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THE ROLE AND PLACE OF THE INDIVIDUAL PEASANT FARMS IN THE ECONOMIC SUSTENABILITY OF THE RURAL POPULATION IN ROMANIA

LUP AUREL¹

Abstract

The paper is a analyse of the exploitation structures, the evolution of the land resource in the agriculture focussed on the part and place of the individual-peasant farms in agricultural economy of Romania. The farms were grouped by size and in each group is calculated the weight in agricultural aria, average size in hectares, number of the animals for the main species average per farm, density per 100 ha. Is compared economic performances of the individual peasant farms with those of the units with legal status, great sized. On the basis of the results obtained is evident the economic and social role of the individual peasant farms in sense off the durable rural development concept. Is proposed adjustment of much support for the purpose of increasing the performances of this category of farms inclusively by increasing their size.

Key words: *individual, farm, rural population, rural development, performances, market economy.*

INTRODUCTION

Is unanimously accepted that Romanian agriculture is characterized by an exaggerated degree of crumble of the properties and respectively of the agricultural farms that being one of the main reason of poor technical and economic performances. Implicitly economic performance is characterized at its turn the guarantee of society welfare as main purpose of any economic activity.

In the agriculture the performance is measured by the yield level per hectare or animal head profit, work productivity. Without contest validity of these indicators the author consider that in the last 20years peasant households of little size of a majority had a leading part in economic sustainability (supporting) economic of rural population in this period.

In Romania with a rural population of the almost 50% of total and almost 30% working in primary agriculture, have to make choice between a little performance or lack of any activity and unemployed status for a indefinite period.

The author take in account the part and the role of individual small farms in the economic sustainability of Romanian rural pleading in the sometime for the amalgamation in family farms sized as in vest-European countries.

MATERIAL AND METHOD

Were too gathered up and selected statistical data regarding the subject and were consulted old works by different authors and a rich bibliography. The data is analysed, processed and processed by specific methods of the economic research. Finally the data were synthesized in some conclusions. The author considers them important concerning real state of the Romanian rural and its future evolution.

RESULTS AND DISCUSSION

3.1. Social-economic structure of romanian rural. According to the regional classification system adopted by European Charte of Rural Space, all territory of Romania belongs to rural space category because the weight of rural population is not over 50 percent. These areas is called *significant rural aria*. From the eight development region only Bucharest is *predominant urbane*.

The evolution of the proportion between rural and urban population is very slow. In 1965-1989 when the communist regime forced the urbanization processes the weight of rural population

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was reduced from 66.3% to 46.8% respectively with a rate of 0.85% yearly. In exchange in the last 18 years (1989-2007) the weight of rural population is reduced only from 46.8% to 44.9% with a rate of 0.12% yearly.

From this point of view, the structure by medium urban/rural Romania is significative different comparative with many European Union countries (tab.1).

Table 1 The weight of rural population and of the population employed in agriculture in the world, in EU and different counties

Country	Weight of rural population %	Weight of active population employed in agriculture %
<i>World</i>	<i>53</i>	<i>44.7</i>
EU-27	24	6.3
EU-15	20	4.3
- Belgium	3	1.8
- Holland	10	3.4
- Germany	12	2.5
- Denmark	15	3.8
- France	24	3.4
- Italy	33	5.3
- Hungary	35	10.7
- Poland	37	21.7
- Slovakia	42	9.0
- <i>Romania</i>	<i>45</i>	<i>32.2</i>
- USA	23	2.1

Source: FAO Yearbooks.

The most part of the rural population is sustained economically by the agricultural activities of subsistence and semi-subsistence family farms, small and very small. In 2007 year the incomes and self consumption of peasant families came into account from the products obtained from in their farms.

This state of things is not tacked in consideration by the economists of market economy and by the governors too.

3.2. Exploitation structure of land resource in Romanian agriculture. Exclusive of the period of planned economy (1960-1989) in Romania the structure of land exploitation was represented by two kinds of farms; great estates belonging to the landlords and small farms belonging to million peasant families. This state of things was considered unjust because while estates produced for enriching, the little plots belonging to the peasants did not produce enough incomes for economic sustainability of their families.

