

## **The role of farm activities for overcoming rural poverty in Romania**

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### **Abstract**

During the last two decades the agricultural sector in Romania has faced many changes and challenges. This paper links the most critical issues that the country faces with the recorded development of the agricultural structures, the overall economic development of the country and the evolution of poverty in rural areas. Earlier research on rural poverty attributes agriculture with an important role in poverty reduction or improving standards of living. In recent years, Romania has successfully reduced both development gaps and poverty rates. Though the agricultural sector served as a social buffer for several million people in the 1990s, in the background lies a very fragmented land property in which most rural households hold subsistence or semi-subsistence farms. These farms are often managed by retired elderly people lacking basic agricultural training. The authors aim to identify and present the triggers of future development in the rural economy, as well as the role that farming can play in poverty reduction and in fostering community development.

**Keywords:** poverty, agriculture, rural economy, transition, development

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## 1 Poverty in Romania<sup>1</sup>

The literature discusses several indicators for measuring poverty. Absolute measures use a threshold of daily disposable money and allow us to compare figures from different countries for longer time periods. Relative measures refer to countries' average incomes and show poverty in relation to country specific standards of living. Inequality indices like Gini coefficients show the dispersion of income among the population. Each indicator has its pros and cons (Petrovici and Gorton, 2005); therefore representatives from all three groups are used to describe the phenomenon of poverty in Romania.

In September 2000 the world's leaders agreed upon eight Millennium Development Goals (MDGs) to be achieved by 2015. The first goal is to "eradicate extreme poverty and hunger". In 2003 the first Romanian MDGs Report substantiated this first goal for Romania to halve the severe poverty rate<sup>2</sup> by 2009 (Government of Romania, 2003). Already in 2008, the United Nations Development Programme (UNDP) in Romania could indicate a reduction of the severe poverty in Romania for the last five years, from 10.5% in 2002 to 4.1% in 2006 (Figure 1). Though in the same period, severe poverty also decreased in rural areas from 17.5% to 7.1% (Figure 1), the discrepancy between rural and urban regions still persists.

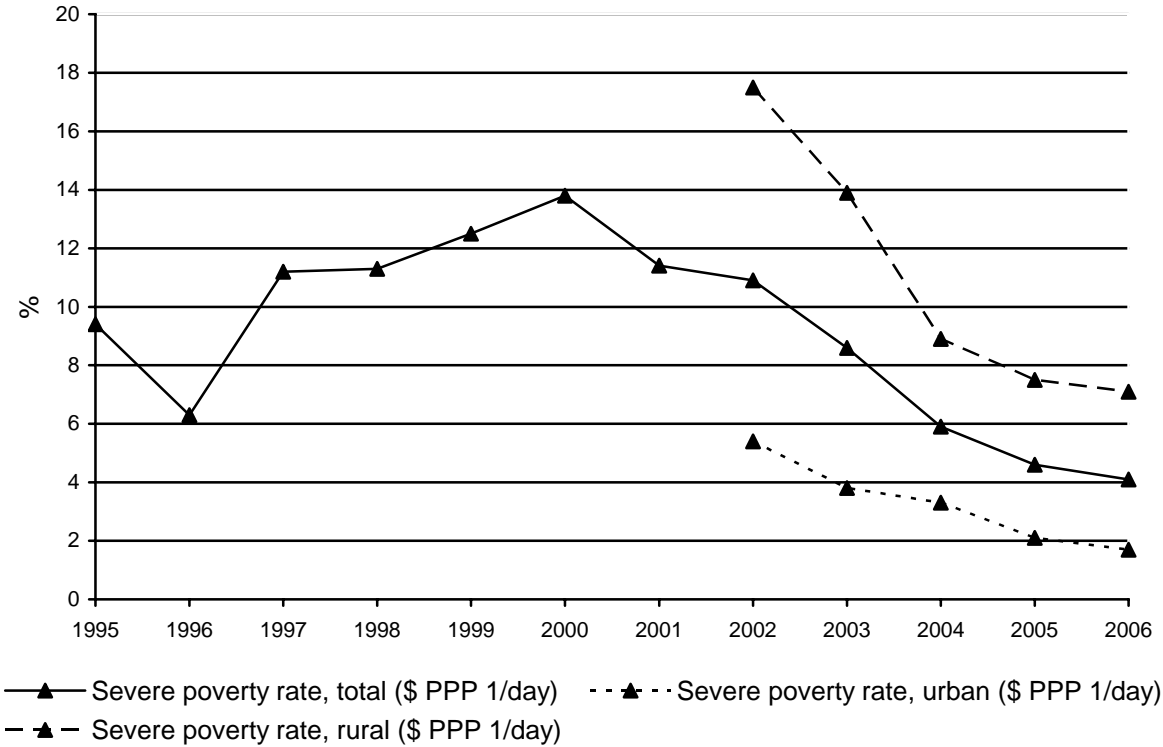
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<sup>2</sup> Severe poverty rate: proportion of population living from less than \$ PPP 1/day (UNDP 2008).

