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Development of agriculture in Portuguese regions

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Abstract

Portuguese regions make up a distinct area in the European Community. Majority of them can be described as less developed economies with strong dependence on agricultural production. Some Portuguese regions have permanent natural handicaps, due to their peripherality, topographic and climatic restrictions. In many of these areas small-scale and low-tech agriculture still dominates. In most cases these regions are considered to be areas in which traditional economy is not adapted to market conditions. The process of Portugal's integration with the European Community triggered changes in the country's agriculture. Far-reaching transformation resulted from necessary adjustments to European market. In almost all regions this conversion had a decided character. Positive changes in rural areas are noticeable but nowadays employment in agriculture is still very high and productivity rather low — another factor which is characteristic for Portuguese agriculture. Agriculture is a crucial sector of Portuguese economy and modernization of primary sector still seems to be the top priority.

Key words: Agriculture, Regions, Portugal, European Community

1. Introduction

After the last enlargement, at the beginning of the 21st century, over a half of the European Community population live in rural areas. Moreover, these areas cover 90 % of the EC territory. This figures show how important rural development is, and how significant are the aims of the Common Agriculture Policy set by the European Commission (The EU Rural Development Policy 2007 - 2013, 2006).

The origins of the Common Agricultural Policy go back to the late 1950s and early 1960s when six EC Member States started to build a common market. It was a time when European societies still remember the decade of severe food shortages during and after the Second World War.

Despite economic and technical development, food supplies could not be guaranteed, and so the Treaty of Rome defined general objectives of a common agricultural policy. The most important of them concerned increasing agricultural productivity by promoting technical progress and rationalization factors of production use, especially labor force, increasing the individual earnings of persons engaged in agriculture, stabilizing markets and guaranteeing availability of supplies.

With time, the system allowed the European Community to achieve self-sufficiency. Agricultural policy was so successful that at the turn of 1970s and 1980s, the Community suddenly had to deal with almost permanent surpluses of the major farm supplies. These actions had a high budgetary cost, they distorted world markets and became unacceptable to consumers, therefore, during the eighties, quota on dairy production, sugar and other products were introduced as well as a ceiling on EC expenditure to farmer (The Common Agricultural Policy explained, 2004).

Fundamental changes in Common Agricultural Policy were introduced in the 1990s. Production limit helped reduce surpluses and an accent was put on a shift from price support to direct support, as an in-kind compensation for farmers. Environmentally-friendly production became a condition for aid payments.

Next changes were brought with the beginning of the 21st century. In 2003, the EC adopted a fundamental reform of the CAP, based almost entirely on "decoupling" subsidies from a particular crop. The new "single farm payments" are linked to respect for environmental, food safety and animal welfare standards and reducing direct payments for bigger farms. In future, the majority of aid to farmers will be paid independent of what or how much they produce. Under the new system farmers will still receive direct income payments to maintain income stability, but in order to achieve higher income, farmers will have to be market-oriented (The Common Agricultural Policy explained, 2004).

Agriculture still not only plays an important role for rural communities' standard of living but it is also responsible for ties of cooperation between members of local communities.

This publication provides an overview of the evolution of the agricultural situation in Portugal. The objective of the research is to present the impact of Portuguese integration with European Community structures upon the rural areas. European structural funds have been among the most important instruments of determining positive changes in Portuguese agriculture since integration with the EC. European aid resulted in considerable reduction of employment in the primary sector and created new workplaces outside agriculture. From the perspective of Central European countries, changes which took place in Portugal are important, because necessity of structural changes lies ahead of them as we speak. This paper focuses on territorial units, regarded in the European statistical nomenclature as NUTS 2 level. Research is based on the analysis of reports prepared by the European Commission as well as national studies. Data collected or estimated by the National Statistics Institute of Portugal, Directorate-General for Agriculture and EUROSTAT have also been used.

The first part of the paper demonstrates economic changes in Portugal. And the second part is focused on adjustments taking place in agriculture in Portuguese regions. The chronological range covers period from 1986 - the year of Portuguese integration with the European Union structures - till the current programming period ending in 2006.

2. Economic changes in Portuguese regions



Map 1. Portugal and its regions

Portugal is located in the Western part of the Iberian Peninsula and covers approximately 20 percent of its area. The mainland is about 89 000 km², and the total area, over 92 00 km² when the Azores and Madeira Archipelagos have been included. In 2005 Portugal had a population of about 10.5 million inhabitants. The border with Spain covers 1 200 km and the coastline is 943 km long (Soromenho - Marques, Queiros and Vale, 2003). In administrative terms, under the European nomenclature of territorial units, seven regions represent the NUTS 2 level, namely: Norte, Centro, Lisboa e Vale do Tejo, Alentejo, Algarve, and two autonomous island regions: Madera and Acores (Map 1).

