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Innovating Rural Evaluation

Social Sciences in the Interdisciplinary Evaluation of Rural Development

Edited by Karl Bruckmeier



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The Future of Rural Development in Europe 2



Innovating Rural Evaluation

**Social Sciences in the Interdisciplinary Evaluation
of Rural Development**

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tionally. The LEADER programme that is conceived of as experimental design and as „window“ in the rural economy and society, requires the co-operation between science and practice, especially for evaluation.

In future, evaluation will gain in significance, and the insights derived from evaluation and from „learning through the model“ in network structures could give significant contributions for the restructuring of rural policies. In the handbook of policy evaluation (Bussmann, Klöti, Knoepfel 1997) it is formulated that „evaluation, also if it is oriented to policy, can profit for learning purposes from connection and co-operation with an inspiring person in the policy network. The reason is that new interfaces between policy and science make the implementation of evaluation studies much easier.“

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Chapter 7

A Case Study

A Rural Policy Evaluation in South Portugal

Maria do Rosario Jorge and Nelson Lourenço, Lisbon, Portugal

1 Aim and Approach of the Study

This chapter presents the results of an analysis of the processes of change in the Portuguese rural marginal areas¹³. The aim of the research was to understand the socio-economic dynamic of the rural areas and particularly the attitudes of the farmers to common policies and the market. In this way, the objective was to construct support instruments for decision-making to create conditions for economically sustainable agriculture within the framework of an integrated rural development.

The regions analysed were, from the Mediterranean region, Alentejo and Serra Algarvia. The study was based on the present but it maintained an evolutionary perspective through comparison with previous situations, mainly in the sixties and seventies. Thus, the aim was to have a global picture of agricultural activity in the last decades in order to understand the dynamics of change and the structural characteristics of marginalisation in the areas studied.

The research methodology followed for the socio-economic areas took two kinds of concerns into consideration. In the first place, to define a strategy and formulate the instruments, which might permit the understanding of farmers' behaviour with regard to the changes resulting from the introduction of EU policies in order that, as a result, means could be suggested and recommendations, made to improve their situation. In the second place, to articulate the strategy and research instruments from this area with those of the geographic area in order to have a wider and more integrated vision of local participants' behaviour and of the regionalisation of policies resulting from

¹³ This chapter is based on the results achieved for Portugal through an EU research project, "Monitoring and Managing Changes in Rural Marginal Areas - a comparative research" (1994-1997) DG VI Program Fair "Research and Technological Development in Agriculture and Agro-Industry, including Fisheries - 1991/1994" (1994-1997). The research concerned the articulation between farmer's decision-making and landscape and land use changes in different European regions with global marginal characteristics, in Denmark, Belgium and Portugal. The project team was co-ordinated by N. Lourenço, the Belgian team by M. Mormont and the Danish team by E. Sorensen.

the multiple dimensions of their environment.

Socio-economic and biophysical integration

The contributions and proposals of the social sciences for the political, social and economic management of the rural areas fall a long way short of the demands and expectations placed in them. In this situation, the lack of an integrated analysis, which considered also the biophysical factors, explain part of the difficulties faced. The sustainable development concept which has become an internationally accepted model of environmental and development policy led the scientific research to the need of initiating and then intensifying a discussion to improve the ability of the social sciences to tune in to current developmental, environmental and economic problem areas, and to step up and expand the exchange of views and interdisciplinary cooperation, both within the social sciences and between the social and natural sciences.

In this study an interdisciplinary methodology was used which aimed to articulate a geographic and spatial analysis with a sociological analysis to understand the relation between this dynamic and land use changes.

The research aimed at building support instruments for decision-making to create conditions for economically sustainable agriculture within the framework of an integrated rural development. The research was based in the analysis of the changes in land use, which result from the farmers' intervention in the countryside in the regions studied. In the rural areas, the farm managers are the main agents for change in landscape patterns, since they determine the ways the land is occupied for agriculture and forestry. Decisions to intensify or extensify production, to forest or to cultivate, to the options in livestock production or to abandon the land, determine different productive systems which, on the one hand, affect the region's landscape and environment and, on the other hand, have social implications for the population. The aim of this study was to know and understand these decisions and the factors that influence them, taking into account the historical context of the agricultural activity and the political changes of the last few years.

2 Discussion of Main Results

The main results of the study are presented in detail in the appendix to this chapter. The following discussion refers to results of strategic importance for rural policies.

Processes of change in rural areas and policy impacts

Since the farmers are the main users of land in the areas studied, it was considered that it would be their practices, which would determine the impact of

Community policies inasmuch as they appear as limiting or promoting factors for development.

Here the management of rural areas is contemplated in terms of sustainable development; in other words, these areas' problems go beyond the agricultural question and should be considered as the convergence of different interests and participants. Thus, the roles played by the different participants in the territorial planning processes assume great importance in terms of improving the decision-making.

This study has allowed us to ascertain that the collapse of agriculture forecast and the consequent abandonment of rural areas is to be feared less than expected. The abandonment of land is only evident in the region of Alcoutim, in the Serra Algarvia. However, in the other regions there are some plots with dense scrub (without *montado*), which, on account of being far away from the centre of the farm and, given the characteristics of the topography and soils, are not worth farming in any way. It should be noted that, in these cases, the owners do not sell these plots. The plots where the only production system is the cork from the cork oak *montado* are often covered with dense shrub cover, but, nonetheless, they are not abandoned but rather used very extensively, either because they are used for forestry or because this shrub cover is essential to the good development and regeneration of the trees.

Over the last years in Alentejo, the processes of change in land use have been characterised by extensification. This is increasingly an extensive use of available land, which corresponds to the increase in the area of natural pastures, conservation of the *montado*, and use with little expenditure of areas, which previously were given over to cereal growing. More than a global process, it occasionally results in the increase of production costs through more productive activities such as pig farming, vines, market gardening and the purchase of animals without acquiring land, increasing the production costs through fodder or leased pastures.

As mentioned before, extensification is a process often associated with the size of farms inasmuch as only a relatively large farm allows for the income levels to be maintained. Apart from this, the support measures for production and the subsidies granted per hectare also contribute to the existence of extensive production systems in which the farm management depends more on the kind of aid granted than market movement.

Land availability is a fundamental element in this process, however, the supply of land is very low and its price is high and therefore, it is the larger farms that have greater possibilities of increasing their farm area. For small and medium sized farms that have greater management difficulties, the purchase of land is an almost unattainable investment except when it is associated to the intensi-

fication of animal or vine production.

The CAP is one of the factors, which contribute to change in land use and in farm structure but with different intensities. Forestry areas such as that studied in Alcoutim are where this influence can best be observed; it is also here that the main changes in landscape can be seen on account of the recent planting of trees. Forestry is an alternative means of soil occupation to abandonment; in other words, the heirs to the land can no longer be considered "farmers" but they also do not sell the land, preserving a situation of property without production in which the forest is a long-term investment. These owners have other professional activities outside agriculture and normally live on the Algarve coast.

In the areas studied in the Alentejo, there are no significant changes in the landscape. CAP helps the extensification movement because, on the one hand, the aid granted under the guise of agro-environmental measures works as a complement to the farmers' income and, on the other hand, the attribution of grants per hectare contribute towards the choice of extensive production and the reduction of costs related to production factors. The extreme case is that of the subsidy granted to sunflowers, independently of the crop obtained.

Innovation and modernisation

The agricultural sector in Portugal is characterised by difficulties in modernisation and introduction of innovations. The main reason given for this limitation is the de-capitalisation of this sector, accentuated by the poor profitability of the small and medium sized farms that predominate in the country. In the Alcoutim area, the maintenance of routine and subsistence farming is also based on the farmers' low education levels and on their resistance to change.

The Alentejo is one of the regions in the country where agriculture is most mechanised; the size of the farms and their consequent capacity to make investments contributes to this but mostly the large farms base their business on low labour costs. The agricultural policy's incentives to mechanisation have been an essential factor in changing the traditional ways of working. It is often the existence of this aid that allows farmers to buy machinery and make their business more profitable.

Regional and local dynamics

Agricultural activity cannot be analysed outside the context of regional and local dynamics and, at this level, there are very different situations to be found in the Algarve and in the Alentejo. However, the common problem, which is pressing to fight in the areas studied, is the continued exodus of the inhabitants to more attractive regions (within the country or abroad) and the conse-

quent trend towards the desertification of these areas.

It is foreseeable that the future of Portuguese agriculture shall take place through the reduction in the number of farmers/farms and paid farm workers, approaching, in fact, in a belated movement, the rest of the countries of the European Union. This movement was based on modernisation and on the increase in agricultural production, which made it into a competitive sector with the capacity to employ full time labour with salaries equivalent to those in other economic activities. In Portugal, and specifically in the regions studied, the reduction in agricultural employment or the supply of temporary and not stable work and therefore little sought after by the active population, is, thus, contributing to the population exodus. This exodus is also reinforced by the lack of work in other economic activities, however, it should be noted that the real possibilities for promoting work outside agriculture are few on account of structural conditioning factors such as the age and low education and professional training level of the labour force in these regions. This situation is aggravated by the peripheral location or remoteness of these regions in relation to the industrial and more economically dynamic centres in the country.

In Alcoutim, the absence of local dynamism, on the one hand, and the strong regional dynamism, on the other, make for the exodus of the hill population and the concentration of the younger and better educated population on the coast because the very attractive Algarve coast contrasts strongly with the very unattractive hills. The absence of local dynamism is also the main factor that explains the lack of flexibility in the structure of property and the abandonment of land in the Serra Algarvia. Faced with not very profitable agriculture which does not employ much labour and is based on soils which are not very productive and very divided farms, the younger and better educated inhabitants look for work in other areas of the region and even abroad, giving origin to internal migration or emigration to other European countries. Forestry, although considered a suitable way of occupying the soil, does not contribute to retaining the population on account of the low income it generates; most of the owners of the recently forested land live on the Algarve coast.

