of its direct economic contribution to the survival and wellbeing of their household. A subsistence farmer from Vouzela explained "*when we have to buy food we feel it is expensive, but when they want to buy it from us at the same price, it is too little*", making clear that the monetary value of the farm produce is unsatisfactory but the direct economic benefit derived from it is significant.

As agricultura familiar systems are not currently well positioned to produce for the market, the perceptions of this type of farming were rather negative. Despair and cynicism is widespread; a

retired man who was investing heavily in his lands with no financial return in sight because he “*loves the land*” said he told a young person who asked advice to start farming “*Stay away! With 6 ha of land you’re not going to make a living!*”

As wages in the area are generally low (around €400 per month), jobs insecure, and retirement allowances of most people minimal (frequently only €180 per month), domestic food production is an important contribution to livelihood security. The economic importance of domestic food production was illustrated by comments such as “*People are obliged to work in farming because the retirement allowances don’t suffice for anything.*” In the area of Castro Daire and Lamego it was possible to hear comments on current hunger. “*There are still times of hunger in these villages...and it’s said that emigrants aren’t well off either...*” the owner of a fish market stall said. A grocery shop owner said “*everything is being abandoned, and then there is hunger; it’s the big, wild capital that makes the crisis, that causes the hunger.*” Elsewhere, it was said that “*if everyone grew a little, they would be better off*”.

As farming in the marginal areas is frequently not profitable, the profit motivation does not therefore explain why individuals stay in farming or move into the sector. Besides the economic role farming can play in the livelihoods of many rural households, there are also reasons beyond economic rationality that keep rural residents engaged in food production.

3.5.2 Wellbeing and Health

Several people said they farmed “*to eat well*” and “*to know what we eat*”. The majority of rural residents believe that the food produced locally is of higher quality and tastes better than

imported foods. A farmer said: “*the Spanish peaches with make-up? I don’t want them for free! But people want what looks good and don’t care about quality*”. To know about the production process of food appeared to be very important both for farmers and for non-farming consumers (see also section 4.3.5).

Living on the land is considered to be a most sound and healthy lifestyle. A peasant woman living high up in the mountains said passionately: “*up here in the mountains everything is purer and healthier*”, not only physically, but also for the social and emotional development, she explained. She also noted that very few people in the mountain villages had bad habits such as smoking, which were common in towns. This can be related to the social norms and resulting social pressures that are still strongly present in small villages and that discourage what is contrary to robust health; being physically able is very important for the survival of subsistence farmers.

3.5.3 Emotional attachment

Most of the farmers said they are working in agriculture because they enjoy farming. As many have grown up on farms and lived there most of their lives, their connection to the land is very strong and they know few other options. Some farmers said it was beyond reason that they were in farming: they have no benefits from it but still keep farming. One farmer said “*I’m in farming because I’m a fool*” and two other farmers said “*I’m in farming for the sake of it*”, using a local expression (*carolice*). A farmer from Oledo said he is in farming because he likes “*to sow and to*

harvest and to work with the animals". Another domestic producer described how good it feels to "go to the attic and fetch some potatoes and go to the cellar and get some wine".

Subsistence agriculture and food self-sufficiency are an important part of Portuguese rural culture. Keeping the landholding cultivated according to traditional practices is considered to reflect a person's virtues. If land is abandoned, virtues are lost. If someone leaves land uncultivated and allows grass and shrubs to develop, it reflects a loss of traditional values. Therefore social pressure exists, leading some people to plough their land just to keep it looking "neat and orderly" (regardless of production or ecological impact).

In the cases where domestic producers invest financial resources from off-farm employment into the farm, they explain that they are attached to the land and want to keep it in good condition and that they want to produce their own wholesome food. Producing food also becomes a habit that gives meaning to daily life and arranges the year in a seasonal structure intimately connected with the natural cycles. People who have worked for a long time in farming frequently do not enjoy "having nothing to do" and even when they retire they continue working in agriculture, as long as physically possible. A peasant woman said she visited her son in a tourist region and she felt so constrained in his flat as if "being in a mine", and did not like not being needed there in the way her animals need her at home.

It can be concluded that most people who do still farm in the marginal mountain area have a special connection to the land, either because they grew up in farming or because they seek a living from the land as a sustainable and fulfilling lifestyle, and thus are willing to accept or challenge the difficulties in achieving farm viability. A person who has worked over eight years

in rural development projects in mountain villages explained: “*O sistema é mantido não pelo vínculo da posse, mas pelo vínculo da pertença*” (‘the farms are maintained not according to a logic/bond of ownership, but according to a logic/bond of belonging’), giving evidence of a sense of identity associated to *agricultura familiar*.

3.5.4 What motivates people to live in marginal rural areas?

For half the sample population, living in the area was a lifestyle option. For them it was important to live in their area of origin or their desire to farm was a central factor for moving into the area. Two individuals, a German and an American, who had been residing for a long period in the study area, believed that living on the land in accordance with their ecological understanding was a political act.

From the sample population that was living in its area of origin, 66% of individuals had less than 9 years of schooling, with a predominance of 4 years of schooling. This seems to support the common knowledge that it is the less educated who remain on the land. It is also unlikely that individuals with higher levels of education and professional specialisation are able to find adequate employment in the study area. Once farmers have “*made a sacrifice*” to allow their children to attend higher education, they would be disappointed to see their children return to work in the fields. Even if farmers enjoy their way of life, they consider it too difficult to earn a living from agriculture, and as such they encourage their children to move away and “*seek an easier life*”. Many children of farmers however wish to return to their villages of origin after studying, but face a problem – the difficulty of making an adequate living in these rural areas.

3.6 The impact of declining agricultural livelihoods on individuals

3.6.1 Changing livelihoods – changing identities?

Currently it is not only that the conditions experienced at farm level are unfavourable, but also the social context is not supportive of the maintenance of existing farming systems. The view held by most is that subsistence farming is a thing from the past, soon to disappear, and is based on economic theorisation: some educated individuals now believe that subsistence farming is a blockage to development. Walking through farmland that was to be expropriated for the construction of a road, an individual sent by the court to overview land measurements said to farmers: “*with small-scale farming we are not going to evolve*”.

Independently of each other, two men living in the study area explained that in the past people would not make a living from agricultural production only, instead individuals were engaged in a number of subsistence activities and, at the same time, specialised to some extent in crafts, services or trade. To declare these rural livelihood systems as a ‘backward way of farming’, as has happened everywhere and certainly in Portugal (Alarcão e Silva, 1958; Amaral, 1994) is to impose a function and a rationale on them that is not their own.

There is clear tension at the individual level between the subsistence-oriented way of life and the demands of superimposed market-oriented farming. This tension can cause individuals to become confused about their very identity. Relatively suddenly (one or two generations in the Portuguese case), traditional agricultural livelihoods are considered to be ‘backward’ and farmers cannot secure what now corresponds to the standards of ‘a dignified life’. A socially-respected

subsistence farmer now finds himself at the bottom of the social ladder. People formerly proud of their cows are now ashamed to tend a vegetable garden.

Staff from rural development associations explained that people in villages often have low self-esteem because they feel caught up in an outmoded way of life and with no hope of improvement. “*Isto não vale nada!*” (‘this is not worth anything’) a peasant woman told me repeatedly when showing me around her house. She was proud of having been able to build a big house of her own, and of having moved out of the granite hut in which she grew up. On the other hand, she was very aware that her house did not correspond to modern standards of comfort and wellbeing. It seemed, although she was happy with what she had, that she felt awkward to show me her “*little belongings*”, which she knew did not correspond to the modern way of urban life, which she supposed I would prefer.

In addition to the discourse of ‘backwardness’ of subsistence-oriented livelihoods that was particularly strong in the 1980s (Henriques, *pers. comm.*), the elderly rural population also has a vivid memory of times of scarcity and hunger and is thus quick to reject subsistence livelihoods of the past and to believe the modern high-consumption lifestyles are the way to go. A woman said the current situation was not ideal, but far better than it had been before: “*Going back to how it was earlier? No way.*” The rural population is therefore in general unlikely to stand up to defend their way of life, because they believe it to be too hard and outmoded, compared to the ‘easy’ and ‘modern’ urban way of life.

Many are not able to explain exactly what changes have happened, which furthers the confusion and feelings of not being in control. This feeling has been described as “*imponderabilidade*”

(inability to make a judgment/decision). An economics professor explained “*regarding local people, I think there is a certain fatalism in the regions of the interior. People don’t become active because they do not believe that things can be changed and improved.*” This sense of ‘fatalism’ was frequently found among interviewees, who stated for example that in the future the villages of the interior would be completely abandoned and left to brambles and wildfires. A rural entrepreneur said grimly “*no government will be able to put things straight again*”.

The frequently mentioned ‘lack of entrepreneurialism’ could be related to the lack of hope of a rural population that feels deeply disempowered as a result of gradually having lost the ability to secure a livelihood, due to mainly external changes over which they had no control.

3.6.2 Changing livelihoods - breaking with a sustainable past?

As a result of increasing difficulties of maintaining the farming household via its traditional productive activities, farming families are forced to either abandon the land or to restructure economic activities. In both cases, dearly held habits and traditions need to be given up, which can run counter to individual inclinations. Restructuring economic activities may require skills that a subsistence farmer does not have. In addition, restructuring economic activities at farm level often requires doing away with traditional social norms and values that had ensured the continuity of the system over generations.

Case study 1 below illustrates how subsistence farmers have to make difficult decisions of integrating with the mainstream agri-food chain system and thereby breaking away from past land management practices.

Case study 1 – Example of pressures for a closed-loop farm integrating the mainstream agri-food market.

Pedro the goatherd

Pedro lives with his family on a remote farm in the mountains. He and his sister milk 300 goats by hand every morning. They have a milking machine that was bought with money from the young farmer's investment support, but to save electricity costs they only use it for milking in the evening, when the goats have more milk.

When Pedro was a child, his parents emigrated to Angola and, as a result, their farm had been abandoned. When the family came back after the 1974 revolution, his parents invested much work, money and care in rebuilding the farm. After Pedro's father died, the farm would have been abandoned again. To prevent this from happening, Pedro returned from Lisbon where he had been working and "*fiquei entregue à quinta*" ('gave himself to the farm').

Pedro described his farm as being "*one of the last farms in this region that closes the circle*". 'Closing the circle' was his way of describing an integrated farming system.

The family produces goat cheese that is sold to people they know: those whose home the cheese can be delivered to or people who come to the farm. Pedro's sister said they often do not produce enough cheese for the demand, and they never sell in markets. They also sell goat meat to a nearby restaurant. However, as they slaughter the animals on farm, which is now illegal, the sale has to be 'informal'. Another interviewee shed more light on this: as the deal between the restaurant owner and the goatherd is not totally legal, the restaurant owner does not bother to pay at set times. As there is no contract, Pedro has to be happy if he is paid at all. He is looking into the possibility of cooperating with another goatherd to buy an animal transporter, so that both can take their animals to the slaughterhouse and legalise their sales.

Despite the success of their cheese and the ecological integration of their low-input farm, Pedro's family is struggling to earn a living. They fear if they increase the prices of their cheese, people will no longer be able to afford it. Also they are operating at the margins of legality and thus cannot sell to retailers or advertise their produce. Pedro's hope now is that a big national retailer (that owns a supermarket chain) that has proposed to buy his milk will do so soon. But at the same time he thinks that producing for a big retailer will 'break the circle'. His sister said "*when I tell people that I will stop making cheeses and sell the milk, they protest and say 'oh no, you can't do such a thing!'*..." Another interviewee described selling milk to a cheese factory as "*giving the gold to the bandits...the industrials of the milk sector*", showing that this was considered to be the last option.

Today most farms are a hybrid of traditional and modern farming and the rupture away from the self-sufficient traditional system has already occurred. However, the fact that this point of disruption exists is evident. The case study on Pedro the goatherd shows that he is facing a moment of major disruption at present. Giving up cheese-making and selling the milk to a factory instead will disconnect Pedro and his family from all activities downstream of milk production. Consumers will no longer come to the farm to buy cheese and appreciation of the specific product that Pedro and his family can produce will be lost. This will drastically change the feeling of ownership and pride currently being derived from being engaged in a meaningful productive activity. Milk production will become Pedro's focus, rather than the maintenance of the whole farming system. It can be expected that the income from selling milk to a retailer will be less than from direct sales of cheese. Thus Pedro may have to increase milk production in order to maintain his current level of income. To increase milk production, it may become necessary to increase the herd and buy in feed for the goat. The whole integrated, closed-loop farming system, "*the circle*", as Pedro calls it, may be broken. For Pedro it still seems advantageous to sell milk to a retailer, as the investments to legalise cheese production and meat sales are high. Also, the hope for a better income resulting from integration into mainstream markets may be a motivating factor for Pedro and other farmers in similar situations to make the transition.

Breaking with social norms and values from the past, as a result of economic necessity rather than personal choice, is likely to lead to difficult feelings. In ecological terms, restructuring an integrated farming system to specialise in a small number of outputs normally implies a disruption of internal production cycles and thus, a less sustainable agriculture relying on external inputs to substitute for parts of the system that have been removed. And this economic

restructuring, under present circumstances, may not even lead to the hoped-for economic advantages, as the transformation of farms from closed-loop systems into throughput systems implies increasing expenditure with external inputs and sales of lower value produce. The main beneficiaries of the vertical integration of farms tend to be agri-food corporations, as these can appropriate value at both ends of the farm (Weis, 2007).

3.6.3 Changing livelihoods – forced emigration?

Despite the attachment of the rural population to land and to agricultural activity, the challenges to farm viability significantly contribute to outmigration of the agricultural population. As income generating opportunities are scarce and it is difficult to generate employment, people often have no other option but to leave. In some cases, the lack of opportunities in rural areas leads people to believe that life abroad or in urban areas could be more rewarding. Nevertheless, the frequent claim that people leave rural areas because they are attracted by urban areas and modern lifestyles does not explain the phenomenon of emigration sufficiently. The results of this research regarding the motivation of individuals to stay in the study area show that attachment to the area of origin and to the respective socio-cultural background are important factors limiting emigration and leading to a return of emigrants. Also, it was found that a number of young people were struggling to make a living in their area of origin, giving a clear sign that they considered emigration as “*the last option*”, as an agricultural engineer put it.

27% of individuals interviewed for the agricultural and land-based livelihood sample (n=36) had emigrated before and decided to return to their area of origin - they either created their own

employment in the area or they returned only after retiring. Emigrants can live all their life away oriented towards the goal of returning. Everything is bearable and a lot of amenities are forgone as the situation of emigration is seen as a transitory stage only, to be followed by a stage of comfort and happiness, “*back home*”. However, the transitory stage of extremely hard work under precarious conditions lasts most of the life of many emigrants (Caspari, 1985).

Often the money earned during the stay abroad is used to build a house and buy some land in the home village. In general, the return of migrants is seen as highly desirable, as they can contribute financial resources and skills that are useful to revitalise marginal areas, and they are, in any case, precious scarce habitants and consumers. The returning of emigrants to their villages of origin and to farming suggests a positive choice for rural livelihoods.

At a microeconomic and household level, mobility helps people to improve their livelihoods, using niches and opportunities to earn a living. Emigrants and immigrants bring cash to marginal rural communities, sometimes setting up their own businesses, and in these ways they contribute to improve the conditions at local level. However, at a macroeconomic level, the causes of emigration can be traced to what has been termed ‘economic violence’ (Giddens, 1985); the political-economic structural conditions are such that they do not allow individuals to survive if they pursue subsistence-oriented livelihoods.

It is likely that external rural development incentives may be needed to attract outmigrants back to their communities of origin, from where they can be involved in endogenous development. Development policies need to address migration processes in rural peripheral areas. Initially, at

least, economic opportunities to return have to be created to encourage the return flow of migrants (Marsden, 2001).

3.7 Conclusions

It is currently hard for the rural population to make a living from the land in the interior and mountain areas of Portugal. It was found that market-oriented farming is rare in the study area and profitability is reached mainly by those farms that are specialised, mechanised and rely on high-input levels. Subsistence-oriented farming systems prevail, providing mainly food for domestic consumption but also some produce for sale in informal marketing networks.

Despite there being abundant abandoned land in the region, a considerable area around most inhabited villages is still under cultivation, mainly in the form of diverse patches of subsistence agriculture. Within the study area, classified as *Rural fragile/Agriculture fragile* (Pinto-Correia et al., 2006), there is a significant gradation in the levels of land abandonment, with the worst scenarios in the border areas, close to Spain, and in the mountains. Land abandonment is clearly most widespread in the areas where there is a lack of non-agricultural employment opportunities. These areas are characterised by limited primary and secondary sector economic activities, resulting in high reliance on the public service sector to provide employment and a high proportion of retired individuals (Breman and Pinto-Correia, 2004).

It would appear that because it is difficult to derive a sufficient income solely from farming, the maintenance of agricultural systems is currently dependent on the availability of external income

sources that complement the agricultural activity. If an income source outside farming exists, it is more likely that farming will be maintained, whereas when off-farm income sources are not available, emigration will lead to land abandonment. Figure 3.1 summarises this dynamic.

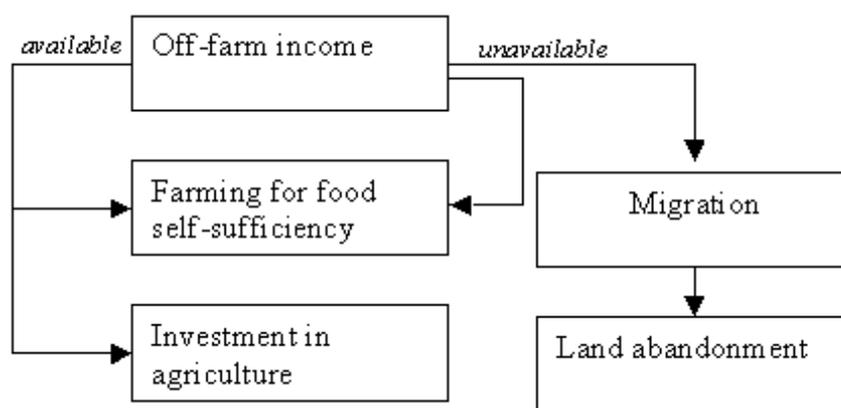


Figure 3.1 – Availability of off-farm income sources as a key factor to explain patterns of land abandonment and upkeep of subsistence production.

A typology of rural land-based livelihoods was developed according to income sources. It was found that there is a diverse range of threats felt at the farm level for the maintenance of agricultural livelihoods. These threats were related to the limited compatibility of subsistence-oriented farming with new production and marketing systems and respective legal requirements.

There are many impacts of declining agricultural livelihoods on individuals. First, livelihood security is at stake and individuals need to find alternatives to sustain their very existence. This is difficult in rural areas where income sources are very limited at present. Thus the main option left to individuals is emigration. Second, at a social level, the changes in livelihoods have brought about a breaking away from traditional forms of social organisation, norms and values. Social cohesion and mutual trust have declined as a result of the disintegration of the village level

community. This has been caused by emigration and the fading role of traditions in organising social life. Third, at the level of the individual, breaking away from traditional norms and values can be difficult: on the one hand new socio-economic circumstances are pushing for changes at the farm household level, but on the other hand traditional social norms and values exist that aim at maintaining traditional farming systems. Therefore, farmers are facing criticism both for not being sufficiently modernised and for modernising – from different sectors of society.

Changes in livelihoods may also require a new definition of individual's identity, as what may have given a sense of empowerment and social regard in the past no longer does so. The long-term disempowerment of the farming community is now increasingly recognised in the form of a sense of 'fatalism' and limited entrepreneurship among farmers (Carvalho *et al.*, 2002). Farmers often do not know with certainty what their legal rights and obligations are with regard to maintaining a legal productive activity and to accessing financial state support, and this leads to a continual state of fearful ignorance that is highly counterproductive if the aim is to empower farmers to make their farms viable.

The origins of land abandonment in Portugal are clearly related to 'de-peasantisation', resulting from market integration of subsistence-oriented agricultural livelihood systems (Araghi, 1995).

This market integration is assumed to be a necessity and a number of drivers encourage it:

- a) agricultural policies aimed at increasing productivity and competitiveness of farms;
- b) national and international food retail enterprises gaining an increasing market share in rural areas and thus outcompeting local agri-food systems;
- c) new legislation that requires investment-intensive and thus high return, market-integrated production systems;

- d) tax and social security obligations to the state that are not specific to subsistence farming systems (their existence is not addressed) overburdening subsistence farmers.

However, the shift of subsistence-oriented farming to commercial agriculture is not a historical necessity, but its encouragement is an ideological option, backed by economic theories of increased efficiency that are derived from industrial systems – and which are totally different from the complex natural systems on which agricultural productivity depends (Weis, 2007).

As a consequence of this push for market integration, traditional farming systems that were highly integrated into natural cycles and productive processes face the need to specialise. This specialisation however disrupts the integrated and cyclical organisation that was typical of subsistence-oriented farms. At the same time as less ecologically sustainable systems are encouraged, the ability of subsistence-oriented farmers to feed themselves and give a positive contribution to the environment and society (in terms of good environmental conditions and high quality foods) declines.

CHAPTER IV

WHAT IS THE POTENTIAL FOR BUILDING LOCAL FOOD SYSTEMS TO REVERSE AGRICULTURAL MARGINALISATION?



4.1 Introduction

Although EU-wide agricultural policies are adopting a discourse of preoccupation with sustainability and the multifunctionality of agriculture, funding is still oriented predominantly towards industrial farming systems (van der Ploeg, 2010). A number of policy measures to support environmentally friendly farming have been introduced, mainly since the 1992 MacSharry CAP reform, however most of these measures are voluntary and only a small number are compulsory (Cardwell, 2004). The established payments for large-scale farmers, cheap food for consumers and low raw material prices for industries make any move towards comprehensive sustainability difficult (Lorenzen, *pers. comm.*). In addition, free-trade agreements limit what individual states can do to protect their agriculture and contribute to undermine the competitiveness of sustainable agriculture as imports from subsidised industrial farms abroad tend to outcompete sustainable farms (Sachs and Santarius, 2007). The fact that Portugal belongs to a variety of international institutions, such as the EU and the WTO, makes it difficult for any protectionist policies to be adopted, especially so because Portugal is largely dependent upon food imports (Domingues, 2004) and has a high level of national debt. The simplest policy measures to halt AM - implementing protectionist measures - are therefore not feasible at the moment.

Thus, at policy level in Portugal, even if there were sufficient determination to tackle the problem of AM, the realistic options to move forward, within the framework of the CAP and without interfering with trade agreements, are few. At municipality level there is room to support farmers, encourage local trade and limit the expansion of external competition (for example, by not licensing supermarket chain stores). However, municipalities may not be aware of the importance

of such policies and therefore do not prioritise them. In fact, the focus of most municipalities on investments in infrastructure development and on attracting external investors has caused support for local farming to slip down the list of priorities.

The main solutions put forward to deal with AM at EU and Portuguese policy level are diversification of the rural economy, diversification of farm income sources and the exploration of quality niche markets for agricultural products. Rural regions should become less dependent upon agricultural employment and their transformation into consumption spaces is seen as inevitable (Baptista, 1995). Small-scale or extensive farmers need to find alternative means to generate a sufficient income, as sales on the mainstream market will admittedly not allow them to make a living (Meert *et al.*, 2005; Baptista, 2006). Clearly, making diverse, small-scale or extensive sustainable farming systems viable on a par with industrial farming is not considered as a real option, and rather it is a case of sustainable farming systems being squeezed into niche markets and maintained through temporary policy support. However, to secure healthy and fertile agro-ecosystems for the future, many argue that it is essential to focus on making ecologically sustainable farming systems economically and socially viable independent of policy support (for example, the international small farmers' association *La Via Campesina*) (Desmarais, 2007). For this to happen, policies need to stop positive discrimination of high-impact farming systems and create enabling conditions for the development of local and sustainable agri-food chain systems (Sachs and Santarius, 2007). Action on the ground that makes use of the existing *space of manoeuvre* to make sustainable farming systems viable and that pushes for policy change is of particular importance at present (van der Ploeg, 2004).

A range of strategies to build alternatives to the global agri-food system have been developed in recent decades, and they hold significant promise for making locally adapted sustainable farming systems viable (van der Ploeg, 1994). These Alternative Agri-Food Networks (AAFNs) add value to products by building upon territorial specificity and identity, and also by endorsing sustainable production methods that consumers prefer (Hinrichs, 2003). Through direct sales, the costs of middlemen and transport can be cut and profits can instead go to farmers (Pretty, 2008). Consumers can be encouraged to buy food from local agri-food chains by making it clear that they are supporting local farmers and sustainable farming practices, while accessing fresh, high quality food that has a positive impact on the local economy, landscapes and people (Clonan *et al.*, 2010).

The produce from the interior and mountain areas in Portugal in general encounters difficulty both in entering the market and in being competitive in conventional marketing chains. Therefore, the option of creating alternative agri-food chain systems in the study area itself seems promising. To explore the potential of the development of proximity-based agri-food systems as a means for farms in marginal areas to become viable, two main issues have to be considered. Firstly, the availability of farmers ready to engage with and produce for these systems and, secondly, the willingness of local consumers to participate in proximity-based agri-food networks.

The availability of farmers to contribute to proximity-based agri-food networks in the study area is problematic for several reasons. Firstly, professional farmers are rare to start with; secondly, the majority of food producers are elderly, retired and non-entrepreneurial and therefore unlikely to be actively involved in setting up new alternative producer-consumer relations, although they

may join a system when they can perceive its (economic) benefits (IDARC, 2002). Finally, the integration of young people in farming has been difficult all over Europe, but extremely so in Portugal (Alarcão *et al.*, 2004). Only 4.9% of Portuguese farmers are under 35 years old, compared to 7.92% at EU level (Alarcão *et al.*, 2004). In accordance with EU policy, the Portuguese government provides special investment support for young farmers (under 40 years old), and currently the non-refundable investment support amounts to €40,000 (Alberto, 2004). Despite this considerable financial incentive, the support measures for young farmers could have been more successful. In particular in the interior and mountain areas the number of young farmers' projects being granted state support has been extremely low (Alarcão *et al.*, 2004). In the main part, state support is granted to farmers who apply with farm business plans for industrial, large-scale farms (Martins, 1996).

It is not only a lack of interest from young people that is preventing them from setting up a farm enterprise, as is often implied, but also the challenges of generating a sufficient income in the farming sector. According to the Portuguese Association of Young Farmers (AJAP, 2005) the main reasons why young people do not consider working in agriculture are:

- a. the agricultural sector is widely connected to poverty and 'backwardness' in Portuguese society;
- b. the general tendency of higher qualified youngsters is not to consider entrepreneurship but to seek 'employment';
- c. insufficient professional education directed at agriculture;
- d. difficulty in accessing land with a sufficient size and potential to justify initial investment;
- e. difficulty in accessing both rights to produce and financial support measures;

- f. lack of quality service providers for farmers;
- g. lack of knowledge concerning the agricultural market and opportunities in farming;
- h. the fact that agriculture depends on a very changeable legal and political framework and uncertain natural conditions;
- i. growing competition;
- j. difficulty in accessing credit.

Since 1986, the Portuguese state has co-financed several thousand investment projects, of nearly 22,000 young farmers (Silva, 2006). A study evaluating the non-refundable investment assistance for young farmers between 2000 and 2005 has shown that existing, rather than new farmers, received financial support (Silva, 2006). A significant number of farmers ceased farming after the completion of the contract period (Freitas, 2006). Installation of young farmers was mainly concentrated in the areas where agriculture is competitive (Silva, 2006). The data show that policies aimed at attracting new people to farming have not effectively targeted land abandonment in marginal areas.

Despite the overarching tendency for young people to leave the land, there is also a movement in the opposite direction. The phenomenon of urban migration back to rural areas has been studied in Portugal, and individuals settling in rural areas have been termed ‘neo-rurals’ (*neo-rurais*), according to the French literature (Chosson, 1981; Mercier and Simona, 1983). The phenomenon of neo-rurality in Portugal has been studied from a variety of viewpoints (Dinis, 2001; Covas, 2008), but the integration of urban migrants into the agricultural sector remains under-reported.

Consumer awareness of food issues in urban areas appears to be growing (Truninger, 2008), and the expansion of quality food markets points towards increasing demand for speciality foods, such as those produced by small-scale and diverse farming systems. However, the potential of rural consumers becoming allied to farmers and in this way supporting the maintenance of local sustainable farming systems has not yet been investigated in Portugal.

The question of whether there are farmers and consumers willing to engage in local agri-food systems is addressed in the following two sections. First the profile of newcomers to farming is discussed and then the results of consumer questionnaires are presented.

4.2 Newcomers to farming: evidence of demand for agricultural livelihoods

To contribute to the empirical evidence of the existence of individuals who wish to set up agricultural livelihoods, a questionnaire was conducted to sketch a profile of ‘newcomers to farming’ (Section 2.3.2). Although the sample size was very small (n=24), due to the hidden nature of the sample and ensuing methodological difficulties, evidence found after the questionnaire results were obtained could be used for triangulation and confirmed the validity of the results for individuals moving to the study area.

In particular, an increasing interest in agricultural livelihoods was noticeable on the internet. The number of websites, blogs and social networks dedicated to sustainable agriculture and sustainable living projects has grown steadily. Of particular interest is the social network entitled “*Permacultura Portugal*”, which is made up exclusively of individuals both interested in sustainable agriculture and related livelihoods and those already directly involved. This virtual social network was started in January 2009, reached a hundred members in less than one month and one year later it had nearly one thousand members.

4.2.1 Newcomers sample profile

Most (75%) of the newcomers to farming moved from cities to rural areas and only 6 individuals (25%) wanted to start farming in their home area. Six individuals were foreigners who had moved to Portugal. Recently, it has been mostly British nationals who have been moving to the central Portuguese mountain areas. In terms of educational level, newcomers to farming are

highly educated; 92% have attended higher education and 41% hold postgraduate degrees. This tendency may represent a reversal of the historical 'brain drain', in which only the less educated remained in rural areas. 62.5% of individuals had some work or training experience in agriculture and 37.5% had no previous experience in agriculture.

4.2.2 Motivations to move to rural areas and start farming

The reasons given for why individuals wanted to move to rural areas and enter farming were diverse and ranged from a radical social ecology perspective to a profit oriented exploitation of a niche market (Figure 4.1). However, the most commonly cited reasons were the importance of contact with nature and personal enjoyment of farm work. Environmental and spiritual values were given equal importance. Six individuals explained that they wanted to put their formal training into practice and four of them mentioned that they also aspired to the relative economic independence that is possible as (highly self-sufficient) farmers.

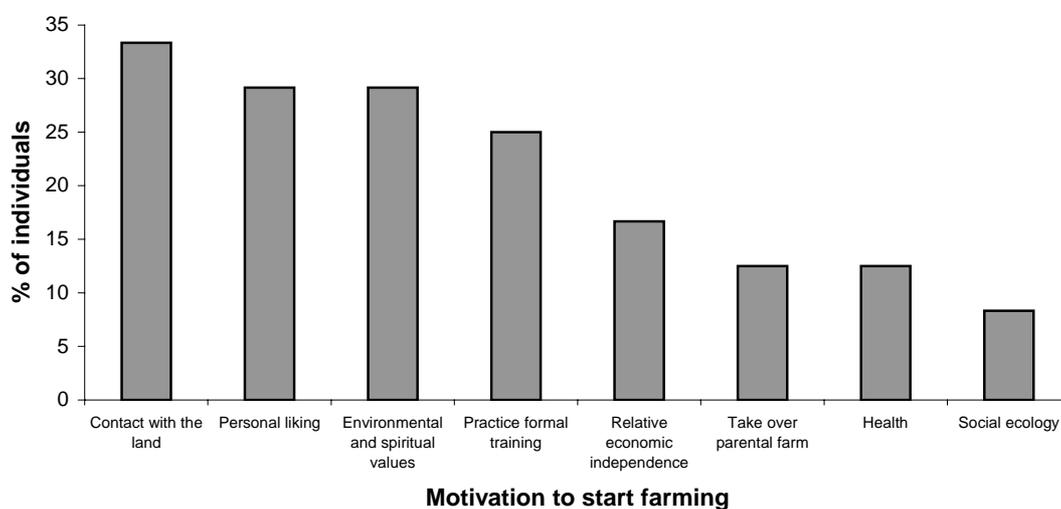


Figure 4.1 – Number of newcomers to farming in Portugal citing each motivation to start farming (n=24).

As the motivations to farm show, most newcomers to farming wish to reconnect to the land and hold environmental and spiritual values. Thus, it is not surprising that most of them (83%) opted for organic or other sustainable farming practices such as permaculture and biodynamic farming (Figure 4.2).

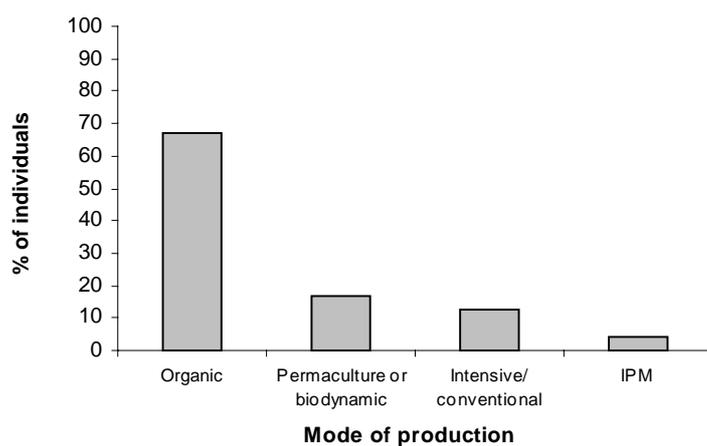


Figure 4.2 – Percentage of newcomers to farming using or intending to use different modes of agricultural production (n=24) (IPM stands for Integrated Pest Management).

4.2.3 Livelihood strategies of newcomers to farming

The sample of newcomers to farming (n=24) comprised some individuals (16%) that wanted to move back to the land to start agricultural production for domestic food self-sufficiency only, and to engage in other income-generating activities. The remaining 84% were developing more commercial farms, although the majority of these (75%) planned to have multiple income sources to achieve livelihood viability. The activities developed or planned for development alongside commercial agricultural activity were mainly ecotourism (42%), training (21%) and consultancy work (21%). In a small number of cases, full-time employment outside the farm existed. This was mainly the case where individuals wanted to maintain the family farm or to earn some extra income by exploring a niche-market (e.g. intensive organic goat rearing for milk).

The fact that pluriactivity is a widespread practice/aim seems to reveal some realistic pragmatism under the current circumstances, allied with the capacity to engage in entrepreneurial activities to secure an income. However, the fact that the activities to be carried out alongside farming were not very diverse, but mainly related to ecotourism, training and consultancy work, is perhaps of concern insofar as those markets could become saturated and not provide enough market space for all the individuals who wish to move to the land and start a low-impact livelihood. In one case, an enterprise to provide guided tours by foot and with donkeys through the mountains could never properly get off the ground due to a lack of clients. Thus it seems important that a greater diversity of options to generate income in rural areas is developed. Developing local agri-food systems could improve the income of farmers and alleviate the economic pressures that lead them to seek alternative income sources.

4.2.4 Problem areas for newcomers to farming

Newcomers to farming were asked what they perceived to be the main challenges they faced in establishing themselves and achieving farm viability. Figure 4.3 shows how many newcomers to farming were affected by various problems.

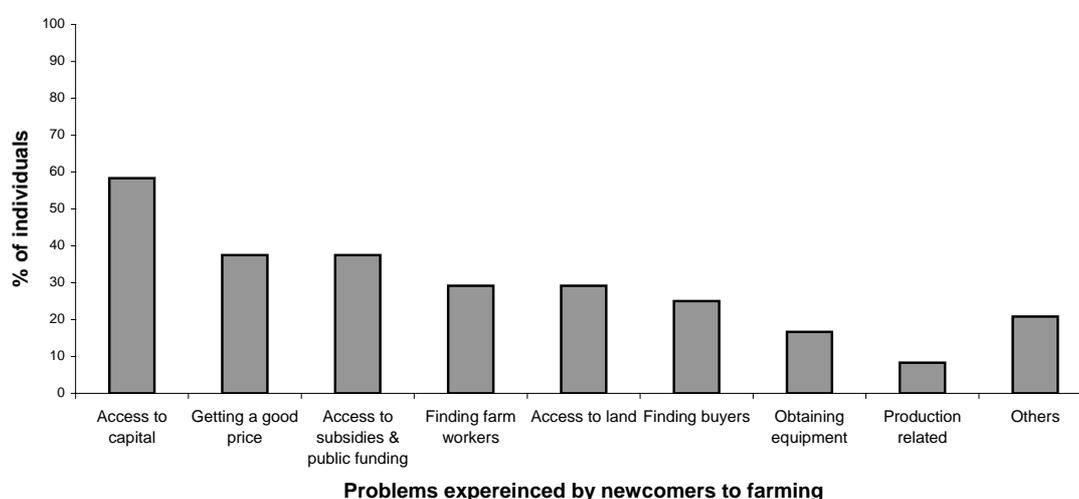


Figure 4.3 – Number of newcomers to farming (n=24) experiencing each of a number of problems in achieving farm viability.

Economic viability was clearly the main problem area identified by participants. Initial capital investments (such as land and equipment) necessary to set up a legal productive activity are very high. Farmgate prices are often too low to justify the investment (the problem of ‘getting a good price’). In fact, the high initial investment required is prohibitive for many people who want to start up farming, and only a small proportion of individuals motivated to enter farming can find the means to start up an agricultural livelihood.

To access the specific young farmer support measures, newcomers to farming have to have a viable business plan, that has been assessed thoroughly, and only plans that meet the standard criteria (generally related to industrial scale farming) are granted support, while support targeted at setting up small-scale or diverse farms is nonexistent. In the 4 year transition from one EU Community Support Framework Program (CSFP) to the next, no investment support for young farmers was available, and a number of candidates who had already completed training and were ready to start were left in limbo, unable to start up their business without the investment support. A farmer from Gouveia recounted: *“Some young farmers did not get the public funding for their project on time and went bankrupt with their new project.”*

For individuals moving into rural areas, social integration can also be problematic. The rural communities are rather closed and strangers are often treated with curiosity and mistrust (Alves, 2001). The worldviews of locals and individuals who decide to start up an agricultural livelihood are frequently very different. A young Portuguese farmer found social relations in his new home area very difficult. He said *“the neighbours criticise everything we do”* and *“when we need help they do things their way, and not how we ask them to do it”*. He said *“for us it is difficult, but for the new foreign farmers it’s a thousand times worse”*. This was confirmed by a Dutch lady who said *“the criticisms from the neighbours are really taking away my partner’s joy in his work. Whatever he does on the farm, the neighbours are always negative about it, because we don’t do things the way they are commonly done here.”*

A young Belgian man who wished to start farming in Portugal returned to his country of origin after two years. He said: *“one of the things that made me be sure that I could not become a farmer in Portugal was that for two months we simply couldn’t get a mechanic to repair the*

tractor. And that was during the peak farmwork season”. Other individuals who had wanted to start up farming have also encountered many difficulties on their way and finally given up this ambition.

4.2.5 Solutions found by newcomers to farming to overcome problems

The challenges in entering mainstream agri-food markets are the same for both newcomers to farming and established farmers; however, newcomers to farming are usually more entrepreneurial, and therefore more able to explore niche markets and to engage in on-farm and off-farm diversification. It also seems that newcomers to farming have a social network that is geographically wider and more diversified than the social networks of traditional farmers and this helps in problem solving and marketing. Newcomers to farming tended not to remain passive when facing difficulties, and they have devised a number of solutions to deal with the problems they faced (Table 4.1).

Table 4.1 – Problems encountered and solutions developed by newcomers to farming.

Problems	Solutions
Access to land and capital	<ol style="list-style-type: none"> 1. family loan; 2. application to public funding; 3. bank loan; 4. saving money doing unrelated jobs; 5. finding an investor as a business partner; 6. shared land ownership ; 7. CSA membership shares.
Access to state support	<ol style="list-style-type: none"> 1. attending the courses needed to be eligible; 2. perseverance and insistence with the state agencies.
Marketing farm produce	<ol style="list-style-type: none"> 1. direct marketing to increase share of profits; 2. adding value; 3. using organic practices and certification to sell at a premium.
Economic viability	<ol style="list-style-type: none"> 1. on-farm diversification (ecotourism, training, EU-funded projects); 2. off-farm income sources (internet based jobs, consultancy work, other ordinary employment).

The external help that newcomers to farming felt that they needed in order to succeed was mainly related to technical knowledge and financial support. Newcomers said they needed technical support specifically for advice on production methods, but more importantly they stressed that they needed to learn about farm business management and marketing. Technical advice on these issues and especially information regarding the evolution of the agricultural markets was considered very important.

Components contributing positively to the establishment of viable land-based livelihoods in the study area were found to be the following:

- Accumulating sufficient starting capital outside the region;
- Use of existing niche markets and territorial value to achieve a good price;
- Engaging actively in marketing;
- Specialising in a high value product;
- Actively seeking support from local government and institutions.

