

European Centre for Nature Conservation

Ecological and landscape consequences of land use change in Europe

Proceedings of the first ECNC seminar on land use change and its ecological consequences

16-18 February 1995 Tilburg, The Netherlands

Rob H.G. Jongman (Ed.)



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Rural marginalisation in Southern Portugal: farmers' reactions to European policies and current land use changes

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Abstract

One of the Portuguese regions most affected by marginalisation is Alentejo, in the Southern part of the country, where the Mediterranean characteristics are dominant. The current land use changes lead to extensification, or even abandonment of the land, connected with depopulation and socio-economic stagnation. The aim of this research is to understand the reactions and strategies of the farmers and the reasons determining their decision-making, and to evaluate the impact of EU policies in the region. This paper presents the results of the first phase of interviews, together with an analysis of the land use changes occurring currently in selected areas, both at the farm and at the local level.

Key words: Marginalisation, farmers, land use, policies.

Introduction

This paper presents part of the results of a three year project, "Monitoring and managing changes in rural marginal areas - a comparative research", with case-studies in Portugal, Belgium and Denmark. The research aims at analysing marginalisation through the understanding of the farmers' decision-making and of the impact of EU policies.

In rural areas, land marginalisation occurs when there is a change towards less significant land uses: the farmer or land owner has problems in adapting, or cannot at all adapt to new conditions of market, of social context, or/and of structure, and therefore choose to abandon the agricultural production or the land itself (Pinto-Correia and Sørensen, 1995). A change in the external

conditions or a change of farmer may lead to a change in the process evolution.

In Portugal marginalisation is connected with the natural characteristics, but also with historical and socio-economic factors: according to Pinto et al (1984), the model of industrialisation adopted for Portugal in the 1950s determined the development problems that the sector has faced until now. For many decades agriculture has been considered only as a support to industrial growth, and the state has never supported the rationalization of the structures and of production, neither the education and organisation of farmers. Faced today with global markets and strengthened competition, this sector can hardly survive, and the previous agricultural land is progressively being abandoned.

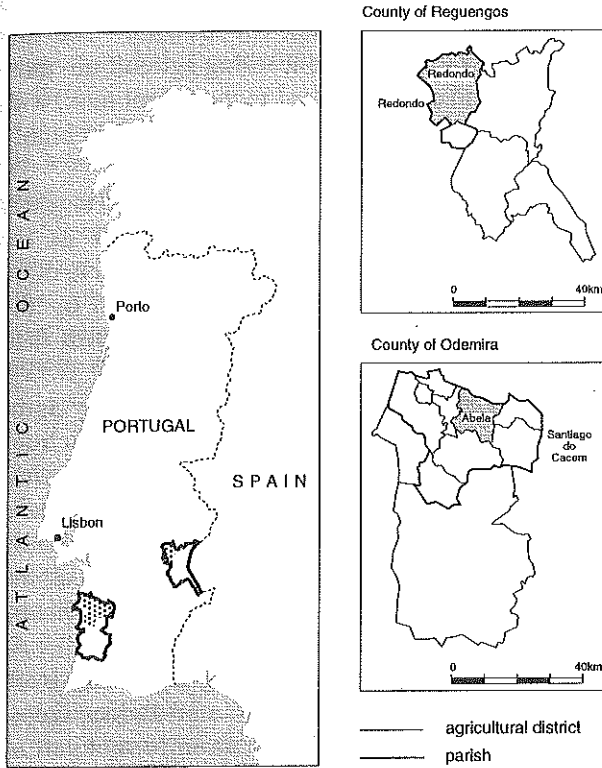


Figure 1. Location of the research area, the parishes Redondo and Abela in the counties of Reguengos and Odemira, Alentejo.

The region of Alentejo is largely affected by this phenomenon. It is a large region in the southern part of the country (Figure 1) of Mediterranean character, marked by its own history, and with a specific land structure and

land use. The examples studied are representative of the region, but not of the remaining Portuguese rural areas facing marginalisation.

The results presented here are preliminary, since the project is not finished yet, but they give nevertheless the possibility of understanding the farmers' attitudes and expectations.