Figure 1 Severe poverty rate in Romania



Source: UNDP Romania (2008)

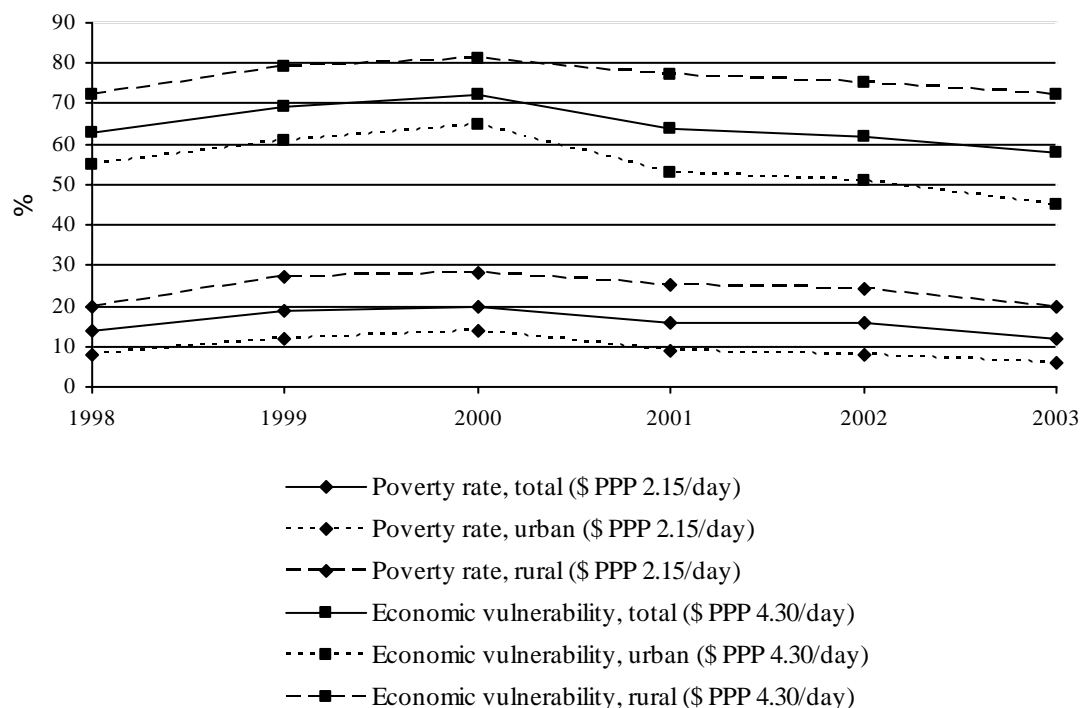
Alam et al. (2005) propose using an absolute poverty line of \$ PPP 2.15 per capita and day because this would better approximate basic needs in regions where the climate requires expenditures for heating and warm clothing. In addition, a second line is drawn at \$ PPP 4.30 per capita and day to signify "economic vulnerability"<sup>3</sup>. Both indicators show that Romania has greatly progressed in poverty reduction during recent years (Figure 2) but the share of economically vulnerable people remains unsatisfactorily high and requires further action.

The Gini coefficient is still low in Romania and increased only slightly from 0.27 in 1998 to 0.29 in 2003 (Alam et al. 2005). These low coefficients show that although there are only small income differences in Romania, the gap between rich and poor is widening. This is also underpinned by the inequality of

<sup>3</sup> According to Alam et al. (2005), people who are not absolutely poor but could become poor in cases of economic crises are "economic vulnerable".

income distribution index<sup>4</sup>, which stood at 4.5 in 2000 and increased to 5.3 in 2006 (Eurostat 2008a).

**Figure 2 Poverty rate and economic vulnerability in Romania**



Source: Alam et al. (2005).

The at-risk-of-poverty-rate<sup>5</sup> has increased by 3% before social transfers (from 21% to 24%) and by 1% after social transfers (from 17% to 18%) as presented in Table 1. The situation is only marginally better for males than for females. When comparing the Romanian figures to that of the Euro area or to the EU-25,

<sup>4</sup> "Inequality of income distribution: The ratio of total income received by the 20% of the population with the highest income (top quintile) to that received by the 20% of the population with the lowest income (lowest quintile). Income is based on equivalised disposable income." (Eurostat 2008b, p. 534)

<sup>5</sup> "The at-risk-of-poverty rate is defined as the share of persons with an equivalised income that is below the at-risk-of-poverty threshold, set at 60% of the national median disposable income. This rate may be expressed before or after social transfers, with the difference measuring the hypothetical impact of national social transfers in reducing poverty risk. Retirement and survivor's pensions are counted as income before transfers and not as social transfers." (Eurostat 2008b, p. 220)

the Romanian situation appears rather comparable, showing that relative to the median disposable income of the basis region, i.e., EU-25 Euro area and Romania, poverty is no worse in Romania than in the EU-25 or the Euro area.