Beginning of the middle of XIX century social movements determined the governors to legislate land reforms from which a part of the large estates were divided and distributed to the peasants with little or without land. So happened in 1864, 1921, and 1945 years [1] but the problem had not worked out, the average size of the individual-peasant farm was 4.55 ha after 1864 land-reform, 3.76 ha after 1921 land-reform and 4.37 after 1945 land-reform. In all cases too little for the sustainability a peasant family. After 1989 the history is repeated. The reconstitution of the private rights on the land by Law 18/1991 has as consequence a unprecedented crumbling of the agricultural lands. The press of this time had mentioned the figure of 40 million parcels of land.

The phenomenon was disquieting so that in 1991 by the Law 36/1991 was possible to constitute associations with public status and family-associations bigger sized (tab.2).

The evolution of constitution of agricultural farm more great sized wasn't not attractive in this period so in 2001 year, comparative by 1993 year, the number and the weight of individual farm was greater than the number of the associations. In this situation the Government forced somehow the processes of association by Law 166/2002 regarding agricultural farm from which some facilities were landed to greater farms (subsidies for some products).

Table 2 The evolution of the kind of agricultural private farms in Romania in 1993-2001 period

	Year	SAU Thou. hectares	Weight in total private surface %	Number Thou.	Average size ha/unit.
Society (associations) with public status SA	1993	1940	17.4	4265	448
	1997	1714	14.8	3913	438
	2001	1685	13.2	4376	385
Family associations without public status AF	1993	1763	16.0	13772	128
	1997	1000	8.6	9489	105
	2001	790	6.2	6494	122
Individual farms	1993	7333	66.6	3419	2.10
	1997	8897	76.6	3946	2.33
	2001	10311	80.6	4170	2.47

Source: A.Lup: *Introducere în economia și politica rural-agrară* p.462.. Ed Ex Ponto [6].

The minimum size established by law were the following:

- Cereals, technical and medicinal plants in plain zones ... 110 ha
- " " " " " in hilly zones 50 „
- Meadows and fodder plants in hilly zones 25 „

In the last decennium the size of the agricultural farm had differentiated and only few of them are compatible with the size of agricultural farms from numerous European Union countries.

By a grouping by size made by APIA (Payment and Intervention in Agriculture Agency) in 2010 year the agricultural farms were classified in the following way (tab.3).

Table 3 The structure of agricultural farms by size of surface in Romania in 2010 year

Farm type	Limit of size	Number of farms		Area used		Average ha per farm
		Thousand	%	Thousand ha	%	
Subsistence and semi-subsistence farms	Under 10 ha	3784	93.5	8181	55.7	2.16
Family farms	10-50 ha	54	4.8	1042	7.1	19.29
Commercial-family farms	50-100 ha	6	0.6	452	3.1	75.33
Commercial societies	over 100 ha	12	1.1	5010	34.1	417.50
<i>Total farms</i>	x	<i>3856</i>	<i>100.0</i>	<i>14685</i>	<i>100.0</i>	<i>x</i>

Source: APIA and General Agricultural Census 2010.

To remark that almost 3.8 million subsistence and semi-subsistence farms representing over than 93 percent possess only 55.7% from total agricultural area of the country.

From the last group detach a number of 35 farms which possess together 352 thousand hectares with an average of over 10000 ha by farm.

This figures remember us the state (situation) of the XXth century beginning as it described by Ctin.Garoflid one of the ministries of agriculture in that times „ *The estates were large ones of them as a principality. The estate Macovei din Buzău had 17500 ha. In Ialomița county and in Bărăgan was more sized estates. The greatest estates were tacked in lease. The brothers Fischer Trust had ruled a third of Moldavian estates* [4].

The rapid extension of the great and very great farms in the last years in the most fertile zones in south and south-eastern part of the country disquiet because contravene of (to) the vest-european model and on the internal plan these farms don't contribute to grow (increase) of incomes of rural population of a majority in these regions.