Portugal is the least developed country of all former fifteen Members Countries. There is a significant gap, in terms of GDP per capita, between this country and the other Member States (Commission of the European Communities, 2006). However, European structural funds helped accelerate economic performances in poor Portuguese regions. Only in the capital region - Lisboa e Vale do Tejo - the rate of GDP per capita exceeded 75% of Community average and in the period 2000 - 2006 this region obtained only transitional support. In almost all remaining regions GDP per capita rate is less than 75% of Community average and in the 2000 - 2006 period these regions are covered by Objective 1 (Commission Decision 1999/502/EC).

For the duration of next period 2007 - 2013, the Structural Funds will contribute to three new objectives: Convergence, Regional Competitiveness and Employment and European Territorial Cooperation. As before,

regions with a regional GDP per capita below 75 % of the EU average are eligible for the Convergence objective and in Portugal these regions are Norte, Centro, Alentejo, and Azores. Algarve is another Portuguese region eligible for funding under the Convergence objective, but only on a transitional basis¹.

Evolution of GDP per capita rate in Portuguese regions (1988-2003)

Table 1

Region	1988	1990	1992	1994	1996	1998	2000	2001	2002	2003
Alentejo	39.0	54.0	50.0	56.0	61.4	63.1	63.1	63.7	65.0	60.9
Algarve	56.0	63.0	69.0	70.0	69.2	71.4	75.1	77.7	77.7	72.1
Centro	45.0	48.0	52.0	55.0	57.4	59.2	61.6	61.3	61.2	56.2
Norte	54.0	52.0	56.0	62.0	57.5	58.3	58.8	58.2	58.0	52.6
Azores	43.0	43.0	46.0	50.0	52.7	53.6	58.1	58.9	60.7	56.0
Madera	43.0	41.0	47.0	52.0	67.0	75.7	85.0	84.2	87.0	82.9
Lisbon	84.0	78.0	81.0	89.0	95.9	102.2	105.6	105.2	103.7	95.6
Portugal	61.0	60.0	63.0	69.5	68.2	71.0	73.1	72.9	72.7	66.8

Source: European Communities, *Regions: Statistical yearbook 2006. Data 2000-2004*, Luxembourg 2006, European Commission, *Third report on economic and social cohesion: A new partnership for cohesion. Convergence, competitiveness, cooperation*, Luxembourg, 2004.

Available data illustrates how well developed the capital region is, showing that recently it has achieved a high level of economic development in terms of GDP per capita. Table 1 presents changes in GDP per capita rate in Portuguese regions. A growing inequity between the Portuguese regions can be observed despite European structural aid (European Commission, 2001).

On the other hand, the situation on Portuguese labor market is still better than in other European Countries. The unemployment rate remains below 7% for the whole country, and only in the capital region does it exceed this level. It means that unemployment rate in Portugal is below the EU average (table 2). However, between 2001 and 2004 the rate of unemployment almost doubled (from 4.0% to 7.0% of workforce). The cause of the unemployment rate increase is a slow pace of economic development and lack of structural changes. In the group of underdeveloped regions the unemployment rate - less than 7% of workforce in 2004 - is lower than in most of the other EU countries. Another unfavourable factor is long-term unemployment, which has started to increase over the last few years (Piecuch, 2006).

Table 2

Evolution of Unemployment rate in Portuguese regions (1988-2005)

Region	1988	1990	1992	1994	1996	1998	2000	2002	2004	2005
Alentejo	14.6	9.8	7.5	11.4	12.3	9.0	5.5	7.5	8.8	9.1
Algarve	5.5	3.8	2.8	6.8	9.1	6.8	3.6	5.2	5.5	6.2
Centro	3.7	2.0	2.5	4.4	4.1	2.5	2.2	3.1	4.3	5.2
Norte	3.6	2.6	3.1	5.8	7.0	5.4	4.2	4.9	7.7	8.8
Azores	2.2	6.0	3.4	6.6	7.2	4.4	3.4	2.5	n/a	n/a
Madeira	4.8	5.0	3.0	4.6	5.5	4.1	2.3	2.5	n/a	n/a
Lisboa	8.8	5.8	4.8	8.3	8.9	6.4	5.4	6.8	7.6	8.6
Portugal	6.0	4.1	3.8	6.7	7.4	5.3	4.0	5.0	6.7	7.6

Source: European Communities, *Regions: Statistical yearbook 2006. Data 2000-2004*, Luxembourg 2006, Commission of the European Communities, *Sixth periodic Report on the Social and Economic Situation and Development Regions in the European Union*, Brussels/Luxembourg 1998.