These figures may be misleading because they neglect that Romanian living conditions are still below EU standards. Therefore, total consumption expenditures are considered to scale these figures. Data from Table 2 confirms that the Romanian situation appears to be far from the European standard at the end of 2005. Moreover, the share of expenditures for food and non-alcoholic beverages in Romania in 2005 was, with 44.2%, very high and greatly exceeded the average for the EU-27 (16.9%) (Eurostat, 2008a).

Romania progressed significantly in poverty reduction in recent years. It is questionable, however, whether this success can be attributed to agriculture. What is unquestionable is that poverty is still an issue in Romania. Which role agriculture could play in reducing it further will be discussed Section 4.

**Table 1 At-risk-of-poverty rate (%)**

	Before social transfers						After social transfers					
	Total		Male		Female		Total		Male		Female	
	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005	2000	2005
EU-25	23	26	22	25	24	27	16	16	15	15	17	17
Euro area	n.s.	24	n.s.	23	n.s.	26	n.s.	15	n.s.	14	n.s.	17
<b>Romania</b>	<b>21</b>	<b>24</b>	<b>21</b>	<b>23</b>	<b>22</b>	<b>24</b>	<b>17</b>	<b>18</b>	<b>17</b>	<b>18</b>	<b>18</b>	<b>18</b>

Source: Eurostat (2008b, p. 224).

**Table 2 Total consumption expenditure of households**

	As a proportion of GDP (%)			Per capita (PPS)		
	1995	2000	2005	1995	2000	2005
EU-27	56.8	57.6	57.0	8,300	10,900	12,700
Euro area	56.5	57.0	56.6	9,600	12,300	14,000
<b>Romania</b>	<b>n.s.</b>	<b>69.1</b>	<b>68.5</b>	<b>n.s.</b>	<b>3,400</b>	<b>5,300</b>

Source: Eurostat (2008b, p. 232)

Note: GDP = gross domestic product; PPS = purchasing power standard

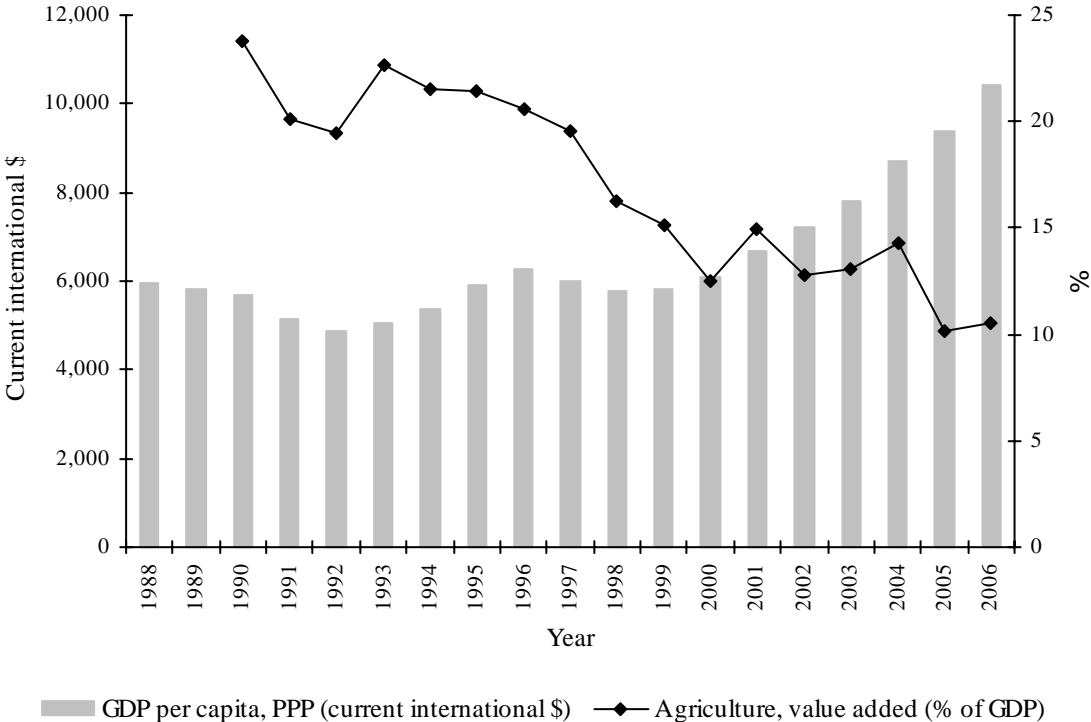
## **2 Economic development in Romania and the role of the agricultural sector**

The Romanian economy started its transition process from quite a low level of economic development (Figure 3). This may be a reason why it did not face such a sharp slump in economic activities as other transition countries. Nevertheless, the secondary sector and especially those industries that were oriented towards east European markets were severely affected by the loss of their input or product markets. Thus, a significant portion of the labour force was released. During the first ten years of transition, and more so in the second third of this time, most governmental programmes concentrated on easing the social hardships of restructuring. The released labour force was supported through professional re-orientation and the development of entrepreneurial skills. Important resources were absorbed and consumed with no significant results since most of the unemployed faced long-term unemployment. Most of these people went back to their native home places, which were rural areas in most cases. The already very low developed tertiary sector received very little public incentives and very low public support. During the first six years of economic transition, it was almost impractical to get credit given the high interest rates, combined with the thin capitalisation of the economic activities.