The region of Alentejo

The climate in Alentejo is typically Mediterranean with long and dry summers and mild winters. The yearly precipitation (500 to 650 mm) is concentrated at the end of autumn and beginning of winter, with considerable annual fluctuations.

This region is characterised by plains and medium uplands, extensive fluvial basins and gentle hills, with rare mountain occurrences. The low quality of the soils puts the strongest limitation concerning agriculture: most soils are lithosols, little developed and closely related to the parent rock, with scarcity of organic matter and low capacity of water retention, often highly eroded (Pinto et al, 1993).

The property structure is dominated by large holdings: while the national average farm size is 6 ha, it is about 50 ha in Alentejo. 80% of the agricultural area is concentrated in 1% of the holdings, property of rich, often absent families. It is the only region in the country not affected by the dispersion of lots, being the land of most holdings concentrated in less than five different locations.

Land use has traditionally been extensive, mainly characterised by agrosilvo pastoral systems adapted to the existing environmental restrictions (Pinto-Correia 1993). In the montado, the most developed of those systems, the trees are cork or holm oaks, in other cases there are other species of oaks or olive trees. The open tree cover, in a density from 20 to 100 trees/ha, is combined with pastures rotating with cultures. The livestock is outside all the year, grazing and eating both the masts and acorns and the young oat shoots, fertilizing the soil and impeding the shrub to develop.

Other land use types which have been common during this century are pastures, mainly natural pastures, cultivation of cereals and fodder crops, vineyards, and olive groves. Fallow has frequently been an important part of rotation, and some areas are even permanent fallow. Irrigated land is not representative at regional level.

But the traditional agrosystems have been threatened for decades without that a viable alternative has been found (Pinto-Correia 1993). The degradation of these systems started in the late 1930s, with the protectionist wheat campaigns leading to the expansion of cereal cultivation in Alentejo,

independently of the soil quality, and resulting in an accelerated erosion of the thin soils. In the last decades, essays of intensification and the increased mechanization of soil work have failed to improve production, but have further eroded the soils and damaged the open tree cover. Without any form of planning, the application of irrigated systems has been made in soils with no conditions, and before the possibilities of improvement of the non-irrigated systems had been exhausted, or even tested. Furthermore, the plantation of rapid growth tree species (*Eucalyptus*), expanded mainly in the 1970s and 1980s, replaced the traditional vegetation cover and made its reconversion even more difficult.

Currently, crop cultivation is progressively being abandoned, the oaks are damaged or directly ill, and even grazing is more and more extensive. In the landscape mosaic, shrub patches and closed woods are increasingly large and frequent. According to the statistic data, approximately 50% of the agricultural area was under fallow in 1990. Most of the fallow used to be temporary, but it is becoming permanent - even if registered in the same way on the statistics.

At the same time, the socio-economic structure is also affected. In 1990, the average population density of Alentejo was 12 inhabitants/km²., with some sub-regional variations. Trends are towards depopulation, and aging coefficients ($P > 65 / P < 14 \times 100$) attain, for 1981-1990, 200 and even 300 (Lourenço 1993). These problems are intensified by the lack of professional jobs, low technical and cultural level of the responsible managers, which have restricted innovative capacity, low accessibility levels of road and railway networks, and deficient supplies of goods and services.

Two case studies: Redondo and Abela

The analysis is based on two case-studies (Figure 1). One is located in the municipality of Redondo, in the Eastern extreme of Alentejo, integrated in the county (agricultural region, under a sub-regional department of the Ministry of Agriculture) of Reguengos. The other is in the municipality of Santiago do Cacém, in the West, included in the county of Odemira. These two areas present clear differences, mainly due to their situation: the first in the interior, in the "remote" Alentejo, and the second close to the coast, and specially close to the industrial pole of Sines. None of them correspond to the most extreme cases of marginalisation, as in the south-east and north-east of the region, but they are both affected by the progression of this phenomenon.

Within the municipalities selected, the analysis focuses on one parish, where territorial units have been selected, i.e., landscape units, with an

identifiable settlement structure, for example around a village, and no more than 50 holdings, due to practical limitations.