In the regions studied in the Alentejo, despite being a region with a great deal of agriculture, this activity is insufficient to guarantee keeping the inhabitants and, thus, contribute to the increase of local and regional dynamics. Faced with an agriculture with a low capacity for generating employment, with ways of organising work which require temporary labour force contracts and which pays low salaries, the population of this area looks for alternative employment within or outside the region.

The development of activities, which promote employment in the Alentejo, is,

therefore, a central issue when the dynamics of these regions are discussed. In relation to this, there have been innumerable projects for tourist developments, however, rural tourism has not shown a real capacity to work as an alternative activity on account of which the investments made have been insufficient to ensure the population stays. Apart from this, tourism in the Alentejo could bring about a similar phenomenon to that in the Algarve: concentration on the coast and desertification inland because the pressure of tourism has made itself felt more on the Alentejo Coast. This activity has not made for an increase in the farmers' incomes given that rural tourism is little developed on account of which tourists only rarely buy their products or stay in the farmers' houses.

The new occupants of this region are often people who want to buy a weekend and holiday house or who want to give up their urban lifestyle making their home in rural areas. In both cases the demand for houses results in the increased value of small farms with houses but in the second case, there seems to be some propensity towards developing businesses that contribute to local dynamics.

Market

The main difficulty in the sale of produce lies in the lack of information and excessive dependence on intermediaries. This dependence is aggravated by isolation, difficult transport for the farmer, the produce itself and a poor capacity for negotiation. The articulation of these factors means that the producers are not always able to sell at the price they consider right, often being forced to sell because otherwise they risk increasing the animals' feeding costs and losing the revenue from the harvests of crops which do not keep well.

Some of the sales difficulties and access to markets would be avoided by the existence of groups of farmers; however, these do not always function in the best way.

The agricultural policy in the European Union is aimed at the farmer progressively taking on the role of businessman, shedding his position of farmer-producer, in other words, of an economic agent who produces without having to consider the market. From this point of view the market functions as an integrating element for farmers in vaster areas, demanding that they articulate with other spaces beyond the local and regional. The farmers interviewed manifested difficulties in competing on the national market against foreign producers' prices and even greater difficulties in entering international markets. However, the analysis carried out with these producers reveals a poor knowledge of market requirements, prices and sales circuits. In other words, in general terms, the production options depend more on what is traditionally produced in the area than on the search for products which are more lucrative

or better integrated in the market. The lack of capacity to look for and understand new markets and new sales circuits contribute to this also because there are farmers who introduce new products or intensify production but, not having prepared and anticipated how the produce is to be sold, end up facing problems of generating income.

3 Managing Rural Areas

The question here is to see how optimum use of the area can be made with good knowledge of the terrain and in the light of the needs of its many users. With regard to agriculture itself, the question can be raised again as the existence of less intensive forms of farming which are nevertheless viable in terms of agriculture for these regions. Further to this, the question may be asked as to whether there is an optimum number of farmers on a given area of land from a social and environmental point of view. What would happen, for example, if reductions observed in the number of farms continued for a few decades? What would be the consequences on the plans for rural development and the environment?

These questions cannot be solved independently of other demands with regard to the environment: the demand of nature, landscapes, rural tourism, protection of water catchments, etc. They should be incorporated in the overall prospects of rural regional development, particularly in regions undergoing population desertification.

It seems, therefore, that, a priori, there is no single optimum use of the area but that the different expectations of the different participants are to be compared amongst themselves and to the potential of the rural area in the sense of a balanced answer to the aspirations of each person: productive value and respect for natural heritage, regional development and recreational value of the rural territories.

In the areas studied, the optimum use of the area depends on the use of extensive production systems that are adapted to the biophysical conditions of the regions. This method of farming the land gives little employment; hence it is necessary to complement it with other activities capable of increasing the supply of employment, offering work and income alternatives to these regions' populations. Even if these systems alone do not support the development of these areas, it continues to be necessary to promote the modernisation of agriculture, supporting the sectors with great possibilities of becoming competitive.

Development policies in rural regions should reconcile the factors of unity and diversity, which characterise the countryside, and they should be capable

of answering to the great structural problems, which affect the rural world and adjust themselves to the relative specificity of different kinds of rural areas. The agricultural question considered as an activity, which traditionally structures the rural world, was taken on by the regional development policies of the last decades. However, it is with the concept of sustainable development that the ecological and social aspects within the very concept of economic development are incorporated.

Following these considerations it is important to highlight that, more than the application of an agricultural policy, it is fundamental to promote policies for integrated and sustainable rural development.

APPENDIX: The Case Study in Detail

Farmers decision making analysis

The analysis presented in this point aims at understanding the „strategies“ of farmers, in the way in which they can condition the evolution of the territories and the use of agricultural land¹⁴. This analysis requires the intervention of economic factors as well as factors linked to the policies¹⁵.

The objective was to identify their attitudes concerning a few selected issues related to the most relevant aspects in the changes occurring in each region considered. Therefore, the questionnaire aimed to cover all the measures that most directly affect or could affect the decisions in relation to the farming system and to the head farmers' farming practices in the different zones studied. For the regions studied in South Portugal the structure of the questionnaire covered the following questions:

¹⁴ Initially, *exploratory interviews* with privileged observers were used as an expedient in order to choose the territorial units and, secondly, to select the head farmers to be targeted for in depth interviews. Then a *documentary analysis* of domestic legislation and other community documents relevant to the subject under study was carried out in order to assess the EU and domestic policies and measures affecting the regions studied. As a second step, a *written questionnaire survey of indirect administration* was effected with the head farmers of the selected territorial units. The sample obtained, apart from being representative, allowed for the statistical calculations considered necessary for the analysis of the three regions to be carried out reliably. The data gathered, after being duly validated, was subject to uni-variate, bi-variate and multivariate statistical processing, highlighting the use of the Factorial Analysis of Correspondences in the latter and, in the relativity test of some variables, the Factorial Analysis of the Main Components.

The analysis of the survey's data processing results allowed for the economic and socio-cultural characterization of the head farmers, as well as for the formulation of the profile of some types of farming systems, which correspond to the behavior and different characteristics of those farmers.

¹⁵ The analysis took into consideration the knowledge acquired about the development and situation of agriculture in Portugal and the theoretical contributions that define the main factors, which explain the farmers', and farms' situations in the regions studied. These contributions gave origin to the formulation of the questionnaire and the in depth interviews.

- Changes in the farming system: the changes made since the last interview and the procedures for using the support measures, giving special attention to the difficulties encountered, advantages, suggestions for improving this process and to future prospects is the orientation of the agricultural policies is maintained.
- Environment and landscape: the practices can reveal management concern for the environment and landscape, namely the way of working the land, use of chemical products, attitude in relation to problems caused by pollution, waste disposal and the treatment of effluents, the importance of hunting and opinion on rural building.
- Market and the sale of produce: the sales circuits used, the role and importance of farmers' organisations or groups, which support the sale of produce.
- Regional context and information: information available and suggestions on the ways of accessing the different kinds of information, the head farmer's attitude in relation to the main changes which have taken place in the region, namely, the exodus of people, the articulation of farming with hunting and tourism or with other professional activities.

Based on the interviews results it was build the farmers' and farms' typology to identify and understand the different behavioural logic of the head farms studied.

Then the aim was to understand how the agricultural and agro-environmental policies influence the different sets of behavioural logic, in other words, how the participants articulate with those policies. In depth interviews were carried out, using a semi structured script, in order to understand the processes and socio-cultural factors which lay behind the head farmers' behaviour and opinions, both in relation to the measures resulting from the community policies and in relation to their strategies with regard to farming¹⁶.

The areas selected are located in the southern region of the country and were **Abela** (2413 ha), in Coastal Alentejo; **Redondo** (8965 ha), in Central Alentejo; and **Vaqueiros** (996 ha), in the Algarve.

The three regions studied are characterised by undergoing a process of desertification and ageing of the population, by showing low employment and income levels and by changes in agricultural practices, namely extensification or even abandonment. However, these are regions with agricultural differences, in Vaqueiros, peasant style agriculture predominates with very small holdings strongly related to home use. In Redondo the agricultural structure is marked by large properties and by extensive production¹⁷.

¹⁶ The choice of the interviewees was made in order to cover the different profiles of the types found previously in the quantitative analysis in due accordance with the regions.

¹⁷ The landscape of the Alentejo is marked by an important plant formation (*montado*), which constitutes a system of extensive land use of the agro-silvo-pastoral kind. The extensive use of the land and the specific characteristics of the *montado*, the agro-silvo-pastoral system where open tree cover (mainly holm and cork oaks) is combined with the use of the soil layer which, today, is mainly used for cereals (principally wheat) and pasture. The cork and

Abela, with mid size holdings, is characterised by the articulation between subsistence farming and farming more geared towards the market on account of the influence of the proximity of the Sines industrial site.

In Alentejo large properties are predominant, labour inputs are low and production is extensive. Extensification corresponds to the needs of old farmers with a low labour capacity but it is the principal thinking, which motivates large owners who benefit from the EU subsidies and can maintain an adequate income with very low risks.

Serra Algarvia where is located the territorial unit of Vaqueiros is an inland region, isolated due to difficult access and bad transport facilities, with an irregular topography and poor soils. The population is old and scattered. In the three case studies covered, this one is where marginalisation problems are most serious and more easily identified.

These characteristics, linked to the clearly peripheral location of this region, have, since the fifties, determined the emigration of a large part of the population both to the large urban centres and to the Algarve coast. This process constitutes the principal factor of change in land use in this region. The generalised abandonment of areas previously cultivated has been opposed, in the last years, by the development of forestry plans that shall be responsible for the change in landscape in the short term.

Farmers and farm unit's typology

The selected regions are limited in terms of natural resources and infrastructures; they are undergoing population ageing and depopulation processes and show low levels of employment and income. The change in farming is mainly defined by the extensification of production in the Alentejo, or by forestry and abandonment in the Algarve hills.

Taking into consideration the diversity of constraints that govern farmers' behaviour and these participants' diverse profiles, farm and farmers' typologies were formulated which might articulate these different perspectives. Thus, the farm typology is simultaneously comprehensive and integrated in change: comprehensive, because the aim is to contribute to the description of the different situations analysed and, integrated in change, because it articulates the different factors which might contribute to change in the farms.