Academician P.I.Otiman [7] remark the fact that even in these zones there are concentrated real poverty purses.

At the other extreme over than million farms sized between 1-10 ha (3 ha average) exploited only 1/3 from agricultural areas of the country.

The amalgamation of the lands and increase (growth) of the agricultural farms was as subject of agrarian politics in the old Common Market too. Since in the '50 years the Plan Manshold had foresee that until 1980 year the cereal and technic plant farms to reach at 80-120 hectares.

In reality in almost six decades (1950-2007) the medium size of a farm in several country of European Union had increased as following way:

- France from 14.2 ha to 52.6 ha
- Holand from 9.6 ha to 25.5 ha
- Autriche from 8.7 ha to 19.4ha
- Spain from 8.7 ha to 24.2 ha
- Ireland from 12.5 ha to 32.3 ha

Average for EU was in 2007, 20.0 ha/farm and 7.47 ha/farm in Hungary 6.5 ha/farm in Poland, and 3.57 ha/farm in Romania but the weight of rural population in Romania is greater of 10 percent than in Hungary and with 8 percent greater than in Poland.

Table 4 Evolution of the agricultural, aria used by the agricultural farms by their status an size in 2002-2010 period in Romania

Specification	U/M	2002	2007	2010
Total agricultural farms	thousand	4485	3931	3856
from witch:				
- individual farms	thousand	4462	3914	3826
- weight	%	99.5	99.6	99.2
Total agricultural aria used	thousand ha	13931	13753	13298
from witch:				
- individual farms	thousand ha	7709	8966	7445
- weight	%	55.3	65.2	56.0
Average size per total	ha	3.24	3.57	3.45
from witch:				
- individual farms	ha	1.80	2.34	1.95
- units with legal status	ha	282.2	275.4	193.7

Source: Romanian Yearbook 2008 and Agricultural census 2010.

3.3. The role and place of little farms in economic sustainability of rural population. If theoretically there are some measures for constitution of greater farms which can sustain economically the needs of a peasant family in reality the small farms isn't never helped in a developing process. The banks refuse to credit them *they haven't vocation for the credit* affirm the bankers. And on the other hand the process of constitution of very great farms is encouraged inclusively by projects financed from European founds because the great farms can pay their part of the credit. Recent propositions to limit them the subsidies aren't liked by the government which consider that in this manner the state income will be reduced and competitively of them too. The great landlords tell us like in the old times. *We pay the taxis and contribute of the growth of the state incomes.*

However the small individual farm have an important role in agricultural economy and the main weight in the economic sustebability of the rural population firstly by their number and by the weight in agricultural aria of the country and even by their technical and human capital (tab.4).

Each of the 3.8 million individual farms (2010 data) represents a family and constitutes for it the main or single income source. For the agricultural economy of the country the small farms are important because they possess almost all from live-stock (tab.5).

At cattle species the number of the animal is into reduction but the most of them belong at small farms less than 5 hectares, 61.4 percent from the total. The situation is like it of another animal species. The farms greater than 10 hectares holder in 2010 year only 23.2 percent from number of cattle, 22.9% from goats number at (to) small farm under 5 hectares, 61.4 percent from the total. The situation is like it of the author animal species. The farm greater than 10 hectares

posses in 2010 year only 23.2 percent from number of cattle, 22.9% from goats number, 6% from pigs but 40 percent from sheep number.

