

## SOME PROBLEMS REGARDING THE AGRICULTURAL AND SUSTAINABLE DEVELOPMENT IN ROMANIA

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### *Abstract*

*The old rural civilization which assured a long and miraculous surviving of the Romanian people, it is at present in a critical breaking up moment. Production and rural living standard have become lacked of competitiveness, traditions and customs are left and people move to cities. Production looks to be unefficient and not sustainable from an ethnical and social point of view. Under the pressure of this situation, and also of the international concerns (ONU 1972, FAOSARD, UE) and European concerns (LEADER 199, EU RDP 2007-2013), sustainable development has become the core of the activity of Romanian scientists and authorities (SNDD 2013-2020-2030, PNDR 2007-2013 ). Taking into consideration the previous research results and programmes, the present study approaches the need to pass to real actions based on the analysis of the thresholds of the affected space, some aspects of the agricultural and rural sustainable development, regarding: farm modernization as an economical and social imperative and mention some aspects of the rural sustainable development including also the preservation of cultural, natural and rural heritage.*

**Key words:** agro-biodiversity and biodiversity, national heritage, rural development, sustainable farm modernization

### INTRODUCTION

*“Agriculture is a strategic resource; national security imposes its sustainable development for long-term” as said S.Batie, R. Healy, 1980.*

Agro-pastoral life from the South-Eastern Europe is an **important informative item for understanding the puzzle and historical miracle which is the Romanian people.**

The old population speaking Latin in Dacia and the ex Roman Empire from East was saved in the 3<sup>rd</sup> and 7<sup>th</sup> centuries from “the tongs” of the new immigrants and new rulers from Bizantium ( in the year 641, the official language moved from Latin to Greek).

Being withdrawn in marginal places, especially in the mountains, the old population lived a rural modest pastoral agro-forest life (Matley 1970, Botzan 1996, Drăgănescu 1994-2010, a.s.o.). The Dacian-Roman urbanism being lost in the « storm » of foreign migrations, this rural culture saved the existence of the Romanian people, including the ethnic one. The penetration of the paradigm of the new European civilization

favorized the creation of a Romanian state, and also imposed severe social and economic changes (Chirot, 2004).

These changes were focused and still are on the development of the Romanian people living standard at a competitive European level, on the improvement of the old agro-rural life endowment, and at the same time they affected its positive aspects. We are still living in this era of changes.

Due to this aspect, the Romanian people was obliged to move to the marginal areas and live a rural agro-forest-pastoral life; the spread of sheep breeds reflects the history of their « pastoral country ». The new populations, who came on this territory, assimilated the local population, creating a common substratum even though the language, the stratum and adstratum were different. They have to be more cooperative accepting and not denying the substratum, the Romanians, becoming a factor of union (Draganescu 2007).

Looking for a correct and competitive solution of social and economic development under a political complex background, five

reforms of agriculture were adopted in Romania of the 19th and 20th centuries.

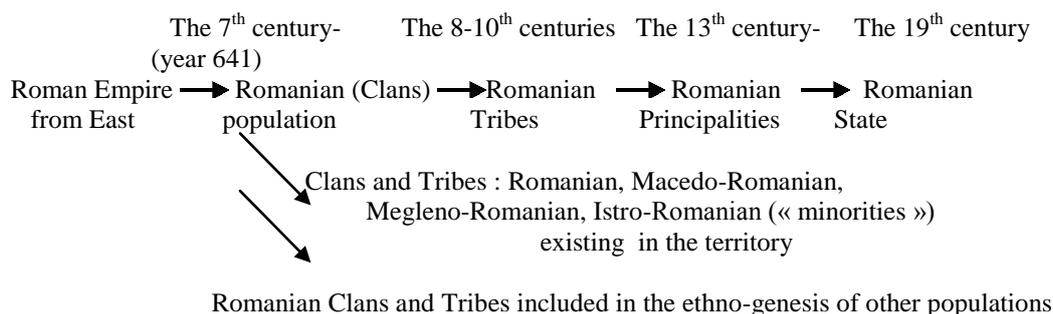


Fig. 1. Formation and persistence of the Romanian people in the historical South-Eastern European context of the years 641-1860.

## MATERIALS AND METHODS

The paper is based on a deep documentation by studying a large variety of important publications belonging to well known personalities along the time who had the courage to present their opinions in order to support the development of agriculture and rural areas on the right way.

Analysis and synthesis, logical deduction and critical approach are the main instruments used by author who tried to present in his manner and logical thinking his own opinions on sustainable development of agriculture and rural areas in Romania.

## RESULTS AND DISCUSSIONS

The reform of the '50s, a "forced and terrorist co-operativization", motivated by the modernization of agricultural production in order to make it competitive with the EU CAP, has been a historical turn in the rural life. In the years 1990, *based on ethic and political reasons*, the technical and economical reasons were underestimated and determined to come back to the non competitive subsistence agriculture.