The principal objective to be attained with the farm typology is the articulated analysis between the head farmer's farming options, or farming systems, and the various factors that explain those farming systems. Thus, the research begins by making an initial definition of the agro-forestry and cattle farming systems which are associated with the marginalisation processes of the outlying regions and, only later, by analysing their interaction with the biophysical, social, political and economic factors which are at their origin.

The analysis of the agents' farming options and the changes that the latter have managed to carry out in the last years shall be considered foremost in connection with the biophysical conditions of the farm and the head farmers' socio-economic context.

The analysis of the dynamics aims to apprehend the processes that are at the root of the farmers' behaviour in outlying areas. Starting with the understanding of isolated

elements in the social reality, it is an analysis which aims to understand progressively how these people interrelate and participate in social dynamics (Schilizzi *et al* 1987).

The decisions and changes in relation to farming systems and the factors that are related to those decisions and to changes in the farms were identified. The characteristics of animal and crop farming, the characteristics of the farms (size, spread, work force, mechanisation, sales, etc.) and the characteristics of the head farmers (age, education level, relationship with the environment, etc.) stand out. Among these factors, the aspects that can be more directly related to the farmers' inherited social capital and the social field (current) in which their activity is integrated shall be highlighted. In fact the idea expressed by P. Bourdieu that the agents' behaviour and perceptions are socially conditioned by the *inherited social capital* and by the relationships established in the *social field* shall be present in this text and in the empirical analysis of the results. For this author, the agents' activity is situated in the *field of possibilities* objectively offered to those agents, in other words, with a group of practices or *possible routes* (Bourdieu 1979).

Identification and analysis of different farming systems

Portuguese agriculture is characterised by a great lack of production specialisation at farm level. Thus, as in other regions in the country, the farms selected are defined by growing a great diversity of crops. Apart from that, the combination of crops and the quantity produced vary greatly between farms. In this way, the analysis started by defining groups of farms which are close to each other on account of having the same type of agricultural production, forestry or animal. In other words, the association of the different products is analysed and this will permit the most significant farming options in the three regions to be grouped according to a typology of farming systems¹⁸.

The research was based on the study of a part of the head farmer's activity, in other words, his activity as an agricultural farmer and agent for change in the rural landscape. Thus, on the one hand, it is important to analyse what his options are with regard to the kind of product and production quantity and, on the other, to understand the farming trends which may be diversification, maintenance, extensification or intensification. The analysis of the head farmers' farming options permitted the formulation of the farming system¹⁹.

The questionnaire allowed for the exhaustive survey of each farm's group of produce, the number of hectares, which each type of plant crop occupies, given by the head farmer, and the number of heads of animals.

¹⁸ In this stage of the analysis the aim was to define a farming system typology, isolating its biophysical components, without integrating its socio-economic components, which are fundamental aspects in Rural, Economic and Agrarian Sociology. In this way, the formulation of the farming systems corresponds to a stage, or a step, towards the definition of a comprehensive typology that incorporates the areas of change in the farms.

¹⁹ At the research level, the concept of the farming system is understood as an operational concept. In other words, it is an idea that allows for the description of the group of products of a plant and animal kind, which is present on the farm and contributes, directly or indirectly, to the creation of income.

holm oak *montado* is particularly well adapted to the limiting climate and soil conditions and is made possible by the large size of the holdings in the Alentejo.

Since this information is important for an initial view of the farm's productive components, its reading takes on another dimension if it is effected within the integrated framework of the farming system²⁰.

The great diversity of possible combinations of products and quantities produced and the lack of farming specialisation on these regions' farms makes it difficult to define farming systems that also consider the weight of each product in the farm's total production. Nevertheless it was possible to define eight farming systems: Animal Farming; Animal and Crop Farming; Agricultural and Montado Farming; Only Crops and Forest; Forest Farms; Orchards and Animals; Orchards and Crops; Home Consumption.

The last three groups are mostly found in the Serra Algarvia and are characterised, almost exclusively, by subsistence farming. In these cases, the productive area corresponds to a small part of the holding and the rest is often abandoned. It is important to highlight an initial observation: the farming systems *Agricultural and Montado Farming* and *Only Crops and Forest*, on the one hand, and the farming systems *Orchards and Crops* and *Home Consumption*, on the other, are not very different from each other. Therefore, in later treatment of information they shall be considered together since significant differences are not found when associated with other attributes.

The majority of the farms have very diverse products, which, in each one, are combined in different ways and with distinct weights. Hence the difficulty in defining "pure types" which can be easily grouped. It is also important to highlight that the eight farming systems do not describe exhaustively all the situations encountered, but rather correspond to "broad types".

The farming systems identified point to some interpretations that can, however, running the risk of being premature, be confirmed and elaborated as the analysis progresses. It can immediately be seen that *Animal Farming* and *Forest* are more specialised in one kind of farming than the others are (animals and forestry, respectively). These two groups correspond to a small part of the sample and, in general terms the farms are little specialised.

In general terms, the tree regions are defined by extensive farming systems and, principally in the Alentejo, by close association to the *montado* with pastures under cover. In the *Serra Algarvia* region, farming for home consumption is predominant; the latter shows different degrees for *Orchards and Animals*, *Orchards and Crops* and *Home Consumption*.

If the identification of the most intensive farming systems is sought, *Animal Farming* and *Animal and Crop Farming* are closest to that concept given that the nature of animal farming obliges the intensification of production factors and, apart from this, *Animal and Crop Farming* shows some crop farming apart from pastures.

The least intensive systems are, on the one hand, the most closely linked to forestry farming (*montado* or other), such as *Only Crops and Forest* and *Forest* and, on the other,

Orchards and Animals, *Orchards and Crops* and *Home Consumption* where the production factors are less intense.

A comprehensive and integrated typology of change

The aim of the comprehensive typology of change is to make a synthesis which answers the initial question: how do the individual characteristics and the farms' characteristics condition the head farmers' different practices in terms of inverting or reinforcing the trend of the activity's marginalisation.

The analysis of the results was made in two stages: in the first, the aim was to detect the logic behind the propensity for change and resistance to change; in the second, the logic identified was associated to the most relevant geographical, economic and socio-cultural variables; thus, webs of relationships which could help understand and, if possible, explain the processes of change and stagnation were sought²¹.

It was possible to analyse which are the categories most associated to change, which are most associated to the different farming systems and which are, simultaneously, most important for the farming systems and for the trends of change.

The seven types of head farmer identified, linked to different economic and geographic variables, represent different attitudes to the marginalisation of farming. Thus, the comprehensive typology, which is presented below, corresponds to profiles of the farmers' social types who are part of the environment and organisation to which they belong and, therefore, are influenced and can intervene in terms of change. The network of relationships, which was possible to establish between the variables, could take on another comprehensive dimension if each social type was to be exemplified by a real case.

Traditional and progressive: change on the medium and large farms

On the large and medium farms with tendencies for change, agro-forestry and animal farming are very complementary; this often signifies that there is a *montado* with an under cover used for pastures and animal farming. The decisions and practices of these head farmers are, according to them, adapted to the conditions of the region where they are located, Redondo. In this region there is a predominance of natural conditions for the farming of pastures and, in very small areas, for the farming of other crops such as vines and olive groves.

It is this group who make more changes on the farm both in relation to its area and in

²¹ In accordance with the advised rules for the interpretation of the FAC results, a stage-by-stage analysis was undertaken. Starting with the variables considered sociologically most relevant to the understanding of the phenomenon, gradually new variables were integrated in accordance with their factorial relevance and pertinence to the research strategy. The Factorial Analysis of Correspondences is the technique, which can best ensure the simultaneous analysis of all the variables, given that their inter-relationship and weight are dependent on the group.

²⁰ Thus, each farm was classified according to the farming system which best characterises it. For this, the variables relative to agricultural, forestry and animal production were selected and the association between these variables was studied with the use of the Burt table where all the variables are inter-crossed.

relation to land use and the number of animals. These different forms of change are often associated and imply investments.

In this group there are the younger, better-educated head farmers and whose sole work is on the farm. This is certainly one of the reasons which explains why this head farmer is, in general, more attentive to change in market demand and in the price of produce in the market and as a result the alterations he implements are a consequence of that knowledge.

The reasons given for making changes in the composition of the farm or the number of animals are the following: changes in the area of the farm, for example, when head farmers inherit or manage to lease more land or have more pastures available, then they opt for other kinds of animals or increase the number of heads; the option which covers another kind of animal is also related with the existence of subsidies for their farming, in truth, the most common motive indicated for the farming or increase of sheep is the attribution or increase in quota²²; the option covering cattle is also associated with the subsidies which exist for installation or the milk quota²³; the cost of manual labour is another factor given for choosing cattle because by investing in stockades and small ponds²⁴, the work with cattle is reduced while sheep need to have a permanent shepherd; another aspect mentioned are the oscillations in the market.

Wheat stands out in the changes in land use; it is currently not common in the regions studied and the planted area is in decline. The reasons pointed out for decreasing or eliminating the area of wheat are the quality of the soil, the lack of water in the last years and the low sales price. In the cases where it is still produced, the head farmers stress its low productivity. Therefore this product is often substituted by sunflower farming²⁵ or by planted or natural pastures. The crops of Sunflowers are subsidised even when there is no harvest, the subsidy being the main reason given for their cultivation.

²² A prize for the cattle, sheep and goat farmers: this prize is legally based on Regs. (EEC) 349/90, 3567/92 and 2700/93 and is given to farmers with a minimum of 10 eligible females or to groups of farmers who satisfy that requisite. There is an individual limit for the number of animals applying for the prize and, also the possibility of application for national reserve status with the view to increasing the individual production capacity. The maximum sum for each eligible animal, when accumulated with "Aid for the Rural World" (attributable to farmers in deprived zones) reached around 4 000\$00 (four thousand escudos) in 1994.

²³ Milk and dairy products: the Regs. (EU) which are at the root of the attribution of these subsidies are 804/68, 2071/92 and 230/94. The requisites in this area are numerous; it is interesting to highlight here that aid to dairy farmers in Portugal shall end at the close of the 1997/98 sales campaign.