Agriculture followed the development of the overall economy with a breakdown in the beginning of the 1990s, a recovery period in the mid-1990s, and a second slowdown at the end of the 1990s. Existing agricultural cooperatives were smashed and important infrastructure like buildings and irrigation facilities fell into disrepair. In parallel, the former state agricultural companies that lacked investments went bankrupt and the privatisation process started far too late to save large former operations. The agricultural research facilities suffered from the land restitution with no protection, and most of them were liquidated. The national input market for fertilisers, seeds and planting materials, and breeding animals decreased and imports did not compensate for this. The entire situation increased the pressure on agriculture, causing a negative trade balance for agricultural products. The agricultural sector received much of the labour force from the secondary sector due to very fragmented land property. This positive migration flow caused even further fragmentation, as for many families, regardless of the size and technology employed, farming was the only available economic activity. Thus, a dominant subsistence and semi-subsistence sector

emerged. The slow land restitution process, the legislative environment, the low access to credit, and the only punctual political support basically in terms of input subsidies and production premiums not only blocked a farm consolidation process, but favoured the persistence of small and non-market-oriented farm holdings. In 2000, Romanian agriculture had its worst year, with just US\$ 4,103 million value added.

**Figure 3 Share of agriculture in GDP (%) and GDP/capita (PPP) in Romania**



Source: WDI (2008).

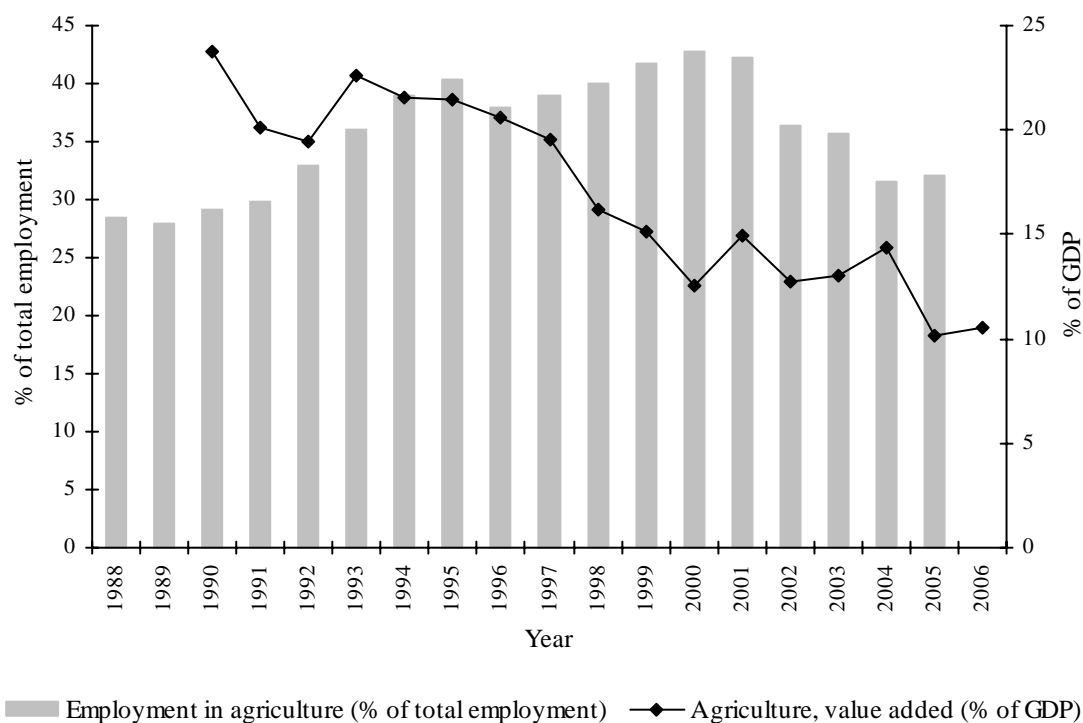
Note: GDP = gross domestic product; PPP = purchasing power parity

Foreign direct investments were rare and unimportant during the first ten years of transition. Beginning in 2000, when most economic activities and most land were privatised, a more relaxed policy towards foreign direct investments, a relative stabilisation of the national currency, and subsequently a more attractive financial market yielded the expected results and economic growth was more than a statistical figure. Since then, the Romanian economy has progressed quickly, but nevertheless in 2006 it reached only 38% of EU-27 GDP/capita (own calculation with data from WDI 2008). Romanian agriculture followed this

positive development trend and produced US\$ 10,917 million value added in 2006 (WDI 2008).