In the prewar period, it was mentioned "an agrarian overpopulation", a deficit of endowment, the need of producers joining (Ionescu-Sisesti, 1930); a prosperous agricultural household had to own a plot of minimum 10-20 ha (International Congress of Agriculture, Hague, 1937). St. Voicu (1936) affirmed that the agricultural reform of 1918

was applied so that the peasant not to be able to use the land because his land was divided into too many plots (Bădină, 1965). In fact, Garoflid (1925), the ex Minister and President of the Agricultural Academy remarked that the reform of 1918, also issued and applied to counteract the threatening of the Russian Revolution, crumbled the agricultural holdings too much and the « fusion » of the small households and a free economic policy for improving agricultural production was needed. Ionescu-Șișești (1931) underlined that the association of the peasant households was the only solution to develop agriculture and many specialists sustained the idea of industrialization and urban development for assuring jobs and raising the peasants' living standard.<sup>1</sup>

Using his monographic research method, for studying the reality of the social rural life, Gusti and his School elaborated the « Sociological Atlas of Romania » and started **the 1st systematic process of rural development at world scale** (Plan of Cultural Action in Villages, 1932, Students' Teams in Villages, 1934, Law of Social Service, 1938). In the 2<sup>nd</sup> half of the 20th century, after the partial abolition of the "laissez faire", the classic principle of the market economy, as mentioned by the 1st Report of Rome Club (1972, UNCED 1992), it existed the danger of

<sup>1</sup>V.N.Madgearu presents a bibliography concerning the prewar agro-economic aspects (Problems of Romanian Agriculture), Al. Alimanesteanu-Problems of Labour, 1940, C. Ianculescu – Organization of Agricultural Production by raising associations, Wagemann, The Balkan Countries (in A.Golopentia, Sociologie I :225-249, 546-555)

an insufficient world food production and the actual civilization could become non sustainable. This problem also regards the level of agricultural production and rural life in Romania. *Traditions, customs, aspirations, which assured the ethic and ethnic cohesion of the old villages have been abandoned. Agricultural production has become lacked of competitiveness in the European country. Villages lost their old cohesion and ethic status (Stahl) and people run to cities as they have no jobs.*

Globalization of the economy and technological revolution including the new communication and information technologies have given a world character to agriculture problem, which **imposed world programmes and strategies for increasing food production and preserve natural resources. In this respect, United Nations Organization established FAO (1948) and initiated SARD Programme (Sustainable Agriculture and Rural Development -DARD-1998). The EU and Romania at present added Common Agricultural Policy (CAP-1962), aiming the development of food production, a Programme for Sustainable Rural Development for the period 2007-2013. According to National Strategy for Sustainable Development, Romania has to fulfill its engagements assumed according to the Treatise of adhesion and the Romanian economy has to reach the average EU-27 development level from the year 2007 by the end of the year 2020. In 2030, the national economy has to fit with the EU average development in that year.**

Agriculture and rural development are considered sustainable only if they are viable from an economic and ecological point of view, correct from social point of view, corresponding from a cultural and human point of view and based on a scientific approach. **The new problem which arised was: Is Romania's agriculture and rural life (SARD) sustainable and competitive in Europe and at world level?**

**The scientists have to answer this question and offer solutions for attaining this major purpose.**

The problem of sustainable agri-zoo-forest development belongs to the state authorities and scientists. **This paper tries to bring a modest contribution to the clarification of the actual objectives and strategy.**

### **I.THE REAL SITUATION OF AGRICULTURE AND RURAL LIFE-AN ARGUMENT FOR ITS DEVELOPMENT IN ROMANIA?**

According to a statistical Report in 2007, about 2/3, **64 % of the 866,700 Romanian "farms" larger than 1.3 ha produced more than for the own consumption; only 35% produced for direct delivery in the market. Thus, these farms were able to assure food for only 10 million persons. If all the 866,000 farms would produce for sale, using all their agricultural land, the resulted food would be sufficient to nourish 30 million people.** The actual production system is an extensive one with low inputs. By the implementation of modern production systems, production could increase by 30 %, assuring food for other **20 million people.**

**Among the negative effects of transition we have to mention : deindustrialization, dezurbanization, destruction of agricultural structures, declin of purchasing power, life quality and health and education public services, lower natality and life expectancy, a weaker social and national solidarity ". (I. Iliescu 2003-2009)**

Animal husbandry plays an essential role in the sustainable development of agriculture and rural space (SARD), due to its unique importance in assuring food safety, farmers income, resource and biodiversity preservation.

### **I.2.PRODUCTION MODERNIZATION IMPERATIVE**

Five arguments support a **clear, sustainable, correct and scientific agro-rural policy** as follows :

-Agriculture, food safety, is not only a military strategical problem, but also a matter of surviving for any state. **It is a potential « food gun » and an important economic resource** (S. Batie,1980). In addition, it is **the essential component of rural life.**

Traditional agriculture and the concentration of settlements on the peaks and transhumance have been social peculiarities assuring the physical and ethnic life of the Romanians (Botzan, 1996).

**-Poverty, hungry, inequity** are sources of political and social instability at national and world level. For this reason, FAO was created in 1948, SARD Programme in 1998 and some ONGs started the green revolution (Rockefeller-în Mexic) and CAP were founded in the EU. The objectives of the EU CAP and now of Romania too (Art. 33 of EU Treatise, ex Art. 39) are: "a higher productivity in agriculture, guarantee for corresponding living conditions for farmers, market stability, food supply and reasonable prices for consumers.

Some recent articles (Holt-Gimenez 2009) are entitled "The Food War" and "Food Rebellion".

**-The city overdevelopment is not sustainable from an economic point of view.** Rural life is ecologically much more corresponding biologically to human being. The dangerous migration of the rural people to cities is produced by poverty, lack of jobs, and discomfort. In the EU, it is a dangerous phenomenon, and the decline of rural population will affect agriculture, perservation of natural environment and landscape, traditions and national and European heritage.

-The danger of the fall of the actual civilization also imposed a policy destined to preserv resources, agro-eco systems, and agro-rural life is extremely useful in this respect.