²⁴ These ponds are small lakes that supply water to the animals and also irrigate the pastures.

²⁵ The subsidy of this crop is covered by the ambit of aid to oleaginous plants based on Regs. (EEC) 2294/92, 600/94 and Regulating Orders 323/94 and 726-A/94. This Regime of Compensation Subsidies (for sales) can be of three kinds: Simplified, General and Compulsory Fallow Period, varying according to zone's and farmer's/farm's specific conditions. The sunflowers to be subsidized can be grown on dry or wetland.

In this type, the prospects for change in the future, depend fundamentally on the attribution of subsidies, such as subsidies for farming or infrastructures, however, this trend is more accentuated in the head farmers who make changes in terms of extensive farming.

The farm's labour force is constituted, very often, by permanent workers, mostly responsible for looking after the animals or, in rarer cases, by tractor drivers. These workers live on the *montes*²⁶, which do not always have electricity and, in some cases, are difficult to get to.

Two trends can be distinguished in which the distinguishing factor is the existence of changes towards farming intensification and of investments: the more dynamic medium or large farms and those that maintain or decrease their activity.

Progressive and traditional farmers who intensify their farming: the most dynamic

These correspond to head farmers who made investments and alterations, mainly, in terms of intensifying animal farming and extensifying agricultural farming, in other words, replacing cereals with the production of pastures.

The production of cork is very important for the farm's balance, as are the olive groves and, in some cases, vineyards.

Traditional farmers who extensify: change, which does not question tradition

These farmers are less common in this type and are characterised by making more stable management choices in the last years. In these cases investments are aimed at maintaining the business or clearing trees and land or building fences etc.

Traditional farmers with small and medium farms: those who traditionally have multiple jobs

The size of the farm is the variable which most contributes to individualise this group, however before their separate analyses, it is possible to give a view on what they have in common.

This type corresponds to small and medium sized farms with a tendency to stagnation, where agro-forestry farming has a greater weight than animal farming. The latter can be less important in terms of the overall farm production or it can be only for home consumption or non-existent. In this group the *montado* appears as one of the most viable of the farm's products and is, often, connected with natural or planted pastures, which are often sold to other head farmers with animals. The olive grove is also a product with some importance in these cases.

²⁶ The *monte*, in the Alentejo, corresponds to the group of farm buildings (housing and farm buildings). In the Serra Algarvia the expression *monte* has a different meaning corresponding to the small settlements of inhabitants scattered throughout the hills.

In the last years, these farmers have not changed their animal farming or their land use. The lack of change comes on top of the absence of investments in equipment in farms where there are only motorised cultivators or similar machines and where tractors and irrigation systems are rare²⁷.

The heads of these farms normally have other jobs and/or other sources of income. Having multiple jobs may be related to the fact of the farms being small or medium sized because this size of farm does not provide very high revenue and the head farmers tend to look for other jobs or other sources of income. This process of professional mobility took place at the time when the head farmer was the father of the interviewee and the son, instead of working on the farm and on account of not being able to inherit the farm management, chose to find another activity. Economic reasons are linked to this choice, which, sometimes, are integrated into the family's strategy, and/or to motives connected with the prestige of other jobs. Therefore, there are many cases where the other activity is not connected with agriculture but with services (mostly commerce).

In the cases of multiple incomes, the head farmer receives a retirement pension and continues to work on the farm. During his lifetime the land is not sold nor is it passed on. It should be added that, in most cases, the possible inheritors may have other jobs and are not interested in taking on the farm management, often because they don't even live in the region.

Other reasons may be added to the existence of other jobs which justify the lack of changes: age, the difficulty in obtaining greater income given the poor quality of the land, the size of the farm and the price of production factors. The cases in which there seems to be a tendency towards intensive farming are clearly dependent on the attribution of subsidies or other kinds of aid such as electrification and the reduction in the price of production factors such as, for example, the labour force.

The main labour force is the head farmer, family and casual labour given that the farm is not large enough to make the employment of permanent employees viable. The contracting of casual labour is restricted to work, which requires a specialised labour force such as when machines are rented or cork is cut, and of a non-specialised workforce such as when the olives are harvested. These activities are very sporadic and correspond to a small number of days of work per year (obviously less on the small farms).

The future trends are the maintenance of business by extensifying the farming procedure, in other words, reducing the planted area and farming the cork oak *montado*²⁸ and

leasing land for pastures, natural or planted, to animal farmers. This leasing allows for the under cover to be maintained, the scrub to be kept clear and it gives the landowner a certain revenue, in some cases in money and in others by keeping some of the landowner's animals. The farm management reduces expense to the minimum and the most frequent forms of investment are clearing the *montado* and natural pastures.

In *Traditional farmers with small and medium farms*, two sub-groups can be distinguished with different characteristics. The main factor that distinguishes them is the size of the farms: the small and medium farms with the tendency to stagnate.

Traditional farmers with small farms

In small farms it is more usual for head farmers to have another job, which is understandable in the light of the revenue limitations mentioned above. This sub-group is more commonly found in Abela where there are a greater number of small farms. Apart from this, it is more associated with very concentrated farms. However, this characteristic shows itself to be an indicator of small farms rather than being a factor that makes the organisation of work easier.

Traditional farmers with medium sized farms

The medium sized farms are more associated with a complete lack of change in the farm's area, probably because, contrary to that which happens on small farms, the farm already covers an area which facilitates the extensive management of the business.

The head farmer is 60 or more years old and his education level can vary between incomplete primary education and complete preparatory education, traits, which in this group often justify the absence of change.

Routine, subsistence and declining farms

This type can be clearly separated from the other groups. The farms in the greatest state of stagnation or decline are characterised by having a small agricultural and animal production corresponding to situations of home consumption where the sale of some produce is a complement to family revenue. The main source of revenue is, often, the old age pension given that most of the head farmers are old.

The region where most cases of this type can be found is Vaqueiros. In this region the changes in land use are towards the increase in trees, principally almond trees and also orange trees and the reduction of the planted area. On account of it being an activity geared essentially to home consumption, the best land is used for market gardening (near to the riverbeds and settlements) and for small-planted pastures, which feed the farm animals or cereals to make bread.

As has already been mentioned, the biophysical limitations to agricultural farming in

are the strong competition from Spanish farmers, the lack of a strong market for this product and the possibility of a new outbreak of swine fever.

²⁷This study did not carry out any analysis on the need or economic interest in investing in equipment on these farms, therefore, the appropriateness of buying tractors or irrigation systems was not analyzed. However, the comparative analysis of the farms reveals different decisions and behavior in terms of investment and it is these that it aims to analyze.

²⁸The holm oak *montado* does not produce great revenue apart from wood. This tree used to be very important for pig feeding in extensive farming (on *montados*) which is no longer found in the regions studied. The reasons given for no longer farming this kind of animals

this region are very evident. Apart from that, the farms are spread out or very spread out. In other words, they are composed of a great number of plots, which makes the organisation of work difficult.

As a result of these factors, the abandonment of the land is accentuated since the older head farmers give up working, their sons emigrate to other countries or to the Coastal Algarve and there are no people interested in buying or working the land.

The construction of the first primary school came after the farmers' school age and this has contributed to their low education level. This characteristic is a consequence and also a factor which explains the great isolation of the region because if, on the one hand, the late building of the school shows the region's backward level of economic and social development, on the other, the low education level is also a reason for the poverty in which it exists.

It seems to be important to mention that the education level has risen in generations later than that of the head farmer, however, instead of contributing to the development of economic activities, the more educated generations abandoned or aim to abandon the region and, therefore, no inversion in the trend of abandoning the land is not foreseeable.

In Abela the few cases interviewed which belong to this group correspond to very small farms which were abandoned because the proprietors have another job or they relate to *montes alentejanos* which are bought as holiday or weekend houses and not as farms.

Traditional farmers highly centred in livestock production

The farms based on animal farming have similar characteristics to the traditional farmers with small and medium farms but they are distinct because the weight of animal production is more important than agricultural farming. The most significant way they come to own land is through purchase on the open market, which is in contrast to the other groups who mostly inherit land.

The farms are concentrated in small plots except in the case of the shepherds from the Vaqueiros region who have very spread out farms.

The head farmer's education level often corresponds to incomplete primary education through to complete preparatory education; they are mostly aged between 40 and 59 years old.

In relation to their attitude to change, similarly to the other categories, their predominant behaviour points to maintaining the farm. However, there appears to be a stronger tendency in this group to increase the area of the farm and increase the number of animals, principally amongst sheep and cattle farmers. The fact that the subsidies for animal farming depend on the size of the farm, namely, the subsidy per animal and the quota for milk production explain this trend. The choice of intensifying sheep and cattle farming is also related to the quality of the land, in other words, it is the most viable kind of farming, taking into consideration that pastures are crops which adapt well (alternated with fallow periods or natural pastures).

The increase in the farm's area also allows that animal farming depends little on the purchase of fodder, which is indicated as one of the "heaviest" production factors in the farms' budgets. The decrease in the number of animals is often connected to the drought situation which has been seen in the Alentejo in the last years; thus, the purchase of fodder is avoided in years when harvest are poorer. Pig farming, conditioned by the market, is a strategy for intensifying farming for small or medium sized farms.

Considering the three areas under study, the head farmers can be defined in the following way:

More than half these cases are found in Abela: intensive pig and farming is predominant in this area. In the case of sheep farmers, pastures may be owned or leased, in other words, without any contract; the landowners allow the owners of the animals to use the natural or planted pastures.

In Redondo, it is the intensive dairy cattle farmers who are included in this group. These head farmers are Dutch and are traditionally known for intensive dairy farming and who, being subject to a very competitive market in their country, decided to look for new markets and the support for high milk production quotas in Portugal.

In Vaqueiros goat farming predominates since these animals are the best suited to the characteristics of the soil, landforms and vegetation type. The goat farmers correspond to the shepherd from the *monte* and the former often adds other head farmers' animals to his flock. In this area it is common for animals to graze on abandoned land, land with scrub (rockrose) which serves as food for the animals and the latter contribute to the cleaning of this land keeping the scrub less dense.