The importance of the agricultural sector declined the more the overall economy grew (Figure 4). Even keeping in mind that the share of agriculture in employment decreases slower than the share of agriculture in GDP when an economy starts to grow (Anriquez and Stamoulis 2007), the ratio between the shares of agriculture in total employment and in GDP was, with 3.2, in 2005, still very high. This high percentage of labour force that remains in agriculture indicates that agriculture has served and continues to serve as a social buffer.

**Figure 4 Share of agriculture in total employment and GDP (%) in Romania**



Source: WDI (2008).

Note: GDP = gross domestic product

Data show that economic development and poverty reduction are strongly correlated in Romania. However, agriculture and the overall economy show the same development pattern and it seems difficult to attribute success in poverty reduction to only one of them. Here, a deeper insight into the Romanian

agricultural sector may help answer the question of whether it could be a driving force for poverty reduction and development.

### **3 Structure of Romanian agriculture and its position in rural economy**

At the beginning of transition, Romanian agriculture was dominated by large-scale corporate farms. The land reform that was carried out after World War II restricted the amount of privately used land to 5 ha per family (DG Agri 2002)<sup>6</sup> thereby destroying the social group of private farmers. After the breakdown of the socialist regime, land restitution took place but was characterised by a number of political shortcomings. The legislative framework of land restitution over a fifteen year period comprises a number of laws. The first, Law 18/1991, stipulated that each former owner can reclaim their land up to a limit of 10 ha. This was the first step of fragmentation, especially for former properties which were hardly consolidated over the first half of the 20th century. Land restitution took place on an archaic model, splitting the property between the legally entitled successors. The same law stipulated that the co-owners, the neighbours, and the state have to be consulted prior to any sale of land. A State Domain Agency should have administrated the processes but it was founded years later, thus delaying the emergence of a liberalised, functioning land market. Law 169/1997 completed and amended the land restitution process and Law 1/2000 increased the upper limit, allowing restitutions up to 50 ha. This caused further problems in the restitution process, as the local administration faced severe legal, technical, and administrative difficulties. In fact, the new law practically restarted the land restitution process. However, Law 247/2005 re-established full owner rights over the land property, including agricultural land and forestry properties.

This half-hearted and still incomplete process led the agricultural sector in 2005 to be characterised by a dual structure with numerous smallest-scale farms that own only a small share of land on the one hand, and few large-scale farms that

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<sup>6</sup> In fact, only 0.15 ha were left for private use.

have nearly one-fifth of the utilised agricultural area (UAA<sup>7</sup>) available (Figure 4) on the other.

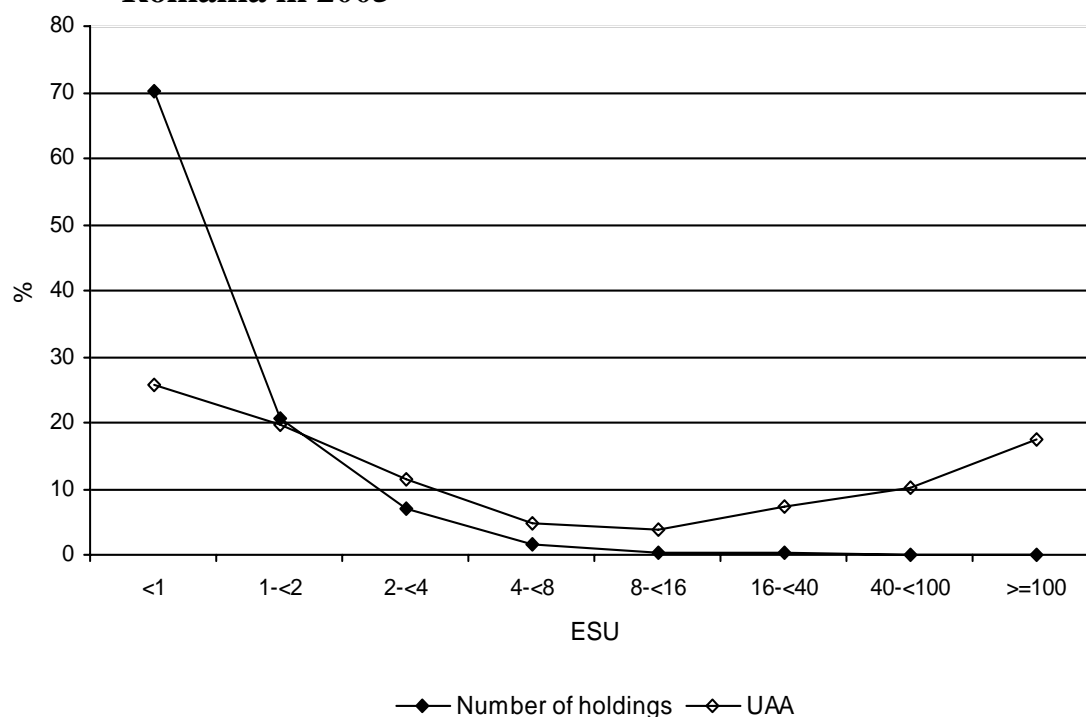
In absolute figures, 3 million farms are smaller than 1 ha and 1,940 farms are larger than 100 ha (Eurostat, 2008c).<sup>8</sup> These figures provide a vivid picture of an agriculture that is dominated by subsistence and semi-subsistence farm households. These households are not considered to be drivers of economic development but as safety nets in times of economic hardship and in retirement. This is also underpinned from migration statistics that show that younger people leave rural areas, whereas older people go back.

