

## ABSTRACT

The work “The sustainable development of the agriculture and the rural environment in Dolj county – major objective in the process of postadherence to the European Union” approaches issues regarding the advance of agriculture and the future of the rural environment in general, and at the level of Dolj county in particular, in the context of the European Community’s expansion eastwards. The analysis of the agricultural divisions at the level of Dolj County allowed the familiarity with the existent inequalities and with the opportunities created by the economic and social integration. To systematically highlight the varied and complex aspects raised by the sustainable advance of the agriculture and rural environment it was imperative to dissociate the research into vary issues so that each chapter contained a large range of aspects from areas related to the main topic.

The work has been structured into two main parts. The first part approaches issues of the agriculture and rural environment in the country in the period before the adherence to the European Union. The second part addresses problems regarding the sustainable development of the agriculture and the rural environment in Dolj County during the process of adherence to the European Union, basing itself on the analysis of the natural and economic states and on the evaluation of the potential of the productivity.

The essential aspects of the research can be identified in the synthesis of each chapter, as following:

- In the first chapter, “The place and the function of the agriculture in the economic development of the country”, an analysis has been made regarding the functions of the agriculture and the place it has in the national economy by presenting the main indices, respectively: the real estate resources, the share of the agricultural area in the total land area; the evolution of labour productivity (the active population working in the agricultural field from the total of the working population in the national economy); the property real estate (the fixed funds) in the agriculture from the total of the country’s economy, the contribution of the agriculture in the GDP, and so on.

### **The work evidenced the following directions:**

In twenty years the agricultural land area of Romania decreased from 14,759 thousands hectares in 1989 to 14,702.3 thousands hectares (-56,700 hectares) in the year 2008; in the total real estate the agricultural land share is of 61.7% followed by forests (28.2%) and other land (10.1%); the agricultural land is involved in a process of perpetual damage, therefore the issue of land improvement is still acute; the agriculture occupies the third place in national economy after construction and industry according to its contribution to GDP. The highest share of agriculture in the GDP was in the year 1993 (21.0%) and the

lowest in 2007 (5.68%); the pronounced dropping in the VAT (Value Added Tax) in agriculture, simultaneously with the growth of the population involved in this area, indicate a speedy reduction of agricultural productivity with negative impact on the economy; in the year 2007 there were 2.9 thousand people working in the agricultural field, which represented 54% of the EU-15 working force in the same field; the deficit of outward transactions emphasized in the period 1994-2002 when Romania became a full importer; the investments in the agriculture, safe for the years 1994 and 2002, were negative in the period 1990-2008.

- **In Chapter 2, “Analysis upon the nationally evolution of the agriculture field after the year 1990”, the following topics have been approached:** the particularities of the agriculture in the farming production stipulated by the market economy; the evolution of the farming land categorized on forms of use and property; the evolution of the herd in effects categorized on breed and forms of property in the period 1990-2008; the evolution of the agricultural production in the period 1990-2008; the evolution of the agricultural production per inhabitant in the period 1990-2008; the progress of the agricultural production.

**The research shows that:** from the year 2000 the country's farming area has increased such that in the years 2005 and 2007 the indices are equal to those from 1991, and in 2006 these values had been slightly overcome; in the structure of the cultivated areas the maize owns the first place, followed by corn, technical plants and oilseeds; the tillable land and the pastureland modified insignificantly in 2008 compared to 1991 (-0.01%, + 0.70% respectively), the hayland increased by 4.6% and the vineyards and the orchards decreased by 25.2% and 33.4% respectively; the herds decreased in the year 2008 compared to the year 1990 by 49.9% (the cattle), by 58.9% (the ovine race), by 51.4% (the swine), by 69.5% (the poultry) and by 88.4% (the laying poultry).