**-The technological and organizational decisions are not scientifically fundamented, as it should be, based on mathematical calculus, more often they are drawn on subjective interests.** Even though, the principle of the Strategy from Lisbon was not completely respected (2000-2010) in order to transform the EU into the most competitive and dynamic economy based on science, it is still available. Investments in research assure 10-15 % profit annually, 2 % agricultural gain, 1.8 % increased production and 6 %

higher labor productivity, depending on investment rate and technology use degree (Ruttan, 1980, Drăgănescu 1999).

*Gusti (1936) proposed as any specialist: doctor, agronomist, veterinarian etc to offer services in villages in order to contribute to the improvement of rural life. This proposal was accepted by Law of Social Service.*

Romanian organizations and specialists are not enough active and present in the international organizations, they do not contribute too much to the country prestige and recognition.

România is not a member of International Federation of Agricultural Producers (IFAP), (Republic of Moldova does), and also it is not a member of World Committee of Agricultural Co-operatives.

### **I.3.TYPES OF AGRICULTURAL AREAS.**

**In Romania,** there are about 22 –23 types of agro-ecosystems (Vădineanu, 1992, Teaci 1978, 2000) and each one supposes a different agricultural system. In the European legislation, these agro-ecosystems are classified into two categories:

**(a)Favorable areas for agriculture -FA** (climate, soil, opportunities for mechanization etc.)

**(b) Less favorable areas for agriculture -- LFA** (EC 1257/1999).

## **II. OBJECTIVES AND STRATEGIES FOR AGRICULTURE MODERNIZATION**

Agricultural Policy for sustainable and competitive development is in a critical moment at present because it has to decide "to fail" or "to win". The actual situation is under a bomb with a delayed explosion by 50 years as Jared Diamond affirmed in 1999 and 2006. In Romania, in order to help Agricultural Policy to win it was issued Law 204 destined to protect and encourage intensive agriculture. Many Romanian scientists (Oțiman, Bold, Tofan, Hera, Teaci, Stanciu, Rauta, Avarvarei etc) paid a special attention to the problem of sustainable agro-rural development. The detailed information provided by some their papers (Oțiman "Rural Development in Romania (1997), Rauta, Carstea « Items of Sustainable Development»

a.s.o.) could not be presented in this papers but deserve to be considered by readers. Taking into account that **Romania is among the top 10 countries with high technologies in the world in special fields of agriculture (poultry farming, pig farming, beekeeping ș.a.)**, in this paper, the comments regards a few problems of sustainable agriculture modernization.

**II.1.AGRICULTURAL SYSTEMS.** In România, as in many other countries, there is a large variety of geographical, climate, socio-economica zones. This diversity imposes a **diversity of systems, each one destined to maximize agricultural production in each agro-ecosystemic area.**

In order to achieve a sustainable and competitive agricultural production, Romania will be obliged to develop **two groups of systems adapted to the favorable and less favorable areas** in the 21st century (Draganescu 1992, 2003) as follows :

**a.Revitalization of the commercial intensive farms in the favorable area (FA) by inovations;**

**b.Revitalization, preservation and sustainable development of: (1) semi-intensive agricultural systems (« mountain areas and especially pastoral systems ») **in the mountain and marginal areas (LFA)**, and (2)organic (« ecological ») production systems in small commercial farms with special production (part-time or hobby subistence farms) in the special marginal areas (LFA).** Only the considerartion of these two groups of systems could assure a balance between food demand and agro, biodiversity, resource and environment conservation

For the moment, the 1st group of systems is more important because its aplication imposed production security and competitiveness.

But, it is needed to have clear financial policies to encourage the evolution in the two directions, an aspect which compiles with the EU provisions.

**II. 2. INTENSIVE AGRICULTURE IN THE FAVORABLE AREAS (FA)** Also called **integrated agriculture**, it is characterized by the rationale use of input, knowledge and techniques required to

achieved a maximum agro-eco-system benefit. The efficiency of the agro-production system depends in a large scale on: a) Farmer training level, b) Farm size, c) Development of complementary or alternative production to agriculture, d) Consideration of restrains imposed by eco-systems; e) Vertical administrative or cooperative integration, f)Territory systematization and arable land preservation, g) Efficiency of research organizations. We are going to approach only the first two problems.

**II.2.1.Farmers qualification.** In any farm or intensive agricultural commercial enterprise, farmers have to be graduated of an agricultural college. In Germany and Denmark none could own or inherit a farm from a juridical point of view, without having a green certificate attesting his/her knowledge and skills to manage a farm. This means to be a graduate of a special agricultural school or college and also clarify the notion of farm as an enterprise producing goods competely different from a subzistence or hobby agricultural property.

In the USA, a plant cultivator or animal breeder is considered a farmer (1978) only if he/she would sell products whose value to exceed USD 4,883.

To admit as a farm administrator only a person who graduated an agricultural school is possible only if : (a) that farm is able to produce an income suitable to farmer's qualification at least over the average income, which is possible only in a farm enough large (in 1994 we estimated 12 dairy cows); (b) Legislation regarding inheritance and buying of a farm will be changed according to the rules in force in the EU.

**Law 166/10.04.2003, Art. 4 provides that commercial agricultural holdings have to be managed by a qualified person in the field, but the family farms are accepted as being managed by their qualified owners. But, we consider that this « law » has remained just a simple declaration, it is still incomplete, not having a clear objective and strategy.**

**II.2.2.Farm size.** There are optimum, minimum and maximum dimensions for any

production (cereals, dairy cows, sows, etc), farm types (intensive, extensive, part-time etc) and ecosystems (favorable or not favorable for agriculture). This farm size should be scientifically calculated and supported by the state agricultural policy.