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<sup>7</sup> Utilised agricultural area (UAA) is the area utilised for farming, and is made up of the following categories: arable land, permanent pasture, permanent crops and kitchen gardens (Eurostat 2008b, p. 524).

<sup>8</sup> Statistically, any person owning land is considered a farmer in Romania. Thus, over 4 million people are counted as farmers, while it can be estimated that less than half were doing agricultural work and the others possessing the land only, being too old or living too far away to cultivate it.

**Figure 4 Percentages of number of agricultural holdings and utilised agricultural area (UAA) in farm size categories (ESU) in Romania in 2005**



Source: Own calculations with data from Eurostat (2008c).

Note: UAA = utilized agricultural area; ESU = European size unit

European size unit (ESU): ESU is a measure for the economic size of farms in the EU. One ESU equals 1,200 Euro standard gross margins (FADN, 2008, p. 5).

Most of the agricultural work is done by family labour (Figure 5). In 2005, only 9% of the labour force measured in AWU<sup>9</sup> was not family labour. The small-scale farms up to 5 ha accounted in the same year for four-fifths of total agricultural labour force and three-quarters of family labour force. Considering the number of employed persons, the picture becomes even more pronounced. From 8.5 million people employed in Romanian agriculture in 2005, 7.6 million worked in farms smaller than 5 ha, from which only 16,000 people were non-family labour force. The high ratio of employed persons in relation to AWU of

<sup>9</sup> Annual work unit (AWU): "One annual work unit corresponds to the work performed by one person who is occupied on an agricultural holding on a full-time basis. Full-time means the minimum hours required by the national provisions governing contracts of employment. If these do not indicate the number of hours, then 1,800 hours are taken to be the minimum (225 working days of eight hours each)." (Eurostat 2008b, p. 524). In Romania, 1 AWU equals 1,960 hours (245 working days of eight hours each; NIS, 2009).

3.3 for the whole Romanian agriculture and of 3.6 for farms smaller than 5 ha indicates that agriculture employs many people for social and not for economic reasons, thus absorbing the labour that became abundant in the industrial and service sectors during transition. Nevertheless, time series show that labour input has been declining since 2000. In total, 3.6 million AWU were employed in agriculture in 2000, of which 3.4 million were non-salaried. Within seven years, these figures were reduced to 2.2 million AWU in total, of which 2 million were non-salaried (NIS 2009). When this is more than a statistical effect, it would show that with economic growth, people leave the agricultural sector. Whether this indicates a consolidation of the agricultural sector remains questionable.

For landless or underemployed people seeking an additional income, large-scale holdings are important. Nearly 49,000 persons of non-family labour force were employed in farms larger than 100 ha in 2005. The ratio of employed persons in relation to AWU was 0.9, indicating that large-scale farms do not employ labour for social reasons (own calculations with data from Eurostat, 2008d).

The age structure of Romanian agriculture points to two issues. First, it shows that most of UAA (54.6%) is operated by farm holders older than 54 years and 31% by persons older than 65 years old, while only 17.2% of UAA is managed by persons up to 44 years old (Eurostat, 2008d). Thus, innovation in promising technologies and farm enlargements are hardly to be expected and a change of generations seems overdue. Second, it also indicates that elderly people, after retiring or losing employment, start agricultural work. Since it can be assumed that they do not embark upon such difficult work without necessity, it can be concluded that there are social reasons for this phenomenon. Most pensioners have small pensions or even no pensions at all, but they do have a small agricultural property which could provide significantly for their subsistence needs. The property over that land seems to work as insurance for them. The employment structure supports this conclusion. While for non-agricultural occupations the share of employed persons decrease sharply for people older than 54, it remains high for agricultural activities (Table 3).

More than 90% of farms are managed by people without any formal agricultural training (Figure 5). Even relatively large farms, i.e., farms of size 8 to 16 ESU (9,600 to 19,200 Euro standard gross margin) are 80% headed by managers with only practical experience in farming but no formal agricultural training. Only

one percent of farm managers, i.e., 44,500 persons, attended full agricultural training<sup>10</sup>.

**Figure 5 Annual work units (AWU) by size of farms (UAA) in Romania in 2005**



Source: Own calculations with data from Eurostat (2008d).