4.3 Consumer support for local agri-food systems

In the past 30 years, the food systems in Portuguese rural areas have undergone an enormous transformation, from local food production and consumption being predominant to an increasing dependence on external products. Domestic food production and traditional local markets still play an important role in local food provisioning, but the tendency is towards decline. Many argue that in areas in which subsistence farming is common it is very difficult, if not impossible, to develop Alternative Agri-Food Networks (AAFNs). As everyone produces for their own needs, there is little market demand for what can be produced locally. However, the successes of discount food supermarket chain stores points towards a growing proportion of rural consumers that do not produce enough food for domestic consumption. Here it is investigated whether these consumers could be encouraged to support local farming systems.

In order to understand the potential of rural consumers becoming involved with AAFNs, a questionnaire was developed that assessed current food sourcing habits, preferences influencing food choice and explored whether consumers were willing to buy more food locally (see methods Section 2.3.2).

4.3.1 The foodshed: current food sourcing practices

To begin with, an analysis of current food sourcing practices was conducted, in order to explore the potential of increasing consumption of locally produced foods. The questionnaire data revealed that the main source of purchased food for the rural population was supermarket chain stores (Figure 4.4). Still, more than half of the individuals (58%) visited local farmers' markets

and nearly half (47%) visited local shops. Domestic food production was found to be very important, feeding both the producer households and close relatives for free. Domestic food production and production of relatives contributed to feeding 45% and 38% of households respectively. 11% of households with domestic food production also received food from family producers. Therefore it can be concluded that 71% of the sample consumes locally produced food.

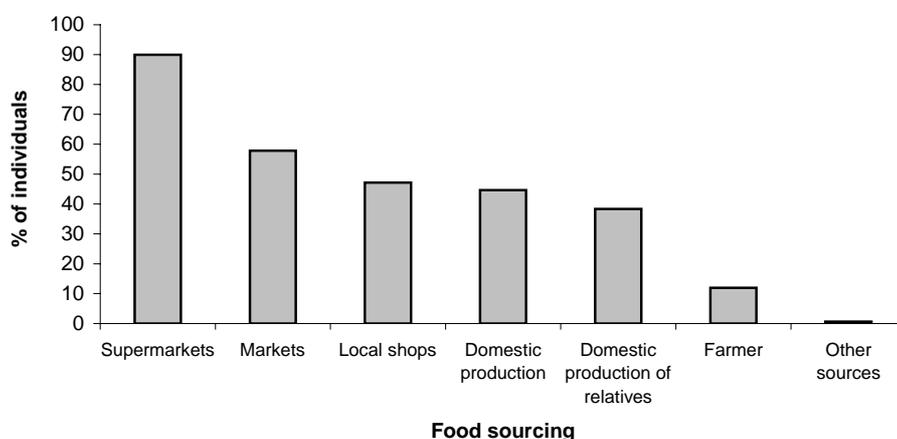


Figure 4.4 – Percentage of households interviewed using different types of food sources (multiple sources per household are possible) (n=159).

In terms of quantity, the majority of food (58%) consumed in the local area is purchased at supermarkets (see Figure 4.5). But the second most important source of food is domestic production, making up 25% of total food consumption. Of this domestic production, 72% was consumed by the producing household (18% of total consumption) with the remaining 28% being consumed by relatives of domestic producers (7% of total consumption). Local shops (9%) and markets (6%) were less important for sourcing food and direct purchases from farmers were even less important (1%).

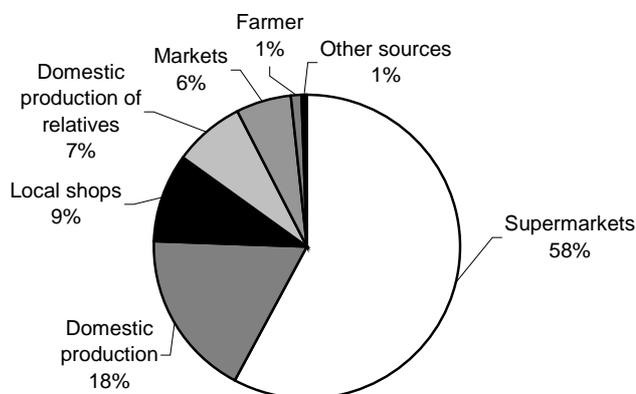


Figure 4.5 – Relative importance of each food source used, for aggregate food consumption by interviewed households (n=159, total food consumed=100%).

It was found that a number of demographic indicators predict whether or not an individual is involved in domestic food production. Younger individuals (under 30) were less likely to tend their own vegetable garden ($\chi^2=7.629$, $df=5$, $p<0.05$), and a higher level of education would imply a lower probability of engaging in domestic food production ($\chi^2=13.935$, $df=11$, $p<0.05$). Of all occupation categories, the individuals employed in the private sector were less likely to produce their own food. Individuals living in a rural setting were much more likely to produce their own food than individuals living in the small towns of the interior ($\chi^2=12.215$, $df=1$, $p<0.01$). Individuals engaged in domestic food production tended to source their food from a more diverse number of sources than individuals not engaged in domestic food production ($\chi^2=35.009$, $df=6$, $p<0.01$). Almost everyone sourced at least part of their food from supermarkets, and there were no significant differences according to age, rural or urban setting and occupation.

Weekly expenditure on food per individual varied between €5 and €125, with the mean being €28. Figure 4.6 illustrates the distribution of consumers among different spending categories.

There was a weak but significant correlation between weekly food expenditure per individual and percentage of domestic food production ($r = -0.183$, $p < 0.05$); weekly expenditure decreased with an increase in domestic food production. The only other food sourcing strategy that significantly affected weekly expenditure was food purchases at local shops, which significantly increased weekly expenditure ($r = 0.195$, $p < 0.05$). As domestic producers are more likely to purchase food in local shops, they may lose some of the financial advantages of domestic food production in their overall weekly expenditure.

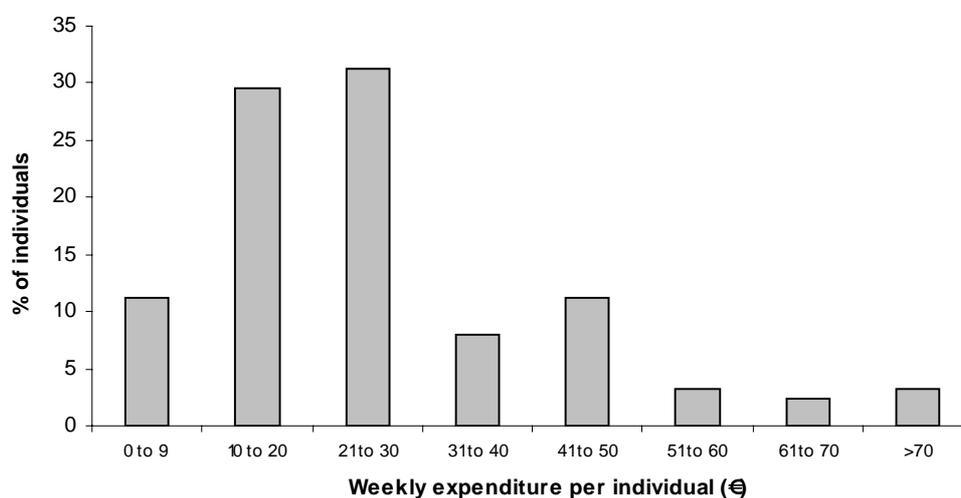


Figure 4.6 – Percentage of individuals according to different categories of weekly food expenditure (n=159).

4.3.2 The role of supermarket chain stores

Supermarket chain stores are the main source of food for the majority of the rural population. Given the importance of supermarket chain stores in the study area, a brief investigation into food sourcing by supermarkets was conducted, to test the assumption that supermarkets rely to a significant extent on food imports.

The place of origin of 5 agricultural products was recorded in 8 supermarkets. Products were chosen that are produced in the study area and consumed almost daily by the local population. The place of origin of the cheapest product was reported in the cases where there were several options. The results show that many of the staple crops produced locally and nationally are imported (Figure 4.7). National supermarket chain stores are more likely to source Portuguese products than internationally based supermarkets. The food discount chain *Lidl* had the lowest number of nationally sourced staple foods investigated.

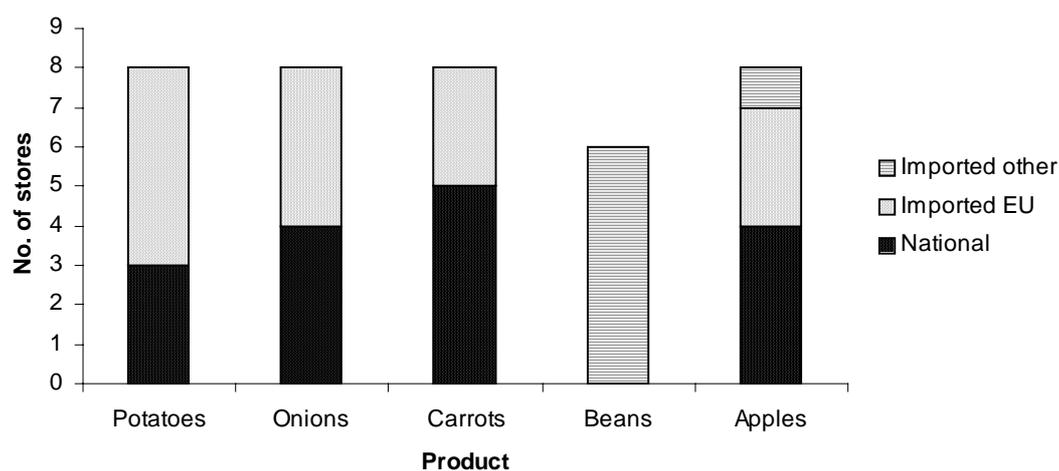


Figure 4.7 – Origin of staple foods in 8 different supermarket chain stores in the study area (the origin of beans could not be traced in 2 supermarkets).

Interestingly, interviewees reported that two supermarket chain stores sourced some fresh vegetables directly or via a cooperative from local farmers (*Écomarché* in São Pedro do Sul and *Minipreço* in Gouveia, respectively), and some interviewees hoped that supermarket chains would increasingly come to source food in the area where they have stores.

Several consumers said they preferred the convenience of shopping at supermarket chain stores. They said “*I like shopping at the supermarket*”, “*I’m satisfied with what I get at the supermarket*” and one noted “*Farmers take more money than the retailers*”. A minority of consumers however showed a clear avoidance of supermarkets. Two merchants explained they would not shop at supermarkets because “*são esses que nos botam abaixo*” (‘it’s them who pull us down’). They said they were willing to make an extra effort to purchase food rather than go to the supermarket, because “*we (small businesses) have to support each other*”.

4.3.3 Criteria for food choice

The data showed that there is an awareness of the importance of choosing healthy and quality food, however not all individuals declared this to be their priority in selecting food (Figure 4.8). Many consumers who said they only rarely purchase ‘quality’ food referred to exclusive brands’ advertising with claims of high quality and said they could not afford such products.

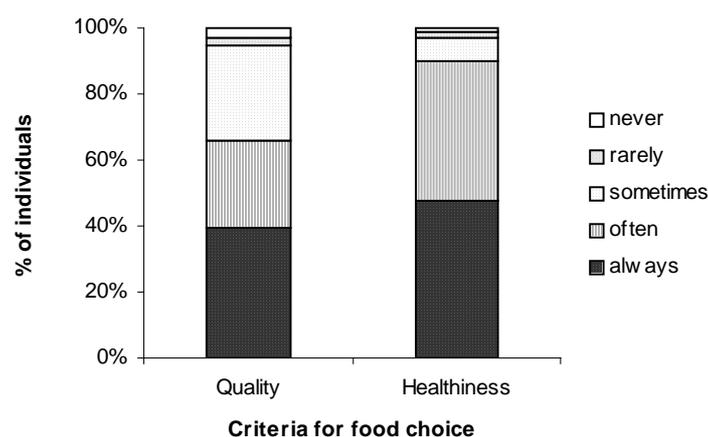


Figure 4.8 – Criteria for food purchases by consumers in the study area: how often perceptions of quality and healthiness influence food purchases (n=101).

It was found that consumers would attribute high importance to low price and appearance – the criteria assumed to work against consumers’ support of local food chains (Figure 4.9). 50% of consumers stated that they always prefer lower priced food and 24% said they often do so. Only 5% of consumers said they would never or rarely base their decision on what food to buy based on low price.



Figure 4.9 - Criteria for food purchases by consumers in the study area: relative importance of the criteria “low price” and “appearance” (n=101).

A significant discrepancy was found between food purchasing habits and actual importance attributed to appearance (described as large size and ‘good looking’ fruits and vegetables) (Figure 4.10). During food purchases, standardised large fruit and vegetables would be preferred; although it was thought that the appearance was not a relevant criterion. 67% of consumers would choose their food according to appearance, but only 32% found that to be an important or very important criterion for food choice. 29% of consumers thought that appearance was not at all important in making food choices, whereas only 2% said that appearance did not influence their food purchasing options.

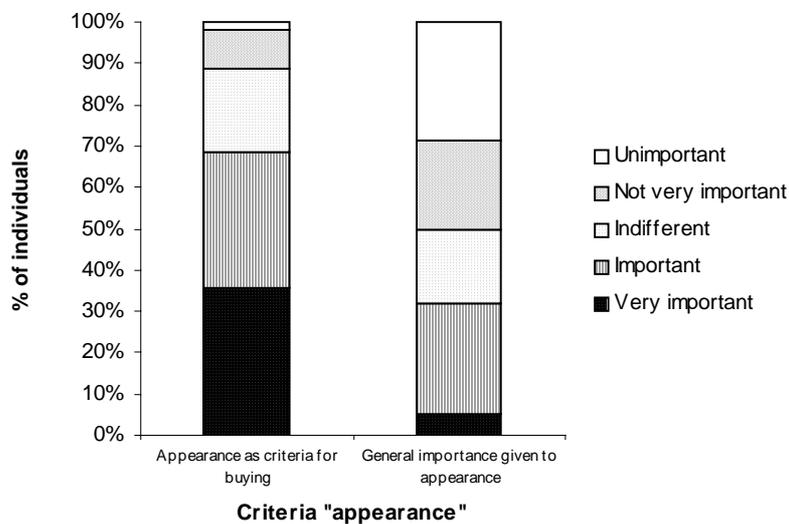


Figure 4.10 – Discrepancies between importance attributed to appearance as a criteria for food selection (n=101) and the general importance attributed to the criteria “appearance” (n=58).

The criteria ‘freshness’, ‘mode of food production’ and ‘place of origin’ showed a largely favourable picture of consumers’ potential support of local agri-food networks, as the majority stated a preference for fresh, organic and regionally or nationally sourced produce (Figure 4.11).

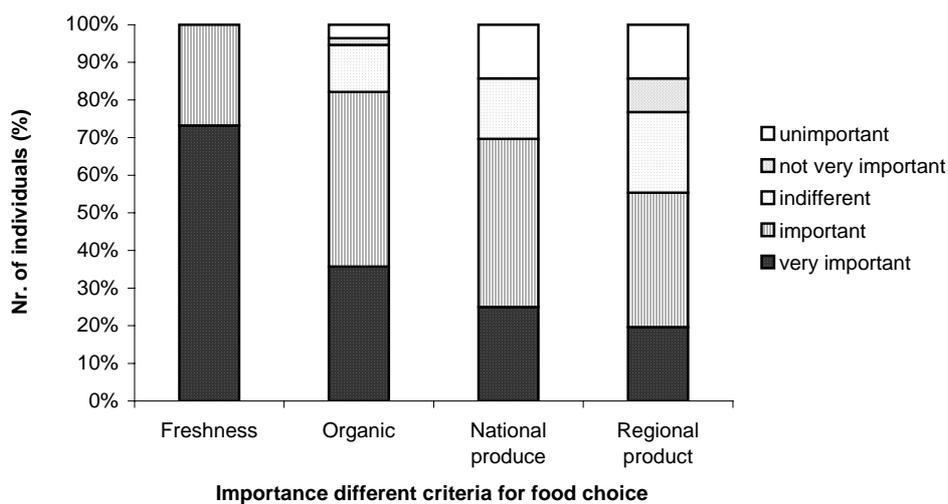


Figure 4.11 – Perceived importance of various criteria for food selection choices of consumers in the study area (n=58).

Although there was a high importance attributed to these criteria, they had little influence on actual food purchasing choices (Figure 4.12). The preference for a low price could in part explain this; although the importance of fresh, organic, national and regional food is recognised, that is not always reflected in actual food purchasing behaviour.

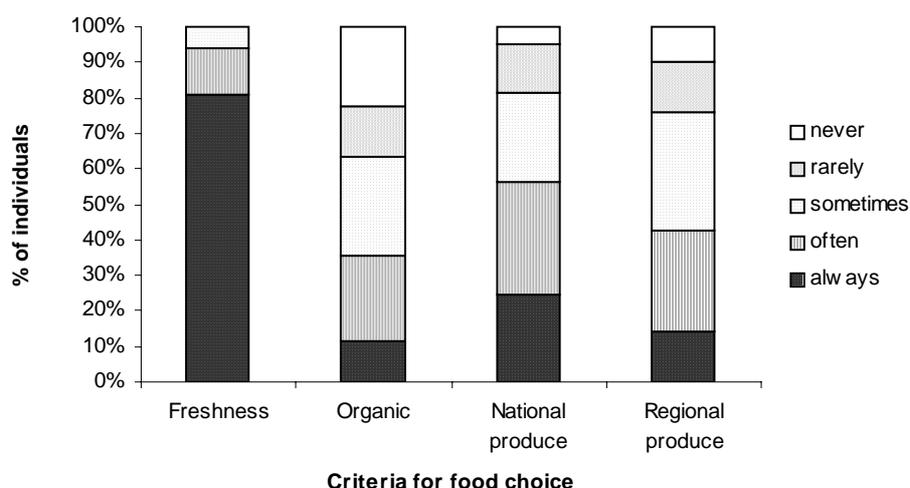


Figure 4.12 - Criteria for food purchases by consumers in the study area: relative importance of the criteria ‘freshness’, ‘organic’, ‘nationally produced’ and ‘regionally produced’ to determine purchases (n=101).

‘Freshness’ was the criterion to which consumers gave most importance. However, under the criteria ‘freshness’, consumers would not always comprehend a short time interval between harvesting and consumption, but instead refer to their choice not to buy things past their sell by date. Thus this criterion might not be a useful indicator of preference for local produce.

More than half of the sample population expressed a preference for nationally produced food, whereas regional and organic were less important criteria, partially because consumers thought that neither organic nor regional foodstuffs were readily available on the markets to which they had access. It was found that domestic producers had a higher preference for organic produce

than individuals not engaged in domestic food production ($\chi^2=10.215$, $df=4$, $p<0.05$). This suggests that direct experience with food production increases awareness of the dangers of pesticides and chemical fertilisers.

4.3.4 Consumer perception of connections in the agri-food chain

On the whole, consumers' awareness of food production and agricultural systems was high. A total score was calculated to indicate consumers' awareness of connections in the agri-food chain, based on their answers to Lickert scale questions. It was found that the sample was positively skewed; consumers were largely aware of the connections. The score ranged between one and five, with the minimum score in the sample being 3 and the mean 4.21.

The majority (94%) of consumers agreed or strongly agreed that farmers were experiencing economic difficulties. On the other hand, consumers were less sure about whether buying local was good for the local economy (13% indifferent or disagree) and whether landscapes were positively influenced by family farming systems (19% indifferent or disagree). Still, the connection between agriculture and landscape value was evident to most consumers, and some raised the issue that land abandonment was leading to a decline of appreciated features of the landscape. 39% of consumers considered pesticides to be problematic (strongly agree) and 55% agreed that pesticides were a problem (Figure 4.13). Frequently, consumers involved in farming who would 'agree' that pesticides posed a risk to farmer and consumer health would on the other hand point out that "*nowadays nothing grows without pesticides*", "*if you want to harvest something you have to use these chemicals*" because "*there are increasingly more pests*".

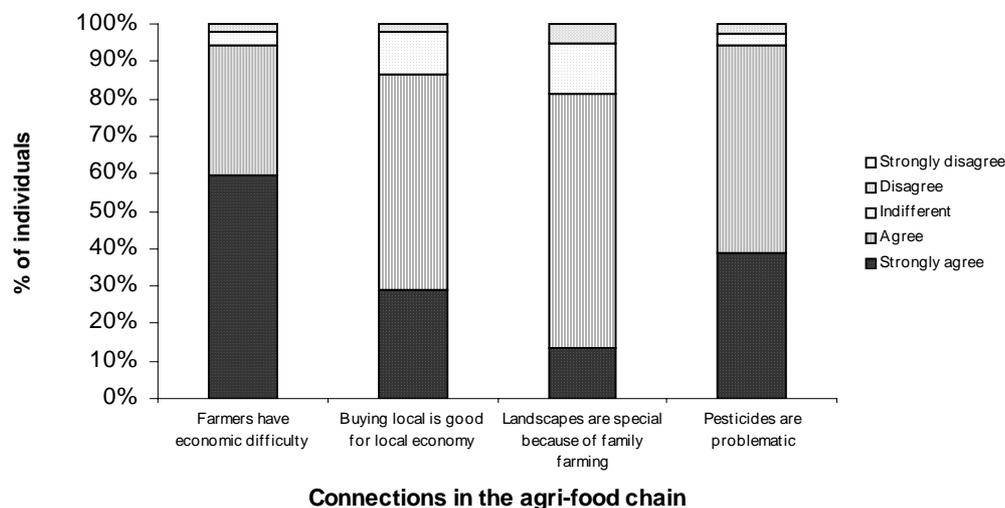


Figure 4.13 – Consumers’ perceptions regarding different aspects of the agri-food chain (n=159).

4.3.5 Willingness of rural consumers to support local agri-food systems

In order to assess the potential for the development of local food systems, consumers were asked both directly and via Likert scale questions about their willingness to engage in AAFN.

Data from 155 consumers was obtained regarding the question of whether they would buy (more) food directly from local farmers. 74% of individuals (n=115) said they were willing to buy food from local farmers and explained that option (Figure 4.14). The most important reason was that consumers assumed that locally produced food would be of superior quality than any other food; it was said to be fresher, spent less time in transport, benefited from “*our soils*” and had less synthetic chemicals applied. The second most important reason to prefer local food was related to greater knowledge of local production processes and trust in local producers. This was sometimes emphasised by comments on the lack of transparency of supermarket distribution systems.

Supporting local farmers and arguments in favour of local agri-food chain systems were also mentioned as important factors. 7% of consumers hoped to obtain advantageous lower prices if purchasing local foods.

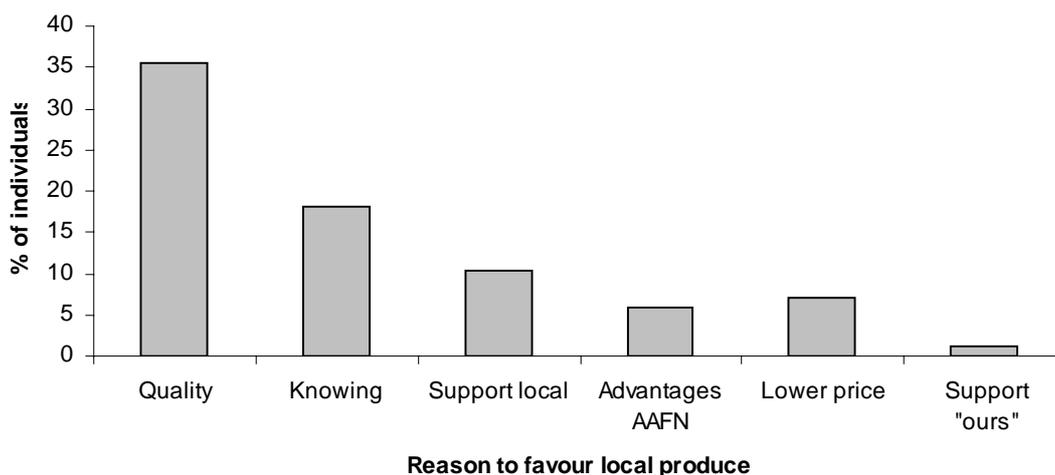


Figure 4.14 – Reasons cited by consumers for being willing to buy food directly from local farmers (n=115).

A quarter of respondents however stated that they were not willing to buy food from local farmers. The reasons for this were threefold i) individuals were already engaged in local food sourcing (16%); ii) consumers had never considered the option of buying local; it had never occurred to them and they could not see any point in doing so (4%) and iii) some consumers were opposed to the idea of buying from local farmers (8%), usually because they preferred the choice and convenience of supermarkets. There was some overlap due to the possibility of consumers citing various reasons. All in all, of the rural consumers who did not yet source food locally, only 10 % (16 individuals) stated that they would not be willing to do so.

The Likert scale questions confirmed that the majority of consumers are willing to buy food from local producers. However, when asked about their willingness to make an extra effort or to spend extra time and money to buy local food, this willingness decreased (see Figure 4.15).



Figure 4.15 – Consumers’ responses to Likert scale questions regarding their willingness to purchase food from local producers (n=159).

4.3.6 Consumer groups according to connectedness to food production

The study population fell into 4 categories according to connectedness to agriculture and food production: i) farmers, ii) domestic food producers, iii) relatives of domestic producers who receive a share of the harvest, and iv) consumers with no connection to local food production.

Only 4% of the sample was made up of farmers (a sign of the scarcity of professional farmers in the area) but a total of 40% of the remaining sample population were domestic food producers.

28% of consumers had no direct link to local food production (see Figure 4.16). It is this group of

consumers that is most likely to be able to increase local food consumption. Only 5.8% of these consumers stated that they were not willing to buy local food.

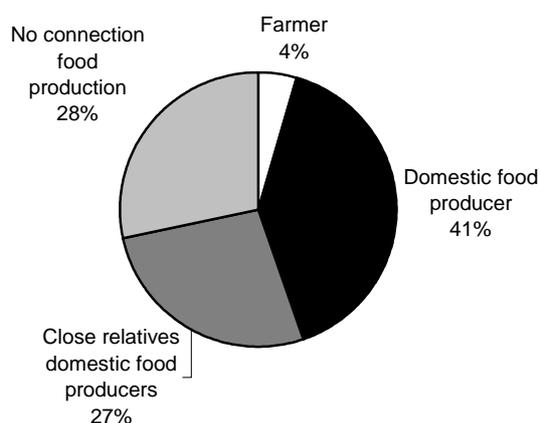


Figure 4.16 – Consumer groups according to connection to agriculture and food production.

The group of consumers not connected to local food production possesses slightly higher levels of education than average and is more likely to live in the towns of the interior than in the villages. Most of these consumers work in the private sector – employed or self-employed. This group of consumers showed a slightly higher preference for organic, regional and nationally produced foods than consumers on average. Also, the majority of consumers with no connection to farming were willing to spend extra time and money on local food purchases (90.5%).

The average weekly expenditure for food of consumers not connected to farming shows a predominance of the lower expenditure categories (€11 to €30), however nearly 15% of consumers in this group spend between €41-€50 weekly (Figure 4.17). The generally low food expenditure of these consumers can be related to them purchasing most foodstuffs in food discount supermarket chain stores.

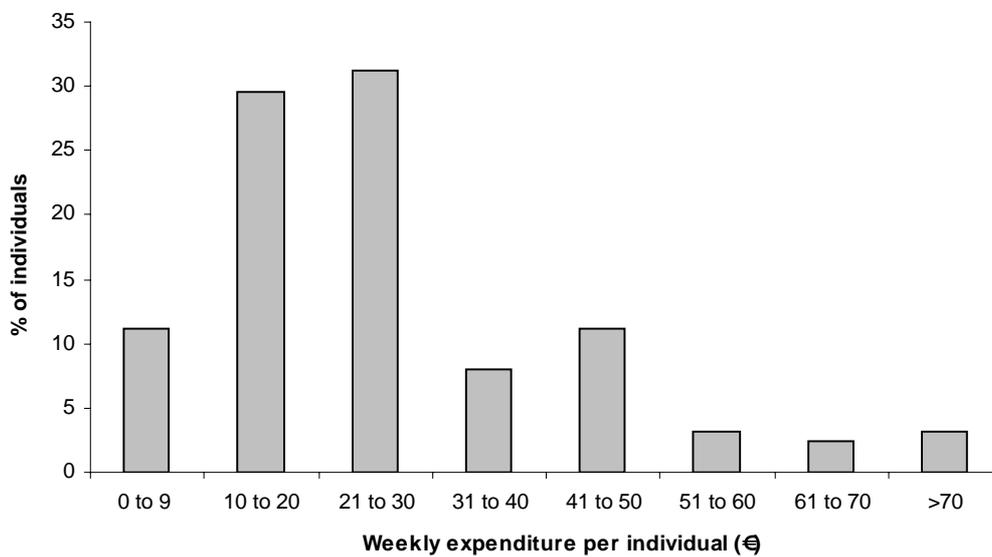


Figure 4.17 – Weekly expenditure per individual for food, for consumers with no connection to farming (n=46).

4.4 The potential to develop local agri-food systems in marginal areas

4.4.1 The vicious cycle of agricultural marginalisation

As a result of an elderly farming population and disengaged consumers, the 'post-modern' forms of local food sourcing, such as farm shops and box schemes, are not yet in place in rural Portugal. At the same time, traditional institutions such as farmers' markets and direct farm sales are continually losing importance. This phenomenon is mainly due to the expansion of cheap and convenient supermarket chain stores, a lack of policy support for local marketing systems and the increasingly restrictive legislation surrounding sales of foodstuffs. The evidence that the older and less educated consumers rely more on locally produced food might mean that local food sourcing will decline further as this generation passes away.

However, the evidence also indicates that there is a movement back to rural areas, undertaken mainly by ecologically minded, highly educated citizens. Immigrants from central and northern Europe seem to play an increasingly important role in marginal rural communities in Portugal (Dinis, 2001). The majority of newcomers to farming value rural areas and agriculture both for the contact with the land and for the healthy and balanced lifestyle possible there.

Newcomers to farming face financial difficulties in starting up their agricultural enterprises, due mainly to land access and start-up capital costs. Difficulties in marketing were also found to be a barrier to establishing a viable agricultural livelihood and newcomers to farming stressed the importance of technical support in this area. Many of these newcomers have actively tried to find solutions to problems they were encountering and have engaged in diversification of on-farm and off-farm income sources. Some of the ecologically-minded have explored a number of options

and alternative economic arrangements have been trialled. The growing interest in livelihood based on sustainable agriculture holds promise for the development of local food systems in the future.

The consumer survey showed that although commercial farming is now rare in the study area, domestic food production is very widespread, and local produce makes up 25% of total food consumed by households. 71% of consumers are engaged in domestic food production themselves or receive local produce for free from their farming relatives. However, supermarkets were the most important place to acquire food (used by 90% of consumers). 22% of consumers do not at present produce or receive local food but would be interested in sourcing more food locally – they are the group that is most likely to engage with alternative local food sourcing networks.

Although most consumers stated they had a preference for food sourced locally, their purchasing choices did not always reflect this. Consumers seem to place more value on low price, choice and convenience. These findings show that there is a vicious cycle at play; a local level mechanism of marginalisation of agriculture, in which supermarket chain stores play a key role, because it is through them that agricultural market liberalisation impacts the study area (Figure 4.18). As a result of the establishment of supermarket chain stores, it is suddenly cheaper and more convenient – not to mention a perceived sign of progressiveness and modernity – to buy food at these stores. People buy less food from local shops, markets and farmers. As a consequence, farmers are not able to earn enough to buy from other farmers, markets and shops and have to go to supermarkets themselves to buy cheap goods. As farmer income levels decline because they can no longer sell their produce, they have to continue or increase their domestic production to

reduce household expenditure. This explains why subsistence agriculture is very common, and commercial agriculture is almost nonexistent.

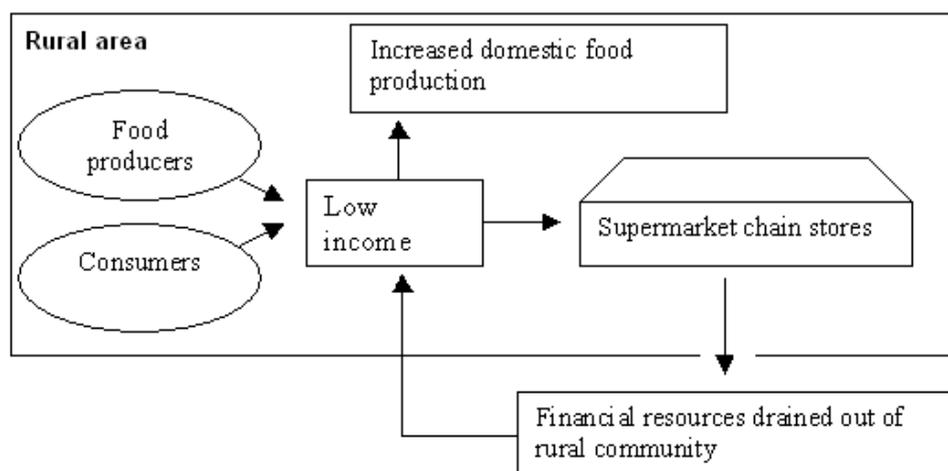


Figure 4.18 – The draining of financial resources out of the rural community through supermarket chains: the income of farming households is reduced due to external competition. In response, farming households increase domestic food production but are also forced to purchase cheap imports themselves.

The circulation of financial resources within rural communities has decreased as money is being drained out of the community by supermarket chain stores. This mechanism is self-perpetuating and cyclical: poor consumers rely on cheap goods; cheap goods are imported, meaning that the little cash available flows out of the already impoverished community making it even more reliant on cheap goods. The link between the self-enforcing dynamic of agricultural and rural decline and the expansion of supermarkets found in the mountain areas in Portugal, corresponds to a dynamic that has also been found in other settings (Douthwaite, 1996; Reardon and Gulati, 2008). Domingues (2004) has shown that the development of supermarket chains runs parallel with the recent decline of agriculture in the mountain areas. The amount of employment created by each supermarket store is small when compared to the number of livelihoods lost locally.

4.4.2 What is needed to develop local agri-food systems?

To develop local agri-food chain systems, it is necessary to reverse the process set in motion by global market integration. This is particularly difficult because the dismantling of the local food chain operates like a self-enforcing negative cycle. This cycle needs to be broken, so that local agri-food systems can be developed. To break the cycle, consumers need to be willing to opt for local foods. This choice is hampered by low income, limited awareness of the importance of buying local, and the lack of local marketing organisation and infrastructure.

To tackle the limitations imposed by low income, it is important that local food is kept at affordable prices. Certified quality production to be sold at premium prices is unlikely to strengthen the local economy in poor rural areas, except if a large number of local producers engage in quality products with significant market demand.

The organisation of local direct markets that are easily accessible to local farmers and consumers will play an essential role in promoting local agri-food chains. The promotion of farmers' markets, and re-establishment of new markets where they have already been extinguished, would be a good entry point to strengthen local farming systems and economies, as markets are a traditional and well accepted institution. The creation of buyer groups or food cooperatives in the towns of the interior and also in the coastal urban centres could also be very promising, as they can function efficiently and meet the specific demands of the stakeholders involved, with a minimum of organisation required.

Spreading information and promoting cooperation of individuals regarding food issues is key to finding arrangements that are beneficial to both farmers and consumers. In order to engage more consumers in buying local agricultural products it is necessary to create a supportive environment with accessible information and networks of good organisational practice so that individuals who want to start up AAFNs do not feel isolated, but are encouraged to take their initiative forward. The establishment of demonstration projects of simple strategies to increase local food sourcing is already happening, but more successful examples are needed to help mainstream proximity-based alternative agri-food networks.

4.5 Conclusions

This chapter has assessed the potential for the development of Alternative Agri-Food Networks (AAFNs) by studying whether there are newcomers to farming that might be able to engage in alternative marketing strategies and by assessing potential consumer demand for locally produced foods.

There is a growing interest in sustainable agricultural livelihoods and increasingly, urban people from both Portugal and abroad seek to establish farm enterprises in the study area. Individuals who opt to start an agricultural activity tend to be highly educated and to have an interest in sustainable agriculture. Newcomers to farming use a variety of strategies to make their farms viable and are actively involved in finding solutions to the challenges to farm viability which they encounter.

Rural consumers in the Portuguese interior and mountain areas source most of their food in supermarket chain stores. However, local food production is important and currently makes up 25% of food consumed in the area. Consumers are generally aware of the situation of farming in their area of residence and give preference to locally produced foods. However, low income often implies that despite being aware of the advantages of sourcing food locally, consumers purchase cheaper goods from supermarket chain stores.

The evidence on farmer and consumer interest in local agri-food chain systems is promising for the potential for the future development of AAFNs in the study area. However, the organisation of such AAFNs needs to be taken in hand and collective action will be essential for such systems to come into being. Chapter 5 explores the potential of such collective action being developed in the study area.

CHAPTER V

THE POTENTIAL OF COLLECTIVE ACTION TO SUSTAIN AGRICULTURE IN MARGINAL AREAS IN PORTUGAL



5.1 Introduction

Collective action can help overcome a series of difficulties that individuals on their own may not be able to resolve. Many of the threats to farm viability, outlined in Chapter 3, could be tackled to a significant extent by the efforts of collective action:

- a) Problems resulting from limited physical and financial capital could be overcome by farmers sharing resources;
- b) Cooperative investments could help farmers meet the legal requirements for their productive activities, without incurring prohibitive costs;
- c) Pooling farm output and engaging in collective marketing strategies would allow small-scale farmers to gain access to markets they cannot sell to if on their own;
- d) If farmers and consumers cooperate and engage in direct marketing relations, such as described in Chapter 4, both benefit (Kloppenburger, 2005; Knickel *et al.*, 2007). Indeed, if farmers and consumers would cooperate, the viability of subsistence-oriented farms could become possible, without major policy changes having to happen first.

Cooperation of the rural population could significantly improve small farm viability. Social relations, such as referred to by the concept of social capital, are an important precondition and outcome of collective action (Pretty, 1995a; Ostrom, 1999; Uphoff, 1999; Pretty, 2001; Korf and Oughton, 2006; Field, 2008; Wiesinger, 2008). Trust, social norms and connections between individuals constitute the foundation on which cooperation can flourish (Ostrom, 1999; Hall, 2008). For individuals to engage in collective action they need to be able to trust that their participation will pay off and that their contribution to another person's well-being will be reciprocated (Ostrom, 2000).

There is a considerable scientific literature exploring participatory action (Pretty, 1995a; Webler and Tuler, 2001; Clark *et al.*, 2003), collective action (Diani, 1992; Ostrom, 2000; Pretty, 2005; Knickel *et al.*, 2007) and cooperation (Harper, 1992; Pretty, 2001; Wiesinger, 2008). This research aims to improve the understanding of the social context of AM in Portugal and to explore avenues to foster collective action within that specific context. Insights derived from the data are compared and contrasted with key insights from the wider literature as appropriate.

The specific research questions addressed are:

- a) What are the main challenges and opportunities to effective collective action to improve farm viability in the study area?
- b) How can different stakeholders be engaged in collective action?
- c) What is needed to promote collective action that is effective for improving farm viability?

This chapter begins with a description of two case studies (methods Section 2.3.3). For each case study a background to the project is given, then the approach taken by the leaders of each initiative is described and the activities developed are presented together with the challenges and opportunities encountered. Finally both case studies are compared and lessons for improving and fostering collective action are derived.

5.2 Participatory action to reverse marginalisation: *Criar Raízes* & Covas do Monte

5.2.1 Project background

The origins of the Criar Raízes project

Criar Raízes (Creating Roots) is a rural development project in São Pedro do Sul, a mountainous municipality in central Portugal. This project originated from a work commissioned by the Portuguese Social Security Service that aimed to diagnose the conditions existing in every municipality in order to develop action plans to improve living conditions. In São Pedro do Sul, it was found that the thermal spa was the main centre of economic activity, while the communities in the mountains were in progressive decline due to lack of employment opportunities and difficulties in selling their agricultural products. As a result of this diagnosis, a project was created called *Serra nostra* (Our Mountain). In September 2005, after its period of financing had run out, the *Serra nostra* project was replaced by the *Criar Raízes* project, which was funded by anti-poverty measures from the Social Security Service until the end of August 2010 with a financial allocation of €100,000 per year.

Criar Raízes developed a variety of actions (see Table 5.1). For the present study the activities concerning direct marketing of agricultural produce and the maintenance and revitalisation of a marginal mountain village are of most relevance, as they concern the potentials and limitations of local cooperation to improve farm viability.

Table 5.1: The main actions developed by the *Criar Raízes* project.

Actions	Description
Setting up itinerant public services	Technical staff visits remote villages to facilitate the access to public services.
Improvement of the services of Social Solidarity Organisations	Social Solidarity Organisations were given support to buy equipment and to train their staff.
Support and incentives for the creation of micro-enterprises and self-employment	Local products with a potential in the marketplace were surveyed and potential producers identified and given support to set up enterprises.
Marketing local products	A store for local produce was opened next to the thermal spa. Direct marketing of agricultural produce, using a box scheme and direct sales to local hotels.
Promotion of regional products	Creation of a brand for regional products to facilitate their promotion and increase sales.
Education and tourism in the mountains	Establishment of tourist circuits in the mountain area promoting the traditional cultural heritage.
Transformation of Covas do Monte into an 'eco-village'	A remote village was encouraged to develop sustainable initiatives to keep the village alive, using participatory methodologies.