Socio-economic pattern

Concerning the population, Santiago do Cacém registered an increase of 11% between 1971 and 1981, and of 8% between 1981 and 1991. In 1991 there were 31475 inhabitants, in a density of 30 inhab./km². This evolution is explained by the variety of jobs created during the 10s at all levels in the complex of Sines, contributing to the fixation of the population, also in the surrounding municipalities.

In the same decades, Redondo, with a pattern more close to the average in Alentejo, registered a decrease of -10% and -6% respectively, to 7948 inhabitants in 1991, in a density of 21 inhab./km². In this municipality, the changes in the age structure since 1970 show an increasing aging of the population: in 1991 more than 20% of the population was over 65 years, while at national level this rate was of 13%.

In both municipalities the level of education is very low: in 1991, still approximately 20% of the population was illiterate, and only 20% in Santiago, and 30% in Redondo, had more than the basic school education. Among the actives in the agricultural sector, the rate of illiteracy was still around 50% at the beginning of the 1990s.

Table 1. Active population per activity sector in Santiago do Cacém and in Redondo.

	total population	active population	primary sector %	secondary sector %	tertiary sector %
Santiago do Cacém					
1970	9 725		58,7	14,8	26,0
1981	11 128		28,5	38,5	33,0
1991	11 721		17,4	35,3	47,3
Redondo					
1970	4 120		65,5	14,3	19,2
1981	2 995		50,2	20,8	29,0
1991	2 888		33,9	25,3	40,8

The changes in the active population in the last two decades are presented in Table 1. In Santiago there is an increase in the total active population, explained once again by the development of the industrial pole of Sines, while Redondo registered a strong decrease. In both municipalities, the rate of actives in the primary sector was still around 60% in 1970. In Santiago, it decreased radically already in the following decade, but it remained rather high in Redondo.

The actual farm structure for the studied municipalities is expressed in Table 2. It can be observed that the land is concentrated in the largest farm units, even if the distribution is not the same in the two cases. The dominance of very large units is stronger in Redondo.

Table 2. Farm structure in Santiago do Cacém and in Redondo, 1989

	Santiago do Cacém		Redondo	
	units %	area %	units %	area %
without land	2,4	0,0	3,0	0,0
< 20 ha	73,8	12,1	77,5	7,4
20 - 200 ha	19,8	43,6	13,8	23,6
> 200 ha	4,0	44,3	5,8	69,0
TOTAL, units and area (ha)	2 226	75 111	712	32 810

Land use

Concerning the quality of soils, 35% of the soils in Redondo are in the class C, allowing cultivation with strong limitations, and 15% are of the most fertile type, B and A. In Santiago, only 5% of the territory has soils C, B or A; the remaining area has soils without any capability for cultivation.

The distribution of the main land uses at soil level, for 1989, is expressed in Table 3. The area of cereals was still important, specially in Redondo, but it must be noted that these statistics are made based on questionnaires to the land owners, who often register as a field of wheat a field where wheat is normally cultivated - even if the field has been grazed, or out of use for several years. Since a long rotation, with a long fallow period, is common in Alentejo, farmers are rarely aware of the change occurred when they just use the field as a pasture for successive years, or even when they let it out of use,

i.e. when an extensification or abandonment takes place. The figures do not reflect the changes actually taking place.

In the territorial unit of Abela, most land is covered by an open oak woodland of changing densities, with both cork and holm oaks. The topography is irregular, with hills and small stream valleys. They are bordered by corridors of olive trees, eucalyptus, sometimes open pastures in the best, alluvial soils. The "montes", farm houses, are located on the top of hills, surrounded by an open area and a mosaic of olive and fruit trees, vegetables, grass, etc. Many of those buildings are degraded or even abandoned.