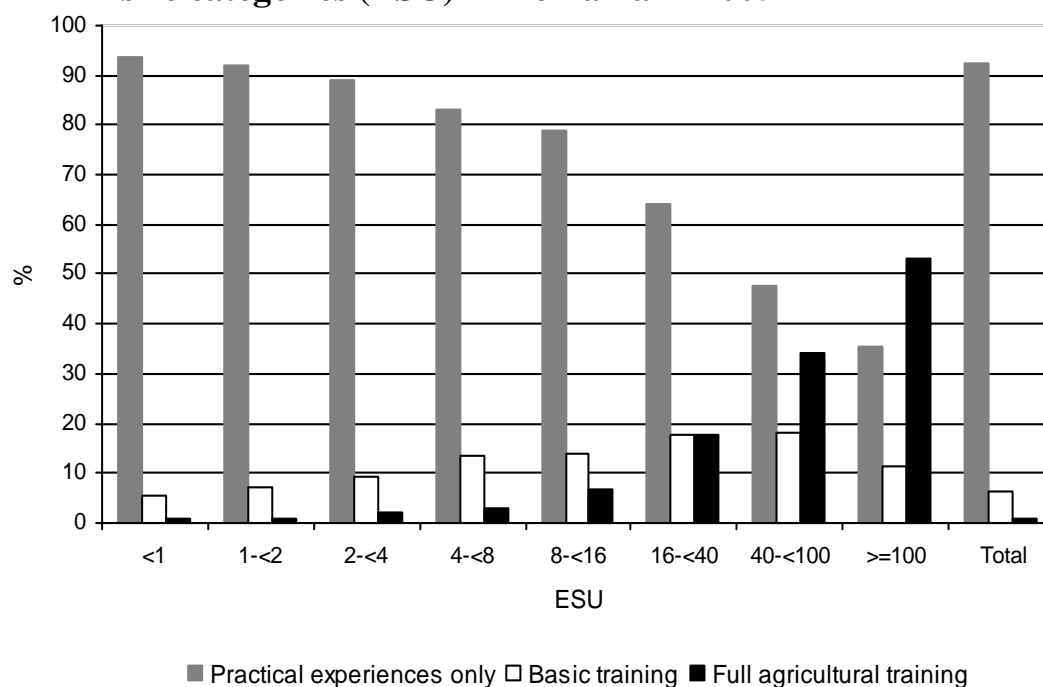
Note: AWU = annual work unit; UAA = utilizes agricultural area

<sup>10</sup> Full agricultural training is any training course continuing for the equivalent of at least two years of full-time training. A completed agricultural apprenticeship is regarded as basic training (Council Regulation (EC) 1444/2002).

**Table 3 Employment structure (% of employed persons) by selected occupation and age group in 2006**

	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	Older than 64 years
<b>Romania</b>						
Total	8.6	27.3	26.0	23.1	10.2	4.9
of which:						
Agriculture, hunting, and forestry	3.1	6.1	5.5	5.6	5.6	4.7
Industry	2.0	6.6	7.9	6.8	1.2	0.0
Other	3.6	14.6	12.6	10.7	3.3	0.2

Source: NIS (2007, p. 188-195).

**Figure 5 Agricultural training of farm managers (% of holdings) in farm size categories (ESU) in Romania in 2005**

Source: Own calculation with data from Eurostat (2009).

Note: ESU = European size unit

#### 4 Agriculture's role in fighting rural poverty and in driving economic development

Agriculture remains important for poverty reduction for both the rural and urban population. The poorer a household is, the more important the income from agriculture becomes. Since the majority of farms are subsistent or semi-

subsistent, it is not primarily the agricultural income that contributes most to household income but the in-kind income, i.e., the opportunity to cover a family's food demand from own production. Thus, more than half of the household income for the poorest families is in-kind income from agriculture, while it is less than 5% for the richest households (Table 4).

Table 5 shows that in-kind agricultural income is important for pensioners and unemployed people and that the importance of agricultural income increases when the region is less developed. However, trends show that the importance of agricultural income is declining for non-farmers households (NIS, 2007).

**Table 4 Composition of household income (%) by deciles in Romania in 2006**

	Decile 1	Decile 2	...	Decile 9	Decile 10
Money income	44.5	58.9	...	88.8	92.1
of which:					
Salaries	3.8	14.3	...	67.1	71.1
Agricultural income	9.2	7.9	...	1.6	3.2
Income from social provisions	25.0	27.6	...	14.0	6.9
Equivalent value of consumption of agricultural products from own resources	54.3	39.6	...	7.1	4.1

Source: NIS (2007, p. 238-239).

**Table 5 Composition of household income (%) by main household categories in Romania and selected regions in 2006**

	Employees	Farmers	Unemployed	Pensioners
<b>Romania</b>				
Money income	88.0	56.0	79.3	74.5
of which:				
Gross salaries & other salary rights	78.4	7.2	28.8	20.6
Agricultural income	0.6	27.3	2.6	3.4
Equivalent value of consumption of agricultural products from own resources	8.3	42.8	17.4	21.9

Source: NIS (2007, p. 266-271).