¹ According to Article 8 Council Regulation (EC) No 1083/2006 the regions which lose eligibility for Convergence objective because of statistical effect (their nominal GDP per capita rate exceed 75 % of the average GDP per capita of the EU-25) are eligible, on a transitional basis, for financing by the Structural Funds under the Convergence objective.

Many of positive changes in Portugal were possible particularly due to European Structural Funds. European financial aid for less developed regions has a significant effect in reducing disparities in economic performance across the Union and in narrowing the gap in GDP *per capita* between the four Cohesion countries and the rest of the Union.

3. The role of agriculture in Portuguese regions

Level of unemployment rate in Portuguese regions is connected with the necessity of agriculture restructuring. Portuguese regions are highly dependent on activities in the primary sector - especially Alentejo, Centro and the Azores. These regions have also the lowest *per capita* GDP of all the NUTS II regions in Portugal. Data placed in table 3 indicates that only in the capital region - Lisboa e Vale do Tejo - employment in primary sector is very low, as low as in well developed economies.

Difficulties on the labor market had negative impact in those regions where low level of economic development coexists with lack of possibility for non-agricultural job creation. Employment structure is one of the most important aspects of any regional socio - economic performance because changes in this area show direction of conversion in the analyzed regions. In years preceding the act of Portuguese integration with the European Community, tendencies to modify the level of employment in each sector have been observed. That trend was even stronger in the 1990's, as a response to necessary adjustments to highly competitive common market.

No doubt that the most significant changes can be observed in the primary sector. After accession, in many regions highly dependent on agricultural production, this conversion had decisive character. In Alentejo, since 1995, employment in agriculture has decreased from 22.1% (of total employment in all sectors) to 18.3%, and in Centro, from 20.2% to 15.9% of total employment in all sectors (table 3). Only Apores is an exception because almost all economic activities in this region are connected with agricultural production. Approximately 25% of labor force is employed in the primary sector, and numbers of workers remained unchanged in recent years.

Table 3

Employment by sector in Portuguese regions between year 1995 and 2002 (% of total)

Regions	Agriculture		Industry		Construction		Services	
	1995	2002	1995	2002	1995	2002	1995	2002
Portugal	12.2	9.6	22.5	20.3	8.7	9.8	56.6	60.3
Norte	12.7	9.8	32.5	30.3	9.4	10.7	45.4	49.2
Centro	20.2	15.9	24.2	22.8	7.9	9.8	47.7	51.6
Lisboa	1.4	1.0	14.1	11.4	8.7	8.3	75.8	79.2
Alentejo	22.1	18.3	16.9	15.6	6.5	9.0	54.4	57.1
Algarve	15.6	12.4	7.1	6.3	7.9	11.9	69.3	69.4
Apores	24.6	24.0	11.1	10.5	8.9	9.6	55.4	56.0
Madera	19.5	13.9	13.3	12.4	13.3	14.4	53.9	59.2

Source: European Communities, *Regions: Statistical yearbook 2006. Data 2000-2004*, Luxembourg 2006, European Commission, *Third report on economic and social cohesion: A new partnership for cohesion. Convergence, competitiveness, cooperation*, Luxembourg, 2004.

Simultaneously with workplaces reduction in agriculture, employment increased in other sectors, mainly in services and construction. Similar changes have been observed in other Portuguese regions. Positive changes are noticeable, but employment in agriculture is still very high. At the same time employment in services or industry is lower than in well-developed European regions. Only in the Lisboa e Vale do Tejo and Algarve employment in services is similar to the levels observed in well-developed areas.

Another issue characteristic for Portuguese agriculture is low level of productivity. In the year 2003 contribution of primary sector to the country gross value added (GVA) amounted to approximately 4%. Meanwhile employment in the primary sector was more than twice as much (see table 4). Over the years, with the decrease in employment, contribution of primary sector to the regional gross value added decreased, and disproportions between employment and achievements in economic terms are still wide. Furthermore,

in same regions these disproportions are bigger. In Madera employment in agriculture achieved in 2002 14% of total employment in all sectors, but agriculture contributed only 3% to the region's gross value added. Just about the same disadvantageous situation can be observed in Norte and Centro.