Table 5 The evolution of the distribution of the live-stock depending on the size of the farms in 2001-2010 period

Year	Limit of size	U/M	Cattles	Sheep's	Goats	Pigs
<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
2002	Under 1 ha	thousand	628	1595	253	293
		%	21.9	22.0	34.0	3.5
	1.1-5.0 ha	thousand	1626	3377	367	3479
		%	56.6	46.7	49.3	42.1
	5.1-10.0 ha	thousand	358	1156	78	814
		%	12.5	16.0	10.5	9.9
	Over 10.0 ha	thousand	259	1110	46	3674
		%	9.0	15.3	6.2	44.5
	TOTAL	thousand	2871	7238	744	8260
		%	100.0	100.0	100.0	100.0
<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
2007	Under 1 ha	thousand	365	979	174	1295
		%	13.4	11.5	19.9	27.5
	1.1-5.0 ha	thousand	1402	3007	391	1739
		%	51.3	35.2	44.7	36.9
	5.1-10.0 ha	thousand	503	184	141	511
		%	18.4	2.2	16.2	10.8
	Over 10.0 ha	thousand	464	4362	168	1164
		%	16.9	51.1	19.2	24.8
	TOTAL	thousand	2734	8532	874	4769
		%	100.0	100.0	100.0	100.0
2010	Under 1 ha	thousand	322	1287	330	1741
		%	16.2	15.3	26.7	32.3
	1.1-5.0 ha	thousand	897	2434	464	1751
		%	45.7	29.0	37.5	32.5
	5.1-10.0 ha	thousand	306	1314	160	408
		%	15.4	15.7	12.9	7.6
	Over 10.0 ha	thousand	460	3751	283	1487
		%	23.2	40.0	22.9	27.6
	TOTAL	thousand	1985	8386	1237	5387
		%	100.0	100.0	100.0	100.0

Source: General Agricultural Census 2010.

To the sheep's the greater weight in number of animals in great farms is explained because at this species the most animals is breed by the great traditional breeder. In the (likely) same manner the goats are breaded in the great farms. In exchange the pigs are breaded especially by the family small farms. Animal breeding in the individual small farms especially for self consumption or inside of communities is a tradition and a necessity inherited from planned economy period when animal production were orientated prioritary to export or urban consumption.

Is meritorious to underline that in planned economy period the families of the cooperative members held an important part from the live-stock of the country: 33.1% from cattle's, 46.6% from sheep's, 100.0% from goats and 28.6% from the pigs. The individual households in 2010 year comparatively with 1990 year, possess 87.2% from cattle number, with 13.4% more much sheep's, with 19% more much goats and with 6.6% more much pigs.

The importance of individual-peasant farms in agricultural economy is proved especially by the weight of them in the live-stock of the country still in ours days (tab.6)

Table 6 Number and density of the main animal species in individual farms and in units with legal status

Specification	U/M	Cattles	Sheep	Goats	Pigs
Total farms with animals	thousand	726.1	271.3	176.3	1649.5
from: individual farms	„	724.5	270.8	176.1	1648.5
%	%	99.8	99.8	99.9	99.9
Number of animals	thousand	1985	8386	1237	5387
from: in individual farm	„	1815	8152	1210	3554
%	%	91.4	97.2	97.8	66.0
Number of animals per farm	head	2.7	30.9	7.0	3.3
- per individual farm	„	2.5	30.1	6.9	2.2
- per unit with legal status	„	106.3	468.0	135.0	1833
Density of animals/100 ha in the individual farms	head	25.0	112.2	16.6	25.2
Density in the legal status unities	„	2.9	4.0	0.46	31.1

Source: General Agricultural Census 2010 [15]

The individual small farm possess over than 91% from cattle live-stock, over than 99% from sheep live-stock and 2/3 from pigs. These are more uniform distribute don country territory, uses better fodder resources from the meadow and from household, which are cheaper.

By self consumption and consumption into rural communities of animal products, cheaper these have an important role in economic sustainability of almost four million peasant families with small incomes.

For national agricultural economy is very important the density of the animals at 100 ha agricultural land, one of more reduced among European Union countries especially at cattle's an pigs (tab.6).

In this case the differences between the two categories of farms are significantly. Density per 100 ha agricultural land is 25 head at cattle's, 112.2 head at sheep's , 16.6 head at goats in the small individual farms by comparison with 2.9 head/100 ha cattle's, 4.0 head/100 sheep's, 0.46 head /100 ha goats to the great farms. Only at pigs the density is greater to the commercial societies.