Setting up a market chain for local products

In the social diagnostic carried out from 1997 onwards, on the projects prior to *Criar Raízes*, it became evident that farmers' main difficulty was the economic viability of their activity resulting from difficulties in selling their produce. Therefore, several strategies were used to address the problem of marketing agricultural produce:

- a) Creation of the brand "*Terras de São Pedro do Sul*" to improve marketability of local produce;
- b) Creation of the Cooperative "*CoopRaízes*" to market local produce;
- c) Setting up the box scheme "*Cabaz Terras de São Pedro do Sul*".

The creation of a brand for local produce allows for special marketing strategies, namely the association of the products with an idea. The coordinator of *Criar Raízes* believed this association to be central to improving marketability of otherwise uncompetitive agricultural produce. The

idea that is 'sold' together with the products from São Pedro do Sul is the image of the territory, landscape value and memories, as well as the knowledge that one is supporting genuine traditional modes of production.

In order to market local produce, first a survey was conducted to find out what was being produced in the municipality and by whom, and which producers were interested in joining a cooperative. An agricultural engineer was contracted to support farmers and organise the market chain. It was then decided that an outlet for local agricultural and regional crafts be opened next to the thermal spa, which is the place of most vibrant economic activity in the municipality. Currently this outlet does not sell much in the way of fresh agricultural products and, according to the project coordinator, farmers continue to complain that they do not have a place to sell to. It is unclear whether the shop cannot sell fresh agricultural produce in sufficient quantity or whether farmers complain without having taken adequate steps to sell their produce through the *CoopRaízes* cooperative.

Step by step, the organisation of the cooperative is being handed down to farmers. Currently, the president of the cooperative is a local man who has increased his agricultural activity after retiring. He has been a village level mayor, and is probably one of the most entrepreneurial villagers in the area.

By chance, the coordinator of *Criar Raízes* read in a national newspaper a report about RECIPROCO¹⁴, a project analogous to Community Supported Agriculture, started up in the municipality of Odemira by the local development association, TAIPA. The RECIPROCO

¹⁴ RECIPROCO stands for *RElações de Cidadania entre PRODutores e CONsumidores*, i.e. relations of citizenship between producers and consumers.

scheme corresponds to the weekly delivery of a box of farm products to urban consumers who are committed to purchase the product regularly. As each subsistence farmer does not produce sufficient quantity and diversity of produce to fill a box, a few neighbouring farmers usually help fill the boxes and share the revenue. Considering that this direct marketing strategy has potential in the area of São Pedro do Sul, a study visit to learn about the project was organised by *Criar Raízes* staff and soon a similar scheme, the “*Cabaz Terras de São Pedro do Sul*” was set up. A challenge to the viability of this box scheme is the limited awareness and interest of consumers, who are not willing to spend extra money for the box and prefer the convenience and choice of supermarkets.

The choice of Covas do Monte for intervention

Covas do Monte was the village chosen to pilot an experimental and participatory approach to revitalise a remote mountain village. A call for applications to remote villages had been opened and a few villages applied to participate in the project to transform their village into an ‘eco-village’, or, more accurately, into a ‘living village’. The inhabitants of Covas do Monte applied in the hope that funding would be channelled to their village to improve infrastructures and develop tourism. Covas do Monte was selected by *Criar Raízes* as it is relatively dynamic due to its larger population of approximately 60 individuals, who have on average higher levels of education and a slightly younger age structure than the populations of other villages of the São Macário Mountain. The village also has some unique features that could prove valuable in furthering its own development, such as its picturesque location in a steep, remote valley, the prevalence of traditional slate houses and the communal goat herding system – all factors that could attract

tourists. In addition, the village has an association that was already connected with *Criar Raízes* staff and therefore could be used as an entry point to involve the local population. Other villages in the area have less inhabitants and a more gentrified population, so there was less hope that the project could trigger a dynamic of innovation and revitalisation within the community (Correia, 2009). Still, in 2001 in Covas do Monte, 34% of the population was illiterate and 19% were unemployed, pointing towards difficult social and economic conditions (Correia, 2009).

Characteristic features of Covas do Monte

Covas do Monte is a remote village, located in a steep mountain valley 40 minutes by road from São Pedro do Sul town. A dirt road to Covas do Monte was opened only in the 1980s; until then the village could only be reached by foot or ox-cart. The road was then tarred in the early 1990s. The late connection of Covas do Monte to roads explains the maintenance of a number of traditional features that have disappeared in better connected villages.

The population of Covas do Monte lives mainly on retirement allowances, subsistence agriculture and from goat production, whereby the subsidy (roughly €40 per head annually) and informal sales constitute the main incentive to keep goats. Cows are also kept by many families. The agricultural produce is used for domestic consumption and for feeding the animals. Some individuals work outside the village, for example in construction work.

Covas do Monte is characterised by three key distinctive features: the political schism of the village, the communal goat herding system and the continuation of a system of patriarchal leadership.

i) The political division of the village

The population of Covas do Monte is divided into two antagonistic camps. This divide came into being, or at least was largely enhanced, through village and municipality level party politics. When at municipality level the party that was in power (PS¹⁵) started the *Serra nostra* project, in Covas do Monte the opposition party (PSD¹⁶) was in charge. The municipality did not want to channel money through the opposing party to benefit the village. Therefore, the members of the PS party living in Covas do Monte were encouraged to set up an association, through which the municipality then channelled financial support for improvement and infrastructure works. In the following elections, PS won at village level, whereas at municipality level PSD won the elections. Therefore the association and the party in charge in Covas do Monte (PS) ended up no longer receiving support from the municipality. The struggles over money and power between the two opposing parties led to arguments between individuals at village level.

At village level these ‘political disputes’ are played out as refusal to speak to one another and open antagonism between residents. For example when a little camping area was set up in Covas do Monte, villagers that were enemies of the campsite owner boycotted the project. In one instance a group of tourists came to stay on the campsite and a villager, opposed to the campsite,

¹⁵ PS stands for Partido Socialista – Socialist Party.

¹⁶ PSD stands for Partido Social Democrata – Social Democratic Party.

parked his van in front of the entrance of the site, so that tourists had difficulties moving in and out. He refused to move the van.

The municipality seems to have contributed significantly to stirring this village level conflict, although the number of votes of the village are not significant and cooperation regardless of political colour would have been defensible to benefit such a marginal village. It is to be noted that such a village level division induced and perpetuated by party politics is not unique to Covas do Monte.

ii) The communal goat herd

There are about 2,500 goats that are taken to graze in the mountains as a communal herd; goats owned by all villagers are taken together to graze in the mountains, and goat herding is a rotational task shared among villagers. The ecological impact of the goats is significant, as almost no vegetation and no topsoil are left on the steep mountain slopes surrounding the village (see Picture 2).



Picture 2 – Extreme soil erosion in Covas do Monte caused by overgrazing (left: open grazing, right: enclosed area with more moderate grazing).

Despite the internal division of the village population, the traditional institution of communal goat herding has not been affected. Decisions regarding the rotational tasks of taking the goat to graze do not require individuals from different camps to speak to each other, and thus the system could be continued in spite of the disputes. An interviewee described the situation thus: *“as there are many people who do the goat herding, they do not need to speak to each other. There is a moment in the evening when the population gathers in the little village square. This is maintained exactly as in medieval times. Decisions on water use and goat herding are made there. People throw in their comments and then the eldest shouts the rule, which is then followed by everyone.”* The number of times one has to take the herd to graze depends on the size of one’s own herd. Elderly individuals who cannot climb the mountain with the goats must pay someone else as a substitute.

With the phasing out of per head payments for goats and the introduction of new regulations on

the housing of livestock, some changes may occur. The SPS will pay a fixed amount per year to farmers, on the basis of historical production levels, with the requirement that a minimum level of production be maintained. In the case of Covas do Monte this could lead to a beneficial reduction of the goat population (Alarcão, *pers. comm.*, 2009).

New regulations on animal welfare require that goat sheds correspond to set minimum standards. The Law no. 214/2008 of 10th November requires that livestock producers license this economic activity and comply with set standards. Most, if not all, stables in Covas do Monte are now considered illegal. In most houses, animals live on the ground floor and people upstairs, and, according to a villager, the extent of the situation is such that “*goats live everywhere... in kitchens and living rooms. People don’t mind.*”

The need to license goat sheds was recognised by the *Criar Raízes* staff and they mediated a meeting with the regional officers from the Ministry of Agriculture and the farmers. The idea was that the villagers could build only one or two completely legalised goat sheds together, as each villager individually would have serious difficulties financing the investment, and financial state support could be more easily accessed if a small number of sophisticated goat sheds were built. One young farmer was interested in building a new goat shed and decided to join forces with his in-laws, but he complained that “*they came and said we need to build new goat sheds. I’ve decided I’m ready to build one. But they haven’t turned up again since then.*” He was convinced that the Ministry of Agriculture would pay for the restructuring it requested, and was waiting passively for the support.

iii) Traditional institutions: rulership by the patriarch

The project was able to involve mainly the youngsters of one village faction. The elderly did not wish to become actively involved in the project, but they were essential in determining the success of some actions, because the family and village elders have the last say on what is to be done. This was illustrated by the way goat herding decisions were made. Another example is that of a young woman who wished to start a little business and received support from the project staff, but the business never came to fruition. The project staff could not understand what was preventing the business idea from taking shape. Later they discovered that the woman's father did not allow his daughter to start the business. The father was scarcely seen as he was elderly and would rarely leave the house, but his decision was final.

The village elders are particularly conservative; they find it difficult to conceive that new and different ways of doing things may work and they perceive changes to time-tested practices as unnecessary risks. This results in an opposition to innovations. However, legal demands, such as schooling children or complying with animal welfare regulations, cannot be adhered to when following the ancestral subsistence lifestyle, which operates with practically no financial reward. The active population has to generate income above subsistence needs so that it can comply with the new legal demands. The legally imposed need for money integrates agrarian communities into the market economy (Bennholdt-Thomsen and Mies, 1999).

5.2.2 The project approach

A bottom-up participatory approach

A young sociologist from Porto led the project team and worked in close collaboration with a rural development facilitator. They defended a bottom-up approach, basing their actions on what was needed and wanted locally. The activities were always conducted in a participatory manner, involving the population from the beginning in defining what action was to be taken, involving them in the action and encouraging them to continue the work independently of project staff. As the project had a limited timeframe, handing over the initiatives that had been started was very important. To achieve this aim, local partnerships with organisations and individuals were developed and strengthened.

The need for alternative economic development

Criar Raízes staff have found that a village like Covas do Monte cannot be maintained within the mainstream economic logic and therefore an alternative economic development approach needs to be pursued. The logic of large-scale production and market integration cannot be followed in Covas do Monte because none of its products would be competitive on the market. In addition, trying to make the conversion to large-scale and specialised production, such as the market and official regulations require, would put the uniqueness of Covas do Monte at stake. In fact, specialisation would destroy the agri-cultural system of the village, without significantly improving its economic viability.

What Covas do Monte has that can contribute to its economic viability is its uniqueness. This uniqueness could be explored economically through tourism, but at the moment Covas do Monte does not possess the appropriate conditions to receive tourists; there are no rooms to rent in villagers' homes, nor are villagers able to invest, nor would they be prepared to welcome tourists. Tourism could be an additional income source, but too much tourism could interfere negatively with the attractiveness of the village. Therefore, the economic exploration of what can be produced in Covas do Monte is certainly important, however, as noted before, the products from subsistence farming are not competitive on the market and many of them (such as goat meat) are difficult to market legally under current circumstances.

According to the project facilitator, there is potential economic viability of Covas do Monte in establishing direct and informal ties with consumers from the outside, who visit and buy products from Covas do Monte because of their genuine traditional qualities and because they want to support the village. However, there is tension between fostering informal and direct exchanges and complying with the detailed regulations that pervade almost every area of life and require heavy investment just to get a legal activity off the ground.

In the case of Covas do Monte, tourist circuits had to be portrayed as a group of friends going for a ramble, otherwise a specialist tourist guide would have to be employed and specific insurance cover would be necessary – increasing the costs for participants beyond viability. Thus the activity was promoted as an informal walk, with donations happily received. However, the public that could be reached in this informal way was, again, limited. To secure an income for just a proportion of the village households in this way would require a large number of individuals willing to regularly engage with the informal exchanges on offer.

Under current conditions, the viability of the village is at a serious impasse, but the project facilitator commented that it is not only traditional villages that are in crisis. The open market economy is undermining livelihood viability everywhere, he commented: *“People say this traditional economy is in crisis, but if you go to the city centre of Coimbra, it is also in crisis”*. He also said *“My brother is an industrial milk producer and clearly industrial agriculture is in crisis. Why do they say places like Covas (Covas do Monte) are in crisis, but these places are not? (...) Covas do Monte does not generate much money, but it generates subsistence for people”*. He added: *“I think the current economic crisis will put the mainstream economy into question.”*

5.2.3 The participatory action

The involvement of local actors

With very little financial resources available to work in Covas do Monte, *Criar Raízes* directed its activities towards the involvement and empowerment of the local community. The rural development facilitator persistently worked to involve the local population in innovative, thought-provoking and empowering activities. A problem with this approach was that many villagers have already mentally endorsed the economic modernisation paradigm and *“would be happy if we said we would build an airport at their doorstep, but don’t comprehend the intangible value of some of our activities”*, according to the project facilitator. Therefore, involving villagers in this unusual development project was difficult.

Initially, when the population of Covas do Monte discovered that the project would not bring money to the village, the project facilitator “*was completely left at the margins*” (his own words) and ignored because the population felt that “*regarding this point we were deceived. The money must have gone somewhere, but we don’t know where it went*” (villager). Also, the inhabitants of Covas do Monte are particularly closed towards outsiders. A villager explained “*the elderly don’t pay any attention to who comes to Covas. They go and care for their own stuff. This is also because they think whoever is coming could be a friend of their enemy.*” The disappointment with the lack of financial resources allocated to the project at village level caused them to take a further step back.

Despite being ignored and left at the margins, the facilitator regularly visited the village and began to develop informal ties with some younger residents. This made it possible for a number of activities to be planned during conversation and then carried out. The main aim of these initiatives was always to involve villagers and bring outsiders to the village. Attracting people from the outside served a double purpose: a) generating income through informal sales and tourist activities, and b) it was hoped that the fact that outsiders would come and appreciate the village would have a positive impact on the esteem in which villagers held their community, as many villagers feel there is no hope regarding the maintenance of their rural way of life and have even come to doubt its value (interview with project coordinator, informal conversations).

More villagers became curious once activities had started, and participation was widened, even if not always in a constructive sense: “*if there is some work being done, 3 people do the actual work and 7 people criticise it. They do not need to stand around, they are somewhere in the village commenting that that work is of no interest to anyone*” a participant explained. Even if

this is unpleasant for project staff, that is part of the action and the dynamics of the village.

“Everyone is implicated (...) this is the big action in the village that keeps it lively” the rural facilitator said.

Personal difficulties with cooperation existed. Some villagers found it difficult to become actively involved with strangers and unfamiliar activities. Therefore the involvement of the local population required persistent one-to-one informal interaction. Only when friendly ties were built and trust began to increase did collective action become possible. However most of the activities developed were initiatives of the project, designed in accordance with local people’s ideas, but in which only some villagers participated, mostly without taking charge.

In the case of Covas do Monte, clearly party disputes at the level of the municipality have induced disruptions among individuals and challenged the participatory strand of the project. The overt disputes between the two village factions deepened the problems of cooperation; as the faction connected to PS became involved in the project, the involvement of the other faction was almost out of the question. The case of the village restaurant having to source goat meat from outside the village is a good example of how the hostilities hamper cooperation for mutual benefit. Villagers from the party opposing that of the restaurant owner are unwilling to sell goat meat to him. *“It’s that way of thinking, that they don’t want them to become rich with my goat”* a villager explained, *“therefore they prefer to sell to people from other villages, who are not their neighbours, and then it’s OK because they don’t compare themselves with them.”*

Municipality level power disputes also made themselves felt in the administration of the project funds. Especially during critical stages, when the project or activities were vulnerable, disputes

weakened and complicated them further. As the financial support for the project is a high sum for the local municipality, decisions on handling the financial resources enforced pre-existing rivalries with a detrimental effect on project work.

Getting rural actors to participate and take the lead in project initiatives was a major challenge for the project. In Portuguese rural populations, it is common that individuals mistrust the new and the unknown. For subsistence farmers it used to be very risky to engage in innovative activities because their livelihood was at stake if the new cultivation method or crop did not yield sufficiently. Therefore, social norms and traditions exclude the new that is often assumed to be of less value than the 'old way' or even 'essentially wrong'.

Activities developed

Criar Raízes developed a variety of activities in Covas do Monte. Early on *Criar Raízes* installed garbage and recycling bins and undertook the collection of solid waste from the village streets. However, it was difficult to change the habits of the villagers, who claimed to deal with waste "the olden way", by throwing it on the streets.

Criar Raízes installed two computers connected to the internet under a traditional corn storage 'espigueiro'. The rationale to connect the village to the internet was twofold; not only would it save villagers a day's trip to town to sort out some paperwork that they could do with help from computer literate youth via the internet, but it was also found that the older generation is extremely resistant to change, and new ideas by the young are rejected. The little internet space would therefore be a place in the village where the young people would be in control and could

find information and encouragement to further their own interests (Criar Raízes Newsletter, no.4, 2008).

Criar Raízes also set up a small campsite and started the renovation of an olive press. The campsite was considered strategically important to allow visitors and co-workers of the project to stay overnight in Covas do Monte and thus become much more closely involved with the activities, the people and the place. The renovation of the olive press began because elderly villagers would speak frequently about how the old olive press used to be and, as it was the only public space in the village centre, it seemed to be the ideal spot to start an impartial activity in which everyone could get involved.

Exactly as in the situation of individual farmers, the administrative procedures to legalise productive activities were complicated. Even highly qualified project staff encountered significant difficulties. In one case, to obtain the licence to build a small-scale unit to produce traditional charcuterie, more than two years had gone by without the licence being given. Apparently staff at the offices of the Ministry of Agriculture did not know precisely what was required for the licensing procedure, and changes had to be made to the application every so often, with intermittent months of waiting for responses.

Other activities that were developed in a number of mountain villages also took place in Covas do Monte. These activities included film screenings, storytelling events and the establishment of walking routes for tourists. In the early stages of the project the film maker Víctor Salvador came to Covas do Monte and produced a film called “*Névoa no vale*” (‘fog in the valley’), and this contributed to Covas do Monte becoming more widely known which in turn attracted more visitors to the village.

5.2.4 Outcomes and recommendations

The *Criar Raízes* project has given an important boost to the organisation of group activities to market agricultural produce in order to improve rural livelihoods, enhancing the viability of local subsistence farms. The project set up various marketing channels for local agricultural products as local group initiatives in this crucial area were nonexistent. Farmers from Covas do Monte were encouraged to use these new marketing opportunities.

According to the project staff, the main achievement in Covas do Monte was that villagers began to think differently about their village. The most important changes were that some villagers became more open and started to see more opportunities for staying in Covas do Monte; the fatalistic idea that the village would die sooner or later was challenged. This was achieved through creating marketing opportunities and the attraction of outsiders to the village.

A number of infrastructure improvements have been carried out, but the project staff considers the material achievements to be a means to an end - they served mainly to involve the population and challenge some of their ideas. Being able, at the end of the project, to “*knock at the door of any villager and borrow some tools*” was a big success the project coordinator explained, given the difficulties in gaining the trust of villagers at the outset. However, project monitoring and adaptive management have not occurred to a significant extent, and project leaders found it difficult to give clear evidence of achievements, in particular with regard to the intangible changes they thought particularly important. Monitoring more subtle and psychological changes of participants is difficult, but it may be crucial to adapt actions towards enhanced effectiveness

and also to prove to funding bodies that the project had significant achievements, even if those were intangible (Muñoz-Erickson *et al.*, 2007).

The involvement of outsiders in the project was somewhat lacking a strategy, as outsiders were not specifically targeted and there were difficulties in achieving long term involvement. A thorough investigation of the factors promoting and preventing the involvement of outsiders would be useful to find strategies that encourage their participation.

The *Criar Raízes* project has helped to initiate a new association, “*Aldeias de Magaio*¹⁷”, which is becoming a confederation of a number of village-level groups. Its aim is to continue with the activities that have been started by *Criar Raízes* and promote other initiatives from the member associations, to take them into the future.

¹⁷ “*Aldeias de Magaio*” means ‘villages of Magaio’, Magaio being the ancient name of São Macário (Saint Macarius) after whom the mountain in São Pedro do Sul is named.

5.3 Collective action for sustainable agriculture: neo-rurals in the central mountain range

5.3.1 Project background

In the study area, there are significant numbers of foreign newcomers who bought farms, started subsistence agriculture and are involved in a diversity of projects to promote sustainable living and permaculture. Already in the 1980s, the first ecologically minded foreigners (mainly German) had moved to Portugal to start a living from the land. During the 1990s and since then, the number of foreigners (mainly British and Dutch) has increased steadily. In the central Portuguese mountain range (Serra da Lousã, Açor and Estrela) the number of newcomers of working age seeking to establish low-impact livelihoods is remarkable (Dinis, 2001; SEF, 2007).

The active work of neo-rurals in establishing farm-based livelihoods and promoting sustainable agriculture can potentially contribute to reverse trends of agricultural decline in the study area. Initiatives to demonstrate and spread good practice in terms of farm sustainability have been set up. Neo-rurals are also organised in a growing number of associations and informal networks engaging in collective action to encourage the development of sustainable agriculture, and this has made these groups relevant for the present research. Besides the initiative leaders relevant for this case study, there are many other foreign individuals and families trying to live sustainably on the land, but only those actively engaged in promoting sustainable living are relevant for this case study.

Unlike the *Criar Raízes/Covas do Monte* case study, the present case study does not focus on a single project but more generally on the collaboration of neo-rurals in the study area. The names

of the 5 key informants contributing to this case study have been changed (for information on the informants see methods Section 2.2.3).

Initiative leaders' profile

Initiative leaders had medium to high levels of education. Of the 4 individuals interviewed, 2 had 12 years of schooling and professional training and 2 had doctorates. They were aged between 35 and 50 and had lived in the area for varying lengths of time; from 1 to 15 years. Most of the neo-rural initiative leaders found in the region were women of working age. They were trying to combine income generation with promoting their ideals of a sustainable and healthy lifestyle. Sometimes their husbands live a more introverted life on the farm and leave the outgoing income-generating activities to their wives, who feel more of a need for social involvement.

None of the initiative leaders interviewed for this case study generated an income from agricultural production; however half of the individuals were highly food self-sufficient. Anne R. said she had started out with the idea of generating an income from farming, but the amount of regulations discouraged her. In addition, she felt that as she was only starting to learn sustainable agriculture practices, she did not want to make her livelihood dependent on output, which could compromise sustainability and put her under financial pressure.

The most common strategies to generate an income among foreigners with subsistence lifestyles are temporary work abroad or on-farm diversification. Their on-farm diversification strategies are mainly tourist accommodation, leisure activities and sustainable living workshops. Some people work over the internet. Frequently, incomes are mediated through social connections with the

country of origin, either for finding a temporary job or to find costumers for the non-productive activities on *quintas* (farms). One of the foreigners is undertaking web-based work for her former employer in the Netherlands, another is able to access EU public funding thanks to partnerships with higher education institutions with whom she had been in contact before emigration. Several individuals promote their tourist accommodation among contacts in their home country. The connection to the country of origin is therefore an important factor for the viability of the sustainable living initiatives, as through them income-generating activities become possible. Keeping up with sustainable innovations on the internet or through specialist magazines from the home country is important to feed new ideas into the projects and to remain connected with the wider ecological living movement.

Asked about the reasons neo-rurals moved into the area, the most important was the wish to pursue a slow, low-impact lifestyle on the land. The remoteness of the interior of Portugal from urban haste and pollution, affordable land prices and lower living costs than in other European countries made Portugal attractive. Linda R. explained: “*I always felt that I wanted to have my own project. To come over to Portugal gave me the opportunity to really do it.*”

5.3.2 The project approach

Aims and motivations

The main aim of the projects of neo-rurals is to promote ecologically sustainable living, with a focus on self-sufficient sustainable agriculture and healthy human development. More often than not, these aims stem from a belief that low-impact living and sustainable agriculture are

alternatives to the consumer society, based on a capitalist economy that is destroying nature and the resource base that sustains humanity. Linda R. said: *“The main aim is to get back to nature and make people aware that what they are doing is destroying the Earth.”* However, Luís outlined that there is a tension between creating alternatives and being involved in the mainstream economy. This is visible for example by newcomers acquiring the food they do not produce at discount supermarket stores.

Most initiative leaders have started up an association, because such a legal structure is convenient in many ways. An association gives the initiative more credibility in public and also allows individuals to engage in a number of income generating activities, without the tax obligations of an SME. Frequently the associations gravitate predominantly around the initiative leader, but the initiative leaders of various associations network and organise events together. Marie L. said *“I think it would be more honest to do my project in my own name, individually, because the association is just a means for me to be able to develop these initiatives. But the other members of the association think it is great that we have an association”*, even if they are not actively engaged.

How initiative leaders see local agriculture

It is important to understand how initiative leaders see agriculture in their area. Although an abundance of abandoned farms allows for the establishment of new sustainable farms, without the need for much engagement with local farmers, the viability of these farms will be affected by the same issues that affect other local farms.

It was clear that individuals who had lived longer in the study area and were more experienced with sustainable agriculture had a more in-depth understanding of the current situation of local agriculture than recent arrivals. Linda R. said that traditional Portuguese agriculture seems to be quite sustainable. She said *“I have nothing against it, but I also know permaculture”*. Asked about changes in local agriculture she said that she cannot see a move towards more sustainable practices happening any time soon, but did not seem to be aware of the current decline. This could be a result of the relative stability already reached in her area, defined by a virtual absence of commercial agriculture.

The remaining interviewees were very clear about the current situation of agriculture in their areas of residence. Sophie L. commented on subsistence-oriented farming, saying: *“Agriculture here was going very chemical, but as the prices for inputs went up, that (use of chemicals) decreased a little bit. People around here are highly self-sufficient, and I think they will continue like that.”* And she explained *“It’s difficult to survive off farming; the middlemen are now taking out a lot of money, so farmers aren’t paid the proper price.”* Marie L. stated *“People who are able to be successful organic farmers here have abilities that go beyond the skills of a normal farmer. They also have management and entrepreneurial skills, and they have a good understanding of the world around them, which is not the case for most of the local farmers.”*

Asked about possible solutions to counter land abandonment, Anne R. said *“I think it is a pity that most of the people involved with agriculture and planning believe that the only solution for agriculture is to increase the scale of farms and to use more chemicals. This region is not suitable for this type of agriculture.”* Marie L., who is well versed in working within the framework of Portuguese policies and institutions, stated *“I think we need a huge change in the*

agricultural policies. At EU level it's not too bad, but here in Portugal it's horrible!..." The reason for this opinion was related to the administrative procedures of accessing public support for agriculture. *"The applications for subsidy with the IFAP are horrible, horrible..."* Marie L. emphasised. And she advised: *"it's far better to start small and grow over time than to depend on public funding."* She also believed that it is very important that the regulations and support for small and medium enterprises are changed radically, because at the moment they hinder the development of small businesses in rural areas, which are crucial for individuals to create their own employment, thereby revitalising the local economy.

Anne R. was optimistic: *"I am sure that it is possible to develop a farming system for this region that is sufficiently productive and requires little work."* Asked whether she thought such an agricultural system would be sufficient for the farming families to make a living she replied: *"It is necessary to change the mentality in order to again be happy with a more natural way of life"*, meaning that the needs of a consumer lifestyle may not be satisfied, but that it is essential that the mentality changes so that low consumption lifestyles are developed that can be sustained by local agricultural systems.

Regarding the current role of agriculture, Marie L. said: *"I believe that currently the role of agriculture here is to give identity"*. She added *"whenever I speak with people, even from urban areas, within minutes they talk about their village of origin and the agricultural traditions they have there."* Agricultural villages are still very much seen as the original home, *"where people come from"* and have their roots, forming their cultural background and shaping their identity.

5.3.3 Collective action

The start-up phase

As has been outlined before, individuals frequently decide as a matter of practicality that the legal framework of an association is the most suitable way for them to develop a project that combines low-impact living with a pluriactive livelihood. Therefore they seek other individuals to join the association, because 12 members are needed to legally constitute an association. Often the invited individuals are enthusiastic about the project idea and pleased to be invited to take up an official position in the association to be set up. Therefore, the agreements to join are sometimes made as a “*not very matured idea*”, according to Luís. This may partially be the cause why many associations end up being carried forward mainly by their director, because the other members are not sufficiently committed. Another reason could be that initiative leaders push their own ideas forward, somehow limiting the active involvement of other members.

In some associations that tried to involve all members from the beginning, the enthusiasm died early on, when meeting after meeting the statutes and organisational details for the future of the association were discussed in meticulous detail. During this process, the first conflicts between group members arose, shattering the prospects of constructive cooperation early on. Other members realised that they could not take time away from their daily duties for these not always fruitful discussions, and stopped attending the meetings.

Some initiatives keep encountering difficulties in developing activities, meeting their complex aims and organising internally. Due to internal changes, learning along the way, and funding

options, an initial association is changed gradually into a new project, a new association, and so forth, and the initiative remains for a long time in a starting phase. Even though activities are developed, as the initiative keeps changing shape, the activities do not always build up logically and towards a clear goal.

Some of the efforts to start networks and enhance cooperation among individuals' sustainable living initiatives clashed because an element of competition emerged between initiative leaders. This was visible during the setting up of one network that wished to become the *non plus ultra* umbrella network that wanted to include a number of other networks also aiming at being overarching umbrella networks. Conflicts between members made for a difficult start, and in the end the network was not adding much to already existing networks, and thus it is currently nearly inactive.

Internal organisation

Most of the sustainable living initiatives have a leader who is responsible for the majority of the activities and organisational work. "*Getting the right people in place*" is a logic the founders of associations mentioned several times; they hope to join and articulate other individuals to develop initiatives. Initiative leaders are very keen to organise and take action; however there may be too many initiative leaders who might find it difficult to compromise their views of what activities should be developed. The challenge is for these initiative leaders to cooperate and involve other less entrepreneurial individuals effectively.

Currently, the project leaders delegate specific tasks to volunteers who can be more or less closely connected to the project. The director of one of the associations delegates the tasks to various specific working committees and she remains the central link between all members, and all activities have to be reported back to her. As members are volunteers however, they cannot be pressured nor is it possible to give them too many tasks or responsibilities. This theme was repeated in another project where the leader found that it was important to find a balance between handing over enough responsibility to volunteers, so that they have a feeling of ownership, and not overloading volunteers with work, which could demotivate them. A similar balance had to be found between being flexible enough to include participants' ideas in the project work while not losing sight of the aims and initial project plan.

The loose and voluntary organisation of most sustainable living projects and networks in the area has advantages and disadvantages. On the one hand, individuals can decide sporadically to join an activity without a long term commitment, and this enables many people to get involved with the initiatives and does not strain those individuals involved with responsibilities. On the other hand, the spontaneous and temporary involvement impairs the development of activities that require long-term commitment. The problem is that many volunteers are students and young graduates who cannot commit to long-term volunteering projects. Other neo-rurals who are involved in the projects are frequently too busy with generating an income and keeping up their own farm to be able to commit long-term to collective action projects. Also, the geographic distance between interested individuals can be a hindrance to cooperation. In order to keep the group connected, as not all members can participate in every action, one project circulates a report after every meeting, so that everyone is kept abreast of the activities and achievements of the group.

Frequently, one association is not aware of the extremely similar aims of a neighbouring association. As both founders want to organise action according to their own vision and they are isolated in their farms due to the workload, they do not join forces, even though their aims may be very similar. As a possible explanation for the reduced cooperation among project leaders, Anne R. also mentioned that foreigners moving into the area may be less sociable than the average population: *“People who leave their home country to move into the rural areas of Portugal, are, to start with, less sociable persons, or people with less social bonds in their home country, otherwise they would not be able to leave.”*

Social interactions and involvement of participants

The relationship between the foreigners and the local Portuguese population is usually proclaimed to be a very good one. However, the differing cultural backgrounds can be an abyss that hinders interaction on an equal footing, and this in turn can affect cooperation (Bandiera *et al.*, 2005).

The main clash between locals and foreigners seems to be related to the fact that the foreigners are non-conformists with strong environmental values, whereas the local population is on average very conservative. A professor who has studied the topic said during an interview *“The foreign neo-rural is a child of May 1968, whereas the population in Portuguese rural areas is the most conservative you can find.”* Luís explained *“People are afraid when foreigners are doing unfamiliar things”*.

In ideological terms, the differences are also extreme; in local values a desire for economic development and progress is now dominant, which is precisely the ideology many foreigners feel so strongly against and that made them move into those 'less developed areas' to begin with. The local population looks at the projects of foreigners who have a simple, rustic lifestyle more as a curiosity, not really as an example to follow. People in the area had no other option but to live simply from the land for decades, and now they reject the possibility of having to return to a subsistence lifestyle. They want to improve their living conditions and to benefit from the widely announced economic development; it is out of the question to opt for a simple lifestyle.

The way of thinking was said to be different between locals and neo-rurals. Anne R. explained her perceptions of the differences between traditional and modern cognition, and how the traditional way of cognition was very much present amongst the rural populations, especially the older generations. She found that the different ways of thinking and knowledge of the neo-rurals and the local population were a challenge to cooperation. Also a local educated young person, pointed out that there was a gap in mutual understanding between them and their fellow villagers. Luís said: *"I understand all they are saying, but when I tell them something, I am very aware up until which point they are able to follow me and when they switch off, because what I say is too alien to them."*

Marie L. said *"I have completely abandoned my illusions that it is possible to cooperate with locals."* She explained how she was disappointed that *"everything is interests and opportunism, and so on... They don't say nice things about our farm; they are only interested when we go to their shops."* Only Linda R., who started her project half a year ago, had serious intentions of involving the local population. She said: *"It is very difficult to get the local Portuguese interested*

in stuff like this. We're slowly trying to involve them as well (...) they are curious but not ready to have a go. (...) they are not ready to say yes, we want to learn and change." She said that currently there is no learning exchange going on between foreigners and locals in her village and she admitted that she had not adopted any agricultural practice from local farmers.

One point that could be important to increasing cooperation with the local population would be related to active work towards social integration. Some foreigners seem to act as if they were in no man's land, living according to their own rules, instead of trying to engage with and show respect for the local worldview and culture. Disrespecting property rights and dressing unconventionally are common 'mistakes' that easily arouse mistrust from the local population. At times foreigners can be perceived as being immodest, if not arrogant; having recently arrived they want to educate locals on sustainable living, unaware of local good practice and the causes for current unsustainability.

Sustainable living initiatives frequently find it difficult to engage the local population; as a result, they work mainly with other neo-rurals and with young people from urban areas. But the involvement of the Portuguese urban youth interested in permaculture was also considered problematic by some initiative leaders, who criticised their lack of practicality and realism. Marie L. referred to the "*vague new world of permaculture*" in which all is very "*airy-fairy*." She even tried to get the word 'permaculture' out of her website, because she felt it was attracting a public unsuitable to solid action. Sophie L. commented that "*the Portuguese are more interested in checking these things out on the internet, but we want them to do it in the physical world as well.*"

Activities developed

The activities developed at present are mainly workshops and gatherings, promoting theoretical and practical sustainable living skills and sometimes alternative therapies and artistic expression. Some of the activities are regular, taking place every month or even more frequently, whereas others, such as the 'green gathering', are organised annually. One aim that is common to most initiative leaders is to develop their farm so that it can be used to demonstrate sustainable practices. The farms are being developed ecologically and manually in a series of construction workshops and collective working days. Houses made of cob and straw-bales are built, compost toilets installed, nature circuits cleared and herb gardens and permaculture beds set up.

Workshops in the area of ecological building and permaculture are the most common at the moment, but a number of alternative therapy and DIY workshops also exist. In the 'green gatherings', people interested in sustainable lifestyles meet on a farm for a couple of days, everyone gives a workshop on his areas of interest or specific skill and the organisation tries to make these days a taster of simple sustainable living.

One network has been organising community work days that they have called 'Mingas'; when one of the members of the network has a work-intensive task to do, he invites all members of the group for a day's work and whoever is available joins the action. Another project works closely with youngsters from a city. Together permaculture techniques are tried, according to the interest of the young volunteers. The aim is to teach sustainable practices that can be adopted in the city, in a participatory manner, choosing the practices and activities that the young people themselves want to learn and develop. Members of the Beira Serra group were interested in starting a local

currency and in becoming Transition Town trainers to promote the concept in Portugal. At the moment, the ideas are spreading and interest is increasing, so that these ideas may be realised in the future.

Some work is also done to address specific environmental problems, such as pollution of the river Mondego. However, it is difficult for foreigners to get involved in local politics. Frequently they do not know about the subtle strategies that are necessary to be effective without creating hostility at the level of Portuguese municipalities. Locals commonly react in a defensive way to the straightforward approaches of foreigners'. A Portuguese member of the Beira Serra network said that problems should not be brought to light but dealt with discretely; using a popular saying "*Não se pode levantar lebres*" ('one must not make hares come out into the open'). Sophie L. explained the dilemma that she could not point out the existence of pollution to the local municipality if she wanted to continue on good terms with them and receive support for her permaculture projects.

Luís said that a network in itself is something very new for Portugal. Loosely and informally connected individuals interested in the same issues can spread new ideas quickly. Ideas and interests that are not shared in the local community can be pursued via online social networks, and therefore the interest can be furthered even when individuals live in a community that is unlikely to understand or support these preoccupations. Through sustainable living networks, online and face-to-face, a group identity is created that transcends geographic location. These networks act as a support group that encourages the adoption of sustainable living practices. In fact, rather than feeling ostracised by the local community not understanding why an individual takes up unfamiliar sustainable practices, the identification with a sustainable living community

make these practices appear like a virtue to the individual. This ecological identity can be very important to the individual, who may refer to himself as a 'permaculturalist' or as being part of the 'alternative' or 'radical' movement. The development of such a group identity has been reported as being important to fostering collective action (Diani, 1992).

5.3.4 Outcomes and recommendations

Most sustainable living and farming projects in the area are in fact livelihood strategies; the founders seek to generate an income through the promotion of their ecological living ideas and know-how. Each project founder is mainly concerned with making his own project economically viable and in the process finds little time to cooperate with other projects. Most projects are somewhat disconnected from the territory and the needs of the local population. This exacerbates the difficulty of neo-rurals involving the local population in their activities. However, innovation transfer is occurring between foreigners and a number of urban Portuguese. The local youth is also becoming increasingly interested in sustainable living projects. Although the sustainable living projects seem to have a dismal effect on the adult and elderly local population, the spread of sustainable living ideas and practices to the wider Portuguese public is remarkable. This learning happens mainly in an informal, experiential manner. Interested individuals participate in gatherings, workshops, farm visits and suchlike activities, in which ideas are exchanged and skills are thought.

Most initiatives aim at promoting sustainable agriculture and sustainable living ideas and practices, rather than working on overcoming existing limitations to the viability of sustainable farms and livelihoods. It could be advantageous for projects to organise around specific

problems, rather than having very generic goals whose achievement is difficult to monitor. This would allow for tangible successes and encourage participation by interested parties.

Organisation around a concrete common aim could help overcome some of the hindrances of cooperation with the local population that currently exist. Such cooperation could happen in the area of marketing, for example, by setting up buyer groups or direct sales to institutions.

A possible challenge to the credibility of the farm demonstration projects is that they survive economically from demonstration, training and tourist activities, rather than through the sustainable practices being demonstrated themselves – transferability may be limited as demonstrated proposals have not really been tested in economic terms. Therefore, it can currently be argued that these projects introduce sustainable practices and motivate people to opt for low-impact lifestyles, but do not work on finding solutions to overcome the obstacles people wishing to live sustainably on the land encounter.

5.4 Cross-cases analysis: how to foster collective action?

Three areas were found to be critical for the success of the studied collective action projects.

These were: internal organisation, involvement of actors and relations with public institutions.

Key findings will be discussed for each of these areas in what follows.

5.4.1 Internal organisation

The internal organisation of the project and the cooperation of its core-group are very important for successful collective action initiatives. Methods to mobilise members and organise towards achieving project aims need special attention. The involvement of volunteers to co-organise project activities is crucial given the limited financial resources of the presented projects.

Volunteers need a motivating guidance and some level of independence and responsibility, without being overburdened, to ensure their long-term involvement.

The motivations for action were very different in the case studies. The embedding of the activities in the local reality was strong in *Criar Raízes*, because the main aim was to address local problems. In contrast, the neo-rurals in the central mountain range tried to make their ecological ideal into reality, whereby the specific local conditions contributed very little to the shaping of their projects.

Table 5.3 gives a summary of good and unhelpful practices of internal organisation found in the case study projects.

Table 5.3 – Good and unhelpful practices of internal organisation of collective action groups.