Farm size was one of the first problems considered at the moment when EU **started farm modernization**. Mansholt Plan (1962) estimated a dramatic growth of farm size, not accepted by farmers, even though it was very much mediatized. In the French book entitled « **A France without peasants** »(1965), there were mentioned three types of farms as follows: (1) **modern farms** (large farms, farmers being agronomists), (2) **modernizable farms** (possible to be modernized by state) and (3) **nonmodernizable farms** (which had to be assimilated by the first two types). In Tabel 1 and 2, it is presented the evolution of farm size in France and USA.

Sykes (1963), cited by Drăgănescu (1967, 1992, 1995), estimated that a commercial family farm should have **100 milking cows or 20, 000 laying hens or 40,000 chicken broilers or 800 young steers for fattening or 400 ha cereals.** The EU CAP thought to such a farm size in 1960. Sykes affirmed that the majority of farmers should join in co-operatives or in vertical integrated contracts or farmers could be only part-time farmers in alerger enterprise dealing with other fields of activity. We have to mention that in Norway, all the milk is produced, processed and commercialized by farmers co-operatives.

Table 1. Farm size evolution in France (Andre Neveau, 1993, Draganescu, 2000)

Farm type	Average size Ha		% agricultural land		No.of farms (thousands)	
	1988	2000	1988	2000	1988	2000
Enterprises	100*	120*	35.1	52.6	100	120
Family farms	27	45	51.6	32.9	540	200
-Special farms**	10	10	2.8	3.6	80	100
-Replacing farms***	10	10.5	15	10.9	300	200

\*equivalent with 40 cows or 80 sows;

\*\* (vicultural, armagniac, fat liver etc)

\*\*\*additional income(part-time) or before retire

Table 2. Evolution of average farm size, number of workers per farm and productivity in the USA (Otto C, 1980, Draganescu 2005)

Year	Farm size (ha)	Workers per farm (No)	Production value per worker (USD)
1940	70	1.8	3,300
1950	87.4	1.84	9,400
1960	120	1.78	21,100
1970	153.7	1.53	96,562
1979	183	1.69	172,637

In 1976, 17% farms produced 90% of agricultural production value.

Romania, whose poultry and pig farming and beekeeping were situated among the top ten countries in the world, has become a net importing country from a net exporting one. From a scientific and managerial point of view, the question arising is : Is it possible to survive in the future European and world economy ? The answer is linked to farm size and type, of their degree to adapt to eco-systems and new technologies.

**Farm size and type was analyzed** by many scientists (Otiman 1994-2009, Teaci 2000, Tofan 2005, Bold, Buciuman, Draghici 2003, Alecu a.s.o.) drawing prudent conclusions and having the tendency to support the family farms.

In the years 1992, 1995, 2001, we sustained, without any succes, the durable development and conservation at least of the ex intensive state enterprises in the field of animal husbandry.

The minimum size for commercial farms established in Romania by Law 166/10.04.2003, Art 5, using Otiman proposal (1997, p.330), was the following one: **cereals, technical cropse 110 ha (in the plain areas)- 50 ha (in broken areas); orchards, vineyards, vegetable culture 5-15 ha, 15 dairy cows, 300 sheep, 100 pigs, 2,000 laying hens, 5,000 broilers etc.** Taking into account the statistical data, most of farms are family subzistence or small commercial farms (less than 50 % sold production). This Law does not affect them and its effect is not clear at all.

In1995 **Heinz Muth**, a graduate of the Faculty of Animal Science in Timisoara,

owner of an agricultural consultancy company in Germany, recommended without being asked, the increase of efficiency in the Romanian agriculture by farm size growth as presented in Table 3 for the period 1995-2005.

One of the most difficult problems of farm size in Romania was land division by inheritance. The agrarian reform from 1864 established that the optimum farm size for that time was 5 ha. In 1921, Garoflid proposed 20 ha as an optimum farm size. After 2-3

generations, the farm of 5 ha proposed by Ionescu de la Brad, declined to less than 1 ha, and remained at that level till today. It is obvious that a “farm whose size is less than 1.5 ha and divided into numerous plots is not sustainable at all from a technological point of view and unefficient for its owner. This is the reason why in Germany only the first son inherits the farm and if he/she has an attested agricultural education. All the other children have to look for jobs offered by state in other fields of activity.

Table 3. Evolution of farm size recommended for Romania (1995 and 2005) (Heintz Muth, 1995)

	1995				2005			
	No (Thousands)	Size (ha)	Total land (thousand ha)	% of total	No (Thousands)	Size (ha)	Total land (thousand ha)	% of total
Family farms	3,600	<b>2</b>	7,540	51	64	<b>40</b>	2,570	17
Family associations	14	<b>100</b>	1,530	10	18	<b>300</b>	5,400	37
Commercial companies	4	<b>450</b>	1,770	12	7	<b>600</b>	4,200	28
State farms	0.6	<b>2,000</b>	1,330	9	-	-	-	-
Public sector	-	-	2,620	18	-	-	2,620	18
Total	3,619	<b>3.4</b>	14,790	100	89	<b>137</b>	14,790	100

**II.2.3. Vertical integration –an imperative of agricultural modernization.** The largest part of food cost paid by consumer is formed by processing, transportation, trade, preparation in restaurant cost and also profit for each branch involved in the product chain. For example, in the USA, a consumer spends 18 % income for buying food and Romania it is 3 times more expensive. The farmer receives only 6 %, therefore just one third of this money. This is the reason why integration along the product chain is compulsory between research, machinery industry, farmers processors, whole salers, retailers in order to respect and reimburse producer’s work as achieved in many countries where cooperation and contracts are promoted.