Table 4

Gross value added in agriculture at basic prices in Portuguese regions (% of total)

Regions	1995	2000	2001	2002	2003
Norte	5.3	3.1	3.5	3.1	3.0
Algarve	8.7	6.5	8.4	8.0	8.7
Centro	9.3	6.0	6.0	5.8	5.8
Lisboa	1.0	0.6	0.7	0.8	0.8
Alentejo	21.1	15.7	16.8	17.3	18.0
Acores	11.8	10.8	9.2	10.6	9.8
Madeira	4.2	2.8	3.0	2.9	3.0
Portugal	5.8	3.8	4.1	4.0	4.1

Source: Institute Nacional de Estatística Portugal, *Statistical Yearbook of Portugal 2005*, Lisboa 2006.

As it was mentioned above, agriculture in Portugal has changed a lot in recent years. Far-reaching transformation was the result of necessary adjustments to European market. The number of farm holdings fell by more than 28% between 1995 and 2005 (from 449 000 to 322 000) while the utilized agricultural area (UAA) reduced in size by a little more than 6% (table 5, 6). Little more than 3% of all holdings had more than 50 ha utilized agricultural area. More often it was the smallest holdings that couldn't survive these drastic changes, rather than large producers and land owners. Despite this fact, in 2005 approximately 77% of all holdings had fewer than five hectares of utilized agricultural area. Most holdings rely on their own resources, without bank loans or professional accounting. Farmers, in most frequent situations, use family labor and their earnings come mainly from sources other than farming. This creates substantial limits on efficiency. Moreover high age structure of farmers with little qualifications cause difficulties in accepting innovation and modernization (European Commission, 2003).

The biggest changes in the number of holdings and utilized agricultural area took place in four regions - namely Lisboa e Vale do Tejo, Norte, Acores and Madeira. In each case decrease in number of holdings was larger than 25%. The number of farm holdings in Norte fell by 25% between 1995 and 2005 (from 152 038 to 114 226) and the UAA fell by 4%. Almost 80% of all holdings have fewer than five hectares of land but in last years number of farms larger than 50 ha of UAA has increased by 9%. The leading agricultural production in Norte is based on cereals, maize, potatoes and wine (European Commission, 1998).

Table 5

Number of holdings in Portuguese regions according to size classes of utilized agricultural area between 1995 and 2005 (% of total)

Regions	Total		Under 1 ha		1 ha to 5 ha		5 ha to 20 ha		20 ha to 50 ha		Greater than or equal to 50 ha	
	in thousands ha		%									
	1995	2005	1995	2005	1995	2005	1995	2005	1995	2005	1995	2005
Portugal	449.4	322.6	23.	22.	53.3	51.9	17.8	18.1	3.4	4.0	2.2	3.2
Norte	152.0	114.2	19.	16.	56.8	57.8	20.4	21.1	3.1	3.3	0.6	0.9
Centro	134.3	118.7	19.	23.	64.3	58.5	13.1	14.4	2.0	2.6	0.9	1.4
Lisboa	71.0	8.8	22.	17.	54.2	55.4	19.3	20.0	2.7	4.2	1.5	2.7
Alentejo	35.7	39.4	10.	10.	37.7	40.6	24.2	22.8	10.4	9.0	17.2	17.3
Algarve	17.9	14.7	15.	19.	49.9	49.6	27.7	24.0	5.2	4.9	1.6	1.7
Acores	20.1	15.2	47.	46.	24.5	22.1	21.1	19.9	5.8	8.8	1.0	2.3
Madeira	18.4	11.6	92.	94.	7.3	5.3	0.1	0.2	0.1	0.0	0.1	0.0

Source: Institute Nacional de Estatística Portugal, *Statistical Yearbook of Portugal 2005*, Lisboa 2006, European Communities, *Regions: Statistical yearbook 2006. Data 2000-2004*, Luxembourg 2006.

Almost all economic activity in Apores is based on the primary sector, however, in the case of this region, decrease in the number of farms has been obvious. Between 1995 and 2005 a 24% reduction in the number of holdings was noted (from 20 111 to 15 259) but during the same period the utilized agricultural area in Apores increased by 5%. Above all, number of farms larger than 50 ha of UAA has increased in 80%. The most representative economic activity of this island is connected with cattle breeding, which accounts for more than two-thirds of agricultural production. Other important activity is crop farming, which accounts for the remaining 1/3 of total production. The most important market for Apores dairy and meat products is continental Portugal. Also fishery is a significant part of primary sector production (European Commission, 1998).