Good practices	Unhelpful practices
Collaborative action planning	Initiative leader defines actions
Specific short-term goals	Lack of specific short-term goals
Integrated vision to work towards	Long-term ideal vision only
Sharing responsibilities	Uncommitted volunteerism
Systematic internal communication	Unfocussed meetings & sporadic internal communication
Allowing for sporadic involvement	Relying only on sporadic involvement
Long-term build-up of achievements toward bigger goal	Unconnected one-off activities
Locally relevant activities	Locally irrelevant activities
Professional know-how, organisation and planning	Insufficiently informed and organised activities
Monitoring success and adapting to new evidence	Failure to take stock of achievements

5.4.2 Involvement of participants

Both case studies were aimed at involving a number of stakeholders to develop project activities. The activities of the projects were aimed at affecting other actors positively, thus these had to be engaged in the collective action promoted by the project. The actors involved in the collective action projects can be grouped into:

Traditional agricultural population – mainly elderly individuals engaged in subsistence-oriented farming, with low levels of literacy and generally non-entrepreneurial;

Entrepreneurial farmers – individuals of working age, usually medium to high levels of education, engaged in commercial agriculture;

Local non-agricultural population – individuals of local origin, mixed age and education levels, not working in the agricultural sector;

Neo-rurals – newcomers to the area seeking a rural lifestyle and connection to nature, frequently of British, German or Dutch nationality, highly entrepreneurial;

Ecologically minded urbanites – generally young Portuguese who have grown up in urban areas and are developing an interest in sustainable living and sustainable agriculture.

Table 5.4 outlines how the case study projects engaged relevant actors.

Table 5.4 – Comparison of the involvement of actors in the case studies.

	Criar Raízes	Neo-rurals
Initiative leaders	Local non-agricultural population (Municipality and project staff)	Neo-rurals
Reasons to involve actors	Improving livelihoods; Empowerment; Encouraging local actors to take on project activities	Cooperation for spreading sustainable living ideas and practices
Actors involved	Traditional agricultural population Local non-agricultural population	Neo-rurals Ecologically-minded urbanites
Strategy used to involve actors	Building up informal and personal connections	Intellectual rationale and ideal, activities promoted on-line and via word of mouth

The involvement of the local population, and specifically the agricultural population in collective action to sustain agricultural livelihoods, is of special interest, because these are the actors whose livelihoods are most affected by AM, and it is they who still maintain a set of traditional sustainable agricultural practices and knowledge that could be the foundation, or at least inform, the development of viable local agricultural systems. Despite the theoretical desirability of working with the traditional agricultural population, as marginalisation is so far advanced it is particularly difficult to engage the actors who are left in action in support of sustainable farming systems. The case studies have shown that this limited involvement can be explained by a sense of fatalism, lack of hope and mistrust amongst the rural population and lack of trust in external project organisers (Carvalho *et al.*, 2002; Carmo, 2009).

It was also found that the local agricultural population in general is not entrepreneurial and even resistant to innovation and change (Mergulhão, 1999). This may be a result of how history has affected local culture and social organisation. During the dictatorship, collective action was not possible. After the dictatorial regime had ended, big hopes were instilled in the rural population, related to the establishment of cooperatives in the 1970s (Barreto, 1988) and to the promise of state financial support through development projects in the 1980s and 1990s. The general failings of both approaches to improve living conditions of the rural poor have caused mistrust and lack of interest of the rural population in projects promoted by outsiders (Carvalho *et al.*, 2002).

Currently the non-transparent and overcomplicated legislation and administrative procedures with their associated costs and risks act to further discourage entrepreneurship. When an innovation is introduced in spite of these hindrances, social resistance is exercised by individuals who believe that anything that does not conform to local norms is “*wrong*”. Risk aversion contributes to explaining the limited engagement of the agricultural population in new entrepreneurial activities.

Lack of trust, risk aversion and resistance to innovation contribute to what has been termed the “*individualistic outlook*” of farmers; farmers mind their own business and do not want others to get involved in it. A number of farmers explained that “*everyone does his own thing*” so that they can harvest what they individually sow, rather than being affected by other people’s actions - which would incur too much risk. The popular saying “*Meias, só para as pernas*¹⁸” expresses the general rejection of sharing and cooperation (Brito and Duarte, 1999).

¹⁸ “*Meias*” means sharing and doing together (in *fazer a meias*), but also socks. The popular expression uses this double meaning to show the total disinterest in cooperation: “*Meias, only for the legs.*”

The case of *Criar Raízes* has shown that the local population can be engaged through appealing to their curiosity and by establishing informal personal connections. Local farmers need to be assured that their engagement will lead to concrete benefits and entail low risks. Practical action, using demonstration projects to show direct benefits to participants, may be essential to encourage local participation. The direct experience of a problem situation is more likely to trigger action in individuals in the study area than a theoretical understanding of a problem or an ideal vision. This was demonstrated by the case study on neo-rurals. Appealing to individuals' experience of problems and involving them not only through an intellectual confrontation, but also appealing to emotional attachments and culturally accepted values, may help engage the local population.

In addition to local actors, both projects have involved external actors. The *Criar Raízes* project contacted NGOs and a variety of other groups (scouts, caravanning network) with the aim of bringing visitors to Covas do Monte. Outsiders were invited to a number of events taking place in Covas do Monte and some individuals then made repeated visits to the village. The projects of neo-rurals have been more successful in involving outside participants; abstract rationales and an ideal vision were suited to attracting and engaging ecologically interested individuals in sustainable agriculture projects, which they had discovered over the internet or via word of mouth.

Sporadic involvement of actors allows a large number of individuals to contribute to a project. However, if only sporadic involvement exists, the initiative lacks continuity and reaching medium-term goals becomes difficult. Ideally, a core group of committed individuals could

provide opportunities to receive volunteer support from individuals who can only be involved sporadically.

It is clear that different strategies need to be applied to involve different stakeholder groups.

Table 5.5 outlines possible ways of engaging different stakeholder groups in collective action in support of sustainable agriculture livelihoods.

Table 5.5 – Potential for the involvement of different stakeholder groups in collective action in support of sustainable agriculture livelihoods.

Actors	Opportunities	Limitations	Entry points for collective action	Promising strategies	Requirements
Traditional agricultural population	Local ecological knowledge; Skilled in sustainable agriculture practices; Attachment to the land; Personal interest in farm viability.	Low levels of literacy; Resistance to innovation and change; Limited financial resources; Limited trust in project work and outsiders; Risk aversion; Lack of hope / fatalism.	Directly experienced problems.	Cooperation oriented towards practical solutions and economic benefits; Informal and personal approach; Demonstration projects.	Skilled rural development facilitators to organise and coordinate action.
Local non-agricultural population	Generally supportive of local agriculture.	Limited awareness and interest; Limited financial resources; Limited trust in project work and outsiders.	Directly experienced problems; Promoting issues of general interest.	Appeal to health and cultural values; Leisure activities; Practical learning opportunities.	Skilled facilitators to organise engaging activities.
Entrepreneurial farmers	Personal interest in farm viability.	Reduced number, scattered over a large geographic area; Limited trust in project work and outsiders; Limited financial resources.	Directly experienced problems.	Cooperation oriented towards practical solutions and economic benefits;	Skilled rural development facilitators to organise and coordinate action.
Ecologically minded urbanites (includes neo-rurals)	Keen interest and engagement in developing sustainable livelihoods.	Limited local and practical knowledge; Limited resources.	Intellectual appeal; Practical learning opportunities; Possibly political activism.	Participatory action planning; Sharing of responsibilities; Formation of group identity.	Largely self-organised; Achievable goals needed to keep motivation; Ideal vision to inspire action.
Other outsiders	Expert knowledge; Entrepreneurship; Capital.	Limited availability and interest.	Appeal on health and cultural values, Leisure activities; Intellectual appeal.	Specific targeting; Offering returns or benefits for their support; Allow for sporadic involvement.	Core group that encourages their involvement in specific tasks.

5.4.3 Relations with institutions and the public administration

Municipality level politics had a significant influence on the success of collective action projects. In some cases, the municipality was supportive of the projects and this gave a significant boost to the activities of the group. However, the internal workings of municipalities can also cause significant delays and internal frictions, affecting the projects directly dependent upon them.

Legal requirements and respective administrative procedures for licensing activities and accessing state support were a barrier to the entry of neo-rurals into farming and to the development of some strands of the project *Criar Raízes*. This shows that the legislation and required procedures are not only a challenge for the less literate farming population, but also for the highly educated.

Political engagement was virtually absent in the case of *Criar Raízes*, however it was important to some extent to neo-rurals, who organise petitions, expose pollution problems and often hold a radical green political stance. Nevertheless, they did not appear to be involved in regional or national policy advocacy groups at present. The neo-rurals are in a difficult position with regard to becoming politically active, as they often do not know the culture of Portuguese institutions and how to constructively engage with them. *Criar Raízes* was aimed at practical action, and political involvement could have been detrimental for them, as the identification with a certain party or ideology can easily create tensions in dealings with local institutions. This is an important reason for associations making a special effort to stay impartial and keep out of politics – for the sake of general acceptance and to be able to work on practical action to achieve tangible goals.

5.5 Conclusions

The case studies have shown concrete working strategies, opportunities and limitations of current collective action projects aimed at sustainable farm viability. The work of the *Criar Raízes* project has directly improved sales and income from traditional agriculture, encouraging the continuation of agricultural production and improving land-based livelihoods. In Covas do Monte the maintenance of agricultural livelihoods has become, in terms of individuals' perspectives, a possibility for the future. The collective action of neo-rurals in the central mountain range has allowed individuals to secure pluriactive low-impact livelihoods and spread sustainable living ideas and practices. Table 5.6 summarises the case study projects and their main achievements.

Table 5.6 – Case study projects compared.

	Criar Raízes	Neo-rurals
Coordination	Municipality and cultural association.	Self-organised groups and networks.
Aim	Improve viability of agricultural livelihoods.	Promote sustainable agriculture practices and low-impact livelihoods.
Origin of project	Local conditions leading to participatory project design.	Ideal vision underlying development of activities.
Activities	Cultural and tourist activities; setting up market chains; Collective work days.	Demonstration and training in sustainable living practices.
Achievements	Positive vision for the future of a mountain village; Improvement of sales of agricultural products.	Spread of sustainable living ideas and practical skills; Maintenance of pluriactive sustainable livelihoods.

Mainstream marketing practices are unsuitable for generating a sufficient income for the diverse, small-scale and subsistence-oriented farms of the inhabitants of Covas do Monte and of the neo-rurals. Mainstream marketing would require costly investments and specialised production, which would compromise the sustainability and uniqueness of the systems. Thus, promoting direct sales of agricultural produce, such as through AAFNs, appears to be the narrow road left to achieve farm and village viability (Zaar, 2007). However, it is difficult to

promote informal marketing strategies at a sufficient scale to make a significant contribution to households. In addition, such alternative strategies for farm viability require collective action, which although very promising in theory is difficult to establish in the study area.

The importance of the internal organisation, the involvement of participants and the relations with public institutions for the effectiveness of collective action projects, have been outlined. In each of these areas there are specific opportunities and challenges that need to be carefully considered in order that effective projects can be developed. The importance of trustworthy leadership and a demonstration of benefits of innovations and cooperation has been outlined by other authors with regard to the Portuguese context (Carvalho *et al.*, 2002; IDARC, 2002; Carmo, 2009). In this study it was shown that different strategies are necessary to involve different stakeholders in collective action projects. The involvement of participants needs to be considered early on in the project design, so that the relevant stakeholders can be targeted effectively.

A study has shown that the organisation of participatory problem-solving meetings with sheep and goat producers led to their experimentation and uptake of innovative practices (IDARC, 2002). Collective action aimed at improving farm viability will probably have to be organised around very specific problem situations, involving the directly affected actors.

In theory, there is a lot of potential for participatory action still to be explored. The challenge is to find initiative leaders who work on concrete local problems and needs and are able to involve and work with relevant actors. Facilitators are needed that can encourage bottom-up organisation and problem solving, and bridge the gap between the local population and the state (Pinto-Correia *et al.*, 2006b). As this work takes specialist facilitators and long time spans, funding becomes a crucial issue. Financial support could come from local municipalities, the government and other funding bodies. In particular the LEADER LAGs are in a privileged position to receive funding for these purposes and to work with the local

population. Unfortunately, most LAGs have channelled their work into diversification and, to a large extent, away from agriculture (Rover and Henriques, 2006).

Continuous research on collective action is important for the monitoring of activities, strategies and achievements, and to provide feedback on the results so as to help groups improve their performance (Pretty, 2001; Muñoz-Erickson *et al.*, 2007).

CHAPTER VI

STAKEHOLDER PERCEPTIONS
OF LAND ABANDONMENT
AND IMPLICATIONS FOR ACTION



6.1 Introduction

All socio-economic and environmental problems can be said to be the result of human agency and it is human agency that is also required to develop solutions (Woodgate and Redclift, 1998; Sevilla-Guzman, 2000). The understanding individuals hold about an issue is the foundation on which decisions for action are taken. Thus an analysis of AM and potential solutions needs to give attention to the social constructions and representations of the process of AM itself.

Juntti and Wilson (2005) studied desertification in southern Europe and noted that the different understandings individuals hold on what defines desertification “*allows for different interpretations of its nature, significance and consequent weight it is given in land-management decision-making.*” It was found that in Portugal most interviewees equated ‘desertification’ with rural depopulation (Juntti and Wilson, 2005). Although some studies have focused on stakeholder perceptions in relation to agriculture in Portugal, the focus was on the implications for the uptake of subsidies and implementation of land-use related policies (Carvalho *et al.*, 2002; Juntti and Wilson, 2005; Wilson and Juntti, 2005). A detailed analysis of how different stakeholders from the agricultural sector make sense of land abandonment was lacking.

Social constructionism takes a critical stance towards what is assumed to be common knowledge, thereby contributing to the uncovering of factors that explain different perceptions about a single issue (Burr, 1995). Whose knowledge ultimately counts in transforming reality depends on whose knowledge is considered to be authoritative, and on what the prevailing power relations are (Burr, 1995; Carolan, 2006).

Having generated a broad, integrated and objective understanding of the process of AM based on the literature (Chapter 1) and primary data (Chapter 3), and having investigated potential

solutions (Chapters 4 and 5), a crucial question emerged: how do actors from the agricultural sector make sense of existing trends of land abandonment and rural depopulation¹⁹? And how do these perceptions affect endorsement of different approaches to reverse the trends of marginalisation?

The main aims of this chapter are:

1. To survey and portray existing explanations of AM;
2. To analyse how interpretations of AM vary between different stakeholder groups;
3. To assess how the interpretations of AM affect action to address existing problems.

Forty-five qualitative in-depth interviews were conducted with a variety of stakeholders from the agricultural and rural development sector, exploring their perceptions of 'agricultural land abandonment' (*abandono agrícola*) (methods Section 2.3.4).

Initially the perceptions of interviewees on agricultural land abandonment are reported, addressing causes and consequences of land abandonment, the current role of agriculture, solutions or desirable actions and ideal visions (Section 6.2). Following each of these themes a stakeholder typology is presented according to 'who says what'. To investigate the potential for future action, stakeholders' views on current action, responsibility for action and the workings of the agricultural policy/MADRP have been analysed and are presented in Section 6.3 of the chapter. A discussion follows, in which implications of perceptions and potential for action at different stakeholder levels are assessed.

¹⁹ Both these concepts are investigated together, as they are intimately linked in the study area (Breman and Pinto-Correia, 2005).

6.2 Stakeholders' perceptions of agricultural land abandonment

6.2.1 Causes of agricultural land abandonment

All stakeholders interviewed were acutely aware of the steep decline of agriculture and the abandonment of agricultural lands in the study area. It was described that land abandonment occurred first in the villages higher up in the mountains, whereas cultivation around villages and towns in the valleys and plains is continued for domestic consumption. It was pointed out that land abandonment was also occurring in some coastal areas (Cantanhede, Vagos, Mira) and that close to urban areas, agricultural land was taken out of agricultural use for other types of development.

A host of causes of land abandonment were described and are presented and discussed in what follows. Some interviewees found it difficult to distinguish between causes and consequences, and they named issues that were normally described as being consequences as being causes. In the study area, land abandonment and rural depopulation are intimately connected, and therefore the majority of interviewees made no clear distinction between these issues.

Historical causes of land abandonment

It was described that the interior and mountain areas of central Portugal were overpopulated and consequently overexploited in the early 20th century. A forestry professor described that there was extreme soil erosion in the mountains, as grazing and other uses of the vegetation left the hills bare. A farmer remembered those same times with nostalgia: *“When I was a child I went with the animals up the mountains and there was almost nothing for them to*

graze on, everything was tidy and nice. People cut scrubs for bedding and the animals would graze on the new shoots. Today it's the other way round, scrubs growing everywhere."

A regional MAOT officer explained that the population declined as a result of the two World Wars and the 'pandemonic pest' occurring between the wars. Also, ink disease in the sweet chestnut population drastically reduced an important staple crop at the time and forced people to leave the area in search of employment to secure a livelihood. The war in the colonies (1961 to 1974) led to a further drain of people from rural areas.

The most discussed historical cause of land abandonment was the forestation of the commons in the 1940s (as mentioned in the introduction). However, there were varying opinions on the impact of the state forestation of the commons on rural depopulation. Some individuals asserted that the wave of emigration of the 1960s was largely due to generalised poverty, combined with the surge of industrial jobs in central Europe, whereas many other interviewees explained that this wave of emigration was a direct result of the state forestation programme that undermined rural livelihoods and forced the population off the land. A former member of staff of a rural development association believed that the forestation of the commons was the key to understanding current land abandonment. He said: "*the mountain system was a real permaculture that had lasted at least 300 years, since the introduction of maize. Once part of the system (the commons) was taken away from the local population, the whole system crashed and a new balance has not been achieved since*".

More recent changes in the forestry sector have also contributed to rural depopulation. After the forestation had occurred, the sector became an important income source for the remaining rural population. However, the introduction of machinery significantly reduced labour needs, forest fires (which increased after the revolution in 1974) decimated forests, and cheap imports of wood and resin (since the 1980s) made local forests less profitable. As people could not earn the necessary cash locally, they had to seek employment in urban areas;

moving away implied ceasing agricultural activity and abandoning the land.

A sociologist also mentioned the productivist orientation that was prevalent in the 1980s, saying, “*in the 1980s he who defended subsistence farming was considered to be an adherent of misery (miserabilista).*” And she remembered “*In the 1980s there was this big idea of modernising agriculture, and small-scale farming was seen as inferior.*”

Socio-cultural causes of land abandonment

The socio-cultural factors leading to land abandonment were frequently described in the fashion of a *push-and-pull off the land* theory, presenting factors pushing people off the land and factors pulling people into non-agricultural activities. These factors were combined in a description of an unattractive agricultural activity, overshadowed by desirable urban opportunities.

The socio-cultural factors said to drive people off the land were:

1. *Negative social regard of agricultural livelihoods* – it was described that farming is considered to be a socially inferior profession by society in general. The historical poverty of farmers in the interior and mountain areas has been transformed into a prejudice against farmers and agricultural livelihoods. The negative social regard of farmers is related to the fact that the youngest child or the least successful in school formerly had to stay on the farm and help the parents in agricultural work, and whoever was capable of emigrating would do so. Hence it became common to identify farming as a profession for the less educated and less able. Farming is also associated with poverty and people do not want to be seen as being economically less endowed. A professor from an agricultural college also criticised how the modern

media still tends to portray farmers as “*complete idiots; the funny character in comic sketches.*” An agricultural engineer pointed out that currently, the social status of a factory worker is superior to that of a farmer.

2. *Agricultural work is physically demanding and inconvenient* – it was frequently stressed that agricultural work is physically demanding and there are none of the benefits of non-farm employment, such as a regular and stable income, fixed working hours, free weekends and holidays. An agricultural engineer contested the validity of this explanation for land abandonment, because with mechanisation, farm work has become much less physically demanding and jobs taken up by the emigrating rural population “*are often much heavier and dirtier than farming – such as construction or factory work*”. However, farmers encourage their children to study and seek employment. If children stayed in farming, that would be a disappointment to most parents, who want a “*better life*” for their children.

3. *Lack of public services* – the lack of public services in rural areas was normally mentioned as a consequence of rural depopulation; as population density declines the state closes down public services in remote areas. However, it was also mentioned that historically rural areas had less access to public services, and recent public cost saving programmes closed down many public services. Lack of schools and health services make the area unattractive for living and raising children and people move to urban areas for easier access to these services.

The factors said to attract people to urban areas were:

1. *New aspirations* – 40% of interviewees mentioned new aspirations as being important for pulling people away from agricultural livelihoods. Agriculture does not provide people with the living standard they want to have. “*People nowadays require*

more, they want another way of life” an academic lecturer said. *“People still believe that it is good to move to cities, that it is a sign of social prestige and intelligence. They still have the idea that only Lisbon is really good”* an agricultural engineer stated. Another agricultural engineer said *“I read that the one thing that most contributed to rural exodus was TV; people started to see how life was elsewhere and wanted to live in the same way.”* Urban areas were said to be more attractive for young persons, providing for the entertainments of a modern life to which the youth was said to aspire. Local actors also explained that the expectations and the monetary needs of people have increased, and it is difficult to meet those with an agricultural livelihood.

2. *New employment opportunities* – new employment opportunities developed in central Europe, in Portuguese urban areas and finally also in rural areas, and it was said that these diverted people from agricultural work. It was said that people would always go where they could make most money with least effort. *“Young people today want quick and easy money. And they see from their parents that agriculture does not have a grand future. Therefore they decide to go to cities, seeking better lives. And that’s when the land is abandoned”* an agricultural engineer explained.

Besides the *push-and-pull off the land* explanations, other socio-cultural causes that challenge farm viability and cause land abandonment in the study area were mentioned:

1. *Lack of entrepreneurialism* – some people pointed out that local people were not entrepreneurial. Due to age, low levels of education, risk aversion or *“because the Portuguese are like that. It’s common that they do only what the boss tells them to do, without any of their own reflection on what needs doing or how things could be done best”* (absentee agricultural entrepreneur). This lack of entrepreneurialism results in farmers not being sufficiently dynamic to innovate and improve production

practices and not being sufficiently engaged in marketing their produce. Without entrepreneurialism, nowadays it is difficult to secure farm income.

2. *Lack of cooperation among farmers* – considering the difficulties of achieving farm viability, specifically due to marketing problems, it was said that the lack of organisation among farmers was a cause of the limited viability of their farms and ultimately causing land abandonment.

3. *Socio-cultural barriers to land access* – In order for young entrepreneurs to start farming, land access is an important barrier, because it is difficult to find a large enough landholding to establish an economically viable farm and to become eligible for state investment support. Landowners were said to be very much attached to their land and largely unwilling to sell, and in cases where they put land up for sale “*emotional attachment inflates land prices*” (councilman). Landowners were reported to be unwilling to issue rental contracts, as they were fearful of losing rights on their land or because they wanted to be able to sell or use the land themselves at any time.

4. *Subsistence agriculture undervalued* – it was mentioned that the majority of consumers “*want to buy what is cheapest*” (member of agricultural association) and they are not aware of the differences between food from industrial modes of production and food produced in subsistence-oriented agriculture. “*On the labels there is no account of the differences. If the labels indicated water content and nutritional value, people would soon realise that they were buying mainly water when they choose the cheap products*” a coordinator of agricultural associations explained. As consumers do not value the high quality produce from small-scale agriculture sufficiently, it has to compete “*as if it were the same as the industrial produce.*” It was also affirmed that “*consumers need to know about the added*

benefits in terms of landscape and nature conservation of buying these products”

(rural development association).

5. *Gentrification* – over 20% of interviewees mentioned the aging of the rural population as being a cause of land abandonment. Even after probing, some interviewees did not explain why gentrification was happening and considered it to be the core cause of land abandonment. Others explained that gentrification was happening because of the difficulties young people were facing in setting up an agricultural livelihood. For young people to settle, the difficulties referred to were lack of motivation caused by the low profitability of farming, high entry costs and administrative complications with regard to receipt of young farmers’ investment support. 11% of interviewees said that more young people would be interested in starting farming if it were profitable and entry costs were not so high.

Physical causes of land abandonment

Nine individuals (20%) mentioned that the difficult physical conditions of the area constrained agricultural productivity and profitability. The climate, poor soils and steep slopes in the mountain areas were perceived to be challenges to the development of profitable agriculture. These difficult physical conditions combined with an inadequate landholding structure made mechanisation nearly impossible, and thus farming in the region was seen as economically inefficient.

Inappropriate landholding structures were seen as a cause for almost inevitable decline by nearly 50% of the sample. It was reported that landholdings were very small and fragmented, and therefore “*it was difficult for people to make a transition towards entrepreneurial farming*” (regional MADRP staff). Another staff member of the regional MADRP stated that

“the land size is simply too small for people to make a living from agriculture”. The main argument was that minifundia make it difficult to produce in sufficient quantities and at low enough costs for farming to be competitive with other areas. An agricultural engineer noted *“life nowadays is so expensive, so expensive, so expensive, if you don’t have a big entrepreneurial farm it’s impossible to earn enough to make a living.”*

Economic and political causes of land abandonment

In addition to the socio-cultural causes pushing people off the land, it is clear that opportunities to earn a living in rural areas have declined. A peasant woman reflected that *“the things that we have here were ever decreasing in value and it was increasingly difficult to make a living.”* This was because prices for natural resources and agricultural produce declined and *“the introduction of machinery made much human labour redundant, and so people had to search for means to secure a living elsewhere.”* Regarding employment opportunities, a farmer remembered *“A couple of years ago it was easier to get jobs here, in construction, driving trucks, in the forestry sector...”* Textile and forest related factories, formerly important employers in the study area, have been closing down, and also international factories making use of cheap labour have been re-localised. As off-farm employment opportunities declined and subsistence agriculture was insufficient to make a living, people left rural areas in search of employment, leaving their lands abandoned.

Half the sample (51%) explicitly considered lack of profitability of farming to be a key cause of land abandonment. However, the explanations varied widely in depth; some people merely explained that marketing was difficult and therefore farm viability basically impossible, whereas others presented more complex politico-economic explanations for the lack of profitability of farming in the study area.

Regarding the explanations given for the lack of profitability with more emphasis on daily experience and observations, people explained for example that *“if farmers put their grapes in the cooperative, they don’t pay. There are farmers who haven’t been paid for five years...people lose their motivation and abandon the land”* (rural entrepreneur). A farmer said *“today it’s not worth producing; there’s no one who wants to buy it.”* Other people mentioned that the costs of the factors of production have increased significantly (the price for a bag of fertiliser has doubled between 2008 and 2009), rendering production unprofitable, given the low farmgate prices being offered. A coordinator of agricultural associations insisted that the market is not working because *“the discrepancies between farmgate prices and prices at the consumer show that intermediaries are taking the bulk. This is only possible because the buyers act as a monopoly, there are very few and they might even have agreements among themselves²⁰, therefore they can force farmgate prices down.”* He asserted *“if the market does not work, we have to regulate it.”*

Several price comparisons were given as examples of how market prices frequently lie below production costs. The example of wool production costs and farmgate prices was particularly striking; shearing a sheep costs €1.30 and yields about 1kg of wool, which was selling for €0.40. This means that a shepherd loses €0.90 if he shears one sheep and sells the wool. Unsurprisingly, the wool is often burned or buried. If in former times the sheep shearing season was associated with abundance and festivities, nowadays it has become a time of grieving, an absentee farmer explained. Despite social norms that encourage the maintenance of an agricultural activity, the low profitability or incurred costs of production cause farmers to opt out of continuing their productive activities.

A total of 36% of interviewees explained the causes of low profitability of farming in the interior and mountain areas. The causes mentioned were:

²⁰ Regarding the prices paid for grapes, an oenologist reported that *“the entrepreneurs of the wine sector get together at an annual dinner and set the prices to be paid that year.”*

1. *Market liberalisation* – some 10% of interviewees related land abandonment to the lack of competitiveness of small-scale production systems under the condition of open markets. “*Opening the borders substitutes production with imports. The main cause for the disappearance of many farm enterprises is competition with products from other EU countries*” a member of a national agricultural association explained. A rural entrepreneur confirmed “*one of the ailments of our agriculture is the potatoes that come from abroad...and not only potatoes.*” Some interviewees gave the concrete example of the expansion of supermarket chain stores undermining the prices for local agricultural produce. The international delegate of a farmer’s association asserted “*supermarket chains are those who contribute most to delocalising production from consumption. This destroys local direct food networks.*”

2. *Subsidies* – 11% of interviewees stated that subsidies were unequally distributed among small-scale and large-scale farmers, leading to an unfair competition in which large-scale farms, which had economic advantages to start with, were receiving most of the agricultural support funds in Portugal, whereas small-scale farms, which provide social and environmental benefits, were receiving very small amounts of state support “*that is too little and always transitory*” (MADRP staff). The direct competition with highly subsidised farming systems reduces the competitiveness of small-scale and extensive farming systems, such as those in the interior and mountain areas of Portugal.

3. *New rules and regulations* – 22% of interviewees considered that the new regulations that are not adapted to subsistence-oriented farming are an important cause of land abandonment. Since the entry of Portugal into the EU, the transposition of EU legislation into Portuguese law has outlawed most production and marketing practices that were typical of subsistence farming systems. The new regulations have

severely limited the possibility of rural households earning cash from agricultural surplus. This is because initial investments necessary to set up a legal productive activity are prohibitive for small farms, as the amount they are able to produce cannot offset investments. The regulations in general focus on product standards, regardless of the socio-economic conditions of the producing unit, but *“the risks for example of contamination are very different according to farm size. But this is not taken into account by the rules and controls that we have..”* (MADRP staff).

The compliance with the new rules and regulations does not only comprise high cost investments, but also *“being enmeshed (estar enrolado) in bureaucratic procedures”* – as a staff member from a national agricultural association put it. The bureaucracy related to the application for subsidies and licensing of production units were described frequently. A farmer described the severe lack of information and support available: *“now we make our projects, and then the municipality fails them. They don’t say what is needed, but they fail it if something is wrong. I don’t think that is appropriate. They should say clearly and straight away: this and this is needed and costs about that much.”* He stressed *“no one explains anything and the farmer does not know what to do. But then the inspectors from Lisbon come and ask farmers how they did certain things. Farmers say what they did, and the inspectors fine them because something was wrong.”*

It was not only farmers who faced difficulties with the administrative procedures, but also members of agricultural and rural development associations. An agricultural engineer, manager of an agricultural cooperative, recounted how she had been waiting a year for the response of the IFAP regarding the application for financial support for a collective bee-keeping project. She also felt it was outrageous that people at the IFAP offices were not able to clarify her questions regarding application procedures, but instead, a person who was apparently evaluating one of her applications for funding rang her up to ask the meanings of certain basic agricultural terms.

Members of staff of local MADRP offices also exposed the fact that lack of staff and equipment meant that farmers had added difficulties in complying with the legislation and accessing the support they needed. A MADRP officer said: *“I have an old PC here, I asked for a new one half a year ago. The one I’ve got has certain deficiencies and doesn’t allow me to do certain services for the farmers that come here. So I have to tell them to go to Gouveia or Coimbra for jobs that I could do here, you see?”* For farmers, having to go to offices some 60km away, implies more time and money spent; and in particular reliance on scarce and expensive public transport (buses and taxis) can turn a trip to the city into a long and expensive journey.

A general lack of support for small-scale farming and for young farmers was also mentioned. An academic lecturer said *“abandonment happens because the institutions withdraw and do not support the populations that need support”*. Several individuals mentioned that there was no extension service, which would be of particular importance to support the farming population of the interior in finding ways to achieve farm viability. Two people said there was insufficient state support for young farmers. Especially in the last four years, no calls for applications for investment support had opened and investment support without technical support was resulting in young farmers giving up after 5 years, after which time the investment support contract runs out.

Relative frequency of causes mentioned and stakeholder typology

In total, 18 main different causes have been named to explain land abandonment. The codes have been kept at a minimum level of abstraction to keep as close as possible to the original meanings. Some codes do partially overlap, but it seemed desirable not to refine and aggregate the codes, in order to represent the real diversity and type of explanations given.

Table 6.1 summarises the causes mentioned, listing them in descending order of frequency; an illustrative quote is presented for each cause.

Table 6.1 – The main causes of land abandonment, an illustrative quote and percentage of individuals citing each cause.

Cause of land abandonment	Illustrative quote	Individuals (%)
Lack of profitability	<i>“It’s necessary to produce more each time to earn the same, because prices paid are declining and production costs rising.”</i>	51
Landholding structure	<i>“Farm size is too small for people to make the transition towards entrepreneurial farming. That made it difficult to evolve.”</i>	47
Agricultural work undesirable	<i>“Agriculture is work that implies having no weekends, no holidays, being outside working from dusk to dawn in any weather. This causes youngsters to choose other options.”</i>	31
Lack of monetary income sources	<i>“Often it is not the wages abroad that take people away from here, but the difficulty of getting a job at all.”</i>	27
Negative social regard of farming	<i>“It has no social status. Status is getting a higher degree and being employed in a big company.”</i>	27
New aspirations	<i>“Times of subsistence agriculture are past. People nowadays require more, they want another way of life.”</i>	24
Population ageing	<i>“People let the land become abandoned because they are elderly and can’t farm anymore”</i>	22
New regulations and administrative procedures	<i>“Some people wanted to license cheese production units, but there was so much bureaucracy involved that they ended up abandoning the idea.”</i>	22
Physical conditions	<i>“The conditions of soils, climate, etc. are not very favourable for profitable agriculture, and thus people leave.”</i>	18
Political framework	<i>“Policies were directed wrongly only to focus on agricultural productivity and large scale production. But there was never any support for agricultura familiar”</i>	16
Lack of technical support for small-scale farming	<i>“Nowadays there is basically no technical support from the government available to farmers.”</i>	16
Market liberalisation	<i>“With market liberalisation, the Spanish, who have better growing conditions, can put their produce cheaply in our markets, so it’s not worth us producing.”</i>	13
Cheap imports on sale in supermarkets	<i>“People see that they can buy food really cheaply at supermarkets. Producing them is more expensive than buying them.”</i>	13
Lack of entrepreneurialism	<i>“...what the Portuguese lack is entrepreneurialism.”</i>	13
Lack of public services and urban amenities	<i>“...the children want a better life and move to cities, they want to access better education, better health services. That’s it basically.”</i>	11
New employment opportunities	<i>“People stopped farming their lands mainly because of the industries.”</i>	11
Attribution of subsidies	<i>“The distribution of subsidies is unfair and the most competitive farms are the ones that receive most support.”</i>	11
Insufficient valuation of small-scale farming systems and products by consumers	<i>“Consumers don’t want to buy quality; they want to buy what is cheap.”</i>	4

Based on an analysis of what factors were used by different stakeholders to explain land abandonment, it was possible to distinguish 4 different perspectives, as outlined in Table 6.2. The *push-and-pull off the land* explanations were very popular with all actors, but occurred as the sole explanation for land abandonment mainly in the group of local actors. Government staff would more often than not focus on endogenous causes of land abandonment; adding to the push-and-pull off the land other factors such as difficult physical conditions and inadequate landholding structure. The endogenous explanations conveyed that interior and mountain areas in which land abandonment is occurring are areas that are not suited to modern farming. As such, land abandonment was seen as a problem intrinsic to the areas themselves, rather than as a result of possibly inadequate external drivers reconfiguring the agri-food system. This view was opposed by a small number of actors who asserted that exogenous causes were key to the understanding of land abandonment.

Table 6.2 – Stakeholders’ perceptions of the causes of land abandonment.

Perspective	Causes mentioned	Nr. of individuals (%)	Stakeholder typology
Push-and-pull off the land	Lack of public services Lack of income sources New aspirations New employment opportunities	15.5	Mainly local actors
Endogenous causes	Push-and-pull off the land Physical conditions Landholding structure Lack of entrepreneurialism	35.5	All levels of government staff (10), local actors, 1 academic
Exogenous causes	Political economic causes only	9	2 academics, 1 farmer, 1 association
Combination of causes	Push-and-pull off the land Endogenous causes Exogenous political economic causes	40	All stakeholder types

6.2.2 Consequences of land abandonment

Land abandonment was frequently related to rural depopulation and resultant “*ghost villages*”. It was said that agriculture used to be the main economic activity practised in the villages, and its decline and insufficient local economic alternatives caused emigration, leaving rural areas depopulated and entire villages abandoned. Depopulated and abandoned villages were observed during fieldwork (see Picture 3).



Picture 3 – Abandoned village in the municipality of Gouveia.

Several academic researchers considered rural depopulation to be problematic because “*the territory becomes vulnerable to exploitation by powerful economic interests, that appropriate the remaining values to the detriment of the local population and society at large*” (rural development professor). Examples were given of enterprises buying entire villages to set up tourist resorts, and it was argued that the local population would only benefit marginally from such development.

Rural depopulation has consequences of its own. The lack of population justifies the closure of public services. Economic activities decline and the areas become ever less attractive for people to stay and newcomers to settle. It is a vicious cycle, as several individuals pointed

out.

The individuals that remain in the villages become very lonely and have no neighbours or relatives close by to give assistance in case of need. Some interviewees, although not directly affected, said they were emotionally affected. Agricultural engineers found it disheartening to follow the stories of farmers who had struggled for years to keep their farm going before finally having to give up.

The landscape change occurring as a result of land abandonment was perceived as being negative and the “*degradation of the landscape*” was said to cause deep sadness. An agricultural researcher explained “*it is as if you would see your childhood house in ruins. We grew up accustomed to seeing the countryside cultivated and well cared for, when we go there now we find scrubs and burned down trees, instead of orderly fields, and it feels like a big loss.*”

The depopulation of villages also leads to a cultural loss. A young man, who has always lived in a village, described this intangible loss: “*as people leave, the specific interaction between the generations is lost, the way things were transmitted from generation to generation, giving specificity to every village. Each village had its own individuality, resulting from local experiences and stories, the typical way of speaking and pausing of the villagers...the way of ‘being in life’ (estar na vida) specific to each village is lost.*”

13% of the interviewees mentioned that the decline of small-scale agriculture was leading to the loss of genetic diversity. The maintenance of landraces and breeds was said to occur predominantly in small-scale farming systems, in which productivity was not the highest priority and landraces and breeds were kept for other special traits that were valued. In addition to the genetic diversity, more is lost with it: “*It’s not just a seed variety being lost, it is also knowledge that only exists while people keep producing it*” an agricultural researcher

said. Traditional quality products, that have frequently been produced using local breed and landraces, are lost as well; people spoke of the “*extinction of quality products*”, stressing that the conditions for their production and the knowledge of how to make them is lost. Besides the cultural value of traditional quality products and related knowledge, knowledge and practices that have assured a sustainable use of the territory for hundreds of years are also disappearing.

28% of individuals asserted that land abandonment was a waste of productive resources, equating to an important economic loss. An agricultural researcher said “*in areas where there are memories of hunger, it is difficult to accept that lands that could be cultivated are simply abandoned.*” A local staff of the MADRP said “*with so many people in cities being unemployed, it is a real shame that certain resources that we have are not being used*” and he added “*public investments in agriculture of the past have been lost, for example investments in irrigation infrastructure, which is now falling apart.*”

Affecting the wider population, there was also discussion about the quality of life in urban areas that become crowded by the rural population seeking for jobs. It was perceived that the quality of life in Portuguese cities was stressful and undesirable, the quick population growth has led to public services being insufficient, rising unemployment and long commuting times. A subsistence farmer added “*and if people in the city become unemployed, what should they do? Here in the villages they can always cultivate some land and see themselves through hard times. If a person in the village has certain moderation, a balanced life, she can survive. This is not possible in cities.*”

Land abandonment was perceived to have direct negative impacts on the environment. The spread of scrubland has led to a decline in biodiversity, which was especially noted by hunters who said partridges, rabbits and other animals had declined or nearly disappeared. The importance of agriculture to managing water resources was mentioned and with the

absence of little dams and irrigation infrastructures “*the water flashes from the mountain to the sea and all the wildlife that benefited from little dams and ponds are affected. The areas are becoming drier and people wonder why*” (local actor). A farmer also said that while land that was used in a sustainable way is abandoned, in other places industrial farming is conducted “*until it kills the soil*” (‘até rebentar com o solo’).

Abandoned agricultural land is frequently planted with pine or eucalyptus which transforms the former diverse agricultural mosaic into “*tree plantation monotony*” (staff of rural development association). The plantation of eucalyptus, which is subsidised under the ‘Forestation of agricultural lands’ scheme, has well-known negative environmental consequences; eucalyptus is allelopathic and few species grow in the undercover of eucalyptus plantations, it requires much water for its growth, but decaying eucalyptus leaves alter soil properties, reducing the infiltration of water (Araújo, 1995; Graça *et al.*, 2002). This causes decreasing groundwater levels in highly forested areas. The high lipid content of the leaves makes them highly combustible, contributing to the problem of forest fires (Sande Silva *et al.*, 2008). Nevertheless, *eucalyptus* plantation continues because “*it gives a good return without requiring much work*” (agricultural engineer) and “*the paper pulp industry is a very strong lobby, and industry leaders hold important positions in the forestry department of the MADRP*” (forestry professor).