**II.2.4. The danger of monopolist concentration in the agro-food sector.** The growth of farm size and vertical integration hide the danger of concentrating business in the agricultural sector, the upstream and downstream sectors in the hand of a small

number of international companies. The startegical alliances between these companies will help them to apply the monopol policy and disadvantage farmers, becoming a restrain against agricultural production. This danger was advertized by International Federation of Farmers (2002).

In 1991, the USA there were 156 poultry companies, each one having over 250,000 laying hens (22 over 1 million); they covered 67% egg need of the country (Drăgănescu 1992). Between 1989 and 2006, the number of the companies which controlled the world market of genetical breeding for laying hens, produced less chickens as follows : from 10 to 3 (1989) and from 11 to 4 broilers (2006). Romania is able to assure itself selection and produce one day chickens. In case of turkey hens, only 3 companies control the production and delivery of biological material at the world level. In the USA, the giant Smithfield produces 25% of pork (Gura, 2007). Three companies control over 50% of

food sales in Europe. Carrefour is the 2<sup>nd</sup> large world trust selling food. In the USA, 4 large companies process 74 % maize production, 62 % wheat production and 80 % soybean production. In the vegetal production, in the USA, 4 large companies control 69 % of maize seed production and 47 % of soybean seed production. The same aspects were noticed in the field of pesticides, fertilizers and machinery production and trade.

### **II.2.5. Agricultural land conservation. Territory systematization. Environment change.**

**Agricultural production** (vegetal, animal, forest) is affected for medium and long term by market demand, climate and environment variations. As a result of demographical explosion which will onto at world level in this century and of the high food consumption especially of animal origin, (Drăgănescu 2008, 2009), the demand for agricultural products will increase as well. The problem is if land, climate and other factors will satisfy this market demand.

The first Rome Club Report (1972, Drăgănescu, 2008) mentioned that one of the causes of food insufficiency estimated for this century is the decrease of arable land due to the change of its destination. In 2003, FAO estimated that for assuring food for the globe population in the year it is needed 120 million ha arable land in addition, meaning 2 times more than France surface or 1/3 of India surface. This problem has to be important for the public opinion and decision makers. The identification and preservation of favorable and less favorable land for agriculture (FA and LFA) and the territory systematization have to be in the attention of everybody. Investors are tempted to change to frequently arable land destination. In Romania, land is a key attraction for foreign buyers and this has to be considered at international level (Gura, 2007).

Regarding climate change, Shaw (mentioned by Batie, 1980) considered that: (a) “the future climate can not be precisely forecasted”, și (b) “at present we must not be so much concerned by annual climate change, but by its long-term trends.”. We have to

mention that the Americans present production data, followed by average and annual variation of production in order to estimate much better its future evolution. Climate change is accepted in the limit of 4.4° C growth of temperature and 2.9 % precipitation increase for the year 2080, when world production is expected to decline by 6 % or 16 % if fertilization is not applied. This decline is expected to vary between 10 and 25 % in various regions and production could decrease even by 60 % in some African countries, but in average by 16–27%, depending of fertilization effect.

### **II.3. SUSTAINABLE EXTENSIVE AGRICULTURE IN THE LESS FAVORABLE AREAS (LFA)**

Climate, the share of the mountain area and the historical, social and economical conditions have been favorable along the centuries for practicing an extensive traditional agriculture in Romania, named after 1990 in the EU documents as “Agriculture of High Nature Value“(HNVF)”, or **cultural landscapes** (Drăgănescu, 2003, 2010). Here, animal and vegetal production were associated in the same eco-systems with wild plants and animals, those systems assuring a certain production and nature preservation. Agriculture modernization which begun in the 19th century reduced step by step the area of these ecosystems to the mountain area (where cooperatives were not set up in the period 1950-1990 and the plots of the cooperative members from that time have the tendency to be generalized nowadays).

**The maintenance of those systems of agriculture** is encouraged by the EU CAP in the less favorable areas (LFA, Art. 18 19, 20, EC 1257/1999). They are considered also in other international documents (Carpathian Convention 2001, Science for the Carpathians-MRI etc), even though the Romanian experts are not present in the activity of these organizations. The sustainable conservation and development of these traditional agricultural system supposes :(a) a correct identification of the unfavorable areas for intensive agriculture ;

(b) type of agriculture recommended in various ecosystems in that area and also farm type.

The solving of this problem has to be object of some special studies. Some selected aspects are presented in this paper.

**(II.3.1). Identification of less favorable areas for agriculture (LFA).** Despite that there are no precise mentions regarding this problem (Rauta s.a. 1995 s.a.), in Romania these areas are not specifically delimited even though it is considered to be in the ex-novo cooperativized areas. In the EU, the identification of the less favorable areas (LFA) was launched in 1975 in order to maintain it as a support for agro-biodiversity and rural life by a special subsidy given to farmers. According to a provision of the EC 1257/1999, an area can be classified as a less favorable for agriculture in three situations (2<sup>nd</sup> Axe - Sustainable Land Management "Policy of Sustainable Rural Development in the period 2007-2013): 1. **Mountain areas** (Art 19); 2. **Intermediary less favorable areas**"(Art. 19), including low productivity land and less populated areas or with a decreasing population depending especially of agriculture; 3., **Areas affected by specific handicaps** (Art.e 20): where environment has to be preserved or improved, cultural landscape has to be conserved, touristic potential and maritime coast as well.