After decline: forestry as a last resort

Farms with forests are to be found in the Vaqueiros region and the most important land use is the recent planting of cork and holm oaks and stone pines²⁹. However, by resorting to the questionnaires carried out with these head farmers, it was possible to highlight some aspects. The choice of forestry arises as a way of, in the long term, making viable farms that were abandoned in previous decades. These areas' desertification process began in the fifties and sixties when there was a great exodus to the Coastal Algarve and other countries.

The quality of the land does not permit a viable agricultural use, the forest being the most appropriate way of using the soil. The steep slopes, the existence of stones and the depletion of the soils provoked by the Wheat Campaign contributed a great deal to the abandonment of the land.

According to the present population's descriptions, before the great exodus, which took place in the region, many of the areas currently forested were used for agriculture and even the land with difficult access or steep slopes was cultivated.

It is the heads of large farms, concentrated in a small number of plots, which opt for

²⁹The farms, which, apart from forests, have a great deal of agricultural or livestock farming are not included in this group.

forestry. Some cases correspond to projects involving adjacent blocks belonging to various owners in the same family who get together in order to make these projects viable.

The head farmers interviewed are not interested in making any kind of investment in the land and, therefore, it is the non-refundable subsidies for the planting of trees which mean that the abandonment of the land is not complete.

The majority of the proprietors of these farms works primarily elsewhere and do not live in the municipality. Amongst the head farmers whose main activity is working on the farms, two situations can be identified: for some, the forested areas can become a complement to animal farming, allowing, in the future, the animals to be fed with the grass and under cover scrub; for others, the activities linked to the planting of trees on other farms, such as the clearing or preparation of the land, became a complementary source of income. In these cases the head farmer invests in machines, which work on the farm and are rented to other plantations³⁰.

Agricultural policy measures and typology of farm units

The building of an agrarian Europe "proposes, imposes or produces" a collection of farmers' strategies (Lourenço *et al* 1992). At this point the aim is understand the importance of the support measures for agriculture (in change) for the decisions and behaviour of the head farmers in relation to farming systems, production quantities and intensification / extensification trends. The analysis aims to contribute to the understanding of the head farmers' strategies and, in the case of maintaining the orientation of agricultural policies, to use that understanding as a starting point for apprehending the trends of change in farming systems in the future.

In general, the farmers' articulation with the agricultural policies is related to the use of production subsidies, subsidies such as compensatory indemnities, the diesel subsidy and agro-environmental measures. Next the analysis shall be based on the results of the in depth interviews made to understand the use of the main kinds of support by type of farm.

The criteria used to select the in depth interviewees were, on the one hand, the typology of the farms and, on the other, the territorial unit to which they belong. The typology because it summarises, *a priori*, a group of the head farmer's and farm's characteristics and the tendency to change; the territorial unit because it allows for the identification of the most common and most characteristic categories of farms in each one. Apart from these two criteria the aim was to identify the support measures for agriculture and the non-users, in other words, the selection of interviewees also aimed to present diverse access situations to subsidies.

The farmers' articulation with the support measures for agro-livestock and forestry farming is different in each region according to the farming systems and the kind of

farms and head farmers under study. However, it is possible to find common traits in the farmers' reactions that correspond to the ways or procedures using the support measures for farming. An analysis according to the principal groups of farming measures is made below.

Support measures for production and type of farm

Mostly head farmers who have animals use the support measures for production. For the latter, support measures are attributed which compensate the low price at which they are obliged to sell the animals and the low productivity of the pastures. Faced by the possibility of the absence of this subsidy, the majority of the head farmers would reduce the number of animals or even give up farming them. However, for farmers with larger farms that are more integrated in the market, the open market system without price limitations would be preferable to dependency on production subsidies.

In the two areas of the Alentejo, the olive oil producers also receive production subsidies and that is often the motive that makes them invest in olive groves. For those who already have olive groves, the subsidy is a way of increasing revenue, but they would not change anything if these subsidies ceased to exist.

Also in the zones of the Alentejo and for the small number of cereal farmers, namely producing wheat or barley, the subsidy is the main reason to continue these crops and without it they would cease to produce cereals. Amongst the remaining interviewees there are several "potential" cereal farmers who have not chosen this kind of crop because they believe that, if they did, they would have low productivity levels and, consequently, low revenue even taking the production subsidies into consideration.

Most of the interviewees, whether or not they receive production subsidies, are not aware of the criteria for the attribution of this subsidy. The sole exceptions consist of head farmers who also work in organisations in the agricultural sector, mostly in the civil service or Caixas de Crédito Agrícola (Farmers' Bank) and also other farmers with a higher level of school education and greater ease in obtaining information. The former lack of awareness of the criteria and sums attributed provokes great difficulties in terms of farm management, in other words, without this information it becomes almost impossible for the farmer to plan his business better. Therefore, it is practice, which allows farmers to know up to what point the subsidies compensate the economic risk of planting certain crops also because the irregularity of the climatic conditions specific to these regions does not make for accurate calculations in terms of crop productivity.

In relation to the procedure for the attribution of these subsidies, the farmers are dependent on the technicians who receive the applications. The delays in the attribution of these subsidies are one of the principal problems pointed out by the interviewees and one of the reasons that can lead to debt, above all when the subsidy promotes the existence of a greater number of animals without the farm being able to completely guarantee their subsistence.

In the *Progressives and traditional intensifying farms* and *Traditional extensive farms* all the head farmers interviewed receive production subsidies. These are also

³⁰In the area studied, forestry is relatively recent and therefore there is not yet any revenue from the forest.

larger farms where the head farmers are better informed on crops and production option that benefit from the support measures for production. In these cases the decisions and practices are balanced taking into consideration the existence of the subsidy which makes some interviewees state that if they did not have the subsidies they would reduce production because the quality of the land and the costs of production factors would not permit the same produce and the same quantities of produce to be maintained. However, it is in this group that a greater number of defenders of the open market are to be found, in other words, the head farmers, mostly the animal farmers, state that they prefer to sell the animals at better prices and not receive the subsidy because, in this way, they would immediately receive the money as opposed to what happens with the subsidies. Apart from this, with the subsidies the farmers remain, according to them, subject to bureaucracy and controls, situations which the "farmer cannot be bothered with". In other words, in this group, bureaucracy does not stop them from resorting to subsidies, however, the head farmers would prefer not to have so much work in obtaining them.

While in the previous group the head farmers who do not receive a certain subsidy justify this situation with eligibility criteria, the interviewees of the *Traditional small and medium sized farms* and *Routine, subsistence and farms in decline* types do not know why they do not receive the subsidies for production or point to reasons such as lack of awareness of eligible products, forgetfulness with regard to deadlines or filling out the forms incorrectly.

This group mentions other restrictions to the use of support measures for production such as, the size of the farms and not being able to receive subsidies for animals because livestock farming is not viable if the farm's area does not allow for the production of pastures and a sufficient number of animals in order to apply for the subsidy. In the *Traditional small and medium sized farms* having another job, which also makes livestock farming difficult, often compensates the farm's lack of viability.

The head farmers of *Traditional farms essentially based on livestock production* base their decisions on the number of animals that exist in the production subsidy and without the latter they would reduce or cease livestock farming. Intensive pig farmers constitute the only exception since this is a kind of farming that is not subsidised.

Compensatory indemnities and farm type

The compensatory indemnities are financial subsidies given to head farmers in deprived regions are based on the livestock farmed under an extensive farming regime and the farms agricultural area used (maximum 20 ha). This subsidy is mentioned more in the area of Alcoutim where almost all of the interviewees receive compensatory indemnities. The sums are considered very significant in the farm's overall revenue, however, in the words of one interviewee, it is "nice". The lack of information about the factors considered under this kind of subsidy justifies the head farmers' comments on the validity of those criteria.

In the Abela area none of the head farmers received compensatory indemnities and generally are not aware of this subsidy.

As verified in the production subsidies, the farmers are dependent on the information from the area's technicians in relation to this subsidy and that dependence is greater in Alcoutim where the farmers have more difficulty in obtaining information and even in filling the forms.

All the interviewees from the *Progressives and traditional intensifying farms* e *Routine, subsistence and farms in decline* type receive compensatory indemnities.

For the greater part of the cases, the rest of the interviewees have not received this subsidy because they have another main job outside the farm or because they are retired. However, it should be highlighted that some head farmers do not know how to identify this kind of subsidy or were only recently informed about its existence.

The means for obtaining information of the existing subsidies are almost exclusively reduced to contacts with technicians of the agrarian zones. Therefore, it is through the work done by these technicians that the farmers are made aware of the aid to which they can resort and the measures to which they can apply. This situation means that the head farmers are often dependent on the voluntary work of the technicians who, themselves, are limited in terms of means and available time to answer the growing requests for support.

The existence of compensatory indemnities does not seem to influence the farmers' decisions and practices in relation to land use or choice of farming system³¹. Even among the interviewees who receive this subsidy, it does not seem to have a significant weight in the whole farm despite opinions in relation to its existence being very positive such as, for example, it being a subsidy which reduces the danger of a bad year, being a subsidy for looking after animals or even that it should be more in order to compensate for the lack of revenue in deprived regions.

The diesel subsidy and farm type

The sums given in the guise of diesel subsidies vary according to the number of machines, how powerful they are and the crops grown. The head farmers interviewed who receive this contribution to the reduction of production costs say that it is "a help", however, only very few would cut down on ploughing or moving soil if they did not have this support. The rest and, above all, the farmers of animals fed with pastures would continue to use the machines in the same way.

In Alcoutim the diesel subsidy is aimed at irrigation engines and the sums vary according to the area irrigated, however, these are very small sums.

All those interviewed in the *Progressive and traditional intensifying farms* and *Traditional extensive farms* types received the diesel subsidy because, on account of being large farms, they use tractors on them. Among the *Traditional small and medium sized farms* types only half received this subsidy because they are farms without

³¹ The sole exception consists of an interviewee with a farm of the *Traditional small farms* type who, having recently become aware of this kind of subsidy, is going to stop leasing the land, start having his own pastures and selling them to animal farmers.

machines or the latter are very old. The reasons for which they do not receive this subsidy are not always known.