Both tables show a vivid picture of the safety net function that Romanian agriculture plays for many millions of people. This supports the analysis done in the Romanian National Rural Development Programme (NRDP, 2008, p. 10), which concludes that "Many [...] rural communities make a small contribution to economic growth but preserve the social fabric and the traditional way of life".

Whereas agriculture is important for poverty reduction, no evidence could be found that agriculture was a driving force for Romania's economic development in recent years. This is not necessarily a bad thing, because according to the World Bank (2007), Romania belongs to the group of countries for which agriculture is no longer expected to be a driving force for economic development (p. 4) and, "addressing income disparities ... requires a comprehensive approach that pursues multiple pathways out of poverty-shifting to highvalue agriculture, decentralizing nonfarm economic activity to rural areas, and providing assistance to help move people out of agriculture," (p. 2). Currently, the unfavourable farm and age structure in Romanian agriculture prevents innovation and farm enlargements for most households. Few alternative income sources in rural areas and pensions that do not cover daily living expenditures prevent that people exit agriculture. Nevertheless, it is expected by NRDP (2008) that important structural changes will occur in the rural economy given that "Major development opportunities can arise from restructuring the agriculture and from revitalizing the rural economy [...] The restructuring of agriculture will have a tremendous impact on the wider rural economy, as farming continues to be the most important activity in rural areas, and an essential source of income for rural households," (p. 10). Despite this optimistic statement, it should be kept in mind that as long as the majority of farms are safety nets, they cannot be the drivers of this development and the question remains: Who could do it?

Commercial private farmers<sup>11</sup> and large-scale corporate farms are the two other groups of agricultural producers. Two thousand holdings are larger than

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<sup>11</sup> The distinction of subsistent and semi-subsistent farms, commercial private farms, and corporate farms is arbitrary and country specific. In this report farms up to 8 ESU are considered to be subsistent and semi-subsistent following the definition in NRDP (2008). Holdings larger than 100 ESU are called corporate farms. Farms between 8 and 100 ESU are termed commercial private farms.

100 ESU and operate nearly one-fifth of UAA (Eurostat, 2008c; Figure 3.1). These holdings could play an important role in the agricultural sector as suppliers of high value inputs for a competitive agri-food industry. They are already integrated in internationalised food-chains and are able to undertake large-scale modernisations. Since they do not employ more labour force than necessary for running the business, they do not contribute remarkably to employment in rural areas, but rather increase competitive pressure for up and coming commercial private farmers in the same region. As in most Central and Eastern European transition countries, this latter group is undersized, with only 28,000 holdings operating one-fifth of UAA (Eurostat, 2008c; Figure 4). Nevertheless, this group could be the backbone of the rural economy if given the opportunity to grow and modernise. Indeed, they produce a wide range of varieties supplying local and regional markets as well as niche markets for specialities. It can be expected that competition from the corporate farms will less affect them as a group due to the small number of corporate farms, but competition within the group of up and coming private farmers will be hard for credit, land, and product markets. Whether under these conditions a prospering group of private farmers can be brought back to life remains an open question.

## **5 Conclusions**

During recent years, Romania has progressed successfully in reducing poverty. On the one hand, this can be attributed to the positive overall economic development. On the other hand, agriculture served as a social safety net for many millions of people. Now, the agricultural sector is dominated by subsistent and semi-subsistent farm households headed by persons of retirement age without formal agricultural training. This calls for structural changes since no innovation or initiatives for farm enlargements can be expected from these farm households. Thus, it would foster the necessary restructuring in the agricultural sector were small-scale farmers to abandon farming activities and offer their land to those farmers that are willing to modernise and to grow. Unfortunately, this is only a theoretically realistic option. The pensions' level is so low that agricultural activity on any scale is not an option but a must for most pensioners, which keeps them trapped in the sector. This situation is not expected to change rapidly. Thus, small-scale farming is likely to persist as an instrument for poverty reduction in rural areas.

The few large-scale corporate farms are integrated in food-chains but do not contribute remarkably to employment in rural areas and will not be the backbone of the rural economy due to their small number. The upcoming group of commercial private farmers is still undersized in Romania. They will face tough competition for credit, land, and market access. By producing a wide range of varieties supplying local and regional markets, as well as niche markets for specialities, they could support economic development in rural areas. But large-scale corporate farms and commercial private farmers comprise only 40% of Romanian UAA. Thus, although agriculture has been contributing to poverty reduction, there are good reasons to believe that future economic development will rather come from outside the agricultural sector, while agriculture will continue to play the role of a social safety net.

Strengthening the Romanian agricultural sector calls for concerted policy actions that are finely targeted for different groups. Fostering the restitution of land to former owners, developing a functioning land sales and rental market, and providing access to agricultural product markets could promote the resurgence of a highly productive group of commercial private farmers. Non-farm job creation in rural areas could provide income opportunities for abundant agricultural labour force. Both new farmers and potential non-farm employees seem to require profession-specific advice and training to become competitive in their transition environment. The large group of pensioners could be convinced to exit the agricultural sector if they could rely on an income from social provisions that covers their daily needs.

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