The increased fire risk resulting from the land use changes was one of the most cited consequences of land abandonment. It was explained that agricultural activities had kept the scrubland under control, cultivated areas created a barrier to the spread of fires, and farmers maintained vigilance over the area and were a good ‘fire brigade’, as they knew the territory in detail and would take immediate action when a fire was spotted. Scrubs were portrayed as ‘rubbish’ and ‘waste’, as no use is made of them. A local craftsman and subsistence farmer said “*scrubs and brambles take over. It looks frightening... it’s fuel for the next fire.*” Forest

fires were mainly regarded as an environmental problem resulting in soil erosion, loss of biodiversity and landscape degradation.

Security issues were raised. Forest fires pose a clear threat. The possibility of landslides from eroding slopes and collapsing terraces was mentioned, and now that lands are abandoned *“there is less security in the mountains. In former times everyone knew everyone and there were always people in the mountains. Now everyone is anonymous and people are suspicious of each other”* a former rural development worker said.

11% of interviewees stated that the general quality of food produced in small-scale farming systems is superior to the food produced industrially, and therefore the decline of these farming systems leads to an overall decline of food quality. A coordinator of agricultural associations *“there are diseases nowadays that didn’t exist 20 years ago, this is because of the way agricultural production has changed (...) a calf that used to have to grow a year to put on a certain weight now gains this weight in two months, with all the feed and injections they give. The quality of life that the animals have is then reflected in the quality of the meat. And this affects the whole population, not only the farmers who have to leave, but the whole population, because it changes what we eat.”*

Relative frequency of consequences mentioned and stakeholder typology

A total of 11 consequences of land abandonment in the interior and mountain areas were distinguished. Table 6.3 below lists these in descending order of relative frequency of being mentioned.

Table 6.3 – Perceived consequences of land abandonment cited by interviewees, in descending order of frequency cited (% of individuals mentioning each consequence) with illustrative quote.

Consequences of land abandonment	Illustrative quote	Individuals (%)
Fire risk	<i>“Abandoned fields on which scrubs are developing are pasture for fires.”</i>	49
Environmental degradation	<i>“When this more traditional agriculture disappears (...) this leads to the degradation of natural resources.”</i>	42
Landscape change	<i>“Abandoned landscapes are not attractive.”</i>	38
Depopulation	<i>“...desertification, the abandonment of villages.”</i>	31
Economic loss	<i>“It is a crime to leave the resources abandoned or underused.”</i>	28
Socio-economic loss	<i>“No qualified workers are left in the rural areas and this makes it difficult to start new economic activities.”</i>	16
Agrobiodiversity loss	<i>“...loss of genetic diversity.”</i>	13
Psychological impact	<i>“Sometimes I become sad when I come here to Côja and see the surroundings that used to be cultivated and full of maize, wheat, potatoes, and nowadays there’s little left.”</i>	11
Decline of food quality	<i>“The quality and the specificity of foods, which is achieved by these family production systems, will be lost.”</i>	11
Cultural loss	<i>“The socio-cultural heritage connected to this agriculture is lost.”</i>	9
Decline of public services in rural areas	<i>“There is a decline of public services in the rural areas where depopulation has occurred, and this enforces the trend of abandonment.”</i>	9

It was found that there was a pattern of consequences being cited together (Table 6.4), resulting in four different types of problem perception: the multiple consequences, the managerial problems, environmental and economic loss and the mainly locally experienced impacts. All four types of problem perception occurred at almost equal proportions (approximately 25% each). Examining what stakeholders of these groups had in common revealed an underlying logic. Multiple consequences (up to 7 per interviewee) were described by stakeholders with higher levels of schooling (academics, staff from associations and government), directly engaged with the agricultural sector. The managerial problem perception was more common among government staff removed from the rural area (regional and national MADRP and MAOT) or not directly engaged in the agricultural sector (local government). The emphasis was placed on environmental and economic loss by rural actors that were actively working to promote positive change in the agricultural sector (volunteers and staff of associations, LAGs). Finally, farmers and rural entrepreneurs frequently mentioned both psychological impacts and the loss of agrobiodiversity, suggesting that they

reported their personal observations rather than considering the wider consequences of land abandonment.

Table 6.4 – Typology of stakeholders according to perception of distinctive consequences of land abandonment.

Perspective	Consequences mentioned	No. of individuals (%)	Stakeholder typology
Multiple consequences	Fire risk Environmental degradation Landscape degradation Economic loss	25	Academics NGOs Government staff
Managerial problems	Fire risk Decline of public services Depopulation	25	Regional and national MADRP and MAOT Local government
Environmental and economic loss	Environmental degradation Landscape degradation	25	NGOs LAGs
Locally observed impacts	Agrobiodiversity loss Psychological impacts	25	Local actors

6.2.3 Perceived role of agriculture

All interviewees advocated that the maintenance of farming in the interior and mountain areas was desirable. The role agriculture plays in the study area was described with reference to its multiple functions. These functions apply mainly to *agricultura familiar* and underline the importance of the maintenance of farming systems that can deliver similar functions. A large diversity of functions was described. These were grouped into the following 13 major functions:

1. *Direct economic role* – the contribution of agricultural production to household income and consumption.
2. *Indirect economic role* – the economic potential of assets produced and maintained by agriculture, other than its productive output (for example, farmed landscapes attracting tourists, biodiversity providing hunting and room for conservation and educational activities);

3. *Environmental goods and services* – the contribution of agriculture to nutrient cycling, improvement of soil fertility, water retention, air purification and maintenance of biodiversity.
4. *Management of the territory* - the fact that agriculture uses rural space, keeping it intact for further use, rather than letting it degrade or become wild, more monotonous and unmanageable;
5. *Settling people in rural areas* - it was said that agriculture is the only economic activity capable of settling/maintaining people in rural areas and “*keeping the rural world alive*”;
6. *Landscape value* – agriculture is perceived to maintain aesthetically desirable landscapes;
7. *Fire prevention* – farming prevents scrub growth and expansion of forest monocultures that are vulnerable to fire. Farming also keeps patches of cultivated and irrigated land that act as fire brake;
8. *Maintenance of genetic diversity* (local breeds and landraces) – *agricultura familiar* is not specialised in mass production, therefore local crops and breeds can be cultivated and valued for their unique and locally adapted features, thereby preserving them for the future;
9. *Production of traditional, added value quality products* – the knowledge and the resources to produce traditional quality products are preserved by *agricultura familiar*; when these systems decline, quality products are lost;
10. *Maintenance of cultural heritage and values* – a number of cultural practices are connected to and maintained by *agricultura familiar*; these are for example traditional ecological knowledge, village level institutions, terraces and irrigation systems;
11. *Social role* – the practice of *agricultura familiar* can act as social glue, strengthening social connectivity and trust. Traditionally, peasants would help each other out, exchange days of labour (*torna-jeira*), give away surplus and meet in the fields.

12. *Contribution to health* - it was said that agriculture is a meaningful occupation for the elderly and the unemployed, helping them maintain their physical and mental health.
13. *Identitarian role* – frequently the practice of *agricultura familiar* was referred to as connecting people to the land and to their village of origin, giving them an important point of reference (‘roots’) in their lives.

Stakeholder typology

These functions were mentioned in three main combinations, which allowed them to be grouped to reflect different stakeholders’ perspectives on the role of farming in the study area. These three salient perspectives are summarised in Table 6.5.

Table 6.5 – The three main perspectives on the functions of agriculture in the study area.

Perspective	Main functions of agriculture	Stakeholder group
Managerial perspective - instrumental role of agriculture	Territorial management ²¹ ; Settling people; Fire prevention; Environmental goods and services.	Mainly MADRP staff; LAGs; Local government.
Conservationist perspective – ecological role of agriculture	Environmental goods and services; Landscape value; Maintenance of genetic diversity.	Mainly academics; NGOs; Local government.
Socio-cultural perspective – identitarian role of agriculture	Maintenance of cultural heritage and values; Social role; Identitarian role.	Mainly local actors; NGOs; 2 MADRP staff with strong local ties and socio-cultural interest.

²¹ ‘Territorial management’ is the translation used here for the Portuguese term ‘*ordenamento do território*’, most often translated as ‘spatial planning’. However, ‘*ordenamento do território*’ has been used by interviewees without referring to planning.

6.2.4 Strategies to counter land abandonment

To generate a more in-depth understanding of the problem definition and to gain insights into people's ideas on what ought to be done to counter land abandonment, interviewees were asked about possible solutions to land abandonment. 16 different areas of intervention to tackle the problems related to land abandonment were identified. Two main orientations for solutions were distinguished; a) rural development in general and b) improving the viability of agriculture. Some individuals perceived that maintenance of a viable rural society was the key issue, rather than maintenance of the agricultural activity, while others thought that there was no other economic activity that could provide the variety of functions agriculture provides, and that there were no real, sustainable economic alternatives, and hence the maintenance of agriculture is necessary.

Rural development

38% of the interviewees said that other economic activities, besides agriculture, should be developed and supported in rural areas. Only one farmer supported this view, the remaining stakeholders defending this perspective were from different levels of government, NGOs, academics and LAGs. These individuals thought that what was important was to develop employment opportunities in rural areas rather than to improve the viability of farming. They said incentives for small enterprises, trade, industries and tourism were needed. Frequently they stated that economic development and the creation of employment opportunities in rural areas would encourage the maintenance of some agricultural activity in the area (even if only as a part-time activity or hobby).

11% of interviewees (none of them a farmer) thought that to improve farm viability, the main option was on-farm diversification. As agriculture is not sufficiently profitable, other

economic activities should be developed on the farm, such as tourism, leisure and training activities, crafts, adding value and farm sales. However, a researcher explained that in the so-called “*multifunctional farms*” (in fact, diversified); it is one profitable activity that allows the landowner to invest in diversification into other activities. Farms facing problems of profitability are unable to invest in non-agricultural activities on the farm. Even financial support through the rural development schemes is not sufficient, as it always requires the farmer to pay a part of the investment, which is usually too much for a farm experiencing economic difficulties. A member of staff from the Rural Development Institute (national MADRP) put it thus: “*Diversification and multifunctionality has been the big panacea for this type of agriculture since Agenda 2000. As multifunctionality does not yield any profit, diversification has to come in. What they forgot in Brussels is the question of size. If a farm is not viable through its own production, it will have big difficulties in diversifying (...) each and every diversification activity requires conditions that a traditional farmer does not have. Diversification does not solve anything; it does not help farms with real difficulties.*” It was also explained that small farmers often lack the know-how needed to diversify their income sources. A staff member of a national small-farmers association said that diversification of the rural economy and on-farm diversification may be a solution for some rural households, but that it is not a real answer to the problems agriculture is facing. He said “*even the Commissioner of Agriculture (Mariann Fisher-Boell) has said that farmers have to diversify, that it will no longer be possible for farmers to live from farming only. But we are sure that this cannot be. The decline in farmers’ income has its origin...in specific policies, worldwide, European and national. (...) we think agriculture is an essential activity that needs to be preserved. We believe that conditions need to be such that whoever wants to live from farming alone can do so.*”

Improving the viability of agriculture

A total of 14 different entry points to counter land abandonment and improve farm viability in the study area were distinguished from interviewees' responses. Some of these solutions could be implemented by farmers and the rural population itself, others would need intervention at policy level, but most would benefit from coordinated action.

i) Increasing productivity

18% of interviewees considered that the classical approach of agricultural modernisation needed to be applied in the interior and mountain regions. They said that profitability of farms could be improved by increased mechanisation, irrigation infrastructures, specialisation and new technologies and practices. It was often stated however, that increased profitability would only be possible if landholding size were to be increased.

Land consolidation is a long and complex process that has to be encouraged by the state. Most interviewees did not advocate large scale farms for the area, but instead believed that a minimum farm size of a couple of hectares was necessary for farmers to make an adequate living from agricultural production. In order for the state being able to issue effective land management measures, firstly it is necessary that the landowners of each piece of land are identifiable. However, in Portugal the land register for agricultural properties is not up to date. In the past, the fee to be paid to change the name of landowners was too high for many peasants, and therefore they did not update the land register. As a result, there are nowadays many properties belonging to all living heirs of a past landowner, but the land is still registered in the name of a dead great-grandfather. It is estimated that 30% of agricultural/rustic properties in Portugal have no owner (Rosa, *pers. comm.*). This situation is particularly common in mountain minifundia that have long been abandoned. A rural entrepreneur described how people “*lost sight of their landholdings and can't find them*

anymore. But as these lands have little value they don't care." A little patch of land in the forest can simply not be recognised if it is left abandoned for years and the vegetation cover changes. A new land registration system has been developed and is currently being piloted. Some interviewees suggested that the fees for updating the land register should be exempted for a certain period in order to encourage landowners to update the register of their properties. Updating the land register is only the first step to setting up incentives for the consolidation of landholdings. Several interviewees said that land consolidation was almost impossible and would "*lead to civil wars*" (local MAOT staff). Because farmers are attached to their land, its particular resources and features, they would not be willing to exchange them. Some projects of land consolidation in the past had difficulties achieving their aims and one big project in Cova da Beira was said to be blocked because a small proportion of farmers involved decided not to go ahead with previously agreed exchanges of land.

ii) Improving marketing

A number of products were said to have the potential to be further explored commercially to improve the economic viability of farms. The crops most commonly mentioned as having further potential were sweet chestnut, aromatic and medicinal herbs, quality olive oil and fruticulture. Interviewees argued that the state or the municipalities should make studies on what potential produce has in each area, so that farmers can be given guidance to engage in the more profitable enterprises. However, most interviewees thought that in the mountain and interior areas, the conditions were not favourable for mass production, but instead, quality production could be explored.

Organic farming and traditional quality produce were seen to have potential. The main avenue to preserve traditional quality products has been through the creation of certification schemes (Protected Designation of Origin and Protected Geographical Indications). However, these schemes have so far had less than optimal results. Currently, there are state incentives to

set up certification schemes, but these support measures are not associated with supporting the establishment of market chains. Therefore, there are products that have a fully set up certification scheme, but no produce to be certified. Producers' main option continues to be direct sales, and for this they do not require certification. Certification implies added paperwork and costs for producers, and as a result the cost of the product increases. Certification costs for the Protected Denomination of Origin '*Queijo da Serra*' cheese were up to €2.50 per cheese, making the product very costly. A further problem is that some factories have associated their produce with the name of famous traditional products²², and this is confusing consumers about what the real quality products are.

Some individuals advocated a combination of quality production, conservation and tourism for the future of the area. This was because they were sceptical about whether specialisation in quality produce alone would be sufficient to secure long term farm viability because luxury niche markets are vulnerable. The existing experience also shows some difficulties in developing quality products for commercialisation. Setting up the required infrastructures to meet legal requirements is costly and involves time-consuming administrative procedures. To enter mainstream market chains, a minimum volume of production is required as well as certification. All these requirements are a challenge to the preservation of the specificity of the product on the one side, and to its economic viability on the other. An officer of the MADRP explained "*it has been difficult to make modern requirements compatible with traditional modes of production.*" A member of staff of a national agricultural association insisted that quality produce is all fine and well, but that it is important that a proper price is paid for all agricultural produce, regardless of whether it is certified or not.

For both certified quality produce and non-certified produce, problems with marketing caused interviewees to stress the importance of setting up functional market chains. It was argued

²² For example, by naming a cheese made mainly of imported cow's milk after the name of a town in the mountain area that is famous for its protected denomination of origin sheep's milk cheese.

that for certified quality produce, national and international gourmet markets could be explored. Other local produce that faces competition from cheaper imports could be marketed more profitably via local direct market chains. Some interviewees pointed out that there is some potential for direct marketing relationships between rural and urban areas. Also, if public institutions were to use mainly locally produced food, this would maintain some farmers in business and be exemplary good practice to be followed by private institutions and households. However, when prompted about the potential of local markets for agricultural products, several interviewees explained that it was now illegal to sell many products that used to be sold directly before. Another hindrance for the development of direct markets in rural areas was said to be the limited demand of agricultural products in places where most people cultivate for domestic needs. A lecturer working on local development therefore said *“subsistence agriculture is a blockage to development, because if everyone produces for himself there is no market and no specialisation is possible, rendering the system very inefficient... no wealth is created.”*

Farmers need to focus on production and often do not have the skill to organise and be actively engaged in marketing, therefore the role of traders may be an important one. However it was seen as being unfair that intermediaries take the bulk of the price and offer farmers prices below production costs. For small-scale farmers, cooperation would be needed as individually, they lack the volume of production, entrepreneurialism and resources to set up a market chain. It was proposed that national and local government could provide funding or staff to coordinate the establishment of marketing networks to help farmers get better prices for their produce. Public institutions were thought to be trustworthy and neutral, whereas it was stated several times that farmers would not trust cooperatives and short-term projects owing to bad past experiences.

Cooperation between farmers was said to be an avenue to improve profitability of agricultural activities. By sharing equipment and pooling produce, in order to have volumes that would

allow entry to mainstream market chains, farmers could lower production costs and access more markets. However a staff member of a national agricultural association said “*the limited tendency to associate and cooperate is a problem that limits what farmers themselves can do to deal with the challenges they face.*” A number of barriers to cooperation were described. Most importantly it was said that farmers did not believe there was a solution to the problems they were facing, and thus were not motivated to engage in cooperation. Psychological barriers to cooperation described were related to lack of trust, the fear of being exploited and jealousy. Also a resistance to sign contracts, establish clear working rules and commit to responsibilities were outlined. Farmers were said to be very individualistic or even selfish, each of them working to achieve a maximum of self-reliance, and this core orientation was seen as being incompatible with cooperation and interdependence. The only way to foster cooperation was said to be through facilitation by trustworthy individuals and institutions, such as government staff or associations that would work professionally and independently. Interviewees also mentioned that cooperation between associations and municipalities would be important for the scaling up of activities and promotion of local agriculture. However, they complained that in some cases competition was outruling chances of constructive cooperation at these levels.

Raising consumer awareness of the quality of small-scale farm produce and the added value for the environment, landscapes and the local economy of buying these products were considered to be important for improvement in marketing and consequently the profitability of these production systems. Creating brands that show how the produce is associated with landscape, environmental and cultural values was considered to be an important option to allow an increase in farmgate prices. It was also suggested that by spreading information about the multiple functions of agriculture, consumers may be enticed to buy local, and the negative social connotation that is associated with farming could be dissipated.

iii) Policy change and state support

About 40% of interviewees said that significant change at policy level would need to happen, nationally and internationally, in order for the situation of subsistence-oriented agriculture to improve. Nearly 10% of interviewees said that regionalisation was necessary, that is to say, the establishment of an intermediate level of power, between the central and the local government. Regionalisation, they believed, would allow for the adaptation of policy measures to local conditions, and each region would have an equal say in the definition of central policies, whereas now the most populated and economically better off regions are those that have the biggest influence in policy making, but their interests are different from those of the population of marginal regions.

Several individuals said that it should be made more difficult for imports to enter local markets. A rural entrepreneur said *“first we should use up our own produce, only then should we allow imports to come in.”* Others stated that imports were a real problem and that maybe *“the frontiers should be closed again”*, but they knew that this was difficult due to international free trade agreements. Some interviewees said that protectionism was a bad idea, because Portugal is dependent on food imports. A lecturer said *“we can produce good wine, the English have cheap wool, if we trade both of us benefit. There’s nothing wrong with it. As long as we have some produce that we can trade with, and our commercial scales remain balanced.”*

40% of interviewees spoke about the need for more and better financial state support for farmers in the region. Some simply said that if agriculture is to be maintained, more subsidies for farmers would be needed to enable them to continue in farming. A member of a nature conservation association said *“if we want a gentle agriculture, we cannot have it competing with an intensive system that externalises costs to make the output cheaper. This competition*

encourages traditional sustainable agriculture farmers to do the same as industrial farmers, and hence the sustainable system will not survive.”

6 individuals (13%) defended the view that the multiple-functions of subsistence-oriented agriculture justify a specific payment to farmers in LFAs, as the maintenance of their farms benefits society at large. This payment was sometimes described as a cross-compliance and sometimes as a permanent income support for subsistence-oriented farms. A regional MADRP officer suggested that agricultural subsidies should be paid per farm worker, rather than according to acreage or historical support. A national level MADRP officer stated “*we cannot ignore the small-scale and family farming systems, because they are of central importance in the matter of land abandonment. Agricultura familiar is irrelevant in economic terms, but essential in environmental and social terms. We cannot hope to maintain it with the general subsidies available for commercial agriculture, and need to design specific measures to compensate subsistence farmers for the environmental benefits they provide.”*

16% of interviewees said that specific incentives should be in place to attract newcomers to farming “*as the fight of desertification depends on settling people*” (coordinator of agricultural associations). General financial incentives were advocated as well as improved investment support schemes for young farmers’ first instalment (*Apoio aos Jovens Agricultores*) and farm succession. It was said that subsidies that function as income support and investment support should not be attributed in isolation, but technical staff should be available to advise farmers and monitor effectiveness of the support measures.

Technical support was sometimes considered to be even more important than financial support. Technical support is needed to facilitate farmers’ access to information on available funding and licensing procedures as well as to improve profitability. A regional officer of the MADRP believed that “*it would be possible to decrease production costs, improve quality, and homogenise productivity... if there was more technical support.”* A rural development

professor said that “*the local administration of the MADRP practically disappeared from the fields, and what’s left is mainly to do with management of funding*”. A local MADRP officer said that, as a result “*the information does not reach where it is supposed to reach*” and “*there is a big deficit of communication between the government and the populations of the interior*” (coordinator of agricultural associations). A staff member from the MAOT and an agricultural professor mentioned that technical support and giving information to farmers could not happen in a formal “*teaching mode*”. If farmers are to understand and be enabled to act, an informal participatory learning approach is more suitable.

The need for technical support is often very closely connected to the lack of information on legal requirements and administrative procedures in place, and a number of interviewees called for support to farmers to deal with legal requirements and to simplify the administrative procedures.

20% of interviewees stated that an adaptation of the legal requirements and administrative procedures was needed to fit subsistence-oriented farmers. Adapting legal requirements to small-scale farming was seen as essential to keep farmers in the mountains and the interior, because “*if in future the existing legislation were to be applied more strictly, this would get rid of all small-scale farmers*” (MADRP local officer). Applying the same legislation to large and small farms was thought to be unnecessary and inappropriate.

A total of 16% proposed that there should be a mechanism in form of a fiscal incentive that would “*penalise land abandonment*.” An economics professor stated vehemently “*The state should use fiscal policies to forbid land abandonment. The state cannot allow something like this to happen!...Fiscal laws should give a clear sign: either you farm or you rent or you sell. Because it is a crime to leave the resources abandoned or underused.*”

Relative frequency of areas of intervention mentioned and stakeholder typology

Table 6.6 below summarises the main areas in which action is needed and what measures to solve the problem of land abandonment were proposed by the interviewees. The areas of action mentioned more frequently were cooperation (56%), quality products (42%), diversification of the rural economy (40%) and financial state support (40%).

Table 6.6 – Actions proposed to counter land abandonment and percentage of interviewees mentioning each area for intervention.

	Strategy	Proposed measures	Individuals (%)
Diversification	Diversification of the rural economy	<ul style="list-style-type: none"> • Attract investors (industry, tourism, trade) • Financial support & incentives for setting up small enterprises • Fiscal policy to attract people and enterprises to the interior 	40
	On-farm diversification	<ul style="list-style-type: none"> • Investment mechanisms that enable small-scale farmers to diversify • Training 	11
Productivity	Improve productivity	<ul style="list-style-type: none"> • Mechanisation • Irrigation infrastructures • New technologies and practices for increased efficiency • Land consolidation 	18
	Land consolidation	<ul style="list-style-type: none"> • Update land register • Fee exemption to register landownership • Incentives for land consolidation 	20
Marketing chains	Establish marketing chains	<ul style="list-style-type: none"> • Cooperation • State support and facilitation to set up market chains • Limiting availability of cheap imports • Promotion of local and direct markets • Create brands associated with territorial value • Raise consumer awareness of the added value of local production systems 	13
	Develop direct markets	<ul style="list-style-type: none"> • Promote local food for local institutions • State support for setting up local agri-food networks • Adapt legal requirements to small-scale farming systems • Coordination between rural producers and urban consumers 	29
	Markets for quality products	<ul style="list-style-type: none"> • Support to set up market chains • Cooperation to pool produce for marketing • Raise consumer awareness and demand 	42
Policy change	Financial support	<ul style="list-style-type: none"> • Income support to farmers, per agricultural workforce • Payment for multiple functions of agriculture • Subsidies for regionally adapted products with market potential • Different subsidy schemes for family farming than for entrepreneurial agriculture 	40

	Technical support	<ul style="list-style-type: none"> • More MADRP staff in the fields giving advice to farmers • Municipalities could have agricultural engineers supporting farmers • Informal and one-to-one extension and support • Studies and advice to farmers on profitable production systems 	33
	Simplify bureaucratic procedures	<ul style="list-style-type: none"> • Improve information services to farmers • Simplify procedures for licensing and application for subsidies • Shorten time of responses of applications from the public administration 	16
	Adapt legal requirements	<ul style="list-style-type: none"> • Use the space of manoeuvre of EU legislation to adapt legal requirements to fit small-scale and extensive farms • Create exemptions for direct marketing and small-scale production 	11
	Fiscal incentives	<ul style="list-style-type: none"> • Fiscal incentive for land consolidation • Fiscal incentive to increase the dynamics of the land market • Create taxation scheme that penalises land abandonment 	16
Organization	Cooperation	<ul style="list-style-type: none"> • Cooperation between farmers to share productive assets and for marketing • Independent government staff to facilitate cooperation • Cooperation between associations and municipalities to develop and scale up initiatives 	56
	Raising awareness	<ul style="list-style-type: none"> • Teaching in schools about agriculture and quality produce • Promoting the concept of agricultural multifunctionality • Labelling to include criteria that allow for quality classification of products 	11
Education	Agricultural training	<ul style="list-style-type: none"> • Increase locally adapted and practical relevance of training • Informality and proximity to farmers' everyday life needed • Facilitate access to non-farming community /potential newcomers to farming 	16
Other	Investments	<ul style="list-style-type: none"> • Closer monitoring and implementation support of state co-financed investments • New investment mechanisms (such as microfinance) • Processing and retail enterprises could invest in agriculture and guarantee prices for farmers 	13

The analysis of solutions mentioned by different stakeholders revealed a difference in problem perception according to occupation. Not only were the actions mentioned as being important to tackle the problem of land abandonment revealing, but in particular areas of intervention that were consistently not mentioned by a stakeholder group gave indications of underlying assumptions. Table 6.7 summarises the main distinctive entry points/solutions mentioned or not mentioned by different stakeholder groups. An analysis of 'outliers' – individuals from one occupation category mentioning an unusual solution for that group,

revealed in most cases an exceptional situation that made a particular interviewee closer to another occupation category than that in which he had been grouped. A striking example is the local actor whose opinions were very similar to those of academics. In fact, before the freelance occupation he had when he was interviewed, he had been a lecturer in an agricultural college. This analysis therefore underlined the validity of the relations established between stakeholder category and perception of solutions.

Table 6.7 – Percentage of interviewees according to distinctive actions proposed to reverse land abandonment (salient issues for each stakeholder category are highlighted).

Solution	LAs	NGOs	Academics	Local govt.	Local MADRP*	Regional MADRP*	National MADRP	LAGs
Marketing chain	<20	0	0	20	40	25	0	0
Direct marketing	<40	<50	<20	40	20	25	25	0
Technical support	<30	<20	<40	40	80	75	0	0
Simplify administrative procedures	<20	0	0	20	60	0	25	0
Adapt legislation	<10	<20	0	20	40	0	0	0
Quality products	<20	<20	<70	40	40	100	75	<40
Raising awareness	<10	<30	<40	0	0	0	0	0
Training	<10	<20	0	0	40	25	0	<70
Settling young people	0	<30	<40	20	40	0	0	0
Improved productivity	<10	0	<20	20	0	50	25	<70
Land consolidation	<10	<20	0	40	20	50	50	0
Penalise land abandonment	<10	0	<40	20	20	0	50	0
Diversification of rural economy	<20	<50	<40	60	40	50	25	100
On-farm diversification	<20	0	0	0	20	0	50	0

* One member of staff from the MAOT was included in this category.

The table shows that local actors (LAs) proposed the most diverse numbers of solutions, and actions directly concerned with improving farm viability took precedence (direct marketing and technical support). Staff from local MADRP offices had similar concerns, whereby they stressed possible actions that would simplify the life of farmers, rejuvenate the farming sector and increase the productive potential. Regional level staff from the MADRP had views that were intermediate between local level MADRP staff and national level MADRP staff; increased productivity and development of market chains for quality foods, supported by land consolidation and technical support for farmers were the cornerstones of their proposals of intervention.

National level MADRP staff supported more top-down measures such as land consolidation, on-farm diversification and penalisation of land abandonment. Both national MADRP and LAG staff did not consider there to be a need for them to increase technical support for farmers. The national MADRP staff believed that LAGs and agricultural associations covered for the technical support needed, and “*instead of arguing against the policies we devise, these organisations should be doing what their real raison d’être is, namely supporting farmers*”, a policy coordinator from the MADRP said.

At both regional and national level of the MADRP, there was no awareness of the importance of adapting legal requirements and regulations to serve the small-scale farming sector of the interior and mountain areas. The perspective of staff from the LAGs was very much related to the role they have been given by the MADRP – promoting diversification of the rural economy, giving training and technical support. They had the view that actions to improve productivity were necessary, in common with staff from local government. Staff from NGOs were particularly interested in promoting training for farmers and raising awareness of consumers, whereas actions to improve productivity did not figure among their priorities. Their views corresponded partially with the views of academics, who were however, more interventionist/managerial, endorsing the penalisation of land abandonment, promoting quality products, settling young people and raising awareness.

The different angles from which the problem of land abandonment is envisioned can be distinguished into two main different approaches. The ‘needs-oriented’ approach, held by direct and local stakeholders, and the ‘managerial’ approach, held mainly by administrators only indirectly involved in farming.

The ‘needs-oriented’ approach was characterised by a call for immediate practical support to farmers to help improve farm viability. Even individuals who defended economic liberal

ideals in theory thought that a more interventionist approach by the state to preserve small-scale farming systems was justified.

The ‘managerial approach’ in contrast corresponds to what was described by an academic lecturer as the necessary “*carrot and stick*”. This approach was justified by saying “*as natural resources are scarce and precious we can’t leave them to their luck or to whatever their landowner decides to do.*” This equates in fact to a top-down approach, although national level MADRP staff who defended this approach also underlined that the funding programmes were designed to allow local actors to develop their own projects, claiming they were therefore ‘bottom-up’ oriented.

6.2.5 Ideal visions

The majority of interviewees said they had never thought about what a desirable future for the interior and mountain areas would be. Even the concept of ‘ideal vision’ was strange to some, and they had to be assured that they could make up an imaginative answer of what they thought was desirable. 10 different key components of the description of the ideal future were distinguished and grouped into 4 categories, according to the priorities sketched out by individuals. The four categories found were a) diversified rural economy; b) sustainable agriculture; c) entrepreneurial agriculture and d) improved traditional agriculture.

When describing the ideal future for the rural territories, the key components for 20% of interviewees were improved quality of life and a diversified economy. New economic activities such as tourism, industries and trade were advocated. Small enterprises and the settling of young people would play an important role in these visions, as these were seen as central to giving dynamics to the local economy. Two individuals hoped that pluriactive livelihoods with an agricultural component would be developed. “*In the past, rural*

economies were not purely based on farming”, a former rural development worker explained; *“agriculture was the sector that ensured subsistence, but a diversity of other professions existed alongside subsistence production. In the future, instead of a village basket weaver and a blacksmith there could be people working in modern professions alongside subsistence farming that would provide the foundation and security for every household.”*

A total of 31% of interviewees mentioned sustainable agriculture practices and local agri-food networks as central in their ideal vision of the future of rural areas. The sustainable agriculture ideas included *“making organic farming compulsory, forbidding all pesticides”* (subsistence farmer), integrating agriculture, livestock production and forestry in a sustainable system, local direct marketing and food sovereignty. The international delegate of a small farmers’ association said *“we think that the development model should be based on food sovereignty, the self-determination of people, so that every country can decide what they want to do in relation to their agriculture, rather than following a top-down model that comes from no one knows where.”*

In the case of local actors, some incongruence or tension occurred; on the one hand sustainable agriculture ideals were advocated, while at the same time farmers believed that agriculture *“has to be industrial scale, otherwise it won’t be profitable”* (goatherd). The group of individuals advocating improved traditional practices (11% of the sample) sought a solution to this tension. An agricultural researcher said *“I think the future cannot be like the past; the overpopulated villages in the 1950s...but what exists can be used and improved.”* In this vision, the transformation of current minifundia into medium-size productive farms that would have a positive social and environmental contribution was described. Improved but sustainable productivity, combined with quality production, added value and direct marketing was hoped to be an avenue to maintain and adapt existing farming systems.

The majority of interviewees considered that the interior and mountain areas are unlikely to

become competitive in terms of mass production, but that their future lies in market-oriented quality production for niche markets. However, 18% of interviewees advocated agricultural modernisation and the introduction of more industrial production practices. Land consolidation into medium to large-scale farms, irrigation and specialisation into marketable produce were the key components of this ideal vision.

Other issues that were mentioned as being important in the future were the existence of more and better support for farmers and small-scale enterprises. A local MADRP staff member hoped for better cooperation, saying he wished *“that we would all come together in the future and leave politics aside for once, and see what resources and what people we have and see what we could do for our agriculture. Because if we continue in the same way, in 15-20 years we may have no agriculture left, and no ministry of agriculture...”* Qualification of local actors was considered important by a local development lecturer, who envisioned decentralised politics and increased empowerment of the population. The epitome of an ideal managerial vision was the national level MADRP officer who said *“the ideal would be if there were no difference in population density between the coastal and the interior areas. That would be the dream, wouldn't it?”*

Table 6.8 summarises the key components of each of these four main visions for the future of rural areas.

Table 6.8 – The key components of the ideal visions for the future of marginal rural areas (n=45, not all interviewees answered or fitted in these categories).

Ideal type	Key components	Individuals (%)	Stakeholder typology
Diversified rural economy	<ul style="list-style-type: none"> • Employment in industry, services, tourism and trade • Small-scale enterprises • Better quality of life • “Living villages” 	20	LAGs National MADRP
Sustainable agri-food networks	<ul style="list-style-type: none"> • Organic farming • Local and direct agri-food networks 	31	Local actors NGOs Local government
Improved traditional agriculture	<ul style="list-style-type: none"> • Integrated agriculture, forestry and grazing (<i>Agro-silvo-pastoricia</i>) • Quality products • Better use of productive assets & improved productivity 	11	Academics Regional MADRP
Commercial agriculture	<ul style="list-style-type: none"> • A productive and profitable agriculture • Land consolidation • Better support for farming 	18	MADRP – all levels Local government

Stakeholder typology

There was a clear predominance for each of these four different views in different stakeholder groups. Staff from LAGs strongly favoured a vision of a diversified rural economy in which the quality of life figured as the main priority; no mention of the type of farming they would like to see could be elicited, as farming played a secondary role in their visions for the future. Similarly, national level MADRP staff endorsed the diversification of the rural economy, however, with a clear preference for commercial agriculture. This was in stark contrast to the views of local actors, none of whom considered a diversified rural economy or commercial agriculture desirable for the future. Instead, local actors often described a sustainable agriculture ideal. In this, their views were supported by NGOs. Also a significant number of interviewees from local government were in favour of the development of a sustainable agriculture; however the frequency of this view among this stakeholder group is likely to be non-representative as the interviewees from municipalities were in part specifically hired to support *agricultura familiar* farming systems. Academics attributed significant importance to an improved quality of life in rural areas and they, together with staff from regional MADRP,

were the group that articulated a vision of sustainable improvement of traditional farming systems. Commercial agriculture was endorsed as the way forward by all levels of government, with particular predominance among staff from the national, regional and local MADRP. Table 6.9 summarises and highlights the different ideal visions among the different stakeholder groups.

Table 6.9 – Stakeholder groups according to occupation category and ideal visions mentioned; prevalent ideal visions are highlighted.

	LAs	NGOs	Academics	Local govt.	Local MADRP*	Regional MADRP*	National MADRP	LAGs
Diversified rural economy	0	<30	<20	20	20	<30	75	100
Quality of life	<10	<20	<40	0	0	75	<30	<40
Entrepreneurial agriculture	0	<20	0	20	60	50	75	0
Improved traditional agriculture	<20	0	50	0	0	<30	0	0
Sustainable agri-food networks	<50	<60	<20	40	0	25	0	0

* One member of staff from the MAOT was included in this category.

6.3 Stakeholders' perceptions on current action

6.3.1 Current action to counter agricultural land abandonment and responsibility for action

Most people found it difficult to point out current action that directly targeted problems of agricultural and rural decline. Often they stated they *knew* of nothing being done, or that there *is* nothing being done. Nevertheless, it was possible to collate from the interviews a number of activities in place supporting local farming systems and these are listed below in Table 6.10. From the information on the interviewees' own work, I estimated that 22 interviewees (approximately 50%) were involved in action that was supportive of the maintenance of agricultural systems in the study area.

Table 6.10 – Actions currently being developed to counter agricultural land abandonment, as recalled by interviewees.

Level of agency	Actions developed
Farmers	<ul style="list-style-type: none"> Action according to economic rationality to make farms viable (mainly in relation to application for subsidies and choosing to carry out subsidised productions)
Local associations	<ul style="list-style-type: none"> Cultural animation to maintain social dynamics Some plans exist to develop more direct marketing networks
LAGs	<ul style="list-style-type: none"> Incentives for the diversification of the rural economy Professional agricultural training Diffusion of information and help with application for subsidies
Municipalities	<ul style="list-style-type: none"> Investment in infrastructures (roads, sewage systems, etc.) Various municipalities have specific incentives to settle newcomers or can provide financial assistance to develop and implement farm projects Organisation of thematic fairs to promote regional products A small number of municipalities (Penela, Celorico da Beira, São Pedro do Sul and Arouca were confirmed) have specific programmes and staff available to support local farmers
MADRP	<ul style="list-style-type: none"> Adapted some regulations to suit small-scale producers The agri-environmental scheme “traditional polycultures²³” has helped to keep some people in farming Some local MADRP staff have been reported to give important direct support to farmers, to set up or to apply for subsidies SPS per <i>ha</i> were increased in 2009 for mountain farmers Eligibility for subsidies has been extended to retired farmers

²³ The subsidy was discontinued after 2006.

In conversation with 23 interviewees, the topic of responsibility for action was raised. Most individuals perceived that there was one level of agency that was best suited to intervention. The majority (74% of respondents to this question) thought local and national government had the responsibility for action. However, government stakeholders did not always feel their institution was capable of addressing the problem.

Nine individuals out of 23 perceived that it was municipalities who were in the best position to take action, because they were trustworthy, had their power legitimised by the local population, and knew the territory well. However, half the interviewees from municipalities with whom responsibility for action was discussed considered that they were not in a position to take action. A chairman of a highly marginalised municipality said *“We improved road access to farms. But there are no other specific measures we have taken, because there are other sectors of activity too in the municipality (besides agriculture). Municipalities do not have the money and it would need to be done by the central government.”*

8 individuals thought the responsibility for action lay in the realm of the MADRP. However, among the 5 MADRP staff answering this question, only 2 believed the MADRP was central to addressing the problem. A director of an MADRP service in Lisbon explained that the MADRP supported the LAGs, to whom responsibility for local action has been attributed. She stated *“locally to deal with land abandonment there are the LAGs that define what local problems and potentialities are and they define a strategy for local development.”* At the government level, she believed that the role of the MADRP was minor, as promoting economic development in rural areas was the key to reversing land abandonment and agriculture played a nearly insignificant role in this.

6.3.2 Perceptions of agricultural policies

The importance of the MADRP in defining agricultural policies that are suited to marginal rural areas and in supporting vulnerable farms was stressed by nearly all interviewees. However, there was generalised discontent with the workings and the policies issued by the MADRP. It is in general easier to identify shortcomings than good practice, which does not cause any hindrances and therefore passes unnoticed. Nevertheless, the negative perceptions are of relevance; they can point towards real shortcomings of policies or their administration and point out in which areas change may be necessary. What follows may be seen as feedback to the MADRP, from individuals working in the rural development and agricultural sector who are not normally consulted.