Table 3. Land use at soil level 1989 for Santiago do Cacém and Redondo

	Santiago do Cacém		Redondo	
	ha	%	ha	%
Cereals	13268	38,9	7202	66,0
Pulses	784	2,3	34	0,3
Potatoes	177	0,5	6	0,1
Grass in rotation	6240	18,3	1596	14,6
Total in rotation	20496	60,0	8838	81,0
Grass outside rotation	13680	40,0	2072	19,0
TOTAL area	34149	100	10910	100

The figures show that in 1989 cereals were still cultivated in 40% of the municipality of Santiago. But in Abela there was not a single hectare of cereal in 1994, neither cultivation for the 1995 season, neither under the tree cover nor in the few open fields existing in the area. There are some cultivated areas with grass, which may be used as pasture or for green fodder, depending of the weather conditions during the summer of 1995. The interviewed farmers declare that yields and the actual prices are too low to continue cultivating. Even for those who have livestock, mainly sheep for meat, it is cheaper to buy fodder than to produce it. Thus, the oak's under-cover is today occupied by pastures, mainly natural pastures, and by shrub of different densities, according to the grazing pressure.

The exploitation form predominant here is specific: the land owners, living in the village, the nearest town or even in Lisbon, exploit the oaks, when these are cork oaks. They extract and sell the cork, every 9 or 10 years. The soil level is exploited by small local farmers, some of them without any

land themselves. There isn't any contract, nor a form of payment. Both parties are interested in this agreement: the land owners are not interested in exploiting the soil themselves, but they need to keep the soil clean from shrub; the small farmers need grazing for their livestock, but the profit is so low that they couldn't afford paying for the pastures. In that way, they have the right to use the pastures, and they assure the control of the shrub expansion. For the land owners this solution is convenient, because the land is fertilised and cleaned without any costs, and with much less damage to the trees than with mechanical cleaning.

But this arrangement means also that none of the concerned parties intend to invest in the improvement of the traditional agrosystems. They just keep the system, with a minimum of productivity. The areas of holm oaks, without a direct income for the land owners, are already less taken care than the areas of cork. In some areas, the trees are in bad conditions and there isn't the necessary natural regeneration. There are not many areas of dense shrub, but most of the montado under-cover is constituted by natural pastures with low shrub, where there is only an irregular, extensive grazing. Locally, they just say that the sheep "pass by". If the sheep production decreases, the shrub will develop, and abandonment will most probably be the next phase in the process.

In Redondo, the situation is another, and also more diversified. Most land owners live in the town of Redondo or in other towns of Alentejo, or even in Lisbon, but they manage their land and have often permanent employees to take care of it. The farm buildings are kept in good conditions, and the habitation buildings are used by the employees or by the land owners, as week-end house.

In the area North of Redondo, close to the mountain of Ossa, the montados of cork and holm oaks predominate, but there are also large olive groves, and the most poor soils are planted with eucalyptus, distributed in small plantations, part of farm units, and in a large plantation of 1100 ha belonging to a cellulose enterprise.

In this area, the under-cover of the oaks is constituted mainly by natural pastures, some of them abandoned and actually dominated by shrub. Closer to the town of Redondo, the pastures are cultivated, mainly for cattle production. There is a large intensive farm with milk cattle, but even there the use of the land is extensive. According to the owner, a Dutch farmer, intensification is impossible here due to the low soil quality - but the holding is nevertheless economically viable.

On the Southern side of the town of Redondo there are both olive groves and vineyards. The Wine Cooperative of Redondo produces a wine of quality, one of the good Alentejo wines. Otherwise, also here in the Southern part of the unit the montado is dominant, with an under-cover of

cultivated pastures and cultivated fields for fodder. The most important component of the farm unit is the livestock (cattle or sheep). Its size depends of the supports existing and of the pastures and fodder produced within the farm unit. The dominant strategy here is to minimise production costs in the land owned. Many farmers intend to change from sheep to cattle, because the latter requires less work.

Most farmers in Redondo refer the limitations imposed by the low soil quality and also the water scarcity. Excepting those who have vineyards, they try to adapt to the current market conditions and stronger competition without changing much, through very low costs of production and extensification.

Farmers' attitudes and perspectives

Both in Abela and in Redondo, there are few young farmers. Those who are over 50 don't expect any succession and their attitude concerning the future of their holding is rather negative. Small farmers are often illiterate, and the remaining have in general a low educational level.