**(II.3.2). Types of activities recommended in various areas.** Accepting the EU classification into the two types of activities, we have to mention one more. It is about :

**-Revitalization of some semi-intensive production systems, especially pastoral systems (transhumance, moving etc) in the mountain and marginal areas (LFA).** The concentration of human settlements on the peaks of the mountains contributed to the saving of this national wealth and its existence in the territory and imposed to practice a traditional agriculture, including pasturing as a component of national heritage and economy.

**-The development of organic agriculture and farms producing special products** (wines, fat liver etc) especially in the marginal areas

(LFA), maintaining the part-time, hobby subsistence systems for medium term.

-Activities for zoo and agro diversity (flocks and herds of breeds in danger to disappear etc) in the protected areas (IUCN), as practiced in some developed countries ( United Kingdom, Germany, France, Hungary etc) (Drăgănescu 2003, 2010)

### **III.SUSTAINABLE RURAL DEVELOPMENT**

Rural life, economic, artistic, ethical, religious traditions, a real national heritage, saved the physical and ethnical surviving of the speakers of Latin in this part of Europe. "Village was the specific basis of the Romanian people " as affirmed Gusti. Village was in the attention of philosophers (Blaga), ethnographers (Densusanu, Benea etc), sociologists (Gusti, Herseni, Stahl, Golopentia a.s.o), writers (Cosbuc, Rebreanu etc.), agronomists and zootechnicians.

*The most preferred area to settle villages was the forest-marginal area protected from invaders (Botzan, 1996,etc.), aspect recognized by foreign researchers (Matley, 1970). In the Romanian State, after the Agrarian Reform in 1864, the village settlement was moved to better places mainly on land favorable for agriculture. Bernea (2006) mentioned that from that time, a fast change of the rural traditional civilization has started to go to its crisis. Gusti (1925) and his School approached rural life from a scientific point of view (sociological monography, 60 studied villages, the village museum setting up, and a new more correct orientation was given to the evolution of rural life by the rural intellectuals, an students' teams and village « sons » and the ones left from villages ( Law of Social Service) We regret that their work is not continued and even not observed in the actual programmes.*

Bold (1969, 2003 ) made a complex study upon the evolution of agriculture as a component of rural life. **National Programme for Rural Development 2007-2013**, imposed by the EU (The Rural Development Program 2007-2013), provides some essential items of the rural development.

The core of the rural life (Axes 1,2,3), of the technical and social development and cultural-heritage specific to our national life deserves more attention in our opinion. We are trying to underline some aspects of economic and heritage development in the rural space taking into account their physical, cultural, natural and intangible character.

#### **4.1.DEVELOPMENT OF SOME COMPLEMENTARY AND ALTERNATIVE FUNCTIONS OF AGRICULTURE**

**The concept of farm modernization means** the increase of biological (production/consumption) and mechanical productivity (production/hour), resulting a **decline of jobs in agriculture**. As agriculture is only a component of rural life, the major social and economical problem is **to create jobs for the ex agriculturists**. This is a critical aspect that many policy makers do not understand. Klatzman (1976) was right to say „The problem of agriculture modernization lays outside of it ”.

Stabilization of rural population is an imperative of the actual era and its solving imposes to create new jobs, new income alternatives, justified from an economic point of view. Only by creating services and rural tourism we can not solve this problem. It is needed to develop complementary or supplementary industries, to locally process raw materials, products and develop the local trade. This aspect is well known, but not solved yet. In 1936, an essay of the Sociological School entitled „ A beginning of industrialization of a Romanina village ” (Vladescu-Racoasa) presented some difficulties of competence at rural and also at national level.

#### **4.2.SISTEMATIZATION OF RURAL TERRITORY, LANDSCAPE PRESERVATION AND IMPROVEMENT OF RURAL ARCHITECTURE.**

The chaotic and decentralized rural development which is running has to be stoped by Law. Normally, each village should have a plan of territorial systematization, of traditions maintenance regarding landscape architecture, the correct settlement of

institutions, small individual gardens adapted to modern types of streets, canalization, avoiding the loss of arable land. Restoration and the new functionality of buildings and public space should reflect the economic, social, cultural and esthetical value of the local heritage. The World Bank has a strategy for the development of agriculture and rural life including 4 items : (a) assurance of a legal basis for a modern and in progress rural sector, (b) creation of an institutional framework for this sector, (c) recover of buildings or of the physical basis, (d) increase of the competitiveness in the sector. The basic objective of the World Bank in the rural areas from the underdeveloped countries is to diminish poverty and increase prosperity and the living conditions of the population.

#### **(4.3.)PROTECTION AND RESTORATION OF CULTURAL AND NATURAL HERITAGE**

Protection and restoration of the cultural heritage, artistical, ethical, hygienic and religious traditions is a very important problem at present at world level as important as environment protection. Cultural heritage is a visiting card for a nation.

Its preservation and promotion is one of the major objective of the rural development and has a deep contribution to life quality in the rural areas.