3.4. The social role of the individual-peasant farms in the economic sustainability of the Romanian rural. From the data presented in table 1 result that the weight of rural population from the total population of Romania (45%) is two times greater than average of European Union, or France, over four times greater than in Holland or Germany, 15 times greater than in Belgium.

For the Romanian rural population witch count near four million families and almost the same number of households, the primary agriculture represent the main source of income and consequently of the survival and for a decent life.

Table 7 The distribution of the incomes per hectare in agricultural farms and the weight of self consumption and the soled products depending of size farms (1930-1931)

Size of farm	Income lei/ha	Self consumption lei/ha	The weight of soled products from total income
Under 3 ha	6510	3841	41.0
3-5 ha	4876	2796	42.6
5-10 ha	4565	2145	53.0
10-20 ha	3964	1599	59.6
Over 20 ha	2967	945	68.1

Source: Nicholas Georgescu-Roegen: *Economia României II...* p.191-192.[5]

The weight of rural population and especially over agrarian population was studied along the time by many economists. Axenciuc (1996) appreciate that a long period of time (1860-1947) the found of work time has used in a proportion of 40-60%. M.Lazar (1930) said: „*many peasants few land*. Other researchers among V.Madgearu (1936), I.L.Ciomac (1943), I.C.Vasiliu (1945), O.Parpala (1975) reach to the like results. Letitia Zahiu (2002): 146 work-days used yearly in the agriculture. A.Lup find that degree of time work in agriculture was 33.5% in 1950, 47.1% in 1984 and 37.5% in 2002 year.

Land reforms of 1864, 1921, Law 18/1991 did not had as result the constitution of farm economically sized for the million of peasant families forced to be contents with the few offered by their mini-farms. In revenge the peasants offer gratuitous their labour and diversify their activities so that the incomes per hectare are even greater then to the great farms (tab.7)

Professor Letitia Zahiu lease after near a century to the same conclusion (tab.8).

Table 8 The value of agricultural production by economical size clase in Romania in 2007 year

Specification	0 - <4	4- <8	8 - <16	16 - <40	40 - <100	≥100	Total
The structure of farms	94.43	2.82	1.66	0.59	0.31	0.18	100.00
Ha/farm	4.89	15.16	66.66	115.42	391.18	1141.53	10.17
Value of production per expl.	6255	20802	52508	98068	226606	982915	10470
Value of production per ha	1279.1	1372.2	787.7	849.7	579.3	861.1	1029.5

Source: Letiția Zahiu și colab.: Agricultura în economia României între așteptări și realități, p.189 [10].

The explanation can't be „*respecting the technologies and provisioning with production factors*”, because in this case yields would have been greater and the income too.

I believe that the peasant small farms are more complex and with a more large pattern, more animal species as explanation.

3.5. Peasant agriculture and market economy. The most of economists are convinced and affirm by all media canals that if we are in the market economy we must sale our products and buy the same products processed or not, from the market. In other words we are not dignified citizen of market economy if we do not get contribution to TRADE GOD.

On the other hand the peasant households participate in a more and more great proportion to the commercial exchanges because it need to buy many things as for the farm (fertilizer, seed, tolls), both for family, clothes and ... bread inclusively.

One of the known economist of the world – Galbraith believe that we must pay taxis for washed our linen in our household and for cleaning and other services must call specialized firms and for the daily lunch and diner to go to a restaurant.

Galbraith introduces the notion: *social convenient virtue* understanding by that pleasure of a housewife to arrange her house for an event or even for each day [3].

Only the Romanian peasant has yet this social convenient virtue, he really likes to be owner, employer, and worker in his agricultural universe. And what is wrong in that? Why we convict the self consumption, which is in fact advantageous from many points of view and especially is cheap and healthy? Why to consider the self consumption as undevelopment indicator?

Is not more suitable to eat our products from our garden from our pigsty from our stable? Is not an ecological kind of live?

We save time, money, energy and especially we consume healthy products which did not had transported, transformed, stored by many conserving substances for resisting on the supermarkets self.