Portuguese agricultural policy is largely determined by EU guidelines. *“Since Portugal entered the EU and joined the CAP it has never had a national agricultural policy again. At the level of the GPPAA (...) what they do is basically transpose EU policies that have more of a neo-liberal stance”* a regional officer of the MADRP commented. She explained *“this is on the one hand because of the difficulties of adapting the policies that come from the EU, and on the other hand a result of the difficulties Portugal faces in supporting the expenses of co-financing specific measures it would design.”* An officer of a small-farmers association who strongly disapproved of this approach said *“the space of manoeuvre left by EU policies has not been used in Portugal because of the inability of the very services of the Ministry of Agriculture. We have the GPPAA that is responsible, in most cases, for transposing community law into national legislation. And frequently, out of incompetence, lack of motivation or lack of means, an adaptation of the policies does not happen.”*

The limited adaptation of EU policies at national level is reflected in a lack of regional adaptation of policies. Currently, the measures of the agricultural policy are the same for the whole of the Portuguese mainland, despite significant differences in the agricultural sector of

different regions. This lack of regional adaptation favours large-scale and industrial farms, as it is in the regions with a modernised and market integrated agriculture that the most dynamic interest groups that influence agricultural policy-making exist. However, as a regional MADRP officer said, *“a policy that serves the southern plains is not beneficial to the north”*. Agricultural policies are biased towards large-scale industrial farms, as exist in the South and the coastal areas, whereas small-scale and extensive farming systems receive very little financial support. *“Family farming is completely neglected at policy level because it has no weight in the national economy”* an economics professor pointed out. The policies have been unjust, a delegate of a small farmers’ association described: *“3% of farmers receive 64% of subsidies, and 50% of farmers together receive only 3% of subsidies.”* He added *“both the CAP and national agricultural policies see agriculture very much in terms of competitiveness, and if it is not competitive it is to be allowed to disappear.”* This trend has been continued in the 2007-2013 programming period, a regional officer of the MADRP explained, *“the support now is more focussed towards large-scale farms. That was an option taken in Portugal. In Portugal it was decided that a lot of money had been spent already in cohesion, now they want to push for competitiveness.”*

The political discourse on the future of rural areas focuses on diversification of the rural economy and of farm incomes. A number of interviewees criticised this view, pointing out that rural development has to have its foundations in the agricultural sector in order to be sustainable and economically viable in the long term. It was believed that these alternatives to agriculture could only exist while there is money to finance diversification and enough wealth for consumers to purchase non-essential goods and services. *“At EU level, the policies are increasingly rural development policies, but we can’t have rural development without agriculture. And we have tourism, leisure etc. funded by the EU, this makes the rural more and more artificial. The rural is increasingly conservationist and leisure oriented - as long as there is money for this”* remarked an economics professor.

Local and regional staff of the MADRP recounted that policy-making was completely centralised, and they were not normally consulted. A regional officer explained “*we implement policies that come from above, information travels from the central offices down, but not the other way round*” unless in an indirect and exceptional case; “*if we find that something is not working properly we can tell the superior officer, and he then can make that information reach the central government, if he so wishes...*” The centralised policy-making process was seen as being inappropriate for the design of locally adapted and effective policy measures. Another regional MADRP officer said “*there is lots of talk about the countryside, but there are no concrete measures to protect it and keep people there, because he who makes the laws does not live in the countryside and does not see what is needed (...)* If local officers were to be consulted, the laws would be much easier to be put into practice.” A local MAOT officer also suggested that “*the policy proposals could be discussed and tested first, before they become law.*”

At national level it was said that there were conflicts within the MADRP and between the MADRP and the MAOT, with consequences at the local level. A local MADRP officer commented “*the MADRP is a very complicated world. It is divided into at least 4 sectors: farming, forestry, animal husbandry and fisheries. It is just a single ministry, but between these sections no one understands anyone else (ninguêm se entende).*” This led to livestock and vegetable crops being dealt with in different offices, at different geographic levels, requiring farmers of some regions to travel to different towns to deal with each issue. An officer of the MAOT explained that “*there are wars*” between his ministry and the MADRP, which are “*very easy to comprehend. It’s because of the EU funds. The MAOT designs the measures and indicators, but it is the MADRP that manages the funds...*”

Policy integration at national level was considered to be problematic, resulting in many contradictions. A mayor from southern Portugal was cited saying that he could design whatever policies he wanted to keep the local population, but it was in vain because the

ministries of education and health were closing down local schools and health services. Significant contradictions within the agricultural policies were pointed out as well. The discourse and a number of policy measures may work to promote one aim, but another policy may have measures that completely counter the aim of the first policy. Examples of such perceived policy contradictions are listed in Table 6.11.

Table 6.11 - Policy contradictions as perceived by the interviewees.

Policy aim	Contradictory action	Effect
Environmental protection	Promoting competitiveness – industrialisation and reduction of production costs	Negative environmental impact
Valuing local, distinctive quality produce	Market liberalisation	Homogenisation of productions at lowest standards
Rural development	Closing down public services in rural areas	Difficulty in settling population and enterprises

Existing agricultural policy was described as lacking in strategy and being made up of “*a number of disconnected measures, to which no continuity is given over time*” (regional MADRP). The perceived lack of focus and vision for the agricultural sector was explained as “*Portugal has given up its agricultural sector. Even at high levels of responsibility. The aim now is only to alleviate the agony of a sector that is destined to disappear*” (regional MADRP officer).

As an example of the lack of congruence, a member of staff from a national agricultural association said “*first we have subsidies to plant vineyards, then to uproot them, then there is subsidy for planting olive groves, then to uproot them, then we had the fruit orchards, followed by payments to uproot them...*” Although he recognised that the aim of these measures was a restructuration of these sectors, the limited success of these measures in improving the productive assets made them appear contradictory and senseless. The strategy of defining ‘strategic lines of production’, developed under the 2007-2013 policy program, was said to be “*worse than having no strategy at all*” (regional MADRP staff) because, “*what is strategic should be defined according to the potential of each territory, but as these*

strategic lines of production are defined at national level they make no sense.” The example given to illustrate the inadequacy of ‘strategic lines of production’ was that of priority funding being given to cheese factories using imported cow’s milk, because the entire milk sector has been classified as ‘strategic’. Such a non-territorial definition of funding priorities does little to support local farming systems.

Agricultural policy is currently playing the role of social policy in marginal regions. Compensatory payments and LFA schemes act as income support for poor households and especially to the retired elderly, rather than in a way that would be constructive for the agricultural sector. It was said that social policies needed to be improved, because it was in fact impossible for farmers to live from a €180 retirement allowance, but that it should not be up to the MADRP to apply funds that were meant to support farming to back up retirement allowances. However, for the MADRP it is a difficult option to cut off support to these retired farmers, as awareness exists of their economic situation.

When asked about what specific measures the MADRP is undertaking that are having a positive impact to counter land abandonment in the interior, most interviewees said there was no policy measure that was having a significant impact locally. In fact the interviewees described a number of decisions taken by the MADRP that were favouring land abandonment. A list of the main issues mentioned is presented in Table 6.12.

Table 6.12 - Political decisions that have contributed to land abandonment, examples as described by interviewees.

Political option	Impact
Monitoring farms' compliance with regulations passed to private enterprises	Less understanding for the specific situation of farmers and very strict enforcement of rules and legislation.
Retraction of the MADRP from the rural areas	Lack of technical support - difficulties of farmers improving production, marketing and receiving legal advice.
No regional adaptation of policies	Differences between regions mean that some areas cannot access several state support measures and as a result lose competitiveness.
Financial support for competitiveness	Artificial advantage of large-scale farms places small-scale and extensive farming systems at a competitive disadvantage.
Delayed implementation of the 2007-2013 agricultural and rural development policy programme	Time and money lost that could be used to support farmers with difficulties.
End of the subsidy for 'traditional polycultures'	This agri-environmental measure has kept some farmers in farming; when the subsidy stopped, they ceased farming.
Incentives to uproot perennial crops, without restructuration	Premiums to uproot perennial crops have encouraged farmers to abandon cultivation.
No adaptation of legal requirements to subsistence-oriented farms	Small-scale and traditional production and marketing practices have become illegal.

Interviewees from the national MADRP offices stated that the MADRP has increased the SPS for LFA farmers due to special considerations with land abandonment. However, a regional MADRP officer pointed out that the sums in these schemes had been so small that a significant proportion of farmers had not cared to apply for the subsidy. He argued that, in order not to waste funds obtained from the EU budget, the MADRP formulated this strategy by which mountain farmers were allocated double the amount normally paid to them. The maximum LFA payment a mountain farmer can receive currently is €350 ha/year. Considering the small farm sizes, it is unlikely that this amount on its own will make the difference of keeping a farm in cultivation rather than abandoning it.

At the level of the national offices of the MADRP, it was said that land abandonment was always kept in mind in the design and development of policy measures. *"In my work as a regional planner, I always keep the scenario of abandonment in mind and consider how policy measures can be developed that take this into consideration"* (national MADRP).

However, one interviewee from the national offices of the MADRP explained that this meant that there were no specific measures to tackle land abandonment. He explained that land

abandonment was not on the political agenda. Although staff from the MADRP knew about it and “*keep it in mind*”, there is no specific strategy to deal with land abandonment. He said “*Everyone recognises that it (land abandonment) is a problem, but then, that’s it. It’s like we all think that the heat is a problem²⁴, but, OK, we accept it as it is. And there’s no concrete response to the issue.*” An MADRP officer also said “*for the actors that affect policies, land abandonment is not a problem*” and a variety of interviewees commented that the interior was depopulated and economically fragile, having few votes and low political weight. Therefore, a national MADRP officer said that the most important step at the moment is to problematise land abandonment and transform it into a political issue to be tackled.

There have so far been 4 national level studies concerning land abandonment. The first (Alves *et al.*, 2003) was conducted by the agro-environmental study group of the MADRP, a second one (Fernandes, 2005) was requested by the Ministry of Defence to the GPPAA, and a third study was commissioned by the MADRP to a university research team (Pinto-Correia *et al.*, 2006a). A further study was developed internally regarding the land market (Pais *et al.*, 2009). Although an interviewee and co-author of one of these studies said “*as far as I know, there was no follow-up given to these studies*”, the fact that these studies have been conducted shows that there is concern for the problem of land abandonment at the level of the Portuguese government, even though a structured set of concrete measures has not yet been developed.

²⁴ The interview was conducted on a hot August day (temperature 45°C), which explains this comparison.

6.4 Stakeholder perceptions on land abandonment and implications for action

6.4.1 Stakeholder typologies according to explanations for agricultural land abandonment

Up until now, the types of causes, consequences, solutions and ideal visions have been discussed with regard to the predefined stakeholder categories, established on the basis of their occupation (related to proximity to farming and influence on political decision-making). A detailed analysis shows that there are no two stakeholders with exactly the same views, however, 5 overarching types of explanations for land abandonment can be outlined (see methods Section 2.2.4). The 5 types correspond to the key entry points focused on by different stakeholders to construct their explanation of the problem of land abandonment. Only 2 individuals could not be grouped confidently in any of these categories, because they had made no clear statements on their personal stance.

In what follows, the 5 different viewpoints regarding the central problem of land abandonment are described:

i. Lack of income sources in rural areas

22% of stakeholders thought that the key cause of agricultural land abandonment was related to the lack of employment in the study area. The lack of employment opportunities drives people into emigration and as a result, land is abandoned. In order to keep people in rural areas, employment has to be created. This would be possible by fostering economic development in general and supporting the set up of new enterprises in areas such as industry, tourism, trade and services. This perspective did not focus in detail on the situation of agriculture. It was thought that new income sources could substitute for the declining economic role of agriculture in rural areas. Therefore, in the future, agriculture would be one

economic sector among others, and the development of a small number of efficient, entrepreneurial modern farms was advocated. This view was held mainly by individuals with high levels of education (graduate and postgraduate) and occupations with indirect influence on political decision-making, but high perceived power.

ii. Low competitiveness of existing farming systems

22% of stakeholders stated that the modernisation of agriculture in the interior and mountain areas has been difficult, and land abandonment is the result of productive structures being inadequate for modern farming practices and markets. Difficult physical conditions for farming and problems of the landholding structure were outlined as causes for the limited modernisation. Often the modernisation of agriculture was seen as a “*natural tendency*” (director of agricultural association) to which farmers had to adapt. The solutions endorsed were an improvement of productive structures and the introduction of innovative technologies that could be profitable under the difficult physical conditions of the area. This perspective was held by individuals with a high level of education (graduate and postgraduate), occupations directly related to political decision-making, and high levels of perceived power.

iii. Inadequacy of the productivist approach

Another 22% of the sample considered that the productivist approach of agricultural modernisation, although it had its merits, was not suitable for the interior and mountain areas, mainly due to the difficult physical conditions for farming that exist there. The specificity of the farming systems in interior and mountain areas requires an approach that goes beyond competitiveness; structural and productive improvements will not suffice to secure farm viability. A different strategy is necessary. On-farm diversification is advocated as well as the development of quality products for niche markets and the development of local markets for

local products. This perspective is held by individuals with high levels of education, occupations mainly with indirect influence on political decision-making, and all levels of perceived power.

iv. Low profitability of local agriculture

In contrast to the individuals who believe that economic alternatives are required to generate sufficient income opportunities for the rural population, 13% of the sample advocated that the profitability of farming had to increase to maintain existing farming systems. This stakeholder group stressed that it is due to the low profitability of sustainable, traditional agriculture that farmers cannot generate a satisfactory income and thus are forced to abandon the land and seek employment opportunities in other economic sectors and abroad. The maintenance of *agricultura familiar* is of central importance for these stakeholders, who advocate state support for subsistence-oriented farmers and/or a radical change in the political economy of agriculture, to give sustainable agriculture systems a fair chance. This perspective is advocated mainly by local actors and NGOs, and generally individuals with lower levels of education, an occupation not or only indirectly related to political decision-making and a low level of perceived power (except for two NGO workers).

v. Competition from industrial agriculture

16% of interviewees focused on the problems of conventional agriculture and saw agricultural land abandonment as a wider social and environmental problem. The maintenance of sustainable subsistence-oriented farming systems was seen as being incompatible with the expansion of industrial farming systems, because of the direct competition between them, to the detriment of subsistence-oriented sustainable farms. Therefore, these stakeholders advocated that sustainable agriculture needs to be developed. This stance was often only implied or described in terms of scepticism in relation to industrial

farming; interviewees had a rather vague idea of “*local self-sufficiency*” or “*all going organic*”, with limited practical ideas on what is necessary for such a sustainable agriculture ideal to come about. This perspective was advocated by individuals with intermediate levels of education (12 years of schooling or higher degree), occupation not or only indirectly related to political decision-making, and a low level of perceived power.

Table 6.13 synthesises the 5 perspectives.

Table 6.13 – The five typologies of stakeholder perspectives on land abandonment, according to problem perception (n=45, 2 missing).

Problem perception	Future orientation	% individuals	Stakeholder type
Lack of income sources	Diversification of the rural economy; On-farm diversification	22	Academics; LAGs; local government and the regional MADRP
Low competitiveness	Agricultural modernisation; Land consolidation	22	All levels of government; Academics
Low profitability	Increased state support; Development of local markets and quality products for niche markets	13	Local actors; NGOs
Inadequacy of productivist approach	Structural improvements; Development of local markets and quality products	22	Local and regional level MADRP staff; NGOs; Academics; Local actors
Competition from industrial farming	Development of sustainable agriculture	16	Local actors; NGOs; 1 local government staff member

These 5 typologies of problem perception explain the different views on land abandonment of the whole diversity of stakeholders interviewed. *Lack of income sources* and *low competitiveness* are the problem definitions held by the most powerful actors, with the weakest connection to farming. These approaches are therefore the most likely to be acted upon in the near future at policy level. The solutions advocated by stakeholders endorsing any of the remaining three problem definitions (*low profitability*, *inadequacy of productivist approach* and *competition from conventional agriculture*) are clearly compatible, as the maintenance or development of ecologically sustainable and economically viable farming systems is the aim.

6.4.2 Different knowledge systems – different understandings of land abandonment

Different knowledge systems: 'traditional' and 'scientific'

Two very different ways of making sense of land abandonment have been found. These correspond to two types of knowledge: 'traditional' and 'scientific' knowledge. Both forms of knowledge are similar in that they are based on the accumulation of empirical evidence from observation (Berkes *et al.*, 2000). However, observations of the whole forms the basis of 'traditional' knowledge, whereas exact observation of parts of the whole in isolation form the basis of 'scientific' knowledge (scientific reductionism)(Shiva, 1988). Levi-Strauss noted in 1962 that 'traditional' knowledge is predominantly concrete, whereas 'scientific' knowledge is predominantly abstract (Berkes *et al.*, 2000).

'Traditional' knowledge is acquired by experiential learning, direct observation and informal social transmission of knowledge and skills (Pretty, 1995b). This type of knowledge has also been labelled 'local' to stress that it is context specific and locally constructed (Kloppenburg, 2005). Berkes *et al.* (2000) have pointed out that traditional knowledge is part of a 'knowledge-practice-belief' complex. The knowledge is acquired and maintained for its immediate practical relevance for living in a particular ecological and social context. Nevertheless, this knowledge is not purely utilitarian, as it is embedded in a cosmology that considers the human being as a being that is interconnected with other beings (Filipiak, 2011) (which is likely to be a result of its method of direct observation of whole systems).

'Scientific' knowledge, in contrast, is acquired by research into parts of a system in isolation and subsequent induction and generalisation, to construct abstract theories that supposedly correspond to explanations with universal validity. This abstract knowledge is passed on via formal training. Although this type of knowledge system has been described as objective, it is often relative and only meaningful in the cultural context of the scientist (Stanfield, 1985) as

the formulation of questions and the interpretation of findings depends on the researcher's subjectivity. The cosmology historically pertaining to science is materialism, which is the foundation of scientific reductionism. As systems are understood as purely material, it is believed that the nature of the whole can be understood by examining its component parts, which interact only mechanically (Shiva, 1988). The development of modern science has been intimately linked to economic modernisation, by providing the technology necessary to maximize productivity, along a narrow logic of economic efficiency (O'Riordan, 1981).

The mismatch between 'traditional' and 'scientific' understandings of land abandonment

With regards to perceptions on agricultural land abandonment, one way of understanding seemed to largely exclude explanatory factors which cannot be directly observed.

Interviewees with a predominantly traditional knowledge system gave explanations for land abandonment that were often based on the *push-and pull off the land* theory and related to the *low profitability* problem perception typology. It is known by experience that farm work is hard and that people aspire to an easier way of life; it can be observed that elderly people stop cultivating because they are physically unable to continue doing so. Explanations of this type often lacked a political or economic dimension. This type of knowledge built on direct observation was common among local actors with lower levels of schooling, but also occurred in individuals who had a higher degree.

The other extreme, of pure theoretical knowledge forming the basis of an individual's outlook on the problem, was found in highly educated individuals, who grew up and lived in urban areas. This type of knowledge was related to the *lack of income sources* and *low competitiveness* problem perception typologies. These interviewees cited the scientific literature, mentioned economic principles and elaborated on the policy discourse, but sometimes missed essential local aspects of the problem.

The ‘scientific’ knowledge system was often associated with top-down suggestions of solutions. These top-down approaches were somewhat narrow end-of-pipe solutions to what was considered to be the key problem (as described previously by Holling and Meffe, 1996). For example, penalising land abandonment may reduce the acreage of abandoned land, but does nothing to support the livelihoods of the rural poor; on the contrary, their problems may be aggravated if they cannot afford to maintain their land. The danger of top-down approaches to deal with land abandonment being enforced calls for a cautious approach when lobbying for policy intervention.

The different cosmology underlying these two distinguished knowledge systems results in different priorities for the application of knowledge. A clear example from the study area is related to the problematisation of land abandonment.

From the ‘traditional’ perspective, the existence of abandoned land is unacceptable. If fields are neglected and not cared for to look “*neat and tidy*” this reflects a lack of moral standing of the landowner, who is not bothered to care for the land that provides humans with the resources they need to survive²⁵. Land abandonment is an act that offends the integrity of the community and challenges its cultural continuity. Land abandonment conflicts with the traditional worldview that underlies the land use system and that is a core component of people’s identity.

From the ‘scientific’ perspective, land abandonment has been described in abstract terms, such as “land use change” and “territorial dynamics”. In how far land abandonment is problematic is assessed by what the perceived economic impacts are. Generally the economic impacts are perceived to be negligencible (Rheenen and Brouwer, 2005), as areas where

²⁵ Although the explanations on land abandonment from stakeholders with a predominantly ‘traditional’ knowledge system often began with an exposition of land abandonment as a result of personal choice by corrupted individuals, later in conversations and interviews most stakeholders admitted that the individual was affected by external pressures, such as high input and low output prices.

agricultural land abandonment occurs are areas where agricultural productivity is low and the agricultural sector of marginal areas therefore gives a minor contribution to national economies (Pinto-Correia, 1993). Hence, there is no major economic motive that justifies the maintenance of agriculture in Less Favoured Areas. The argument of the lack of economic importance of the agricultural sector in marginal areas could lead to a cycle of inertia and to a failure to halt drivers of marginalisation: as economically marginal areas do not justify the necessary investment for effective intervention, drivers of marginalisation are left in place and more areas become marginalised.

Because effective economic argumentation to counteract agricultural marginalisation is lacking, concerned scientists have focussed on proving that the ecological impact of land abandonment is largely negative. Ecological concerns have been more effective in drawing support for marginal areas than economic and social concerns. Currently the ‘scientific’ understanding of the problem of agricultural land abandonment is articulated in terms of “loss of landscape value” and the need to maintain “ecosystem goods and services” (Kousis, 1998). The ‘scientific’ arguments to counteract land abandonment are utilitarian: it is said that beautiful landscapes will attract tourists and ecosystem health will save costs, for example of public health expenditure.

How to bridge the gap between knowledge systems?

Both knowledge systems, in their extreme forms, are somewhat self-limiting and inadequate for informing effective action. The ‘traditional’ type of knowledge is inadequate for engagement in promoting policy change, as policies are designed with a ‘scientific’ rationale. The ‘scientific’ knowledge system in turn has informed policy measures that have little consideration for the local context and needs. An understanding of the local conditions needs to go hand in hand with knowledge of the wider political and economic circumstances in order that effective and beneficial actions to reverse AM can be put forward.

Common ground between the two knowledge systems could possibly be found if actors are open to communicate in an unprejudiced way. It is easy to dismiss the potential of such communication by assuming that the ‘scientific’ actors will not be ready to prioritize actions that yield no economic return. However, when decision-makers immerse themselves in the problem-situation of local actors they are more likely to endorse more holistic solutions to the problem – as has been shown in the case of regional and national level MADRP staff that have strong connections to the marginal rural area.

This research clearly shows the importance of decision-makers in the agricultural sector having strong ties to the agricultural communities that will be affected by their decision. It would be good practice if staff at higher levels of decision-making would be required to regularly conduct fieldwork to acquaint themselves intimately with the problems of the stakeholders they are trying to support.

6.4.3 The problematisation of land abandonment

Despite the rather widespread understanding of agricultural land abandonment, it is largely accepted passively as a ‘fact of life’, instead of being actively problematised, with a view to develop action to reverse current trends. This was observed both at the local level and at the level of policy decision-makers. At the local level, a certain fatalism prevails; people feel powerless and ineffective and therefore generally do not even try to become actively involved in finding solutions to their current problems. At higher levels of power, land abandonment is most frequently perceived as a problem of spatial planning, rather than as a social and ecological problem brought about by economic policies. Spatial planning may be important, but it is unlikely to be prioritised in a country that feels pressured to promote its overall economic development and to get its financial deficit in check. If the problem of AM were instead perceived as being directly associated with poverty, unemployment, lack of

entrepreneurship and degradation of productive resources, concerted policy action would be more likely.

The fact that the stakeholders not directly engaged with farming and with the agricultural population derive their understanding of land abandonment mainly from theoretical considerations and the policy discourse is a cause for concern. Firstly, because theoretical considerations are often too abstracted to grasp the urgency of the problem and the concrete needs at the level of individual livelihoods. Secondly, the policy discourse has an agenda, and therefore basing one's understanding of a problem on it can generate misleading views. Theoretical considerations and the policy discourse lead to somewhat distorted or one-sided understandings being used as the foundation for decision-making. This can be particularly harmful in the arena of political decision-making (Holling and Meffe, 1996; Scott, 1998).

The intermediate level of power and proximity to farming (such as present in staff of NGOs, some academics and local and regional level MADRP) corresponds to individuals who hold a realistic but also abstract understanding of the problem and are sufficiently empowered to act. Therefore this is likely to be the level at which the most promising actions may emerge, both 'upwards' directed at policy change, and 'downwards' directed at bottom-up practical organisation and action. This intermediate level of agency is in a position to bridge the gap of communication between local actors and the central government.

6.5 Conclusions

The analysis of stakeholders' perceptions on land abandonment has made it clear that the problem is well known and widely understood. Bringing together the perspectives of a variety of stakeholders gave a wide and near-comprehensive account of causes and consequences of land abandonment. Half the interviewees focused on socio-cultural change and endogenous factors to explain land abandonment, whereas nearly 50% of interviewees also drew on political and economic factors to explain land abandonment, giving explanations broadly in line with the literature (Sevilla-Guzman, 2000; Moreira, 2002; McMichael, 2004; Sachs and Santarius, 2007; Sevilla Guzmán, undated).

Different stakeholder groups hold different understandings of the process of agricultural marginalisation. Stakeholder occupation explains differing perceptions quite robustly, because stakeholder occupation is a good indicator of proximity to farming and proximity to political decision-making. Stakeholders more closely connected to farming were priming for urgent solutions to improve farm viability, whereas more remote and more powerful stakeholders in general had a more managerial approach, focusing on economic development and territorial management. It is likely that the views of the more powerful stakeholders will be determining the future direction of support and development priorities for rural areas (Burr, 1995), unless other concerned stakeholders also manage to make their voices heard and bring specific topics to the policy agenda, so as to introduce changes that create more enabling conditions for the viability of agricultural livelihoods. New guidelines from the European institutions could also introduce policy changes with beneficial effects on marginal areas.

The differences in perceptions between local and national level stakeholders makes it clear that there is a gap of communication and mutual understanding that needs to be bridged, to generate more satisfactory solutions for all affected stakeholders (Pinto-Correia *et al.*,

2006b). Raising awareness of the problem of AM will be important, given the frequently incomplete picture of stakeholders. The affected population can contribute to raising awareness of their problematic situation at higher levels of power. LAGs, the local government and the regional and national MADRP could endorse a more genuinely participatory approach, as this would increase mutual understanding between local actors and policy decision-makers (Rover and Henriques, 2006).

CHAPTER VII

DISCUSSION



7.1 Introduction

This study explored the problem of agricultural land abandonment in Portugal and assessed the potential for developing local solutions that are alternatives to the mainstream industrial agri-food chain system.

Agricultural land abandonment is the ultimate consequence of a complex world-historical process (Araghi, 1995) - agricultural marginalisation - which continually reduces the viability and sustainability of farms (Brouwer *et al.*, 2008). Not only are traditional subsistence-oriented farms affected, but also modern farms, which find themselves in a downward cycle of decreasing profitability (Ward, 1993; van der Ploeg, 2010). In fact, agricultural modernisation parallels and drives agricultural marginalisation.

There is already a rich scientific literature explaining, problematising and investigating solutions to agricultural marginalisation. The concepts used to address these issues are multiple:

- a. Agricultural marginalisation (Goodman and Redclift, 1981; Black, 1992; van der Ploeg, 1994; Breman and Pinto-Correia, 2004; Brouwer *et al.*, 2008; Pinto-Correia, 2008);
- b. Food sovereignty (McAfee, 2006; Desmarais, 2007; Pimbert, 2009);
- c. Food regime analysis (Friedmann and McMichael, 1989; Araghi, 1995; McMichael, 2004; Weis, 2007);
- d. Agro-ecology (Altieri, 1999; Guzmán Casado *et al.*, 2000; Uphoff, 2002; McAfee, 2006);
- e. Sustainable agriculture (Pretty, 1995b; Pretty, 2002; Boyce, 2004);
- f. Foodshed analysis (Kloppenborg, 2005);
- g. AAFNs (Hinrichs, 2003; Goodman, 2004; Higgins *et al.*, 2008).

The specific situation of agricultural marginalisation in Portugal has so far not been investigated from a sustainable livelihoods perspective and it has rarely been placed in the wider historical and economic policy context, in a way that would be oriented towards finding a sustainable solution. Hence, the research aims have been to:

- a) Generate a grounded understanding of agricultural marginalisation processes in Portugal;
- b) Explore threats to sustainable agricultural livelihoods and find entry points for action to improve farm viability;
- c) Evaluate the potential of collective action and food system re-localisation to improve farm viability.

In accordance with the first research aim (a), in what follows the research findings and the wider scientific literature are integrated into a theoretical contribution to understand agricultural marginalisation (Section 7.2). This theoretical contribution begins with a historical account of drivers of agricultural modernisation and the concomitant decline of subsistence farming. This historical account provides the context in which the specific Portuguese situation is placed. Then the essential dynamics driving agricultural decline in Portugal, in line with the previously explained global trends and as revealed by the present research, are presented. After this explanation of causes of agricultural marginalisation, the impacts experienced in the Portuguese interior and mountain areas are described and implications are discussed.

Following the theoretical contribution, a pragmatic approach is taken to identify specific actions that would help improve farm viability in the study area (aim (b), Section 7.3). A list of threats to farm viability is presented, according to the findings from the present research, and specific recommendations for action are summarised. Besides action on these specific

entry points to improve the viability of small scale farms in the study area, an alternative organisation of the agri-food economy will be necessary to maintain sustainable farms in the long term. This study investigated the potential of food system re-localisation to improve the viability of sustainable agricultural livelihoods in a marginal rural area (aim c). The findings on the potential of collective action for food-system re-localisation in Portugal are summarised and discussed. Section 7.4 describes agricultural marginalisation in Europe, and specifically in the Mediterranean countries, setting the findings into a wider context and discussing their applicability in other areas. Lastly, the relevance of present findings and directions for future research are outlined (Section 7.5).

7.2 Explaining agricultural marginalisation

7.2.1 The stages of the development of the global food economy and concomitant agricultural marginalisation

It is important to outline the historical drivers of agricultural modernisation that led to the development of global agri-food chains, as these drivers are present and also impact Portuguese rural areas. Understanding historical causes of agricultural marginalisation also sets the Portuguese situation in a wider, global context. Embedding agricultural marginalisation in its global context also highlights the fact that Portuguese agriculture is not in a particularly unfavourable position, but that processes of decline are experienced all over the world as a result of similar drivers (Araghi, 1995; Moreira, 2002). Also, understanding the political economy of the agri-food sector is critical in making sense of the history and politics of the 21st century that lie at the basis of the current unsustainable and inequitable social organisation (McMichael, 2004).

Starting from European agrarian society in a feudal system, three main stages that led to the present day configuration of agri-food governance can be distinguished. Firstly, from the 1870s onwards, the organisation of the agri-food system was centred around British hegemony. This was superseded gradually, beginning in 1914, by a system marked by US hegemony. Since the 1970s, a new food regime is gradually coming into being, in which transnational corporations (TNCs) play the central role (McMichael, 2004). A summary of the key drivers and dynamics of marginalisation characterising these three stages of agri-food governance is given in what follows, from a largely Eurocentric perspective, and with specific reference to the Portuguese case.

Phase 1 - 'Primitive accumulation' or 'Accumulation by dispossession'

In this stage, early states have appropriated rights to land, thereby excluding the preceding population from access to it by force (Pretty, 1998; Weis, 2007; Mistry *et al.*, 2009). This occurred at two levels: through colonisation of overseas territories and through expropriation of lands within a state's administrative power.

Both settler agriculture in North America and plantations in the South appropriated local lands, resources and labour to generate agricultural goods for export to European metropolises. Settler agriculture produced mainly cereals for European markets, whereas tropical goods were produced in the plantations of the South.

The export-oriented development of agriculture in the colonies promoted a productivist approach to land management. The industrial model of farming was first developed in the United States (Araghi, 1995) and then replicated throughout the world (Friedmann, 1993). Modern agricultural practices generated surplus for export, generating cheap wage-foods that supported industrialisation in European countries (Friedmann and McMichael, 1989). Increased productivity and supply depressed prices for agricultural goods and set off the

agricultural technological treadmill (Ward, 1993; Wilson, 2001). Cheap US wheat imports to Europe caused a crisis of domestic production and later justified protectionist policies (Friedmann and McMichael, 1989).

Within Europe, the expropriation of the commons and their appropriation either by the state or by a class of landlords opened the hinterland for more intensive and profit-oriented agrarian and forest productions. The populations whose livelihoods had depended on the commons became landless labourers, dependent for their survival on wage work in the expanding industrial sector (Black, 1992). The dispossessed peasants also became settlers for the colonies; between 1820 and 1930 nearly 20% of the European population emigrated to the colonies (Weis, 2007).

In Portugal, the expropriation of the commons took place in the 1940s and undermined the livelihoods of the peasant population who relied on natural resources from the commons to sustain themselves. This caused massive rural outmigration, especially in the mountain areas where commons make up a significant proportion of the land accessible to the rural population (Estevão, 1983; Black, 1990).

Figure 7.1 below summarises the major drivers and dynamics of change in the first phase of the post-feudalist food system.

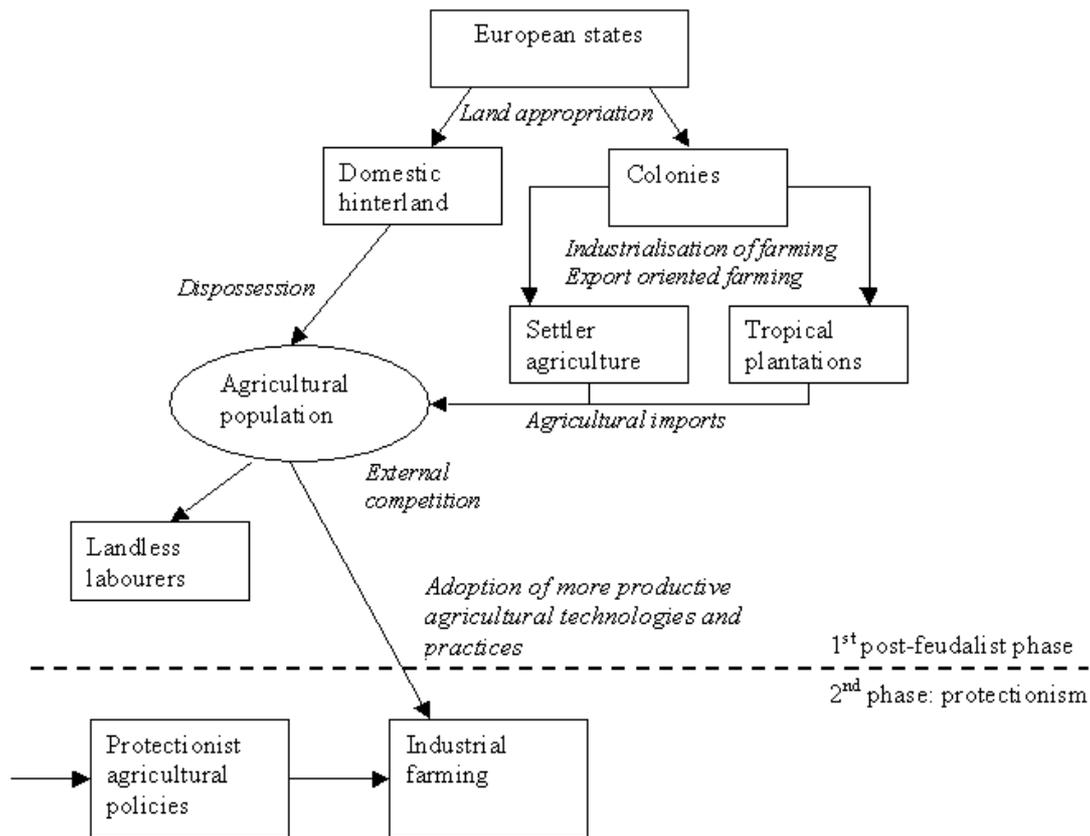


Figure 7.1 – Processes in the first phase of the making of the global food economy.

Phase 2 – State protectionism and the development of national economies

Renationalisation and protectionism was the movement that responded to increasing international dependency in the 19th century (Friedmann and McMichael, 1989). The export-oriented agriculture of the ex-colonies was now considered problematic, as cheap industrially produced commodities were flooding European markets, undermining domestic production. The transformation of colonies into independent states made it desirable for European countries to achieve higher levels of food self-sufficiency to ensure state sovereignty (Weis, 2007). With this aim, ‘inward-oriented growth strategies’ were adopted (Araghi, 1995). These consisted of state incentives for increasing agricultural productivity and protectionist measures to shield domestic agriculture from imports.

Agricultural policies played a particularly important role after World War II as a tool for supporting the reconstruction and to maintain state independence (Araghi, 1995). To increase growth of agricultural output, the industrialisation of agriculture was promoted via state investment incentives and subsidisation. Asymmetric state support favouring large-scale industrial farms gave an artificial competitive advantage to these farming systems at the expense of small-scale farming. Agricultural output growth caused declines in producer prices and this justified the establishment of price support programmes that encouraged farmers to industrialise further, as farmers' incomes became directly proportional to output, regardless of market demand.

Agricultural protectionism was pursued in the form of the establishment of barriers to trade. These consisted mainly of import quotas and tariffs, restricting the volume and artificially lowering the competitiveness of imported goods. Despite defending import barriers for themselves, the US and the EEC developed export subsidies to improve their own competitiveness in foreign markets and to dispose of surplus production (Friedmann, 1993).

In Portugal, the stage of protectionism coincides broadly with the *Estado Novo* dictatorial regime, whose aim was national food self-sufficiency (Cabral, 1986). Small-scale farming and an abundant agricultural population were seen as a blockage to the development of the industrial sector and thus the 'rationalisation' of agricultural production was supported (Alarcão e Silva, 1958; Amaral, 1994). An industrial agricultural sector was developed mainly in southern Portugal, promoted by the *Campanha do trigo* (Lains, 2009).

The accession of Portugal to the EEC marks the beginning of a period of market liberalisation for the country, since integration into the protected EEC market corresponded to increasing competition from and trade with EEC member-states. Accession to the EEC put an end to state-managed and selective international trade (Varela, 2007).

Figure 7.2 summarises the key drivers and dynamics of agricultural marginalisation in the second phase of the development of the global food economy.

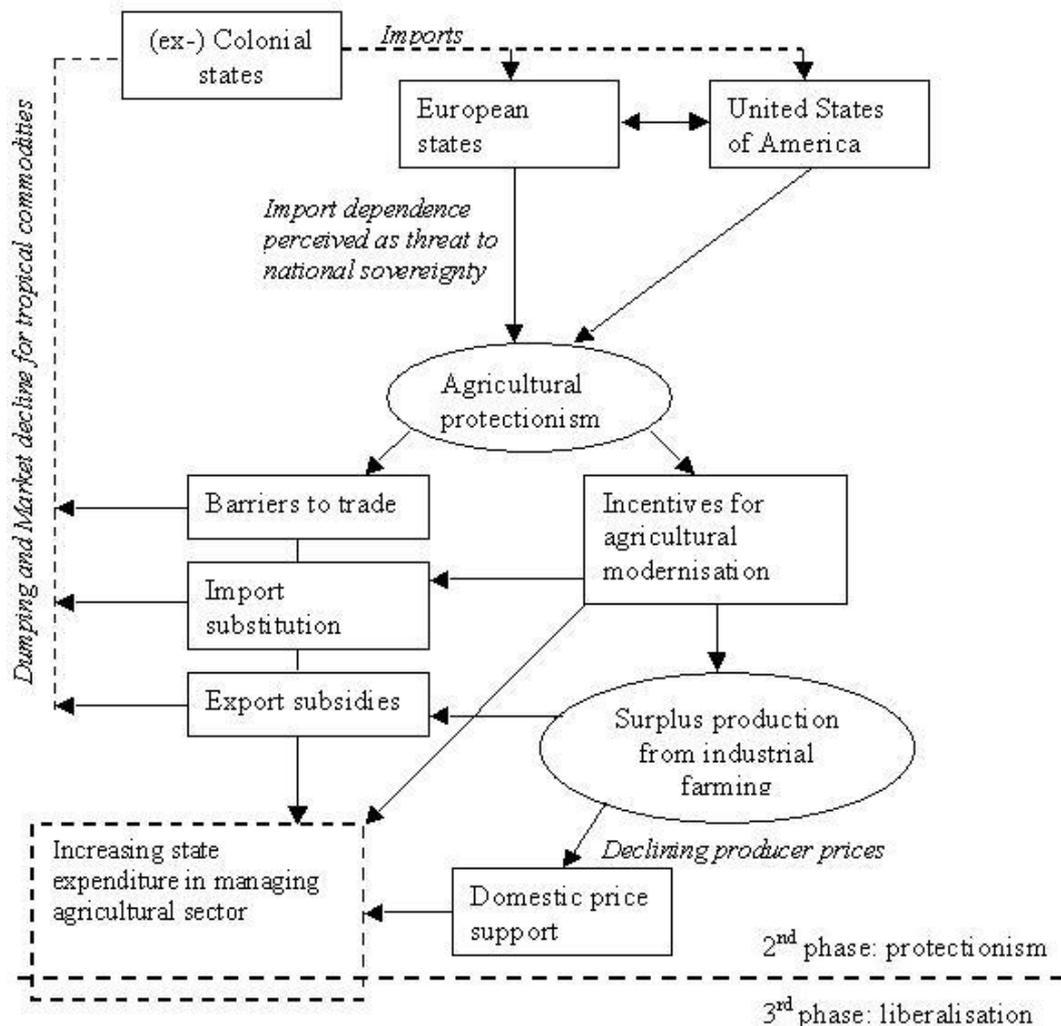


Figure 7.2 - Processes in the second phase of the making of the world food economy.