Vianu (1982) recognized the duality of popular culture: traditional folk culture and progressist folk urban culture. We added the term of «progressist» to the one of traditional, underlining that the cultural chaos of nowadays (culture by accident much helped by media) has to be avoided, as it is forbidden in other countries. There are 3 types of national cultural heritage as follows :

**(4.3.1.)Physical (« tangible ») cultural heritage including the whole physical environment created by man** (architecture, archeology, monuments, creations, agricultural sites), and **moving (mobile) cultural heritage** related to the national and local history (folk suits, folklore in general). At EU level (ERDF) assures financial support for restoring buildings, settlements and mobile heritage.

(4.3.2.) **Natural heritage** includes rural landscape and natural environment, agrobiodiversity (animal breeds/race, plant varieties), natural flora and fauna, protected areas by IUCN (biosphere reservations, natural parks, scientific reservations). What a pity that in case of Romania, agrobiodiversity is not preserved.

(4.3.3.) **Intangible heritage** including aspects of the local cultural values (behaviours, customs, practices, conceptions on ethic and hygiene etc) and spiritual values (esthetic, artistic expressions, folklore). Materialized both on the folk art and folklore, this heritage is essential for rural life, but often it is difficult to be preserved under the pressure of the free mass-media. School and church can and have to support the preservation of the positive intangible heritage in the ethic and behaviours of the rural life. The local managers should be an example in this direction.

The conservation of the three types of rural national heritage could be helped for long-term and by the development of tourism. The large variety of the rural cultural heritage of Romania could become an attractive cultural destination. This is deeply demonstrated by Maramures region.

#### **IV. STRATEGY OF RURAL DEVELOPMENT**

The analysis of rural development supposes to establish the objectives, dominated by equalitarianism, pacifism, liberalism and a clear strategy to attain them. A few opinion on this are given below.

Popular culture is decentralized and the local cultural authorities are responsible at its level. ***“Our villages are not identical one another. Anyone who would like to action in an efficient way in a village has to accept the existing differences between villages and start its plan from this aspect. The efficient actions require a deep documentation, and superficiality and amateurishness are more than a crime against your nation.”***, affirmed Gusti (Draganescu, 2005). Each village should establish a model, a group of objectives able to represent in a correct way the reality and the strategy by means the

reality to reach the model. This aspects require **objectiveness and competence and should be solved in a different manner for each locality. The village intellectuality is responsible of this.** Starting from the years 1935-1939, Gusti considered that “the cultural actions should be fundamented on a well done plan based on the village needs, and **agronomists, veterinarians, priest, teachers**”, and **“the ones who left the village, sons of the village, have to be brought back to their duties”**. Today we could also add the people from cities who built holiday houses in villages. The opera of the whole nation change should be carried out by elites, said Gusti **“the quality of elites will determine the village quality”**.

#### **CONCLUSIONS**

Sustainable development of agriculture and rural areas is the only solution to recover Romania after the negative impact of transition period.

Production modernization is an imperative in the actual situation in order to increase production, agro-food product quality and competitiveness in the domestic and international market, to cover better consumer needs and also to assure a corresponding profit and living standard for farmers and their family.

Taking into consideration the large diversity of agri-ecosystems existing in Romania, the sustainable development of agriculture have to be carried out by means of:

- revitalization of commercial intensive farms situated in the favorable areas for agriculture;
- revitalization and preservation of semi-intensive agricultural systems (especially pastoral systems in the mountain areas) and of organic agricultural systems in small commercial farms namely part-time or hobby subsistence farms.

Sustainable intensive agriculture is the main way to nourish the whole population and depends on farmers' training level, farm size, vertical integration along the product chain.

Sustainable rural development involves: stabilization of rural population by creating

new jobs and income alternatives in the rural space, assurance of the territory systematization, landscape and environment preservation, improvement of rural architecture, protection and restoration of the national natural and cultural heritage.