**The structure of the agricultural production has changed over the last 18 years from a rather balanced structure in the year 1990 (53% vegetable production and 47% animal production) to average values of 60% to vegetable production and 40% to animal production in the period 1991-1998; in the year 2008, compared to the year 1990, the total productions increased by:** 14.5% for potatoes, 110.4% for sunflower, 62.0% for vegetables, 57.6% for ovine milk, 31.6% for cow milk and 58.5% for honey production. Reported to this period, in the year 2008, compared to the year 1990, the total vegetable and animal productions decreased by: 78.4% for sugar beet, 44.6% for legumes, 28.5% for fodder plants and by 41.1% the meet production from which: 51.7% for beef and 48.8% for mutton. For all markets and for all categories of economic goods (active, monetary and financial) every producer or consumer base their decisions on the prices, their level and dynamics being determined by the competition and the freedom of action.

- **Chapter 3, “The evolution of the real estate structures in the conditions of the diversification of the forms of land exploitation after the year 1990” sets out with the foundation of the legal frame for the real estate structures and the agricultural exploitation in Romania, exhibiting the important aspects regarding:** the forms of property of the farming land; the types of agricultural exploitation; the human potential and labour productivity in the agricultural exploitation; the improvement of the marketing activities for the refinement of the farming products on the European Community’s market and for the development of the subsidies allowed for agriculture.

**The study evidenced the following:** in the year 2007 there were 3.9 milions of agricultural exploitation of which 66% had an average area of 2.29 hectares; the average area had raised in the period 2002-2007 only by 0.56%, fact which proves a linearity of the elements of fragmentation at national level; according to the General Agricultural Census in the year 2002, the structure of the legal agricultural societies classified by its dimensions, is as follows: the holdings under 10 hectares have the lowest share (6,52%) of the total number of legal agricultural societies and hold 0.04% of the total agricultural surface in use, followed by the holdings with surfaces between 10-100 hectares which take 18.52% of the total number of legal agricultural societies, with 2.11% of the total surface, and the highest share (74.96%) is represented by the holdings of over 100 hectares. The share of population working in the agricultural field from the total of working force oscillated between 29% in 1990, to 37.4% in the year 1998, to 42% in 2000 and to 32% in 2005, the same level as in the year 1992. The operation and effectiveness of the markets for agricultural products and of the inputs require a proper strategy to stimulate the intern development in a process acted out by the offer, including at the same time the farms which have to cope with important constraints. The achievement of these purposes implies: the creation of the environment for private investment and the inclusion of the coordonation of the offer’s chain; the inclusion of the small farms; the non-discriminatory handling of the small farms; the support of the small farmers to cooperate in the meeting of the standards and in the participation at the chain of offers.

- **In Chapter 4, “Agricultural Politics Promoted in the European Union and in Romania”, the work approached such issues as:** the objectives and the characteristics of the new CAP reform; the stages of appliance of the forms of payment and their mode of operation; the demands and the rules of eco- conditionality; the role of the mechanism of “modulation” in the allocation of the European Community’s funds among the market policy and the rural development policy; the rural development policy in the vision of the new CAP reform and the new CAP mechanisms regarding the market and the rural development in the EU-27.

**The analysis continued with the analysis of the agricultural policy promoted in Romania, insisting on:** the results achieved after the implementation of the new CAP reform in Romanian agriculture; the main purposes of the agricultural policy with the aim of the functionality of the CAP

mechanisms in our country. In the end of the chapter had been presented the main mechanisms of agricultural policy in the period after the adhesion to the European Union.

**The examination regarding the implementation of the new CAP reform in Romania shows that:** Romania agreed upon the complete implementation of the quality policy, the marketing mechanisms, the ecologic agriculture, the agricultural statistics, the state's financial assistance and of the environment policy; Romania created the necessary institutions in the management of the funds coming from the European Community granted for the assistance of the agricultural production and the operation of the agricultural market and, starting with 2007, decided to adjust the Single Area Payment Scheme (SAPS) per surface (ha), establishing the minimal eligible surface for agricultural exploitation; the incorporation of the Romanian agriculture into the European structures, enforces the adequacy of national agricultural structures with the Community's, which is still an open topic to be completed in terms of the creation of the economic dimensions of the family holdings, the organization and operation of a cooperative system of European type and of the marketing for agricultural products.