Table 6

Utilized agricultural area (UAA) in Portuguese regions according to size of holdings, 1995-2005 (thousands of ha)

Regions	Total		Under 1 ha		1 ha to < 5 ha		5 ha to < 20 ha		20 ha to < 50 ha		Greater than or equal to 50 ha	
	1995	2005	1995	2005	1995	2005	1995	2005	1995	2005	1995	2005
Portugal	3924.6	3679.6	56.6	38.9	540.4	377.8	749.0	548.4	456.6	387.0	2122.2	2327.5
Norte	735.4	705.8	17.7	11.5	196.8	152.0	287.7	224.3	134.4	111.3	98.8	206.7
Centro	646.8	658.0	16.6	16.9	185.1	149.7	159.7	153.0	80.8	92.0	204.6	246.5
Lisboa	483.8	102.6	10.1	0.9	89.9	11.2	120.0	16.4	57.4	10.8	206.4	63.3
Alentejo	1800.5	1979.7	2.3	2.3	32.7	37.5	90.3	88.1	120.3	110.4	1554.9	1741.5
Algarve	133.7	106.2	1.8	1.7	21.8	18.0	47.4	33.1	28.3	21.1	34.6	32.3
Azores	116.9	122.8	3.6	2.6	12.0	8.4	43.7	33.4	35.3	41.3	22.3	37.1
Madeira	7.4	4.5	4.6	3.0	2.0	0.9	0.2	0.2	0.1	0.1	0.5	0.3

Source: Institute Nacional de Estatística Portugal, *Statistical Yearbook of Portugal 2005*, Lisboa 2006, European Communities, *Regions: Statistical yearbook 2006. Data 2000-2004*, Luxembourg 2006.

The last region of the group where changes in the primary sector had the widest range is Madeira. The number of farm holdings in this island region fell by almost 40% between 1995 and 2005 likewise the UAA. Almost all holdings have fewer than five hectares of land (99.8%). Agriculture in this region is fundamentally based on three different types of activity. A cattle breeding is one of them. The second area is terrace planting. Lastly, the irrigation systems which allow farmers for crops production (European Commission, 1998). The climatic conditions on Madeira coupled with the mountain relief, allow for an enormous assortment of crops to be cultivated. Among these are figs, loquats and grapes, and cereals such as maize, wheat, rye and barley. Further away from the seacoast, tropical species are cultivated such as bananas, sugar cane, custard fruit, mango and passion fruit. Fishing is insignificant in the regional economic structure with less than 1% of the GVA.

There is one Portuguese region - namely Alentejo - where changes have taken on a different character over recent years. Alentejo is the only one part of Portugal where number of holdings increased by 10.5% between 1995 and 2005 (number of farms under 1 ha increased by 7.6%, between 1 to 5 ha by 19% and larger than 50 ha of UAA increased by 11%). Also amount of utilized agricultural area increased during this period by 10%.

4. Conclusions

Portuguese regions make up a special area in the European Community. Majority of them can be described as less developed economies with strong dependence on agricultural production. All Portuguese regions have permanent natural handicaps, due to their peripherality, topographic and climatic restrictions. In many of these areas, small-scale and low-tech agriculture still dominates. In most cases, traditional economy of these regions is not adapted to market conditions.

Almost all Portuguese regions are highly dependent on activities in the primary sector. Difficulties on the labor market had negative impact in those regions where low level of economic development coexists with lack of possibility for non-agricultural job creation. The process of Portuguese integration with the European Community triggered changes in agriculture. Far-reaching transformation was a result of necessary adjustments to the European markets. In almost all regions, this conversion had a marked character. Positive changes in rural areas are noticeable but nowadays employment in agriculture is still very high and productivity rather low, which is another characteristic feature of Portuguese agriculture.

Over the last ten years the number of farm holdings has fallen by more than 28% while the utilized agricultural area has reduced in size by a little more than 6%. Only 3% of all holdings have more than 50 ha utilized agricultural area and approximately 77% of all holdings have fewer than five hectares of utilized agricultural area. Most holdings rely on their own resources without bank loans or professional accounting. Farmers typically use family labor; they are a rather older part of the population and their earnings come mainly from sources other than farming.

Despite twenty years of Portugal being a Member State of the European Community, agriculture is still a crucial sector for Portuguese economy, and modernization of the primary sector seems to be for a top priority for the country. Also infrastructure provision in Portugal is less developed and of poorer quality than in other parts of Europe. All these factors considered European cohesion policy has an important role to play in dynamic economic growth in rural areas and to sustained welfare of Portuguese habitants.

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