Energy prodigality in transport was pointed out many years ago in ones of the most developed country, USA, for example. In the *Cornucopia Project* [8] we can read: „*for each two dollars spent to obtain the food we spend another dollar for its transport to the market and from the market and a processed food unity cross 1300 miles before be consumed*”. That in the conditions when energy crisis is as much acute as alimentary crisis.

The small peasant households under a hectare in number of 2700 thousand possess however 5073 thousand hectares (34.5%) the most weight in the structure of the farm by size.

They have most complex the live and considering into account animal shelters - the live-stock too - labour equipment – even if are primitive (but that is never mind for a over agrarian population which can and have the will to use its hands, we are in the face an important economic resource which is not negligible.

In the some time we attend to a proliferation of mega-farms (one of them called *family farm*) possess thousand and thousand hectares.

These use performants technologies with a narrow pattern, are vertically integrated, develop activities of transformation, export etc. from which its gain more than from agricultural activities.

The owner of leased lands do not participate to the business because they *don't have a turn for credit*. So they are looking for their live in the foreign countries.

This time we are talking about new ruralism and rural durable development.

I consider that to help the small peasant farm for increase their technical and economical performances must be a priority for the governors, now.

CONCLUSIONS

1. The technic and economic differences that separate Romanian agriculture from the majority of the European Union countries are put down to a great degree of crumbling of land properties and to an exaggerated number of small and very small farms.

2. A more attentive analysis of the structure by size of the farms point out the importance of the individual-peasant farms in the economic sustainability for over than 3.5 million rural families whom the main income source are the agricultural farm products obtained in their farms for self consumption and for market too.

3. In Romania the weight of rural population is the greatest from European Union and the active population employed in agriculture too, and its degree of occupation is only 35-40%.

4. The existence of a numerous over agrarian population was made evident by economists still 150 years ago without find actual solutions for its decrease at reasonable weight.

5. At level of 2010 year peasant farms possess almost all livestock of the country, unlike to great farms of which weight are insignificant and distributed punctual in great agglomeration in the most fertile zones of the country, where these cultivate immense land aria with very few animals.

6. Between the two categories of farms the size compatible with the farms of European Union - 10-50 hectares- possesses only rather than 10% from agricultural aria of the country, even if these represent over than 50 percent of the total number of farms.

7. Is recommended more support to the small farms for the purpose of increase their performance but especially for creating activities in the secondary and tertiary sectors, the main way of increase their economic size and the degree of employment too.

BIBLIOGRAFY

- [1] Axenciuc V. (coord.), 1966: *Evoluția economică a României 1864-1948, vol.II, Agricultura*. Ed. Academiei Române, București.
- [2] Bold I., Drăghici M, 2004: *Două secole de economie rurală și agrară*. Ed. Mirton, Timișoara.
- [3] Galbraith J.K., 1982: *Știința economică și interesul public*. Ed. Politică, București.
- [4] Garoflid Ctin., 1943: *Agricultura veche*. Tiparul Cartea Românească, București.
- [5] Georgescu N. Roegen, 1992: *Economia României, vol.II*. Ed. Expert, București.
- [6] Lup A., 2007: *Introducere în economia și politica rural-agrară*. Ed. Ex Ponto, Constanța.
- [7] Otiman I.P. (coord.), 2006: *Dezvoltarea rurală durabilă în România*. Ed. Academiei Române, București.
- [8] Schneider B., 1988: *Revoluția descuților*. Ed. Politică, București.
- [9] Teaci D., 1985: *Agricultura și silvicultura românească, 2020*. București
- [10] Zahiu Letiția, Toma Elena, Alexandri Cecilia (coord.), 2010: *Agricultura în economia României*. Ed. Ceres, București.
- [11] x x x: *Charta europeană a spațiului rural (1995)*. Consiliul Europei Strasbourg.
- [12] x x x: *Agricultura României 1938-1990*.
- [13] x x x: *Anuarul statistic al României, 1990*.
- [14] x x x: *Anuarul statistic al României, 2008*.
- [15] x x x: *Recensământul General Agricol, 2010*.