- **In Chapter 5, "The sustainable development of the agriculture in the Romanian rural area", exhibits:** the main characteristics of the Romanian rural area; the effects of the sustainability of the agriculture in the development of rural area; the sustainable development of the rural area in the present and in the future; strategies for sustainable development of the agriculture in the rural area in the perspective of the adhesion to the EU; the research were based on Romania's priorities in the agriculture and rural development considering the adhesion to the EU and strategies for sustainable rural development in the period after the adhesion to the EU, set for 2025.

**The study proves:** the necessity of a concept on the sustainability of the agriculture and of the rural area focused on the new European and world approaches; the constraint of a unitary and comprising concept to which the relation between necessity and the fulfillment of the necessity must represent the stimulus for the definite advance of the economic activity; the sustainable development needs to be conceive in such manner as to create an economic environment which, throughout the inputs and outputs, to be in direct adequacy with the natural environment, but also with the present and future concerns of the generations which coexist and succeed; the sustainable development of the rural area is an extremely complex and current issue aiming at a balance between the demand of preservation of the physical and spiritual virtues of the rural area and its tendency for modernization.

**The overall analysis of the components of the rural area shows that the perspective of development for rural communities is affected by the economic, social and infrastructural delays. These critical delays are produced** by the high rate of split of the land, by the existence of a non-operational system of markets, both from the point of view of the product exchange, but also from the point of view of the land transactions; the high number of land owners living at great distances from their

land, the poor diversity of cultivated plants, low performance in the vegetal and animal fields, difficulties in obtaining and using the services for the production and products sell and the low level of material and social infrastructure in the rural area, especially in the educational and health system and in the rural holdings sphere.

As member of the EU, Romania will be compelled to regard the outlines of the European Community, outlines which have to base the policy of sustainable development of the agriculture, of the rural area and of the environment, and which basically marks the necessity that the development be grounded on a fair and concordant balance between the special needs, the economic and the environmental dynamics, influencing the general benefits in the cultural and ecologic aspects and the environmental and social spheres, establishing an important resource for the economics which, through its protection, management and improvement, contributes to the multilevel development of the rural area.

• **In Chapter 6, “The sustainable development of the agriculture and of the rural area in Dolj County, in terms of the natural-economic conditions and the estimation of the productivity potential”.** The analysis starts with a general presentation of the county, of its current stage of social-economic development, and then it passes to a progressive analysis of the natural environment, namely: the territorial geomorphology with its componential structure; the hydrology and the territorial draining; the climatic factors as ecologic determiners; the vegetation and fauna and the total surface of the county according to the methods of use.

**The study continues with the main economic elements representative for the county, in which were detailed:** the active economic unities classified on forms of property, function and size; the human resources, the technical endowment, the evolution of the systems for irrigation, embankment and draining, as well as the methods of use of the field in the county. A great importance was given to the issues of improvement of the agriculture and rural area. The chapter ends with the highlight of the main dysfunctions resulted in the analysis of the factors of social and economic development of the Dolj County.

**The research has shown the following:** the Dolj County had an agricultural surface of 585,067 ha at 31.12.2009, in decrease with 669 ha compared to the year 2003, representing 78.9% of the total surface of the county. In the structure of the agricultural area, in 2009, can be noticed an increase in the tillable surface with 1,271 ha in 2003, an increase in the pastureland and hayland with 193 ha and a decrease in the vineyards surface with 1,170 ha, of the orchards surface with 963 ha.

In the year 2008 there were registered 7,446 tractors, with 307 less than in 2003, out of which 7,328 pieces belonged to the private sector, representing 98.4% of the total number of tractors comparatively to 94.7% in 2003. In the year 2008 the private sector owned: potato harvesting machine

(100%), mechanical cultivator (98.7%), tractor plows (98.5%), whereas for the spraying and dusting machines, there was a 69.8% share.