Most farmers belong to a professional association, but they rarely use its services, for technical, administrative or financial support. Nevertheless, they cooperate with each other, for field work, concerning the livestock or machinery.

Asked about past or future changes in their farm unit, concerning structure, production or livestock, they say that there are no changes or that they don't know. They may comment that there isn't any crop cultivation where there used to be. But the soil has always been used in a rotation of cultures, pastures and fallow, and therefore a longer fallow isn't considered as a change. The few who tell about changes in land use mention an increase in the area of pastures, in the last five years, or an increase of both pastures and forest, in the future.

When asked about the future of agriculture in their region, more than 20% of the farmers from both municipalities admits the total abandonment of this activity, and 20% think that agriculture can only be maintained if their income is based on other activities, or supported externally. 30% relate an extensification, and only 5% consider intensification. The remaining don't really answer to the question.

Also considering the two areas, 60% of the interviewed farmers didn't know the CAP: 8% didn't know about any EU policy or support, and the remaining know about different supports, but didn't know what the CAP was. Only 38% had some knowledge of the agricultural or another European policy.

Most farmers complain, not exactly about the agricultural policy, but about the financial supports they know. It often happens that programmes are announced by the Ministry of Agriculture, and the technicians of the county motivate the farmers to prepare projects, sometimes to make investments - and finally the Portuguese part of the financing is not enough to pay for all projects which have been approved and to compensate the farmers for investments they may have made according to that. This kind of situation may constitute a serious problem for the individual farmers, and no one assumes the responsibility. The result is a growing rate of unbelief concerning the programmes or policies related with European funds.

Another question concerned the rural tourism and the possibility of this activity contributing to the farmers' income. Only 30% of the farmers considered it totally positive, as a real possibility. Other 30% told that this activity could contribute to the development of the region, but not to support the agricultural activity. Some farmers do not agree with the exploitation of tourism in their region, and others do not believe that the region has potential.

Since 1989, it is possible in Portugal to create hunting reserves, for local associations of hunters, or to be exploited commercially. In Alentejo, reserves of the last type have been created on large properties, and are actually exploited as economic activity alternative to agriculture. There are two partially included in the unit of Redondo.

For the land owners, this solution is profitable, but the agricultural use of the land is then definitively excluded, and there are no advantages from the nature perspective, since there is in reality no species management or protection. Most interviewed farmers disagree with this "exploitation" of the land and specially with the way it is being managed currently.

An important problem related by many farmers is the lack of technical support for agriculture, for instance concerning pastures improvement, irrigation, possibly new productions. There is no applied research and the farmers do not feel any support from the authorities.

The actual changes and the future landscapes

In both regions considered the agricultural use of the land is still maintained, and the traditional agro-systems are still dominant. But they have been extensified, or are under current extensification. There is not much land totally abandoned, but land where only the tree cover is exploited and the soil is covered by shrub. And, even if in Redondo pastures are still cultivated, no one is thinking about investments, reconversion, or any other active form of surviving in the future. The dominant strategy, both in Abela and in

Redondo, is to survive with the land available, with a minimum of costs, without plans for the future.

From the authorities, there isn't any clear strategy for agriculture in the region, and no guidelines are presented to the farmers. Research on the traditional systems' richness and improvement has been made in other Mediterranean regions with similar types of land use, showing promising results (Joffre et al, 1991; Ruiz 1986). Some large farmers would probably have the financial capacity of improving the traditional systems, or of implementing alternative productions in the same framework, but they would need to have support in that sense (Avillez et al, 1993).

The variety of the traditional landscapes is threatened. The present landscapes are still a large mosaic, mainly composed of open areas and oak woodland, with cultivated pastures, natural pastures or shrub at the soil level, with changing densities.

But this pattern does not correspond to a situation in equilibrium. Considering the general unbelief about agriculture viability in the region and the lack of a strategy for reconversion, it is foreseeable that the current trends will be strengthened in the next future. This means further extensification and abandonment, leading to a more homogeneous land use and to the vanishing of the specific cultural landscapes.

The farmers are the main actors in these processes, but they are reacting according to the market context and the lack of technical and financial support. Only a change in these conditions could lead to a change in the process occurring.

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