Despite the majority of the interviewees considering that this subsidy is a great help because it allows the production costs to be reduced, only a small number of cases would modify the way they worked if they ceased to receive this subsidy.

Agro-environmental measures and farm types

None of the interviewees in the Abela territorial unit resorted to this kind of measures although Abela is located in a municipality covered by the same agro-environmental measures as exist in Redondo except for the measure compensating the low revenue obtained with a farm of holm oak *montado*³². Despite the fact that the group of farmers interviewed is not a representative sample of the agrarian zone, it is important to highlight the difficulty in finding some head farmers who might have used these measures.

Although the *Arid Cereal Farming Systems (Sistemas Cerealíferos de Sequeiro)* and, in the case of the municipality of Santiago do Cacém, the *Holm Oak Montado*, were defined in the analysis, the lack of eligibility to these measures in the municipalities studied should be highlighted.

In the Alcoutim territorial unit, the only measure used is the subsidy to the *Traditional Arid Orchards of the Algarve (Pomares Tradicionais de Sequeiro do Algarve)*³³. In these cases, the head farmers receive a subsidy, which, according to them, is not significant but constitutes a complement to their revenue³⁴. According to the agrarian zone's technicians, a great number of farmers resorted to this measure contrary to that which happens with the *Extensive Foraging System (Sistema Forrageiros Extensivos)*, *The Re-conversion of Arable Land System (Sistema Reconversão de Terras Aráveis)* and *Support for the Maintenance of Autochthonous Breeds Threatened by Extinction (Apoio à Manutenção de Raças Autóctones Ameaçadas de Extinção)* or even other eligible measures throughout the country³⁵.

Generally speaking, the reasons which make the "potential" users of agro-environmental measures not resort to this kind of aid are the following: not knowing

³² The holm oak *montado* is a system that exists in the Abela territorial unit; however, this system is not eligible in the municipality of Santiago do Cacém.

³³ According to information obtained from the technicians of the agrarian zone, of the four municipalities of the Sotavento Algarvio (Castro Marfim, Tavira, and Vila Real de Sto. António and Alcoutim), the municipality of Alcoutim had the greatest number of applications to the agro-environmental measures. According to the same source, the subsidies available for other farming systems, such, for example, for the *Regional Variety Fruit Trees (Fruteiras de Variedades Regionais)* were not used on account of lack of quality control of the trees.

³⁴ In these cases, the almond tree orchard is simultaneously the product that most contributes to the family's agricultural revenue and, apart from this, it is also the product most subsidised by the agro-environmental measures in the region.

³⁵ The main reason for the lack of applications to these measures is the structure of the farms, in other words, their size and spread that imposes great obstacles on production.

the deadlines, criteria for eligibility or the sums involved, subsidy of little importance in financial terms which, according to some of the interviewees, does not compensate the time which they lose and the necessary bureaucracy³⁶.

It seems possible to state that these measures do not contribute to change in farming systems but in the regions studied, they often correspond to the extensification trend which already exists. Resorting to agro-environmental measures is not very frequent amongst the interviewees given that, in the sixteen interviewed, only four head farmers use these measures. The main differences identified in the farm types do not lie in the users and non-users of these measures but in the justification that each type presents for not resorting to these subsidies.

In the *Progressives and traditional intensifying farms* and in the *Traditional extensive farms*, the three cases of users of these measures mention how appropriate these subsidies are for the farming systems and for the traditional regional crops, for example, the integrated protection of vineyards, the extensive foraging systems and the subsidy for clearing the holm oak *montado* in Redondo. In the case of vineyards, the importance of technical aid guaranteed by the Redondo Co-operative Winery (*Adega Cooperativa do Redondo*) in efficiently answering the eligibility demands should also be highlighted.

The cases, which belong to these types and do not use agro-environmental measures, justify it by citing structural limitations in terms of the quality of the land or instability with regard to possessing the land which makes it difficult for them to meet the eligibility criteria inherent in this kind of subsidy.

The fourth case of use of these measures is found in the region of Vaqueiros and corresponds to the *Routine, subsistence and farms in decline type*. This is the aid given to almond tree orchards, which are very common in this region, but only because almond trees already existed and the technicians of the agrarian zone help with the application procedure. However, the sum given is not very significant and it is not on account of this subsidy that the almond tree orchards continue to be productive but rather on account of constituting the principal, or one of the principal, sources of revenue for the farm.

The justifications range, which across all the typology of the farms are the lack of information about these subsidies and the farming systems not being eligible for these measures. However, connected to these reasons, is the almost generalised idea that these subsidies do not compensate economically and represent an increase in bureaucracy without a significant increase in revenue. As an example, the case of head farmers from *Traditional farms essentially based on livestock production* should be highlighted; they could receive the subsidy for autochthonous breeds (except for intensive pig farmers) and they have not yet come to terms with facing the necessary bureaucracy for receiving this subsidy.

³⁶ According to the technicians contacted in the agrarian zones, the farmers consider that the obligation to keep commitments made for a period of five years is an excessive eligibility criterion unless their farming practices are appropriate to the demands of these measures.

It seems possible to state that the agro-environmental measures do not significantly influence the farmers' decisions and practices, however, they work as a complement to the revenue of farmers who maintain traditional systems and have greater ease in obtaining information or who have greater direct support from the technicians of the agrarian zones.

Support measures for investment and type of farm

The analysis of the allocation procedure for the structural funds adopted under the ambit of Portuguese agriculture reveals a great increase in the sums attributed to investment in the first years after Portugal adhered to the EU. The aid to individual agricultural investment is relatively great in the Alentejo in comparison with to the other regions on the Continent (Aviliez 1992).

The head farmers interviewed in the Redondo agrarian zone resort more to support measures for investment while in the other territorial units investment projects are less frequent.

The investments are often geared towards the purchase of tractors, building of stockades and purchase of animals. Apart from this, the importance of young farmers as beneficiaries of this kind of aid should be highlighted.

The main motive for not resorting to this kind of measures is the farm structure, above all, its size. On the one hand, the low revenue generated in the small or even the medium sized farms makes the realisation of investments difficult, on the other hand, there is a negative attitude to debt on account of the high rates of interest to which it is subject.

All the interviewees from the *Progressive and traditional intensifying farms e Traditional extensive farms* types resort to support measures for investment. The majority of these head farmers states that the realisation of investment was connected to the existence of the subsidy, in other words, without external financing they would not be able to invest. The interviewee from the **Forestry Farms** type also applied himself to this business because there where subsidies for the planting of trees, otherwise he would have kept his previous job as a mechanic.

Often young farmers justify their farming activity with these subsidies, however, in the majority of cases, they remain dependent, to an extent, on their parents or even grandparents whether through sharing the business, or through leasing contracts or the loan of land by those family members. In this case land ownership is incorporated in the framework of a broad family strategy because the benefits given to young farmers are recognised and hence the latter often appear as project managers but, in practice, their parents continue to work on the farm and even participate in the management of it.

The main difficulties faced by farmers in the attribution of financing for investment were the requirements of the application procedure and the time it took. Even for the more educated head farmers with greater access to information, it was difficult to meet the requirements of the application procedure and, as one interviewee mentioned, the latter are fated to be completed by "bureaucrats". Therefore, the interviewees resorted to the help of well-informed technicians with experience in elaborating projects. The

strictness of the eligibility criteria also constitutes a difficulty, namely, with regard to the construction and enlargement of buildings for agro-tourism.

Subsidies for investment were not attributed to the interviewees from *Traditional small and medium sized farms, Routine, subsistence and farms in decline* and *Traditional farms essentially based on livestock production*. However, among the *Traditional medium sized farms* projects were presented which did not obtain financing on account of lack of viability or because the budget was exhausted.

The majority of the interviewees who did not receive subsidies for the realisation of investments also did not invest with their own money or resort to bank loans. The main reasons given for the lack of investment by the *Traditional small farms* and by the *Routine, traditional and farms in decline* were lack of information on the kind of investments eligible or the eligibility criteria. The head farmers from the *Traditional farms essentially based on livestock production* mention the small size of the farm and insecure land ownership as the main obstacle to using these subsidies. The intensive pig farmer points to the lack of subsidies for the building of ponds for the treatment of the farm's effluents³⁷, a measure, which, in his opinion, would be an important contribution to environmental protection.

There are some common sense ideas on the attribution of subsidies for investment from farmers that are worth analysing. The first relates to the age and idea that only young farmers get financing easily. In fact the latter have more technical and information support, precisely by attending the Young Farmer courses and it is easier for them to get financing for setting up. However, the interviewees who manifest these opinions are those who show the lowest levels of information with regard to subsidies for investment and are, simultaneously, most resistant to change.

Constrains and difficulties in the light of new directions

The integration in the EU in 1986 and the reform of CAP in 1992, accompanied by new political reforms produced change in the agricultural sector that demanded an effort from farmers to adapt to new conditions.

This adaptation was faced, however, with a very limited agricultural situation in terms of the farms' characteristics, the head farmers and the capacity for investment. These are, in fact, the principal factors mentioned by the interviewees as obstacles to the adaptation to the new conditions demanded by Integration in the Single Market, under competition conditions similar to that of the rest of European farmers.

The farms: structural limitations in the areas studied

The natural conditions and the size and spread of the farms are three factors that influence production in terms of limiting or facilitating certain activities. Studies carried out point to the marginalisation of regions where the size of the farms is small. In these

³⁷ The support measures for Farms, Animal Protection and Well-being, approved later, financed the construction of this equipment.

cases it is very difficult to maintain a level of income, which will permit the subsistence of the head farmer and his families and much less to gear production to the market. However, it is not possible to consider the size alone given that the quality of the soil, being variable, can permit the same quantities to be produced on farms of different sizes.