- **In Chapter 7, “The agricultural structures and the effective use of the land resources in terms of the diversity of forms of property in the agricultural area of Dolj County”.** The chapter approaches firstly the concept of agricultural structures and of legal framework, which governs the forms of property and the agricultural holdings. Afterwards there had been analysed the following: the structure of the methods of land use in terms of the diversity of forms of property and use; the working force in the agricultural holdings in the county; the system of valuation of the agricultural products obtained in the rural holdings in Dolj County; the analysis of the evolution of the surfaces, of the herds in effects and of the agricultural production in the period 2003-2009; the evolution of cereal and technical plant consumption and the evolution of the agricultural production in general in Dolj County; the identification of alternative technologies of reduction of the climatic changes, referring mainly to technologies and alternative measures for reducing the effects of the drought upon the field crops and upon the vineyards and orchards, clearing the economic results in the vegetal production of technologies of low inputs. The chapter concludes with a SWOT analysis of the strengths, weaknesses and opportunities that Dolj County has in the viability of the agricultural production.

**The study marked the following points:** the cultivated surface was of 389,247 ha in 2009, dropping by 11,643 ha compared to 2006 and by 64,083 ha compared to 2003; the highest decreases compared to 2003 were in the areas cultivated with: corn (- 31,756 ha), wheat and rye (- 23, 538 ha), sunflower (- 11,662 ha), soilage (- 7,191 ha), graperies (- 5,534 ha). Increases were reported to the surfaces cultivated with: rape (10,618 ha), barley and two-row barley (6,680 ha), oat (1,356 ha), cabbage (446 ha); the total cereal production in 2009 was of 915,919 tons, in growth with 8,983 tons compared to 2006 and with 351,503 tons compared to 2003.

In 2009, compared to 2003, the animal production was characterised by increases in: fowl production (3,538 tons), wool production (388 tons) and decreases in: meat production (- 7,695 tons), cow’s milk and buffalo milk (- 149,3 thousand hl). Out of the animal production of 2009, the private sector owns 99.2 % for meat, compared to 98.2% in 2003.

- **In chapter 8, “A Study regarding the growth in economic efficiency of the agricultural production, as a condition for the adhesion to the European Union of the agriculture of Dolj County”**, after the introduction of the content, of the type of research and of the basic outlines of the economic analysis, the study approaches issues related to the implementation of the mechanism for the Community’s agricultural policy in the county and the evaluation of the impact the aids had on the farmers’ income and on the welfare of the rural population with aims at: the profile and the characteristics of the eligible agricultural holdings for SAPS and of the ineligible ones by estimating their development

perspectives; the presentation of the financial pack of the Community's and national budget collected in the period 2006-2009; the elaboration of modules for the development of the agricultural holdings in line with the current requirements of the European Union. The agricultural model that these holdings have to achieve is the European pattern of the family holdings which produce for commercial purposes, organised on the criteria of economic efficiency and benefit, and able to provide the parity of the income in the rural households and the income in the urban area. In this sense, the structure of the services in the rural area on cooperative basis and the forming of the markets are essential elements in the future development of this holding. Great importance was given to the impact that the aids have on the economic and financial results in the vegetal exploitation, in Dolj County. For this purpose case studies have been elaborated, for farms of various stages of development in the period 2006-2009. In their analysis we used the multicriterial examination of the agricultural resources available in the county and the constructive normative method (or the multiple choice method), which is based on estimation of economic efficiency with specific indices: the cost of production, the estimated prices, the income and the degree of benefit, the standard gross margin (S.G.M.) for the vegetal products. The conclusions evidence the positive impact that the Community's and national financial aid have on the economics and on the viability of the vegetal exploitation in the county, bringing him closer and closer to the holdings in the European Community, both as performance and as benefit.

**In the final chapter were summed up the main conclusions and suggestions drawn from the study upon the sustainable development of the agriculture in the rural area, at national level, in general, and at the level of Dolj County, in particular, aiming mainly at the membership in the European Union.**