Phase 3 – Market liberalisation and the corporate take-over

By the 1980s, the management of the agricultural sector was a heavy weight on the state budgets of the USA and the EEC (Campbell, 2004). However, any unilateral policy change to reduce expenditure would imply a loss of competitiveness and market share for agricultural products. Hence, both blocs had an interest in negotiating simultaneous reductions of state support. Both northern and southern countries were also interested in market liberalisation to

promote export growth (Weis, 2007). Under these pressures, a multilateral agreement on agricultural trade was desirable, and developed in the Uruguay Round of the GATT negotiations (1986-1994). These negotiations resulted in the WTO Agreement on Agriculture (AoA), which came into force in 1995.

The AoA consists of a series of commitments from countries to dismantle barriers to agricultural trade and to reduce trade-distorting subsidies with the aim of creating a global open market and an 'even playing field'. However, as reduction commitments are set in terms of percentages of protectionist measures (Aggregate Measure of Support), despite different levels of reduction agreed for developed and developing countries, the artificial relative competitive advantage of different countries is largely kept in place. Thus, it has been argued that the AoA locks unfairness into international competition (Sachs and Santarius, 2007; Weis, 2007).

It has also been argued that the AoA is more supportive of TNCs interests than of farmers' interests (Friedmann, 1993). This is because TNCs have gained increasing political bargaining power, while farmers have declined in numbers and political organisational power (Weis, 2007). In addition, there has always been a mutual conditioning between the state system and capital (Friedmann and McMichael, 1989) and the ideology of neoliberal economic development caused the interests of the state to appear to coincide with the interests of TNCs.

Neoliberal economic theories favour a reduction of state regulation and increasing freedom to trade. According to the Principle of Comparative Advantage, it would be irrational for a country to support or protect uncompetitive domestic production (Weis, 2007). 'Comparative advantage' however is not about strategies of ecological regional differentiation for economic efficiency, as the Ricardian theory posits, but about allowing corporations to pursue global sourcing strategies so that they can take advantage of the cheapest productions. Comparative

advantage under these conditions is not derived from ecologically sound economic efficiency, but from subsidisation and exploitation of labour (McMichael, 2004; Weis, 2007).

The AoA can be said to favour TNCs because the success of TNCs depends on exploring trade opportunities and expanding markets. Trade liberalisation ensures access to these (Friedmann, 1993). For agro-food TNCs, the ideal model of agricultural subsidisation is one that minimises control over production and provides decoupled payments to compensate farmers for low farmgate prices – from which TNCs benefit (Weis, 2007). The AoA has meant that states have had to shift their agricultural support schemes in this direction.

Most importantly, however, the AoA marks the transition from national governance of the food system to a food economy increasingly subject to the global sourcing and marketing strategies of TNCs. The AoA has been described as “*a major landmark in the development of the global food economy as it set in place, for the first time, multilateral rules restricting the sovereignty of governments to establish their own agricultural policies*” (Weis, 2007, p. 128). By endorsing the AoA, states have agreed to restrict their freedom to regulate their domestic agri-food market.

The increasing power of TNCs in open markets promotes the shift to ever more intensive industrial farming and farmers end up trapped in a cycle of declining profitability:

- a. Local and national markets are flooded with cheap products by TNCs;
- b. Cheap imports undermine and dismantle local and domestic production and markets;
- c. To access the markets created by TNCs, farmers need to increase volumes of production and standardise output. Only large-scale specialised industrial farms are able to do this (van der Ploeg, 2010);
- d. Large-scale industrial farms depend on external inputs whose production is in the hands of agro-input TNCs (Weis, 2007);
- e. TNCs increase input prices and press down farmgate prices to increase profitability,

at the expense of farmers. This process is known as the ‘squeeze on farm income’ (Pretty, 1999; van der Ploeg, 2010);

- f. To generate a sufficient income with rising input costs and declining output prices, farmers need to continually increase productivity (Ward, 1993);
- g. Agricultural productivity in industrial farms is increased by using ever newer productive technologies (marketed by TNCs); to access these technologies farmers often rely on capital markets;
- h. High levels of indebtedness among farmers make them even more dependent on increasing productivity and profitability to pay back their debt (van der Ploeg, 2010).

National and transnational corporations can set up cost-effective production units and market chains. This allows TNCs to sell goods below prices of local production costs. This results in cut-throat competition to farms and rural businesses (Moreira, 2002). As TNCs outcompete local businesses, they become the main buyers to which farmers can sell, resulting in significant buyer-power. This buyer-power allows corporations to set rules of market access to farmers, according to what is convenient for TNCs. Only if certain product standards and volume criteria are met, farmers are able to sell to TNCs (van der Ploeg, 2010). Farmers generally have to conduct capital investments to achieve economies of scale, so that they can profitably integrate the transnational market chain. For subsistence-oriented farms these investments are, more often than not, prohibitive. TNCs have the effect of eliminating local markets and denying small-scale enterprises and farmers access to the markets they create (Moreira, 2002; Weis, 2007).

International competition means pitting farmers from all around the globe against each other to lower production costs and secure a market share (Friedmann and McMichael, 1989).

Although the productivist discourse on agriculture is being substituted gradually by a post-productivist discourse (Wilson, 2001), TNC dominated markets enforce the productivist logic (meaning that the only goals of farming are output and output growth).

In sum, the current advantage that industrial farms have over small farms arises mainly from:

- a) advantages of industrial farms in integrating mainstream (TNC controlled) markets;
- b) asymmetrical state support giving preference to industrial farming over small farms;
- c) the externalisation of social and environmental costs that are not accounted for by industrial farms (McMichael, 2004).

Figure 7.3 summarises the main drivers and dynamics of the transition from state-managed markets to markets increasingly controlled by TNCs (with the sanctioning of states), leading to an effective global integration of the agri-food market.

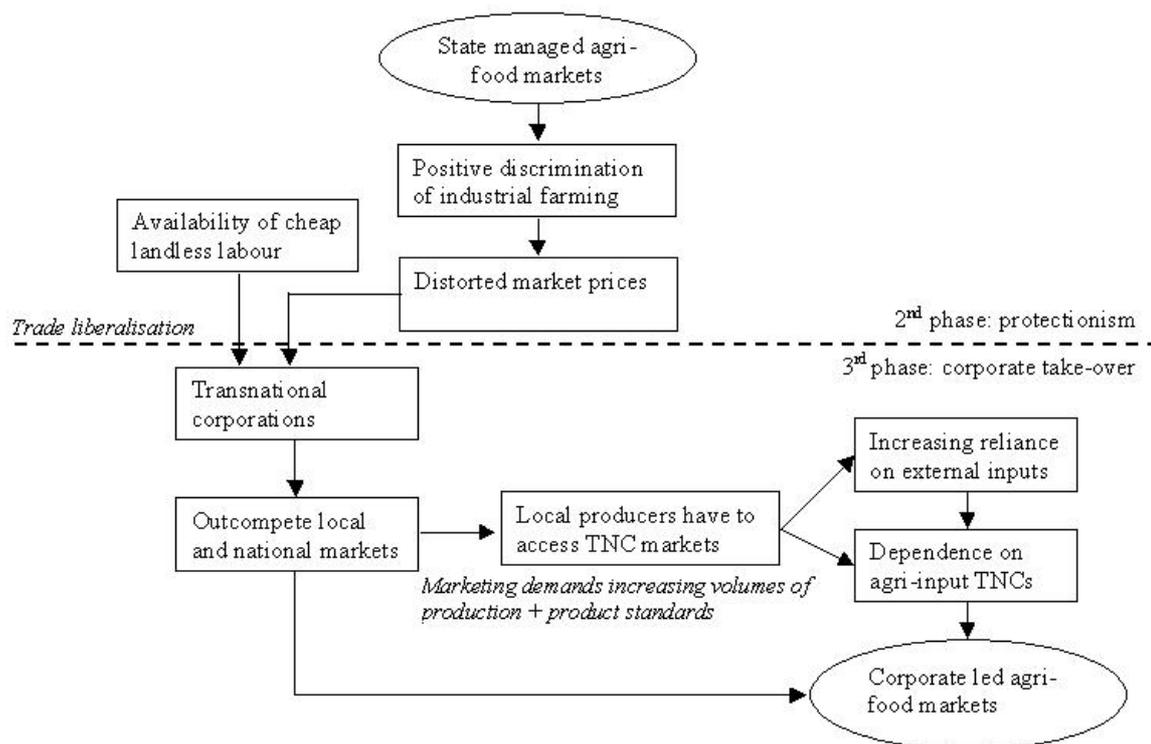


Figure 7.3 - Processes in the third phase of the making of the world food economy.

Were it not for a long history of agricultural and economic policies generating artificial prices and advantages for industrial farms, the importation of foods would in most cases not be

cheaper than local and small-scale production. Small-scale production systems would therefore not be outcompeted as systematically as is happening currently throughout the world, and specifically, in Portuguese interior and mountain areas.

7.2.2 The process of agricultural marginalisation in Portugal

The findings in this research point towards the existence of three major factors that prepare the ground and enable global drivers of agricultural marginalisation to impact the study area. These drivers came into being at consecutive points in time, but once in place they reinforced each other. These driving forces are:

1. The ideology of economic modernisation;
2. The pervasion of state control into rural areas and
3. The penetration of transnational capital into rural areas.

The ideology of economic modernisation

The main drivers of AM in Portugal are directly linked to the project of national economic development. Theories of economic development portrayed social evolution as linear change from a backward condition – agrarian societies - through five distinct stages to the level of ‘high mass consumption’ (Rostow, 1990). Progress was equated to economic modernisation through the rationalisation of production processes, that is, industrialisation (Day, 1998). Industrialisation relied on the availability of labour and food for wage workers, and hence the transformation of agriculture along industrial lines was central for setting off national economic development (Mellor, 1967).

Industrialisation was pursued in Portugal mainly after the 1960s (Lains, 2009). In 1958, the first study on rural exodus in Portugal was conducted. Its main line of argument was that the

problem of Portuguese agriculture was not that there was rural exodus, but that there was not enough of it (Alarcão e Silva, 1958). The ‘surplus’ agricultural population was not producing inputs for industry, nor was it contributing through active demand to further industrial development (Amaral, 1994). To emulate the agriculture of more developed countries, it was deemed necessary to further reduce the agricultural population and industrialise the farming sector (Alarcão e Silva, 1958).

The ideology of economic modernisation also justified increasing state intervention in rural areas. State interventions had the effect of rooting the ideology of economic modernisation into rural areas. State investment and subsidisation schemes promoted modernisation, with the underlying systematic message that rural assets and practices are ‘primitive’ and need to be modernised. Better access to urban centres, the establishment of modern shops in rural areas and the media, all contribute further to the rural populations taking on the belief that the modern way of life is far more advanced and desirable than a subsistence lifestyle. Thus, the population of rural areas comes to endorse economic modernisation, without realising that ‘progress’ comes, at least in part, at their expense. Consequently, the rural population in Portugal often demands economic development as an answer to the problems brought about by economic development itself, rather than developing and demanding alternative solutions.

The belief that subsistence-oriented farms are inefficient and have to be transformed along industrial lines to become more productive and more labour efficient (Avillez, 1997; Lains, 2009) stems from abstract theorisation rather than from a detailed understanding of how agriculture is embedded in natural and social processes (Jackson, 2009). A more holistic examination of food production efficiency gets at the crux of the ideology of economic rationality favouring industrial farming, as it reveals the ecological inefficiency of resource allocation in industrial farming (McAfee, 2006; Weis, 2007).

The pervasion of state control

Dias (1961, cited in Black, 1990, p. 41) has argued that “*an almost perfect synthesis of man and nature*” existed in northern Portugal before the start of the forestation program in the 1940s. Until then, rural communities were “*isolated, egalitarian and self-sufficient*” and interpersonal relations in villages at this time have been classified as “*balanced reciprocity*”²⁶ or “*avoidance*”, keeping conflict and hostility levels low (Riegelhaupt, 1973). Community rituals have been especially important in preserving those community ties that are necessary to maintain the autarchy of communities. Religious life and communal celebrations have been outlined as playing an important role in strengthening community bonds, defining cultural-ecological territories (Riegelhaupt, 1973) and constructing local identity in the Iberian Peninsula (Roca, 2000). Throughout the 20th century, communities began to fragment as the maintenance of the social order was increasingly taken over by the state (Pina-Cabral, 1987).

The present study confirms earlier findings from Portugal (Pina-Cabral, 1987; Carvalho *et al.*, 2002; Pereira *et al.*, 2005) that feed into the discussion of the effects of increasing state control in rural areas (Giddens, 1985; Scott, 1998; Ostrom, 1999; Inglehart and Baker, 2000). State intervention was often justified by the assumption that the local population would mismanage natural resources (Pretty, 2001). State intervention in Portugal consisted mainly of forestation programmes, infrastructure development, subsidisation and investment incentives for industrial agriculture and increasing levels of regulation of rural productive and commercial activities. These paved the way for market integration and dismantled community autarchy (Pina-Cabral, 1987; Pereira *et al.*, 2005).

²⁶ *Balanced reciprocity* was used with the meaning “*that no one gives more than he receives and all gifts are reciprocated as soon as possible*” (Riegelhaupt, 1973).

Infrastructure development by the state is part of and promotes development according to the modernist economic development blueprint. Building roads increases access to rural communities, making the enforcement of state regulations possible. Improved access creates opportunities for national and international capitalist firms to enter rural areas. Other infrastructures, such as electrification, sewage systems and connection to television and more recently the internet, show the 'way forward' for rural communities and promote changes in aspirations and values of the rural population (Norberg-Hodge, 2000).

The increasing economic power of the state allowed financial incentives to be used as a political tool to promote state aims. Subsidisation of modern agricultural practices directly encouraged the shift towards commercial farming (Estevão, 1983). Subsidisation also had indirect effects promoting the modernisation of agriculture; as commercial farming developed and the supply of agricultural products increased, the prices paid to farmers declined, so that unsubsidised subsistence-oriented farmers with higher production costs could no longer compete on the market. Financial incentives to agricultural modernisation also carry the implicit message that subsistence-oriented farming is inferior and its substitution by commercial farming enterprises is necessary for the 'greater good' of the nation.

Better access to rural areas made it possible that a more efficient system of taxation and more regulations could be enforced. Especially since the accession to the EEC, a number of laws have been transposed to the national Portuguese legislation that expanded state control into areas formerly unregulated, or regulated directly by rural communities. The increasing amount of legislation and its progressively strict enforcement has two main local impacts. First, regulation by the state substitutes for local institutions, eroding local social relations and norms and promoting a logic of self-interested appropriation of resources (Pereira *et al.*, 2005). Second, meeting the legal requirements for production and marketing can be costly, requiring an increased integration of subsistence-oriented farmers into the monetary economy

and excluding the rural poor from market access. These legal requirements are designed with international agri-food market chains in mind, and thus promote the integration of farms into these chains, thereby feeding into the interests of national and transnational agri-food corporations.

Farmers now have to comply with national legislation that they find difficult to understand. The lack of technical support and the non-transparent bureaucracy add to farmers' feelings of helplessness and put them at the mercy of state institutions and control officers. This feeling of inefficacy and disempowerment perpetuates a state of fearful ignorance that is not conducive to entrepreneurship.

The value of small-scale and extensive farming systems is often not considered when decisions for development are taken at the local or national levels. Roads, dams and industrial sites are built regardless of the quality of the agricultural lands on site. In addition, decisions to close public services in less populated areas have been taken independently of their role to maintain the scarce agricultural population on the land.

Penetration of the rural economy by transnational capital

The integration of remote rural areas into national and global markets is facilitated by the state, but sets off its own dynamics of marginalisation, deepening previously existing inequalities and vulnerabilities. Moreira (2002) described the processes by which transnational capital penetrates rural economies in detail.

The penetration of national and transnational capital into rural economies can occur in distinct stages. Initially it was public infrastructure and local policy measures to attract investments that created appropriate conditions for external firms to set up businesses in Portuguese rural areas. This increased the competition faced by local businesses. Then,

external competition was amplified by market liberalisation, which created direct competition between local and international firms.

The liberalisation of agricultural markets, first at EU level, and subsequently on a global scale, as a result of the 1995 WTO Agreement on Agriculture, has exposed remote Portuguese rural areas to increasing external competition (Moreira, 2002). In former times most food consumed was produced locally or nationally, but now foodstuffs from abroad reach the rural area at prices below local production costs, thus undermining the continuation of subsistence-oriented farming systems. Farmers can no longer earn a sufficient income from agricultural production and must diversify or find off-farm employment. Whether or not land is abandoned as a result of the reduced competitiveness of local produce depends on the availability of employment in the area where a farm is located. If there are off-farm employment opportunities, it is likely that agricultural activity will be maintained to some extent. However, if no employment opportunities exist locally, the active population migrates and only the elderly remain (Carvalho *et al.*, 2002). Low incomes result in the rural population giving preference to cheap imports, although they recognise the value of local farming systems and would, in theory, like to purchase food from local farms. Thus a downward cycle of agricultural marginalisation comes into existence, in which the local population is not able to support local production systems and financial resources are continually drained out of rural communities (Sedlmayr, 2008).

This trend of declining agricultural livelihoods is made worse by the prohibitively high costs of starting a legal farming enterprise, limited financial state support for small-scale farming, high social security obligations of subsistence-farmers and the closure of public services in depopulated rural areas (Alberto, 2004; CNA, 2009).

Cut-throat external competition has significantly contributed to undermining the livelihoods of Portuguese subsistence farmers. As a result, they feel highly disempowered and

pessimistic about the future (Hespanha, 1996; Carvalho *et al.*, 2002). This limits their engagement in developing alternative strategies to maintain their livelihoods.

Interaction of the key drivers of AM in Portugal

It is clear that the three factors that prepare the ground for global drivers of agricultural marginalisation to have an impact in Portugal can be associated with the three stages of the making of the global food economy (as described in section 7.2). The ‘ideology of economic development’ driver is associated with the first post-feudalist stage, as this ideology justifies land appropriation by the state and state intervention to push for industrialisation. This push for industrialisation is related to increasing state intervention, which is simultaneous to increasing ‘pervasion of state control in rural areas’ and coincides with the stage of protectionism. Finally, the ‘penetration of transnational capital into rural areas’ corresponds to the third stage of the making of the global food economy, namely to the corporate takeover of local agri-food systems.

Figure 7.4 below sketches out how the three main drivers of AM interact to cause land abandonment in Portugal.

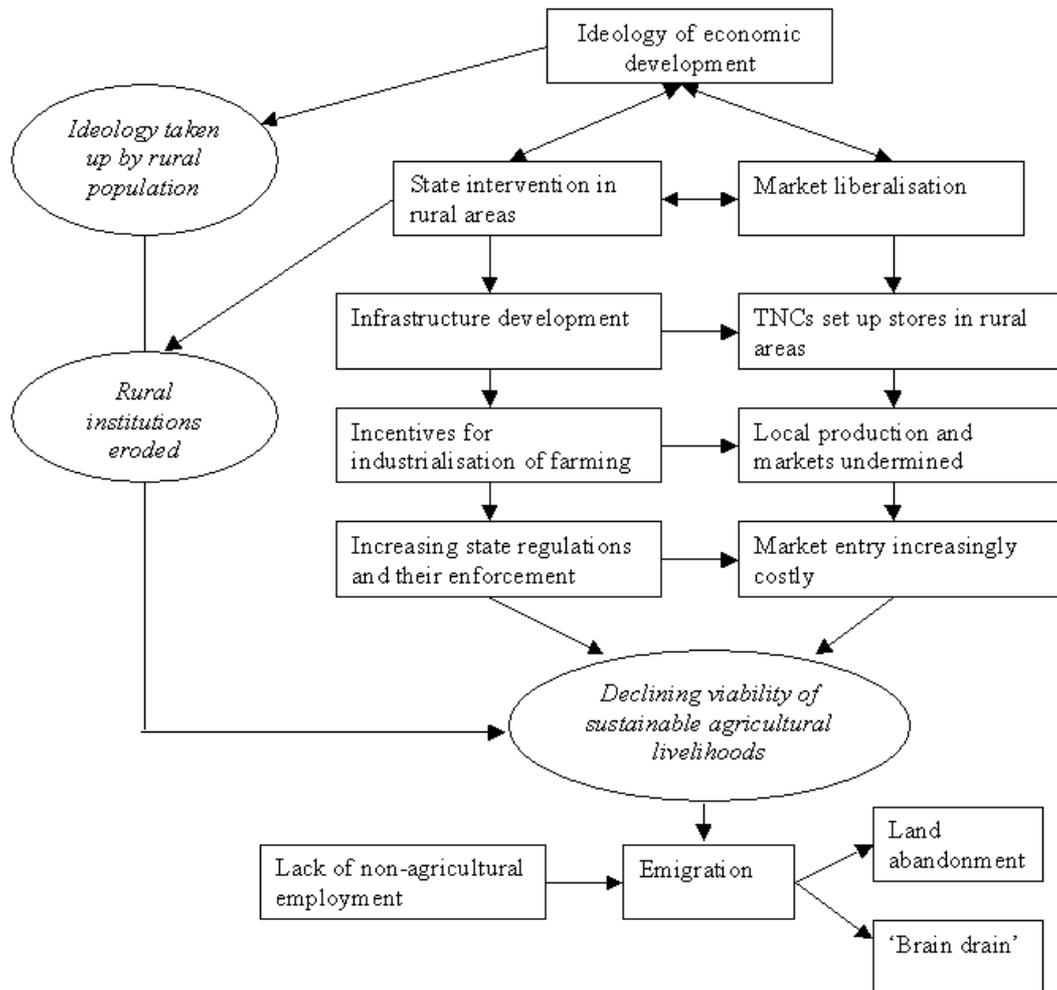


Figure 7.4 – Summary of the key dynamics driving the decline of agricultural livelihoods and land abandonment in the study area.

7.2.3 “A culture of abandonment”²⁷: impacts and implications of agricultural marginalisation in the study area

So far, the causes of agricultural marginalisation at global and Portuguese level have been described, integrating my own findings with the literature. In what follows, the main consequences of agricultural marginalisation as experienced in the study area are outlined.

The consequences are discussed first regarding the direct and multiple impacts of land

²⁷ Expression used by Covas, A. (2009) in a seminar held at the Centre for Transdisciplinary Development Studies (CETRAD), in Vila Real.

abandonment, then a closer look is taken at the social impacts and the implications for future action are discussed.

Impacts of land abandonment

In Portugal, the consequences of land abandonment have mainly been associated with a decline in biodiversity, cultural loss and increasing incidence of wildfires (Baudry, 1991; Bernaldez, 1991; Pinto-Correia, 1993; Moreira *et al.*, 2001). Table 7.1 summarises the main local consequences of land abandonment found in the present study.

Table 7.1 – The main local consequences of land abandonment in Portugal.

	Local consequences of land abandonment
Economic	Livelihood insecurity of farmers
	Unemployment and emigration
	Wastage of productive resources
	Appropriation of local resources by outsiders (increased possibility of unsustainable use and exclusion of the local population)
Social	Loss of cultural heritage
	Isolation of remaining farmers
	Loss of ecological knowledge and associated sustainable farming practices
	Declining social cohesion and solidarity
Ecological	Biodiversity and agrobiodiversity loss
	Increase in number and extension of wildfires (consequent soil erosion)
	Expansion of eucalyptus, pine and invasive species (altering habitats)
	Reduced retention and infiltration of water
	Remaining farmers use less ecologically sound practices, as economic pressures encourage reduction of production costs

The overall effect of changes in farming on the ecological footprint of a given individual and of Portuguese society as a whole needs to be considered as well. Before modernisation of farming, the majority of the population worked in agriculture, thus satisfying most of their needs from local resources. When local producers became global consumers, their ecological impact increased.

Decline of social cohesion and human capabilities in rural areas

All the drivers of AM previously described (Section 7.2) contribute to the decline of social cohesion in rural areas. The emigration of a significant proportion of the active population, brought about by the declining viability of agricultural livelihoods, causes a disruption of community life and interrupts the transmission of local knowledge and traditional practices from generation to generation (Reis and Nave, 1986; Carvalho *et al.*, 2002). At the same time, the introduction of modern technologies has brought about changes in agricultural practices, and traditional forms of cooperation have lost importance (Pina-Cabral, 1987; Pereira *et al.*, 2005). This corresponds to an important cultural transformation (Inglehart and Baker, 2000). The changes of the interaction between the generations, and between the rural population in general, contribute to a decline of social cohesion and trust, as these are depreciated by a lack of use (Ostrom, 1999).

As a result of declining livelihood viability, feelings of inefficacy and powerlessness have developed in rural Portugal (Hespanha, 1996; Carvalho *et al.*, 2002). Farmers who were formerly highly independent and in control of their means of subsistence saw a rapid decline in their livelihood viability as a result of external drivers. These external drivers have been too swift for farmers to adapt, and as farmers are often unaware of the political and economic changes implemented, they may not even fully understand why their way of life has ceased to be viable.

A central need for rural endogenous development is the existence of human capabilities, such as entrepreneurial skills and knowledge derived from formal education (Stockdale, 2006). However, there is a tendency for young, able people to emigrate out of rural peripheral communities, whilst those who are less capable of promoting rural development remain (Stockdale, 2006). Therefore, EU structural funds for rural development frequently cannot be

captured by the communities that would need them the most (Marsden, 2004). Return migration and in-migration could yield the human resources needed for the regeneration of the rural economy (Black, 1992). To attract people to peripheral rural areas, policies that create economic opportunities in rural areas are required (Stockdale, 2006).

Low levels of entrepreneurialism and lack of social connections and interpersonal trust are a barrier for endogenous rural development in the study area. Similar patterns of disempowerment and degradation of social and human assets in rural areas may explain the 'general failure' of endogenous development approaches, as outlined by Benvenuti (Benvenuti, 1994).

Land abandonment and the persistence of subsistence values

The rural way of life in Portugal has developed from and is still closely reminiscent of a peasant or agrarian society. Individual households aim for high levels of food self-sufficiency, even though they are engaged to varying extents in off-farm income-generating activities. The maintenance of the family-farm unit is often the priority, rather than profit maximisation. Farmers struggle to maintain their agricultural livelihoods and may even invest off-farm income to make their agricultural activity viable. This is because farmers are attached to their lifestyle and to the land. In fact, the individuals still left on the land appear to hold a strong subsistence orientation (Bennholdt-Thomsen and Mies, 1999), giving priority to meeting their needs directly from the land and maintaining the agricultural household over considerations of profitability. The value of land and food production is clearly considered to be superior to the monetary exchange value of these assets. Land abandonment is generally not a voluntary option for farmers.

However, it was also found that the subsistence orientation is put into question at present, as subsistence production no longer allows for a satisfactory lifestyle, especially when compared

to urban living standards. The increasing need for money and aspirations for an urban way of life cause confusion with regard to the value of a subsistence-oriented livelihood.

The (lack of) problematisation of agricultural marginalisation

The mainstream theorisation of agrarian change continues to be that of Modernisation theory. The development of industrial agriculture is framed in terms of cumulative change brought about by innovations and individual entrepreneurship (Grigg, 1987). Modernisation theory leans on social Darwinism, portraying social change towards capitalist integration as a process of natural and progressive evolution (Wood, 2002). Thereby it constructs a disempowering sense of inevitability that dissuades alternative approaches. The myth of inevitability needs to be challenged so a foundation for alternatives can be built (Weis, 2007).

In Portugal, land abandonment is perceived to be mainly a result of difficult physical conditions for modern farming and an inadequate landholding structure leading to low profitability of small-scale agriculture. Additionally, changing aspirations of the rural population are considered to be an important cause of land abandonment. The consequences are mainly perceived to be difficulties with 'territorial management'. Livelihood viability is not the prime concern at policy level.

If the problem of agricultural marginalisation were perceived more widely as being directly associated with poverty, unemployment and degradation of economically productive resources, concerted policy action would be more likely. Viewing the declining viability of agricultural livelihoods largely as an outcome of political options based on fallible universalist economic theories could spur civil society engagement. In order to promote action, it is essential that such an in-depth understanding and problematisation of AM is brought about.

Figure 7.5 summarises the interaction of drivers of AM, now with a focus on intangible drivers, and including social consequences of AM that further perpetuate AM.

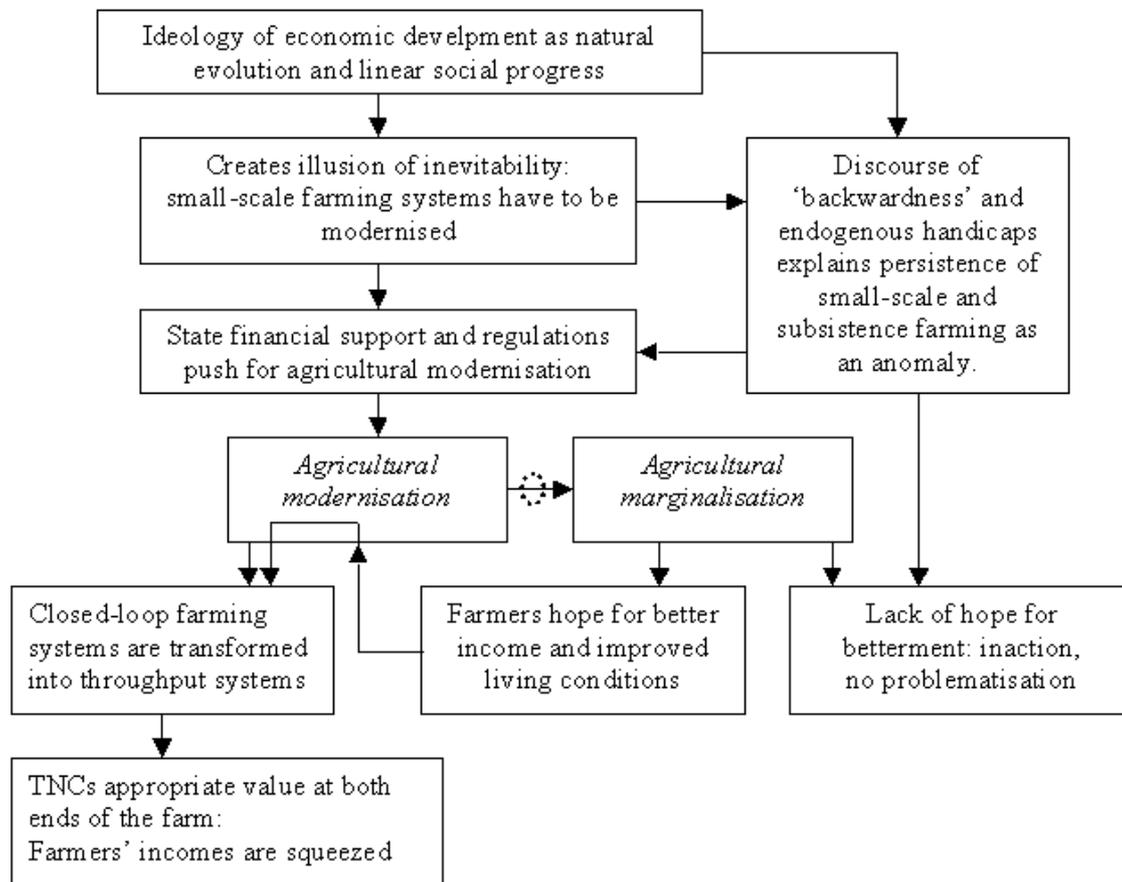


Figure 7.5 – The role of ideological, social and psychological drivers of AM and their implications for farm level changes.

7.3 What can be done to reverse AM and improve small farm viability in Portugal?

7.3.1 Threats to farm viability and recommendations for action

The observed trends of declining agricultural livelihood viability are very problematic. Human livelihoods and the future of sustainable, healthy food production are at stake. It is essential that action is taken to transform the largely destructive drivers and to promote changes conducive to the health and resilience of the agricultural system. Although the problem is global in nature, its scale and complexity requires a detailed local understanding of drivers and impacts in order that effective action can be developed.

Ideally, actions to reverse AM should focus on the drivers that threaten farm viability, rather than on ameliorating problems that are continually being created by drivers left in place (for example subsidisation as in LFA schemes). Consequences of the primary drivers, however, can act as drivers of undesirable change themselves, and may need to be addressed to reduce the impacts downstream, while the major drivers of AM are still in place (for example, wild fires and soil erosion are consequences and possibly further causes of land abandonment and need to be addressed urgently).

Addressing the major drivers of AM, as outlined in Section 7.2, would require a deep reform of the entire modern socio-economic organisation. Any such profound changes could take centuries to come about, unless major disruptions (or an unlikely radical change in human consciousness) accelerate change. Therefore, in what follows, it is advocated that the threats to farm viability are addressed, so that structural economic and political conditions become more enabling of sustainable farm viability, rather than discriminating against it (Pretty, 1995b).

The specific threats to farm viability and the ways in which they can be addressed are likely to vary between different marginalised regions. In the interior and mountain areas of Portugal the specific threats to farm viability could be grouped into three themes:

- a) Limitations due to characteristics of the agricultural population;
- b) Limitations due to characteristics of the marketing chain;
- c) Limitations due to characteristics of policies and public institutions.

Limitations to farm viability due to characteristics of the agricultural population

The agricultural population is profoundly marked by the historical transition from agrarian to modern forms of social organisation, which is still underway. Traditional knowledge and practices no longer suffice, as a profound transformation of economic and social life is brought about by economic modernisation. The agricultural population may not be fully prepared to make the necessary adaptations, but it also appears that the changes taking place leave ever less room for the agricultural population to generate a livelihood; regardless of whether or not they engage in structural adjustments and agricultural modernisation (Ward, 1993).

The descriptions of community disintegration and disempowerment of farmers in the previous section (7.2.3) explain most of the characteristics present in the agricultural population that contribute to the difficulties they have in achieving farm viability. Table 7.2 summarises these challenges and presents actions that could be undertaken by different stakeholder groups to tackle each specific problem.

Table 7.2 – Limitations to farm viability resulting from the characteristics of the agricultural population in interior and mountain areas of Portugal, potential actions and stakeholder groups that could promote these.

Problem area	Potential solution	Action by stakeholder group
Lack of hope and fatalism	<ul style="list-style-type: none"> • Encouragement through good examples and direct support for farmers 	<ul style="list-style-type: none"> • Rural and agricultural development associations • Local government • MADRP • Local actors
Difficulty understanding legal requirements	<ul style="list-style-type: none"> • Direct support for farmers • Training courses 	<ul style="list-style-type: none"> • Rural and agricultural development associations • Local government • MADRP • Local actors
Resistance to cooperation	<ul style="list-style-type: none"> • Specialised, trustworthy and independent facilitators • Cooperation on specific problems experienced by farmers 	<ul style="list-style-type: none"> • Rural and agricultural development associations • Local government • MADRP • Local actors
Lack of organisation	<ul style="list-style-type: none"> • Specialised, trustworthy and independent facilitators 	<ul style="list-style-type: none"> • Local government • Funding from MADRP Rural and agricultural development associations
	<ul style="list-style-type: none"> • Organisation by private entrepreneurs 	Private entrepreneurs (including local actors)
Lack of entrepreneurship	<ul style="list-style-type: none"> • Training in entrepreneurship • Support for agricultural entrepreneurs 	<ul style="list-style-type: none"> • Rural and agricultural development associations • Local government • MADRP • Local business support centres
Resistance to innovation and change	<ul style="list-style-type: none"> • Demonstration projects • Cooperation on specific problems experienced by farmers • Specialised, trustworthy and independent facilitators 	<ul style="list-style-type: none"> • Rural and agricultural development associations • Local government • MADRP

There is a clear need for specialised facilitators to work with the agricultural population to help farmers find strategies to improve farm viability and to promote rural development. At present, a number of agricultural and rural development associations exist that could in future play an increasing role as facilitators (IDARC, 2002; Rover and Henriques, 2006). However, it is likely that staff from these associations will need specific training and support in order to become more effective in their work as facilitators (Carvalho *et al.*, 2002). Adaptive monitoring of rural development interventions will also be important.

Local champions could also play a role in overcoming the problems due to the characteristics of the agricultural population. By giving an inspirational example and by providing encouragement and support, local actors can have a significant snowball effect in improving the livelihoods in their community.

Limitations to farm viability due to characteristics of the marketing chain

Markets and market chains are essential components for farm viability. Entrepreneurial farmers can establish marketing chains that suit their needs, although the rule is for farmers to sell to established markets. The engagement of the agricultural population in marketing is generally low. There are also significant barriers to market entry, such as high capital investments and legal prohibitions. In addition, the extent of competition and demand on a market determines whether or not a farmer can sell his produce profitably. Therefore, in the area of marketing, factors both external and internal to the farm affect the farm's profitability.

Table 7.3 lists the main challenges to farm viability related to marketing, outlines possible actions and presents suggestions on which stakeholder group could become active in tackling current difficulties.

Table 7.3 – Threats to farm viability resulting from the characteristics of the agricultural market chain, potential actions and stakeholder groups that could promote these.

Problem area	Potential solution	Action by stakeholder group
Large volume of production needed for market entry	<ul style="list-style-type: none"> • Land consolidation 	<ul style="list-style-type: none"> • Farmers • Incentives by national government
	<ul style="list-style-type: none"> • Cooperation of farmers for marketing – pooling output 	<ul style="list-style-type: none"> • Farmers • Local rural and agricultural associations • Private entrepreneurs
	<ul style="list-style-type: none"> • Development of alternative market chains – niche markets or AAFNs 	<ul style="list-style-type: none"> • Farmers • Consumers • Local rural and agricultural associations • Local government

Cost-intensive investment for market entry	<ul style="list-style-type: none"> • Cooperation of farmers to share equipment and infrastructures 	<ul style="list-style-type: none"> • Farmers • Local rural and agricultural associations • Local government • MADRP
	<ul style="list-style-type: none"> • Adapt legal requirements to fit small-scale farming 	<ul style="list-style-type: none"> • MADRP
Traditional markets and institutions in decline	<ul style="list-style-type: none"> • Maintain and promote farmers' markets • Develop AAFNs – local food for local institutions, box schemes, CSAs etc. 	<ul style="list-style-type: none"> • Local rural and agricultural associations • Local government • MADRP
	<ul style="list-style-type: none"> • Management and marketing support to cooperatives 	<ul style="list-style-type: none"> • Local government • Local business associations • MADRP
	<ul style="list-style-type: none"> • Development of quality niche markets 	<ul style="list-style-type: none"> • Farmers • Private entrepreneurs
External competition from industrial farms	<ul style="list-style-type: none"> • Reduce preferential state support to industrial farms 	<ul style="list-style-type: none"> • EU level • MADRP
	<ul style="list-style-type: none"> • Tax system designed to encourage internalisation of production costs of farming (e.g. taxation of external inputs) 	<ul style="list-style-type: none"> • EU level • MADRP
	<ul style="list-style-type: none"> • Tax pollution associated with food transport 	<ul style="list-style-type: none"> • EU level • MADRP
	<ul style="list-style-type: none"> • Limit establishment of food discount stores in rural areas 	<ul style="list-style-type: none"> • Local government • National government
	<ul style="list-style-type: none"> • Promote and generate advantages for local markets 	<ul style="list-style-type: none"> • Local rural and agricultural associations • Local government • MADRP

Limitations to farm viability due to characteristics of policies and public institutions

Lastly, the overarching economic and legal conditions under which farms operate and have to achieve viability are determined by the state and public institutions. A number of challenges to farm viability directly resulting from agricultural policies and their implementation make themselves felt at the level of individual farming households in the study area. These are listed in Table 7.4 and avenues for action to attenuate their negative effects are presented, together with stakeholder groups that are in a position to take these actions forward.

Table 7.4 – Threats to farm viability resulting from policies and from the workings of public institutions, potential solutions and stakeholder groups that could promote these.