## REFERENCES

- [1] Avarvarei, I., Macovei, G., 1998, *Agricultura Romaniei in contextul integrarii europene*
- [2] Bădină, O., 1965, *Dimitrie Gusti, Editura Științifică*
- [3] Bernea, E., 2006, *Civilizatia româna săteasca Ed. Vreamea*
- [4] Bingal, E.M., McCracken, 2000. *The conservation of European traditional farming systems. Env. Rev.* 149
- [5] Bold, I., 1974, *Sistematizarea Rurala, Ed Tehnica*
- [6] Brătianu, G., 1988, *O enigmă și un miracol istoric: poporul român Ed. Științifică Enciclopedica*
- [7] Bold, I., Buciuman, E., Draghici, M., 2003, *Spatiul Rura, Ed. Mirton, Timisoara*
- [8] Botzan, M., 1996, *Mediu și viețuire în spațiul Carpato-Dunăreano-pontic, Ed. Academiei*
- [9] Brown, R.L., 2002, *Eco-Economie Ed. Tehnică București*
- [10] Brundtland, G.H., 1987, *Our common future Oxford University Press*
- [11] Chirot, D., 2004, *Originile inapoierii in Europa de Est, Ed. Corint.*
- [12] DiMento, J., 2007, *Climate change, MIT Press*
- [13] Drăgănescu, C., 1984, *Exploatarea animalelor ecologie aplicată, Ed. Ceres*
- [14] Drăgănescu, C., 1992, 1995, *Situația actuală, obiective și strategiile în dezvoltarea producției animale în Romania. Tribuna Economică, 32:1618; 33:18-19; 34:13-14; 35:15-16*
- [15] Drăgănescu, C., 1998 *Romanian Sheep Production: Spectacular Past, Decline, Uncertain Future. FAO REU Sheep and Goat production in CEEC: 179-187;*
- [16] Drăgănescu, C., 2000, *Despre modele de dezvoltare durabilă și competitivă a producției animale în Romania. USAMV. Zootehnie, 2000, 70-73; 2000a.*
- [17] Drăgănescu, C., *Politici agrare vest-europene. Agricultura Romaniei: 11-12*
- [18] Drăgănescu, C., 2000b, *PAC-orientare pentru politica agrară românească. Agricultura Romaniei: 11*
- [19] Drăgănescu, C., 2001-2002, *Problems of free-ranging livestock systems in Romania, in "La Canada" 15:7-9*
- [20] Drăgănescu, C., 2001, *Politica agrara romaneasca si dezvoltarea durabila a productiei animale FZB, a 30a Sesiune Stiintifica: 24-28*
- [21] Drăgănescu, C., 2010, *Romanian High Nature Farming and conservation of farm animals and natural biodiversity*
- [16] Drăgănescu, C., 2000, *Despre modele de dezvoltare durabilă și competitivă a producției animale în Romania. USAMV. Zootehnie, 2000, 70-73; 2000a.*
- [17] Drăgănescu, C., *Politici agrare vest-europene. Agricultura Romaniei: 11-12*
- [18] Drăgănescu, C., 2000b, *PAC-orientare pentru politica agrară românească. Agricultura Romaniei: 11*
- [19] Drăgănescu, C., 2001-2002, *Problems of free-ranging livestock systems in Romania, in "La Canada" 15:7-9*
- [20] Drăgănescu, C., 2001, *Politica agrara romaneasca si dezvoltarea durabila a productiei animale FZB, a 30a Sesiune Stiintifica: 24-28*
- [21] Drăgănescu, C., 2010, *Romanian High Nature Farming and conservation of farm animals and natural biodiversity*
- [22] Eliade Mircea, 1937, *Piloții orbi*
- [23] Gervais, M., Servolin, C., Mendras, H. 1965, *Une France sans paysans Ed. du Seuil*
- [24] Garoflid, C., 1924, *Politica pe care statul sa o urmeze in situatia noua creata agriculturii de reforma agrara Sporirea Productiei agricole a tarii, VI:73-81*
- [25] Gura, S., 2007, *Livestock Genetics Companies League for Pastoral People; (Gusti D.) 1936 Melange D. Gusti XXV Ans d'enseignement 1923 Fiinta si menirea academiilor*
- [26] Harlem, R.J., *Crop Monoculture and the Future of American Agriculture. in: The Future of Am. Agr.: 117-152*
- [27] Holt-Gimenez, 2009, *Food Rebellion! Crisis and the hunger for justice*
- [28] Iliescu, I., 2009, *Strategia nationala de dezvoltare durabila-in: Romania si Lumea, 2009, .82*
- [29] Klatzmann, J., 1978, *L'Agriculture francaise Inedit Econ*
- [30] Matlez, I.M., 1970, *Traditional pastoral life in Romania, The Professional Geographer XXII, 6:311-316*
- [31] Meadows H. Donella et al., 1972, *The Limits to Growth Potomac Ass Book*
- [32] Mendras, H., 1970, *La fin des paysans Colin. Col. U2*
- [33] Otiman, I.P., 1997, *Dezvoltare Rurala in Romania, Ed. Agroprint, Timisoara*
- [34] Otiman, I.P., 2001, *Exploatarea agricole din Romania, Adevarul Economic 45, 7-13. 11 2001*
- [35] Otiman, I.P., 2010, *Comasarea terenurilor. Dimensiunea exploatarea agricole, Profitul Agricol 2*
- [36] Otiman, I.P., 2007, *Viata rurala romaneasca pe drumul lung intre Flamanzi si Uniunea Europeana*
- [37] Rauta, C., Carstea, S., Tuhai, A., 1995, *Elemente fundamentale ale strategiei dezvoltarii agriculturii durabile*
- [38] Ruttan, W.V., 1980, *Agricultural Research and the Future of American Agriculture. in: The Future of Amer. Agr.*
- [39] De Schutter, O., 2009, *Special Rapporteur on the right to food*
- [40] Stanciu, G., Predila, G., 2007, *Exploatarea agricola familiala, Ed. Cetatea de Scaun*
- [41] Sandra Batie, Healz, R., 1980, *The future of American Agriculture as a Strategic Resource*
- [42] Stahl, H., 1936, *L'organisation collective de village roumain*
- [43] Teaci, D., 2000, *Agricultura si silvicultura romaneasca 2020. Ed. Omnipres*
- [44] Tofan, A., 2005, 2006, *Dimensiunea economica a exploatarea agricole, An St. Univ. Al Cuza Iasi, 123-129*
- [45] Vianu, T., 1982, *Studii de filozofia culturii*
- [46] Ordonanta de Urgenta 108/27.06.2001
- [47] Legea 166/10.04.2002
- [48] Legea 204/24.10.2008
- [49] *The Dairy Co-operative in Norway 1995-1996*

[50]Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, Vol. 6, 7, 8, 9, 10, University of Agricultural Sciences and Veterinary Medicine, Bucharest, Romania

[51]Large-scale land acquisitions a A set of core principles to address the human rights Challenge; Europedia.mou.eu 20

[52] EU agricultural policy 21. SARD.

[53] IFAP Sixth Draft Report on industrial concentration in the agro-food sector

[54] Programul National de Dezvoltare Rurala 2007-2013, 859 p

[55]Strategia Nationala pentru dezvoltare durabila a Romaniei 2008, 151 p