The main natural limitations mentioned by the farmers interviewed are to do with the existence of soils, which are generally very poor in nutrients, with little capacity for agricultural use, lack of water and unfavourable climatic conditions due to the great irregularity in rainfall which is absent in the hottest season of the year. In the Serra Algarvia, these natural characteristics are associated with irregular relief; narrow valleys defined by steep slopes and where the rocky substrata are at the surface and restrict agricultural use.

In the light of these conditions, the size of the farm takes on a fundamental importance in the farmers' perspective, in other words, the larger farms are those which have the most possibilities of adapting to the Single Market requirements given that they can produce greater quantities, income and capacity for investment. Thus, the head farmers from small or medium sized farms justify their inferior capacity for competition and introduction of change on the farm on account of the land's poor productivity and the low revenue generated by the farm.

In the Serra Algarvia, the great division and spatial spread adds to the size of the farm, which very much restrict the adaptation of these farms to more productive ways of organising work.

The agrarian market and access to land

In the Alentejo, it is mostly the farmers with large farms who increase their farm area because these are the farms that have the greatest capacity to generate income. The head farmers of small and medium sized farms have difficulty in increasing their farm area because their capacity to acquire more land is limited. The high price of land, which, apart from its economic value, takes on important social values, also contributes to this.

The lack of flexibility in the agrarian market is not opposed by legislation either in the form of handing over land or in the form regulating the way it is farmed. Therefore, the retired farmers remain the landowners and succession only takes place after the death of the head farmer. The support measures for early retirement, aimed at changing this situation, are still in an initial phase of introduction, however, some of the interviewees manifested interest in using this support but do not guarantee their real removal away from the farm. Apart from this, the handing over of land is considered an inheritance and not a management succession. Thus, even when the children are not connected to farming, the land is inherited by all in equal parts and all the inheritors can remain farmers, not being obliged to sell or lease the land in cases where they do not want continue farming. The low sum paid by the landowners in terms of tax on the land allows this situation to continue inasmuch as the inheritors do not feel pressurised to make the farm viable because this expense is not "great".

The extreme situation of the Serra Algarvia reveals itself in the non-existence of buyers, in the small economic worth of the land and, also, in this case, the farmers' resistance to selling the small and dispersed blocks of abandoned land should be highlighted.

The resistance to selling land means that one cannot speak of a land market. However, in each region there are agents who act as negotiators, evaluators and intermediaries for land transactions and from whom it was possible to obtain information on the local land market.

According to these privileged observers, in Abela and Redondo, the recent interest in small farms is due to people who live and work in the city (mostly in Lisbon) who work outside agriculture and want to buy a weekend house. The value of these small farms varies according to whether or not there are houses because the legislation in force creates obstacles to the building of new houses but allows for the restoration of existing ones. This form of demand for small properties is relatively recent given that previously people who cared for the property without any kind of formal contract occupied the houses from these blocks of farms. Although this method of occupying the smallholding is still frequent, the pressure exerted by the demand for weekend houses could modify this situation.

Buyers who are interested in making the farm viable seek after the medium sized and large properties in these areas and therefore it is often other farmers who have farms in the region. The reasons, which make these farmers acquire more land, are, in the Alentejo, to do with an interest in increasing the number of animals in an extensive farming system. The existence of cork oak *montado* in good condition is an attractive purchase factor as are water, electricity and houses.

The small number of proprietors interested in selling land are the farmers who are faced with financial problems or debts, the inheritors of small farms or farms where it is difficult to settle the ownership or division, farmers who are investing in another block of the farm and sell one part to raise capital and proprietors who, having a more lucrative job, chose to leave farming. According to information obtained in Redondo, the quality of the land sold is poor and the sale of blocks with extensive foraging systems and holm oak *montado* is predominant. Land with vineyards does not come up for sale given that this is the most lucrative crop in the area especially after the implementation of the certification system of Redondo wine. The price level of vineyards per hectare is much higher than that of land with other uses which is explained by its viability and also by the restrictions imposed by the Co-operative Winery on the planting of new vines on less suitable land.

In relation to the group who sells land to resolve financial difficulties, this is a recent situation often brought about by support for investment, which provokes debt situations amongst farmers, in other words, these are situations in which the investments carried out and the rates of interest are not compensated by the revenue obtained from the farm.

The head farmers and their socio-economic profiles

Age, education level and professional activity are factors which help to understand the

head farmer's capacity for integration in the international markets as well as their capacity for intervention in the region and adaptation to new demands.

Age and the farming system

The farming systems, which show a certain tendency for change in terms of improving the farm, correspond to the cases of farmers under 60 years old.

In the area of Alcoutim, the farmers are generally older and retain habits and traditional organisational work methods. These interviewees mentioned age connected to the difficulty in working as a great limitation to change, to the introduction of new crops and work methods, to the intensification of farming and to the carrying out of investments. This group is also characterised by the persistent requirements of basic consumption, which is reflected in subsistence farming and, often in the statement "what the farm produces is sufficient, I don't want to change".

The small number of young farmers interviewed in Alcoutim opts for other forms of farming such as planting forests, extensive livestock farming (sheep or goats) or the planting of fruit orchards. The appearance of these activities depends on the existence of subsidies and financing for investment without which the majority would have already chosen another fields of work or emigrated.

The support for setting young farmers up is also mentioned, as an important justification for carrying out investments, by the interviewees from the areas in the Alentejo. However, the younger farmers face some problems when they want to set up as head farmers, among which is the difficulty in getting access to the management of a farm.

Age and access to land³⁸

Access to land is late in coming given that succession is not a process of gradual removal on account of retirement or any other reason but it normally only happens with the death of the head farmer. Considering the difficulties in buying land, whether on account of its high price or, on account of the lack of land for sale, it is easier to understand the difficulties young farmers have in setting up.

It can be a problem for farmers who want to modify their activity and a great obstacle to their capacity for adaptation to new conditions. The most common method of gaining access to land amongst the interviewees is inheritance, followed by purchase and leasing. Apart from it not being easy to buy land, it is also difficult to find land to lease principally when it is a question of formal short or long-term leases. Thus, farm-

³⁸ The farms' routes indicate that the proximity or distance in relation to the beginning of the activity raises some problems. For example, a farm that was set up in recent years will surely show more change in relation to an older farm. Despite the importance of this factor being considered in the analysis of change in farms, only an in depth study of the development of the farm and path of the farmer's and his family's life could answer this question. But, this research focuses on different aspects of the analysis of change in farms more related with the current conditions faced by the head farmers.

ers who do not inherit land or inherit small areas for their business have difficulty in purchasing or leasing which gives rise to methods of ceding the land for short periods of time or simply to the sale of pastures. To increase the farm area is usually an aspiration of livestock farmers who farm extensively since for them the problem of access to land is fundamental. The attribution of subsidies according to the area of land and the number of animals also weighs in the interest of acquiring more land or formalising contracts for access to it.

The informal short-term contracts give rise to a great instability in land ownership since the head farmer, independently of his age, has greater difficulty in planning his business in the future.

For older farmers the problem of succession is raised, however, it is difficult to weigh the importance of this factor in the decisions of the interviewees in terms of the farms. Despite this, succession gives rise to some considerations: a great part of the interviewees name the inheritors of the land but few indicate who their successor will be because their children often have other jobs outside the farm and even outside agriculture; if at least one child works on the farm, then it is common to find Young Farmer projects integrated in a family strategy for investment in the farm in which the father may be, more or less, present but rarely absent. In these cases, succession is a consequence of the existence of these subsidies because, according to the interviewees, the advantages given to young farmers are very compensatory. Although it is not possible to state that the farmers make more investments when they know that their children are going to succeed them, it is notable that such a succession is satisfying for the farmer even when he considers that agriculture is an activity with little social recognition.

Farm management shared by parents and children places the different generations in conflict, in other words, if the children look for new ways of farming and, generally, of intensification of the business, the parents prefer traditional choices known to them and of which they have experience. Schooling and professional training are normally of some importance in these cases.

Education level and professional qualifications

The Young Farmers, beneficiaries of specific subsidies, have to prove that they have farm management experience or, alternatively, they have to attend professional agricultural training courses, which contribute to increasing their capacity for changing work methods and management on the farm. However, at the end of the course there is no real accompaniment of the projects carried out which could avoid some failures, which resulted from the attribution of subsidies for setting up Young Farmers.

The schooling of the head farmers helps them to access information, to understand new methods of work organisation and to adopt new technologies. In other words, it helps the modernisation of farming. The farmers in Portugal have very low schooling levels, which gives rise to great difficulties in modernising this sector. However, the differences between the areas of the Alentejo and the region of the Serra Algarvia are evident: in the first case, it is a region of the country where there are more head farmers with higher education levels while, in the Serra Algarvia farmers with very low

levels of schooling are predominant.

The higher levels of education are usually found amongst the head farmers with more than one job, in other words, the education benefited their professional mobility, often connected to the mobility from the country to the city, but it did not necessarily translate into the improvement of farm management capacity because with another job or another source of income, the land is destined to extensive or partial use in the case of *montado* owners.

The head farmer's main job

The regions studied are characterised by the lack of economic vitality, which is reflected in the absence of employment alternative to farming or even to agriculture. The difficulty in finding work is added to other problems such as the low income generated mainly by the small and medium sized farms. In the light of these conditions, the farming families react in different ways: they abandon the region and the land in search of other jobs, the most common situation in the Serra Algarvia, or they look for work inside or outside the region adopting strategies of having multiple jobs or incomes, a situation which is more common in the Alentejo. These strategies have different implications for farm management. Thus the head farmers with multiple jobs are more associated to small or medium sized farms with the production of pastures or permanent crops (olive groves and fruit orchards) and where the *montado* is an important and sometimes sole source of income. The lack of availability and the relatively limited quantities of pasture made animal farming not very lucrative. For this the farms would have to have a sufficiently large area to compensate the contracting of permanent employees and to guarantee the feeding of the animals with low costs related to the purchase of animal fodder. If this is not the situation, the head farmers with multiple jobs cede or sell pastures to other animal farmers and maintain systems with low revenue and investment levels.