Problem area	Potential solution	Action by stakeholder group
Lack of information and support services for farmers	<ul style="list-style-type: none"> • Improve staffing of local MADRP offices • Training staff from MADRP offices, agricultural and rural development associations • More simple, relevant and accessible publications for farmers • Using the media to spread information • Training courses for farmers, adapted to their practical needs • Farmers' self-help groups 	<ul style="list-style-type: none"> • MADRP • Local rural and agricultural associations • Farmers
Administrative procedures non-transparent and untimely	<ul style="list-style-type: none"> • Training staff from associations, MADRP offices and local government to support farmers in administrative procedures 	<ul style="list-style-type: none"> • MADRP • Local and national government
	<ul style="list-style-type: none"> • Simplify administrative procedures and reduce time spans for responses 	<ul style="list-style-type: none"> • MADRP / IFAP • Local and national government
Legal requirements too cost intensive for small-scale farms	<ul style="list-style-type: none"> • Adapt legal requirements to fit small-scale farming systems 	<ul style="list-style-type: none"> • National government • MADRP
	<ul style="list-style-type: none"> • Cooperation to share equipment and infrastructures 	<ul style="list-style-type: none"> • Farmers • Local rural and agricultural associations • Local government
Taxation and social security obligations inadequate for small-scale farmers	<ul style="list-style-type: none"> • Review adequacy of current payment obligations to small-scale farmers • Create specific statutes that recognise the specificity of subsistence farmers 	<ul style="list-style-type: none"> • National government – Ministry of Social Security and Ministry of Finance • MADRP
Instable policy environment (changing support measures and legal requirements)	<ul style="list-style-type: none"> • Encourage the independence of agriculture from financial state support (real prices) • Subsidise farm income to meet national minimum wage (to assure livelihood security) • Encourage the development of long-term farmer-consumer partnerships 	<ul style="list-style-type: none"> • EU level • MADRP • National government (Ministry of Social Security)
Agricultural decline not a priority for action	<ul style="list-style-type: none"> • Monitoring policy impacts and changes in marginal rural areas 	<ul style="list-style-type: none"> • MADRP • Local government • EU level • Universities
	<ul style="list-style-type: none"> • Spreading information on the problems of agricultural decline • Demand that agricultural marginalisation be put on the policy agenda 	<ul style="list-style-type: none"> • Civil society organisations • Universities
Lack of policy integration in support of agriculture and rural development	<ul style="list-style-type: none"> • Creating a policy advisory group • Monitoring policy impacts and changes in marginal rural areas 	<ul style="list-style-type: none"> • National government • MADRP • Universities and local government

7.3.2 What is the potential of collective action to relocalise agri-food systems?

The development of alternative agri-food systems (AAFN) is promising for the improvement of small farm viability in the study area. Newcomers to farming are interested in sustainable agriculture and in experimenting with alternative marketing approaches. 22% of consumers in the interior and mountain areas do not produce or receive any locally produced food and would like to purchase it. Now, even highly entrepreneurial and educated neo-rurals find it difficult to generate a sufficient income from sustainable agriculture. The structural limitations affecting traditional farmers are also affecting newcomers who want to establish low-impact sustainable agricultural livelihoods.

In order for AAFNs to be developed, collective action is necessary. Collective action is crucial but highly problematic in the study area, as Section 7.3.2 has shown. Trends of eroding social cohesion and low levels of entrepreneurship result in challenges for endogenous rural development (Mergulhão, 1999). Table 7.5 lists the main opportunities and limitations for local action to reverse agricultural marginalisation to come about.

Table 7.5 – Limitations and opportunities for local action to reverse AM.

	Limitations	Opportunities
Farming population	Elderly farmers with low levels of literacy	Strong subsistence values supportive of agricultural livelihoods
	Lack of hope / Sense of fatalism	Social norms supportive of maintenance of farming
	Non-entrepreneurs, disengaged farmers	Entrepreneurial and highly educated newcomers to farming
	Lack of social connections and interpersonal trust to support cooperation	Networking and knowledge exchange among newcomers to farming (neo-rurals)
	Resistance to innovation	
Consumers	Low income of consumers	General understanding of benefits of local agri-food systems
	Disengaged consumers	Growing demand for organic and quality products in urban areas
Institutions	Most municipalities wedded to economic development paradigm	Some municipalities developing projects to support local agriculture
	Illusion of inevitability of the decline of <i>agricultura familiar</i>	
	Lack of financial resources	Local food for local institutions
	Rules and regulations limiting local production and marketing activities	Adaptation of a number of legal requirements for small scale producers
	Time consuming non-transparent licensing processes	LAGs with a mandate for sustainable rural development

The table gives evidence of the key issues necessary to promote local action for food system re-localisation. These are:

- a) Organisation of marketing networks to which farmers can sell to;
- b) Support for newcomers to farming (in the areas of agricultural production, marketing, accessing state support, knowledge of local culture and social integration);
- c) Spreading information to individual consumers and institutions to promote initiatives for local food sourcing;
- d) Training for rural development and agricultural associations to encourage development of local food systems;
- e) Revising the legislation and administrative procedures

This comes down to two main entry points:

1. Availability of highly skilled rural development facilitators to give advice, training, organise and help building up social linkages and trust;
2. Revision of legislation and administrative procedures that limit the success of local agri-food initiatives.

Both of these entry points could most easily be addressed at the level of the Portuguese government, by providing funding for rural development facilitators and reviewing existing legislation and procedures. To some extent, the Portuguese government is already doing this, but not from the perspective of promoting sustainable farm viability, and therefore much funding that flows to rural areas is spent in less strategic actions and has limited benefits for rural communities.

Studies that assess the potential benefits of public investment in food system re-localisation would be important to justify public investment in the area. Pretty *et al.* (2005) have assessed the full costs of the UK weekly food basket and concluded that substantial financial, environmental and health costs could be avoided if local food systems were established.

Similar studies could be developed in the Portuguese context.

7.4 Agricultural marginalisation in Europe – relevance of present findings to other contexts

7.4.1 LFAs and agricultural land abandonment in Europe

Section 7.2 has outlined the historical processes leading to a polarisation of agricultural land use globally and discussed the particular way in which this has occurred in Portugal.

It is clear that the modernisation of agriculture and concomitant market integration has led to a double trend in land use: the areas most suited for modernisation have undergone productive intensification whereas agricultural land use declined in areas with less suitable conditions (Brower *et al.*, 2008). It has been argued that the CAP enforces this trend (Knickel, 1994; MacDonald *et al.*, 2000).

The present study has problematised this polarisation of agricultural land use. Productive intensification using industrial methods has caused severe environmental and health problems and not served farmers well financially (Pretty, 2002). Agricultural land abandonment, on the other hand, results from the economic and social marginalisation of the farming population and is, more often than not, not advantageous in ecological terms (Bernaldez, 1991; Benayas *et al.*, 2007).

Agricultural land abandonment tends to occur in areas where extensive or small-scale farming prevails (Brower *et al.*, 1997). These areas coincide largely with the EU Less Favoured Area (LFA) definition. A total of 57% of the UAA in the EU are considered to have severe handicaps for farming and have been classified as LFAs (European Commission, 2011). These areas generally have a high conservation value, which justifies subsidisation to ensure the continuation of farming (Brower *et al.*, 1997; Benayas *et al.*, 2007).

In Europe three different types of regions facing high levels of threat of land abandonment can be distinguished: the cold regions of the North (Breman *et al.*, 2010), mountain areas (Dax, 2002) and mediterranean areas (Pinto-Correia, 1993). All three types of region present climatic and/or structural challenges for the practice of industrial forms of agriculture.

The cold regions of northern Europe face climatic constraints to agricultural productivity. This led, in 1995 and as a result of the accession of Scandinavian countries to the EU, to areas above the 62nd paralel, where short growing seasons and low temperatures limit plant growth, being designated LFAs (European Commission, 2006). Despite this compensatory measure, Finland's net agricultural income declined 14% in the first 5 years after its accession to the EU (MacDonald *et al.*, 2000). Breman *et al.* (2010) have compared marginalisation processes in Finland and in Portugal and found that the marginalisation typology *rural fragile / agriculture fragile* was to be found in sparsely populated areas of eastern and northern Finland. In these areas arable land under cultivation decreased by 10% between 1990 and 2000 as a result of low competitiveness compared to farms in other regions of the country (Breman *et al.*, 2010). Similarly to Portugal, in Finish marginal rural areas the decline of income from agriculture has not been compensated by the development of alternative employment opportunities (Breman *et al.*, 2010).

A significant proportion of UAA in the EU is located in mountain territories: 20% of the UAA is defined as mountain area and 27% of farms in the EU are situated in mountain areas (Dax, 2002). More than half of the territory of Austria, Italy, Portugal, Spain and Greece are mountainous (Dax, 2002). In general the trend of rural depopulation and agricultural land abandonment is higher in mountain areas than in the adjacent flatlands (Dax, 2005).

The mediterranean areas with a high threat of land abandonment are most of the Iberian Peninsula, the interior and south of France, many parts of Italy and Greece (Brower, 2006). Marginal agricultural areas in the mediterranean make up 56 million ha (25% of the EU 12

territory), affecting 27 million inhabitants (Bazin and Roux, 1995). In southern European countries rural depopulation became a problem much later than in northern and central Europe, namely in the period after World War II with increasing industrialisation (Piniella *et al.*, 2008).

The process of agricultural marginalisation in the Portuguese study area is very similar to what has been reported in other mediterranean areas, notably in Spain and Greece (Ceña and Fernandez-Cavada, 1986; Dimara, 1999; Pinilla *et al.*, 2008; Kizos *et al.*, 2010). In Spain and Greece rural depopulation and gentrification occur similarly in geographically marginal areas where a lack of non agricultural employment opportunities causes outmigration as agricultural incomes decline.

7.4 2 Relevance of findings for other contexts

Overall the causes of agricultural marginalisation are well understood in the scientific literature, however political economy causes are often not considered to be the key drivers of agricultural land abandonment. Studies from Spain have regarded climatic factors (Rheenen and Brouwer, 2005) and outmigration from rural areas (Benayas *et al.*, 2007; Pinilla *et al.*, 2008) as the principal driving forces of agricultural land abandonment. The present study gives proof of the fact that different stakeholders emphasise different drivers to explain land abandonment. It is very likely that a personal and professional bias is equally present in the scientific literature. Being aware of such researcher induced distortions will be important to generate a more objective analysis of the process of agricultural marginalisation and to find the most appropriate entry points for action.

A relevant contribution to understand agricultural land abandonment has been given by this study through the analysis of threats to farm viability experienced at the level of agricultural enterprises. Key threats to farm viability were identified that are worth investigating in more

detail and with a view to identify what the necessary and realistically feasible changes at policy level are. Many of the threats identified in Portugal apply to other marginal regions of Europe. Market integration has brought increasing difficulties with generating an adequate income from agricultural production in general in rural areas (Moreira, 2002). Spain has better organisational structures than Portugal, such as functional agricultural cooperatives (Bayona, 2003), and therefore adaptation to changing marketing conditions was facilitated for many farmers. Difficulties with bureaucratic procedures related to state support for farms have been reported in Greece (Dimara, 1999) and Remmers describes the challenges of small-scale farms adapting to the new regulatory environment in Spain (Remmers, 1994; Guzmán Casado *et al.*, 2000).

Regarding the consequences of agricultural land abandonment the literature focuses mainly on local level impacts and mainly on ecological consequences (Baudry, 1991; Bernaldez, 1991; Vallecillo *et al.*, 2008). A study on the effects of Cross Compliance on land abandonment found that in most EU countries land abandonment was considered to be a minor and geographically limited problem, with little economic significance (Moravec and Zemeckis, 2007). Here it is argued that land abandonment and its local impacts correspond only to a fraction of the consequences of the industrial agricultural development model, which is the issue that needs to be problematised for holistic solutions to be developed. It is necessary that the wider social, economic and ecological consequences of agricultural marginalisation are addressed, if agricultural land abandonment is to become an issue that matters to policy makers and the wider public, i.e. if it is to become a concern for a wider sector of society, rather than being considered a problem of a few low populated marginal communities only.

Solutions for dealing with the problems of agricultural marginalisation have been studied widely and most frequently from a perspective of policy evaluation and design. The main politically encouraged strategies to improve farm viability in the EU are income support

through the LFA scheme, promotion of quality produce and financial incentives for income diversification. This study presents new research that links the problem of AM with the potential of AAFNs. A surprisingly high level of support of consumers for purchasing locally produced food was found in the interior and mountain areas of Portugal. The challenge will be to organise this latent interest into functional AAFNs. The case study of *Criar Raízes* has shown how difficult it can be to engage the affected population itself in alternative development and marketing strategies. The socio-cultural context needs to be given special attention when trying to implement innovative strategies of rural development. The lack of entrepreneurialism, mistrust and resistance to change of a gentrified rural population, with low levels of education, are factors that limit the potential development of AAFNs not only in Portugal (Breman *et al.*, 2010). Hence, the potential for AAFNs to be developed without external intervention is limited. This study outlines the importance of financial incentives and support from experienced rural development facilitators to set alternative marketing initiatives in motion in marginal rural areas.

The present study is also an evidence of the importance of a grounded and open-ended methodological approach to assess problems and potential solutions in a locally relevant manner, which is an essential starting point for the realistic exploration of the potential for alternative development pathways and to identify entry points for action to support and encourage such alternative pathways.

7.5 Conclusions and future directions

Agrarian change is intimately connected to and provides the foundation for social change. Hence an understanding of agricultural history is essential in order to understand present-day social relations (McMichael, 2008). Because of the severe environmental, social and economic problems society faces at present, it is necessary that conditions are created that make it possible to once again live sustainably from the land, so that individuals can opt out of high-impact consumer lifestyles and give a positive contribution to society through sustainable food production and its highly beneficial externalities (resulting from the multifunctional character of agriculture). However, the viability of such sustainable agricultural livelihoods is severely hampered by the current economic and power relations that shape the agri-food system.

The process of declining agricultural livelihood viability has been termed agricultural marginalisation (Pinto-Correia, 2008). Agricultural marginalisation has been discussed both as a process of inclusion and exclusion: *inclusion* in the international neo-liberal market and *exclusion* from the benefits derived from capital accumulation (Black, 1990). Thus the idea of rural areas 'resisting marginalisation' (Bazin and Roux, 1995) can be interpreted as a) rural communities resisting integration into marginalising economic processes or b) rural communities successfully integrating with the global economy and becoming part of its beneficiaries, rather than its cost-bearers (Day, 1998). A conceptual distinction between these two development pathways is necessary in order for conscious choices to become possible. These pathways could be termed 'alternative' and 'integrative' responses to marginalisation, respectively.

Reversing AM goes beyond keeping farmers on the land, for example through subsidisation. Reversing the marginalisation of agriculture requires political and economic change, so that

prices for agricultural output reflect real production costs – economic, ecological and social. This requires profound changes in the agri-food economy.

Alternative Agri-Food Networks are a promising approach for developing ‘alternative’ solutions to AM from the bottom-up (Goodman, 2004), but the extent and success of their development depends on how far the illusion of inevitability of agricultural modernisation and integration of farms into the global market can be challenged. The passive acceptance of AM as a *fait accompli* (Moreira, 2002) needs to be challenged in order to encourage constructive action (Weis, 2007).

An increasing understanding of the minimal advantages farmers can derive from integrating mainstream agri-food markets and transforming closed-loop farming systems into throughput systems is necessary, to prevent the misguided hopes of desperate farmers causing the disappearance of the remaining integrated farming systems. Instead of such a transition with limited economic benefits to farmers and with socially and ecologically damaging consequences, real alternatives need to be developed. For these to be viable, solidarity between producers and consumers is crucial. However, the process of AM causes the most capable individuals to leave marginal areas and instigates the decline of social cohesion and interpersonal trust. The consequences of AM thus create conditions that hamper the maintenance and development of sustainable agricultural livelihoods.

This research has built an in-depth understanding of AM in Portugal that may be useful for understanding rural depopulation and agricultural decline in a variety of contexts, such as those described by Knickel (1994), MacDonald *et al.* (2000), Ilbery (2001), Arias (2003), Pinilla *et al.* (2008) and Pinto-Correia and Breman (2008). Such a grounded understanding is very important given the fact that many studies and rural development interventions are based on a partial understanding of the process, rendering actions somewhat superficial or even limited to technological fixes (Holling and Meffe, 1996).

There is a significant gap of understanding of reality between local actors and policy decision-makers that contributes to end-of-pipe solutions being endorsed. Therefore it is clear that a two-way process is essential in order that constructive solutions can be developed: 1) local conditions need to be understood at higher levels of decision-making so that enabling and supportive political-economic conditions can be created and 2) the global and national political and economic contexts need to be understood locally, so that effective action can be taken by the rural populations themselves (Blaikie, 1985; Pinto-Correia *et al.*, 2006b).

Priority actions to improve sustainable livelihood viability, as revealed by this study, are:

- a) Funding for rural development facilitators engaged in developing local solutions, by advising farmers, promoting cooperation and learning, helping to organise market chains and bridging the gap of communication between different stakeholders;
- b) Reviewing and adapting legal requirements for agricultural production, processing and marketing, so as to create more enabling conditions for small-farm viability and local agri-food systems;
- c) Simplifying bureaucratic procedures for licensing economic activities and access to state support measures for agriculture;
- d) Promoting learning and action related to the problems, implications and possible solutions for small farm viability.

Further research, monitoring and adaptive management to fine-tune these proposed actions will be important for their effective implementation. Research in the following areas appears to be particularly important:

- a) Cost-benefit analysis of funding rural development facilitators engaged in setting up AAFNs, as compared to subsidisation and investment support with virtually no technical support and monitoring;
- b) Research into farm-level impacts of specific legal requirements, with a view to

- adapting regulations to support small-scale farming systems and local marketing;
- c) Research the training availability and needs of agricultural and rural development associations and farmers;
 - d) Evaluation of the costs and benefits for farmers of transforming small-scale closed loop systems into industrial farms;
 - e) Explore the experience of farmers who have emigrated;
 - f) Investigating the opportunities and challenges of the coexistence of conventional and alternative agri-food systems; how could local food-systems coexist with or even 'outcompete' global players?;
 - g) Exploration of the potential of alternative currencies to strengthen marginal rural economies in Portugal;
 - h) Continuous monitoring and adaptation of collective action projects and rural development interventions.

Besides furthering scientific understanding to allow a knowledgeable elite to design better strategies for rural development, spreading the information to the rural population itself is necessary. A better-informed rural population can take more sustainable decisions regarding their livelihoods, can problematise their situation, and is encouraged to work on solutions. This is crucial for the development of a truly democratic, ecologically and socially sound alternative to the heteronomic global agri-food economy.

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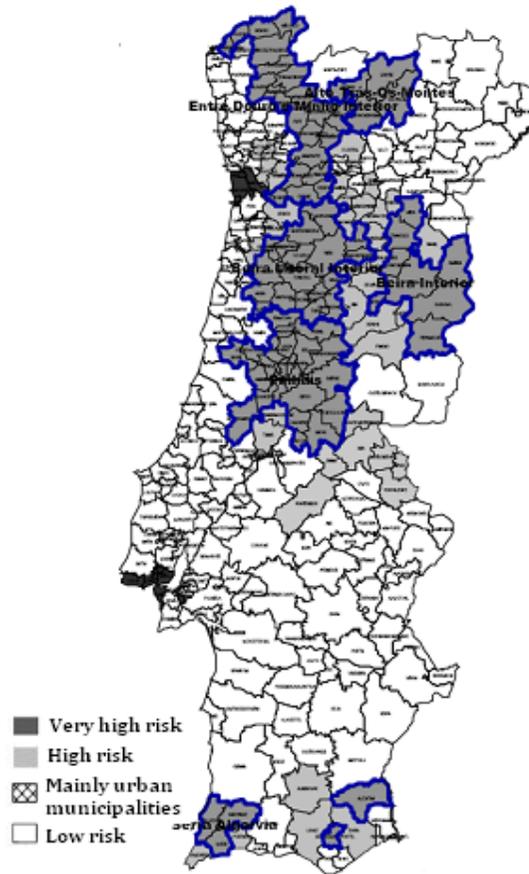
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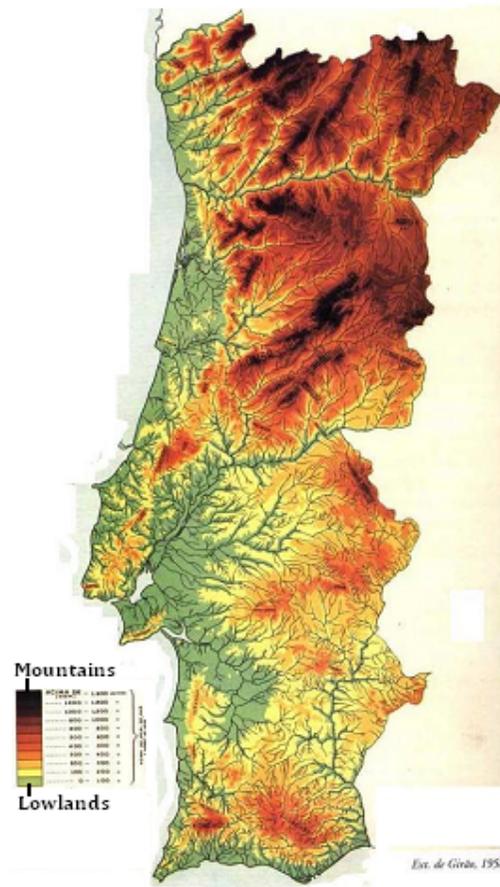
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APPENDIX I

Intensity of threat of land abandonment



Portuguese orography



Sampling area



Maps of Portugal, illustrating areas threatened by land abandonment, orography and sampling points (adapted from Alves (2003) and Araújo (2001)).

APPENDIX II

SSI to professional farmers in the interior and mountain areas

This interview is part of a PhD research project on agricultural land abandonment and sustainable rural development from the university of Essex (UK) in collaboration with the University of Coimbra.

1. General information

Age	15 - 29	30 - 44	45 - 59	60 and over
Gender	F	M		
Education attended	Primary school (incomplete or complete)			
	6 years of schooling completed			
	9 years of schooling completed			
	12 years of schooling completed			
	Higher degree			
	Postgraduate study			

2. The farm

2.1 Location

2.2 Size

2.3 How many people depend on the farm income?

2.4 Did you have any farming experience prior to setting up this business?

- Little or no prior experience.
- I grew up on a farm.
- I have farm work experience.
- I have agricultural training.
- I have agricultural training and farm work experience.
- Other (please indicate).

2.5 What motivated you to start farming?

(por ex.: interesse, formação, oportunidades de emprego, etc.)

3. The surrounding area

3.1 How long does it take you to go from the farm to the closest village? What means of transport do you use?

3.2 How many people live in the village closest to the farm?

3.3 Which of the following facilities exist in the village closest to your farm?

	Yes	No
Shop	<input type="text"/>	<input type="text"/>
Primary school	<input type="text"/>	<input type="text"/>
Coffe or other social space	<input type="text"/>	<input type="text"/>
Post office	<input type="text"/>	<input type="text"/>
Public transport	<input type="text"/>	<input type="text"/>

4. Agricultural production and income diversification

4.1 What are your current income sources? How much of your income do you derive from each activity, in terms of percentage from your total income?

	Income sources	% of income	
Agricultural production	Horticulture	<input type="text"/>	
	Fruticulture	<input type="text"/>	
	Dry fruits or nuts	<input type="text"/>	
	Cereals	<input type="text"/>	
	Herbs	<input type="text"/>	
	Grapes or wine	<input type="text"/>	
	Olive oil and/or olives	<input type="text"/>	
	Dairy	<input type="text"/>	
	Meat	<input type="text"/>	
	Mixed farm	<input type="text"/>	
	Other (please indicate)	<input type="text"/>	<input type="text"/>
Farm subsidies and other financial support	SPS (Single Payment Scheme)	<input type="text"/>	
	Subsidies coupled to production	<input type="text"/>	
	Livestock subsidy per head	<input type="text"/>	
	Support for LFAs	<input type="text"/>	
	Investment support	<input type="text"/>	
	Other (please indicate)	<input type="text"/>	<input type="text"/>
Non agricultural activities on the farm	Tourist accommodation	<input type="text"/>	
	Leisure activities	<input type="text"/>	
	Crafts	<input type="text"/>	
	Training	<input type="text"/>	
	Therapeutic farming	<input type="text"/>	
	Other (please indicate)	<input type="text"/>	<input type="text"/>

Work outside the farm	Public sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
	Factory worker	<input type="checkbox"/>	<input type="checkbox"/>	
	Construction work	<input type="checkbox"/>	<input type="checkbox"/>	
	Self-employed	<input type="checkbox"/>	<input type="checkbox"/>	
	Other employment (please indicate)	<input type="checkbox"/>	<input type="checkbox"/>	

How many hours a week do you work outside the farm?

Social Security payments	Retirement allowance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>
	Unemployment benefit	<input type="checkbox"/>	<input type="checkbox"/>	
	Other (please indicate)	<input type="checkbox"/>	<input type="checkbox"/>	

4.2 Is there any variation around the year? If yes, how do you cope in the months of income shortage?

4.3 What mode of agricultural production best describes the way you farm?

Intensive or conventional farming	<input type="checkbox"/>	<input type="text"/>
Extensive farming	<input type="checkbox"/>	
Traditional polycultures	<input type="checkbox"/>	
Organic farming	<input type="checkbox"/>	
Integrated Pest Management	<input type="checkbox"/>	
Other (please indicate)	<input type="checkbox"/>	

4.4 How do you sell your production?

Indirect sales	<input type="checkbox"/>	Merchant	<input type="checkbox"/>
		Supermarket	<input type="checkbox"/>
		Other (please indicate)	<input type="checkbox"/>
Direct sales	<input type="checkbox"/>	Market	<input type="checkbox"/>
		On-farm sales	<input type="checkbox"/>
		Others (please indicate)	<input type="checkbox"/>
Cooperative sales	<input type="checkbox"/>	<input type="text"/>	
Other (please indicate)	<input type="checkbox"/>	<input type="text"/>	

4.5 How did you first get into this market?

4.6 Do you use innovative or locally uncommon production practices on your farm?

No.	<input type="checkbox"/>	Please describe below.
I don't know.	<input type="checkbox"/>	
Yes.	<input type="checkbox"/>	

4.7 Do you use innovative or locally uncommon marketing practices on your farm?No. I don't know. Yes. Please describe below.

--

5. Please reply to the following questions by ticking either 'yes' or 'no' in the boxes in front of each question.

	Yes	No
Do you have relatives or friends in the village where you live?	<input type="checkbox"/>	<input type="checkbox"/>
Are you a member of any local group or association?	<input type="checkbox"/>	<input type="checkbox"/>
Do you have little contact with the people from the village where you live?	<input type="checkbox"/>	<input type="checkbox"/>
Are you an active member of national or international organisations?	<input type="checkbox"/>	<input type="checkbox"/>
Do you have friends or relatives outside the village where you live to whom you speak about farming?	<input type="checkbox"/>	<input type="checkbox"/>
Does your farm receive visitors from outside the village where you live?	<input type="checkbox"/>	<input type="checkbox"/>
Do you usually read newsletters or books on farming?	<input type="checkbox"/>	<input type="checkbox"/>
Do you take part in meetings of farmers or informal discussions of farming issues?	<input type="checkbox"/>	<input type="checkbox"/>
Have you ever participated in an agricultural training session?	<input type="checkbox"/>	<input type="checkbox"/>
Are you always on the lookout to find new ways to improve your farm business?	<input type="checkbox"/>	<input type="checkbox"/>
Do you have a farm business plan that you follow?	<input type="checkbox"/>	<input type="checkbox"/>
Do you negotiate with potential buyers to get a good price?	<input type="checkbox"/>	<input type="checkbox"/>
Do you take all important decisions on the farm by yourself?	<input type="checkbox"/>	<input type="checkbox"/>
When you discover a new thing that works well on your farm, do you tell other farmers about it?	<input type="checkbox"/>	<input type="checkbox"/>
Do you work with other people to find solutions to common problems?	<input type="checkbox"/>	<input type="checkbox"/>
Do you aim to maximize the profit from your farm?	<input type="checkbox"/>	<input type="checkbox"/>
Do you think that farm work has any benefits apart from generating an income?	<input type="checkbox"/>	<input type="checkbox"/>
Do you think farming is a business like any other?	<input type="checkbox"/>	<input type="checkbox"/>

6. Factors that affect the viability of the farm**6.1 What do you think are the main reasons for the success of your farm?**

--

6.2 In which of the following areas have you experienced problems?

How have you solved or do you plan solving this problem?

Access to starting capital

Acquisition of land

Acquisition of equipment

Application to subsidies and state support

Finding buyers

Get satisfactory prices for my products

Finding farm workers

Problems related to agricultural production

Others (please indicate)

6.3 What external help would you need to improve farm viability?

--

7. Please tick the boxes to say how much you agree or disagree with each of the following sentences.

	Completely agree	Agree	Indifferent/ don't know	Disagree	Completely disagree
I am satisfied with the farm income.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have to work outside the farm to earn enough for a living.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I plan to invest part of my profits back into the farm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I want to continue to work in farming and/or have a successor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is important that agricultural production is continued on this farm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm finding it difficult to maintain the farm afloat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I'm satisfied with my work and want to continue.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When I find an alternative I will stop farming.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I keep learning new things that help improve the farm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nearly all fertilisers I use are produced on the farm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I buy most of the fertilisers, pesticides and animal feed in.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My farm is specialised in a small number of outputs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would need to repair equipment or farm infrastructure but do not have the money to do so.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I keep improving the equipment and farm infrastructure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The farm has the equipment and infrastructure it needs to thrive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you very much for the time you spent answering our questions.

APPENDIX III

Rural livelihood strategies interview

1. Age: <30 30 - 45 45 - 60 >60

2. Gender: F M

3. Location:

4. Education:

Illiterate

4 years or less

6 years

9 years

12 years

Higher education

Postgraduate degree

5. How many people live in the household?

6. Have you always lived here?

Yes.

No. How long have you been here?

Why did you move here?

8. What were your previous jobs?

How do you make your living?

9. What are your current income sources?

Income source	Rank
<input type="text"/>	<input type="checkbox"/>

10. What was your motivation to start these activities?

11. Do you rely on natural resources?

No.

Yes.

And where do they come from?

If yes, what?

Need to be
Local

Local / regional

National &
International

Starting capital

12. Did you need starting capital to start this activity?

No.

Yes. If yes, how much approximately?

 Less than 1000€

 1000 to 10.000€

 10.000 to 50.000€

 More than 50.000€

13. Did you use private or public starting capital?

Private

Public

What "funding measure"?

14. What did you need the starting capital for?

Land

Machinery

Buildings

IT equipment

Initial stock or raw materials

Communication network

Tools

Staff

Other (please specify)

15. What public infrastructures do you rely on?

Roads

Public transport

Market places

Public buildings

Other (please specify)

Your skills

16. Do you need special knowledge or training to do this activity?

No. Yes.

If yes, what?

17. Did you attend any specific training to do this activity?

No. Yes.

If yes, what?

Links with other people

18. Where did you get the idea from?

Own idea

A friend

Someone you know (vaguely)

A professional person

19. How did other people help you start the activity?

20. How do you market your production?

Direct sales Middlemen Other

21. Where are your markets located?

Local/Regional National International

22. Who helped you find these marketing opportunities?

N.a.

A friend

Someone you know (vaguely)

A professional person

23. How many people are working in this business?

Family members / unwaged Full-time Part-time

Waged workers

Other

Self-sufficiency

24. Do you produce any of the following goods for your own consumption? What percentage of the household needs?

	Not applicable	Less than a quarter	Less than half	More than half	Almost all
Food					
Compost / fertilizer					
Electricity					
Wood					
Other (specify)					

25. How does the area in which you live affect your working opportunities? Are there any advantages or difficulties of doing your job in this area?

26. Are you an active member of a local association?

No. Yes. If yes, how often do you meet?

27. How well do people in your community/village get along these days?

Getting along very well	Getting along quite well	So-so	Not getting along very well	Not getting along at all
-------------------------	--------------------------	-------	-----------------------------	--------------------------

28. Do you feel you are able to influence decision-making and policy?

No, I have no influence in political decision-making

Yes, at local /Freguesia level

Yes, at municipality level

Yes, at regional / district level

Yes, at national level

Yes, at national and international level

29. In your opinion, what are the key elements of your success?

Starting capital	<input type="checkbox"/>	State support	<input type="checkbox"/>
Enthusiasm and motivation	<input type="checkbox"/>	Dedication and hard work	<input type="checkbox"/>
Key skills	<input type="checkbox"/>	Specialized help and advice	<input type="checkbox"/>
Relevant training	<input type="checkbox"/>	Relevant experience	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>	<input type="text"/>	

30. Overall, how satisfied are you with your current livelihood?

Very satisfied Satisfied Indifferent Dissatisfied Very dissatisfied

31. What are your plans for the future?

Thank you for taking part in this study.

APPENDIX IV

Questionnaire to newcomers to farming

This questionnaire is for people who want to farm or who have started farming recently. The questionnaire is part of a Ph.D. research project, carried out at the University of Essex.

Your contribution is important to give an accurate picture of the situation of newcomers to farming. The questionnaire is anonymous and we will not share the information you provide with any third party.

Please tick the relevant boxes below or write your answers in the spaces provided, use as much space as you need and feel free to write on the back of the sheet to complete your answers. Thank you for your participation!

1. General information

Age	15 - 29	30 - 44	45 - 59	60 and over
-----	---------	---------	---------	-------------

Gender	F	M
--------	---	---

Education attended	Primary school (complete or incomplete)	<input type="checkbox"/>
	6 years of schooling completed	<input type="checkbox"/>
	9 years of schooling completed	<input type="checkbox"/>
	12 years of schooling completed	<input type="checkbox"/>
	Higher degree	<input type="checkbox"/>
	Postgraduate study	<input type="checkbox"/>

Place of origin	<input type="text"/>
-----------------	----------------------

2. Background

2.1 Where do you farm or want to farm?

2.2 What were your former experiences with farm work?

- | | |
|--|--------------------------|
| None | <input type="checkbox"/> |
| Grew up on a farm | <input type="checkbox"/> |
| Worked on a farm before | <input type="checkbox"/> |
| Agricultural training | <input type="checkbox"/> |
| Agricultural training and farm work experience | <input type="checkbox"/> |
| Other (please specify) | <input type="checkbox"/> |

2.3 Why do you want to work in farming?

(e.g . motivation, aims, training, other work opportunities.)

3. Current situation

3.1 What have you already achieved to start your own farm? (please tick all applying boxes)

- | | |
|--------------------------------------|--------------------------|
| Decided to start a farm business | <input type="checkbox"/> |
| Still looking for land | <input type="checkbox"/> |
| Obtained land | <input type="checkbox"/> |
| Obtained starting capital | <input type="checkbox"/> |
| Set up a farm business plan | <input type="checkbox"/> |
| Obtained land and equipment | <input type="checkbox"/> |
| Obtained equipment and found a buyer | <input type="checkbox"/> |
| Started production | <input type="checkbox"/> |
| Other (please specify) | <input type="checkbox"/> |

3.2 In what areas have you had difficulties?

3.2.1 How did you solve the difficulties?

Accessing capital	
Purchasing land	
Purchasing equipment	
Applying for and getting financial support / subsidies	
Finding a buyer	
Getting good prices for the production	
Finding farm workers	
Production related	
Others (please specify)	

4. Vision for the farm

4.1 How much of your income do you want to derive from farming?

4.2 What is the percentage you are currently achieving?

0 - 25%	
25 - 50 %	
50 - 75%	
75 - 100%	

0 - 25%	
25 - 50 %	
50 - 75%	
75 - 100%	

4.3 If you derive or plan to derive income from economic activities carried out on the farm, besides agricultural production, please list the type of activities.

(e.g. tourism, training, leisure activities)

4.4 If besides farming you work or will work outside the farm, please indicate the job.

4.5 What farming sector are you in or do you want to enter?

Horticulture	<input type="checkbox"/>
Fruticulture	<input type="checkbox"/>
Dry fruits / nuts	<input type="checkbox"/>
Cereals	<input type="checkbox"/>
Aromatic herbs and medicinal plants	<input type="checkbox"/>
Wine	<input type="checkbox"/>
Olives and olive oil	<input type="checkbox"/>
Dairy	<input type="checkbox"/>
Meat / poultry	<input type="checkbox"/>
Mixed farming	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>

4.5 What are the matters you feel you need help in order to be successful?

Thank you for completing the questionnaire.

APPENDIX V

Questionnaire to consumers on their preferences regarding the origin of food

This questionnaire assesses consumer preferences regarding the origin of food.

This interview is part of a PhD research project on agricultural land abandonment and sustainable rural development from the university of Essex (UK) in collaboration with the University of Coimbra.

Thank you for your help!

1. Personal information

1.1 Age 15 – 29 30 – 44 45 – 59 60 or more

1.2 Gender F M

1.3 Where do you live?

1.4 What is your level of schooling?

Primary school (complet or incomplet)	<input type="checkbox"/>
6 years	<input type="checkbox"/>
Ensino Básico completo (9º ano)	<input type="checkbox"/>
Ensino Secundário completo (12º ano)	<input type="checkbox"/>
Ensino superior	<input type="checkbox"/>
Estudos pósgraduados	<input type="checkbox"/>

1.5 What is your occupation?

2. Where do you get your food from?

		Percentage of weekly consumption
Domestic production	<input type="checkbox"/>	<input type="checkbox"/>
Domestic production of relatives	<input type="checkbox"/>	<input type="checkbox"/>
Local farmers	<input type="checkbox"/>	<input type="checkbox"/>
Markets	<input type="checkbox"/>	<input type="checkbox"/>
Shops / traditional traders	<input type="checkbox"/>	<input type="checkbox"/>
Supermarkets	<input type="checkbox"/>	<input type="checkbox"/>
Others (please indicate)	<input type="text"/>	<input type="checkbox"/>

3.1 How much do you spend on food every week?

3.2 For how many people?

4. What is the importance you give to your food being...?

	Very important	Important	Indifferent	Unimportant	Not important at all
...fresh/harvested recently	<input type="text"/>				
...low price	<input type="text"/>				
...high quality	<input type="text"/>				
...big and pretty (for fruit and vegetables)	<input type="text"/>				
...healthy	<input type="text"/>				
...organic/ produced without chemicals	<input type="text"/>				
...national produce	<input type="text"/>				
...produce from the region	<input type="text"/>				

5. Would you be interested in buying (more) food directly from local farmers?

Yes.

No.

Please explain you option.

6. What is your opinion regarding the following sentences?

	Completely agree	Agree	Don't know	Disagree	Completely disagree
Portuguese landscapes are special because of <i>agricultura familiar</i> .	<input type="text"/>				
The use of pesticides is a real dangers for farmers and consumers.	<input type="text"/>				
I would like to buy food regularly from local farmers.	<input type="text"/>				
I am willing to make na extra effort to buy food from the region.	<input type="text"/>				
I want to spend the minimum of time and money to buy food.	<input type="text"/>				
Buying directly from farmers is good for the local economy.	<input type="text"/>				
Farmers in this region have difficulties making a living.	<input type="text"/>				

Thank you very much for answering this quetsionnaire!

APPENDIX VI

Case study**Collective-action for the maintenance of farming****General information**

Name of the initiative:	<input type="text"/>
Role of the interviewee:	<input type="text"/>
Gender:	<input type="text"/>
Age:	<input type="text"/>
Education:	<input type="text"/>
Place of origin:	<input type="text"/>
Current residence:	<input type="text"/>

1. The project

- 1.1. What was the motivation to start this project?
- 1.2. What are currently the main aims of the project?
- 1.3. How was this project started? By whom?
- 1.4. What are the main activities developed by this project?

2. Organisation and workings of the project

- 2.1. How is this initiative organised? How do the meetings work? How are responsibilities distributed? How are decisions made?
- 2.2. How were people involved to participate in this project? What was done to get people on board? How has this project been received by people?
- 2.3. What has this project achieved so far?
- 2.4. What do you think are the causes of the success of the project?
- 2.5. And what have been the main challenges?

3. Your role in the project

- 3.1. What are your responsibilities in the project?
- 3.2. What competences do you have that help move the project forward?
- 3.3. And what other competences do you think would be important to acquire to push the project forward?

4. Your perspective on farming in the region

- 4.1. In your opinion, what is the importance of farming in this region?
- 4.2. What are the main opportunities for farming in this area?
- 4.3. What are the main challenges farming in this area faces?
- 4.4. What is your ideal vision for the future of this region?

Thank you for participating.

APPENDIX VII

Interview guide

Perception on agricultural land abandonment

Tipology:

Gender

What is your occupation?

What level of schooling have you completed?

Illiterate

Primary school

6 years of schooling

9 years of schooling

12 years of schooling

Higher education

Postgraduate degree

How old are you?

Where were you born?

Where do you live?

What is the occupation of your parents?

Mother Father

At what level do you think you can influence political decision making?

I have no influence in political decision making.

I can contribute at the level of the *freguesia*.

I can contribute at the level of the municipality.

I can contribute at regional/district level.

I can contribute at national level.

I can contribute at national and international levels.

What do you think is, at this level, the importance of your contribution to political decision-making for the final outcome?

Very important	Important	Intermediate/ Don't know	Little importance	Without importance
----------------	-----------	-----------------------------	-------------------	--------------------

What is your opinion about...

1. The current situation in the interior centre and north of Portugal.

- 1.1. Personal experience (land abandonment, emigration, life and work in the region).
- 1.2. What is the current role/importance of agriculture in this region?
- 1.3. How would you describe the type of agriculture existing in the area?

2. Agricultural land abandonment

- 2.1. Causes.
- 2.2. Consequences.
- 2.3. Problems.

3. Solutions

- 3.1. What is being done locally?
- 3.2. And at policy level?
- 3.3. What else could be done – ideas and proposals.

4. The role of agriculture in the future of the region

- 4.1. What is the importance of maintaining agriculture in the region?
- 4.2. How do you think could agriculture in the region become more competitive? What is the role of competitiveness for farming in the area?
- 4.3. Some people suggest that farming has other benefits besides generating a profit. Do you agree? If yes, what sorts of other benefits do you think farming has?
- 4.4. There are people who think that it is important that a region or a country are as food self-sufficient as possible. What do you think of this idea?
- 4.5. What is your ideal vision for the region in 15-20 years?

5. Comments & discussion

Thank you for participating.