The head farmer's relationship with the environment

In this study the head farmer is understood to be a social participant subject to the restrictions of the environment but also as a social and economic agent capable of stimulating potential and promoting the region through farming and other ways of using the space. In this way, it is fundamental to consider the relationship he establishes with the environment, namely, with the market, the agricultural organisations and with the regional context in general.

Integration and access to information

Access to information is one of the main problems detected amongst the farmers interviewed. Of the various kinds of information necessary to farm management, the following are highlighted: the study and understanding of the soil's characteristics and of the crops most suited to the farm's soil-climate conditions; the understanding of new methods of work organisation, the knowledge of the costs of production factors and the sale prices, knowledge of the market, its sales circuits and the oscillations in

supply and demand and the knowledge of the policies and support measures for agriculture.

These different types of information would contribute to the better articulation of farmers with the surrounding environment, however, this data is not always available and the limitations of farmers with low education levels make this relationship difficult.

There are no studies on the first kind of information on the biophysical characteristics of the farms and experiments with new kinds of crops are rare, carried out or subsidised by the relevant public bodies and therefore the farmers do not know the products which could best adapt to the characteristics of the land apart from those crops which have proved to be adaptable through experience.

In terms of market information, the public bodies are also principally responsible for the lack of information given that they do not facilitate communication with the farmers nor do they seek more efficient channels through which to transmit information.

Also the head farmers' poor knowledge of the policies applied to farming questions the efficacy of the methods of communication of information. The educational level is, once again, a barrier to accessing and understanding these measures. However, it seems to be important to question the farmers' situation of dependency in relation to the technicians of the agrarian zone with regard to the application procedures and attribution of subsidies.

The market and sale of the produce: integration difficulties

The agricultural policy in the European Union aims at the farmer progressively taking on the role of businessman, shedding his position of farmer-producer, in other words, of an economic agent who produces without having to consider the market. From this point of view the market functions as an integrating element for farmers in vaster areas, demanding that they articulate with other spaces beyond the local and regional.

The farmers interviewed manifested difficulties in competing on the national market against foreign producers' prices and even greater difficulties in entering international markets. However, the analysis carried out with these producers reveal a poor knowledge of market requirements, prices and sales circuits. In other words, in general terms, the production options depend more on what is traditionally produced in the area than on the search for products which are more lucrative or better integrated in the market. The lack of capacity to look for and understand new markets and new sales circuits contribute to this also because there are farmers who introduce new products or intensify production but, not having prepared and anticipated how the produce is to be sold, end up facing problems of generating income.

Local or regional intermediaries guarantee the sale of produce. However, the producers are subject to the prices defined by these economic agents, a situation that is worsened by isolation and difficult access to markets and other information centres.

The main difficulty in the sale of produce lies in the lack of information and excessive dependence on the intermediaries. This dependence is aggravated by isolation, principally in Vaqueiros, by difficult transport for the farmer, the produce itself and weak

capacity for negotiation. The articulation of these factors means that the producers are not always able to sell at the price they consider right, often being forced to sell because otherwise they risk increasing the animals' feeding costs and losing the revenue from the harvests of crops which do not keep well.

Some of the sales difficulties and access to markets would be avoided by the existence of groups of farmers. However, they do not always function in the best way.

Farmers' organisations

Belonging to agricultural organisations is an indicator of the level of integration of the socio-professional group, however, the way in which they work and the level of support of the different farmers' organisations means that some distinctions should be made. While the Co-operative winery of Redondo or some animal farmers' associations are mentioned as having an important role in giving support to farmers, support which covers the technical, commercial and economic areas, the majority of the rest of the organisations are of little importance to farming. Farmers who belong to the management boards of these organisations and, therefore, have better access to information and even the capacity for negotiating with the governing bodies mention some exceptions.

The population exodus and farming

The regions studied suffered a great rural and agricultural exodus in the last decades and the result was a steep increase in salaries and a change in age structures in terms of the ageing of the active population in farming on account to the constant departure of younger people. Farming which was previously supported by great availability in workforce was obliged to adapt to this high cost. The decline in the available workforce and the increase in its cost had different implications in the two regions: while in the regions of the Alentejo mechanisation substituted a great part of manual labour, in the region of the Serra Algarvia, the difficulties in using machines imposed by the topography resulted in the abandonment of large areas previously farmed. However, extensification processes can be seen in both regions caused by the lack of manual labour. In areas of the Alentejo the generally extensive livestock farming continues to be one of the activities which, when it has a certain size, justifies the contracting of employees to work with the animals.

In terms of the Continent, the Alentejo is one of the regions with the highest levels of mechanisation due to extensification and the configuration of the land. This process was greatly stimulated after the integration into the EU with subsidies granted for the purchase of machines. In the area of the Algarve, the characteristics of the terrain make mechanised work difficult, however, despite the great importance of manual work in the recent planting of forests, some interviewees carried out investments in machines for the preparation of the soil.

The diversification of business: hunting and tourism

Throughout the years hunting has been the subject of different regulations and arguments between farmers and hunters. However, it is possible to state that this activity has not contributed to increasing the farmers' income in a significant way even when their land is incorporated in a hunting reserve.

The tourism projects, which exist in the areas studied, are not the regional farmers' responsibility but rather that of investors based on the Algarve coast or in Lisbon. These investments, apart from creating some jobs, do not stimulate the local population nor do they significantly benefit regional farming. There are no projects for the restoration of houses for tourism. However, some of the interviewees manifested interest in developing projects of this kind. The restrictions imposed on the construction of houses on farms sometimes do not make these projects viable given that only the restoration of houses is authorised and can be co-financed, therefore it does not compensate to carry out investments for a small number of houses with little capacity for recovering the investment.

Another obstacle to the farmers' initiatives for this kind of business diversification and increase in income is connected to the way in which the inhabitants of the region perceive the space where they live. Thus, it is common to hear farmers say that nobody is interested in visiting the region because "there is nothing to see or do"; they do not give value to the wealth of nature and the landscape that exists in these regions.

The environment and landscape

In the regions studied there are no evident situations of aggression to the environment or very polluting production practices except for intensive pig farming and the residual waste resulting from the pressing of olives to obtain olive oil. The head farmers with pig farms were recently confronted by regulations for the treatment of effluent, which implied a significant investment effort.

Despite not being possible to state that the farmers' practices presuppose a management concerned with the conservation of the environment, in truth, they do not question the balance attained in the last years. However, when analysed in some detail, these practices can be seen to contribute possibly to some degradation of the situation; for example, the way in which the land is ploughed deeply in areas with little topsoil, or cases where the use of machines can provoke damage to the roots of trees and destroy the younger trees. These forms of environmental degradation are frequently unavoidable. However, the deliberate pulling up of trees on the *montado* is a form of environmental aggression in relation to other values, namely making the farm more lucrative.

Considering the characteristics of the traditional farming systems in this region, the use of fertilisers and other chemical products is not intensive. However, this restraint is more due to the need to reduce the costs of the production factors than to conscious environmental protection.

When questioned on the integration of the rural buildings in the landscape, the majority of farmers agreed with the restrictions for buildings that do not respect traditional architecture.

Change in structure and land availability

The structure of the farms is relatively stable in Portugal, which is apparently explicable by the lack of flexibility in the real estate market. Several factors contribute to this situation amongst which the low tax rate on land with a symbolic value (the ownership of land is seen as a safe investment to hand on to heirs) and the hope that it will gain in value for other ends. The legislation on the way land may be owned is one of the factors, which contributes to the real estate market's lack of flexibility: the legal system favours universal inheritance; the limits defined by the so-called "minimum agricultural unit" are very low, favouring the splitting up of the property when it is inherited; even when it is not split up, in general the heirs all compete for the attribution of the property, not making for the emergence of a single manager.

Thus, the high price of land is essentially justified by reasons of a socio-economic nature because if it is true that land has a recognised economic value, its symbolic value contributes greatly to raising its price. This is the main reason that the heirs to the land, even when they are not farmers, keep the property; this is only possible because tax on land is low.

The law covering leasing does not appeal to owners or lessees. The owners are not greatly rewarded by leasing and this makes land availability difficult. On the other hand, the lessees do not feel sufficient confidence in the law to invest in leased land.

In the regions studied in the Alentejo, the CAP measures seem to have some influence on the upkeep of the structure of property, for example, the subsidies granted per hectare contribute towards owners of large farms not selling or leasing the land and, to the contrary, they even seek to increase the area of the farm. In the future this situation may contribute to the accentuated concentration of land in large farms since it is these, which offer the greatest opportunity for investment. Land availability for young farmers is complicated by the lack of flexibility of the real estate market and despite CAP's support for setting up these farmers, the lack of land or its high price is a great limitation to rejuvenating the agricultural businessman's universe.

Part II. Critical Perspectives in Rural Evaluation

Introduction

Reflections on Critical Perspectives in Evaluating Rural Development Programs

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Taking into account the discussions of the working group, a critical approach to evaluation should be

- process-oriented, addressing evolving processes in terms of valued criteria of social, economic and ecological sustainability,
- non-standardized, to prevent the distortions inherent to formalization and bureaucratization, and
- participatory, to get to know what development means why to whom and to emphasize learning by stakeholders/participants rather than judgement by experts.

The 'valued criteria' to apply in critical evaluative analysis may be derived, in first instance, from a participatory methodology in order to identify the different perspectives of different stakeholders in the process of rural development and to learn what difference the program to be evaluated does make to these stakeholders (first order lessons). However, in second instance, analytical and explanatory purposes will feed into these criteria as critical evaluation also aims at understanding and learning for future programming (second order lessons). Such second order criteria may lead to evaluation research concerning:

- shifts in the distribution of relevant resources (i.e. of relevance to enhancing individual social, physical, material well-being) in favor or to the detriment of the socially excluded/marginalised people and the power mechanisms (defined as social boundaries defining fields of possibility) implied,
- changes in patterns and methods of policy making and implementation: institutional analysis of innovation of governance from centralization to self regulation. In current rural development programs in Germany, The Netherlands and Britain newly created public-private associations (respectively „Anerkannte Verbände”, Coordination Commissions, Regional Agencies) are functioning as intermediaries between local actors (local ac-