

Tudor, Monica Miheala

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# THE ROLE OF SMALL-SCALE AGRICULTURE IN ROMANIAN CONTEXT

MONICA MIHAELA TUDOR<sup>1</sup>

**Abstract:** *In the last quarter of century (post-communist period after '89) in Romania, rural areas and small rural households were highly stable systems, providing social and economic security. Small-scale agriculture has become and continues to be the main supplier in rural labour market in the absence of other non-agricultural employment opportunities; achieve higher levels of economic performance compared to large farms by diversifying their production structure due to they have an important contribution to the national food security; food self-consumption, supported by small farms has an leverage effect against poverty. If the resilience means the ability of an individual, household, community, region or country to resist, to adapt, and quickly recover after a crisis, shock, change, the economic and social functions and roles assumed in the transition period by small Romanian rural households gives them the attributes of an resilient answer of the entire Romania to the post-communist changes and shocks.*

**Keywords:** *rural areas; socio-economic changes; small agriculture; resilience; Romania.*

## INTRODUCTION

An overview of major phenomena and processes in Romania during the last 25 years revealed that the current stage of economic and social development are the result of the transition process from socialism to capitalism. In all these years, rural areas and small rural farms represented a social and economic safety net against economic and social effects generated through the process of socialist economy restructuring. The most important three factors that influenced the rural areas in transition are:

1. reconstitution of the private ownership on the agricultural land (which meant that landowners can operate the agricultural land on their own). In short, through the process of reconstitution of private ownership, Romania returned to the pre-communist farm structure, which was characterized by a high level of fragmentation. Thus, in 2003, in Romania there were 4.5 million holdings with an average of 3.1 ha Utilised Agricultural Area/ holding;

2. the restructuring of the other sectors of national economy (which meant the closure of socialist enterprises and generated high unemployment in the absence of initiatives to develop new capitalist enterprises). As a result, we have witnessed a process of returning to rural areas of the urban populations who lost their jobs from the socialist economy;

3. lack of non-agricultural occupational opportunities in the rural areas. These realities were perpetuated during the entire post-communist period and maintained the dependence of the rural population on agriculture and on small farms production.

As consequences:

- the Romanian rural area represents the place of residence for around 45% of entire population;
- the small rural farms have become one of the main means to meet the subsistence needs of the rural household members (the holdings under 5 ha represent 93% of the total number of holdings). Because of this, the concentration in agricultural land use run slowly with negative consequences upon the productivity of the primary sector of the national economy;
- almost 80% of Romanian holdings are considered as subsistence or semi-subsistence holdings; they use more than a half of their own farm production for self-consumption.

## MATERIAL AND METHOD

The “resilience” means the ability of an individual, household, community, region or country to resist, adapting, and quickly recovering after a crisis, shock, change (Gallopín, 2006). Starting from these theoretical approach, the paper objective is to analyse the Romanian rural

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<sup>1</sup> dr., CS II, Institute of Agricultural Economics – Romanian Academy, București, e-mail: monik\_sena@yahoo.com

households, from the perspective of the economic and social functions and roles assumed in the transition period, on account of which the small Romanian agriculture could be considered as a resilient answer to the post-communist changes and shocks of the entire country, not only for rural areas.

The methodological basis of the cognitive approach consists of a literature review related to the main socio-economic roles assumed by Romanian small farms that could prove their resilience and the analysis of secondary statistical information that could support the theoretical arguments reflecting the resilience of small agriculture.

## RESULTS AND DISCUSSIONS

The small farms have a “social buffer” role, which enabled Romania to go through the difficult period of the 1990s without major social disturbances. The negative effects of long-term unemployment resulting from the process of deindustrialization were attenuated in the subsistence farming practice (Luca, 2013). In addition, these farms contribute to Romania’s food security, if we take into consideration the high share of self-consumption on the Romanian households (according to the data of the Household budget survey, 30% of total food consumption expenses at household level are represented by the value of self-consumption – NIS, 2014). The small farms have an important contribution to food security not only for rural population but even for the urban households, due to the family relationships on the basis of which the food products obtained on the small farms are transferred to their urban relatives. Thus, for a rural household, about half of total food consumption is represented by the value of self-consumption, while in the case of an urban household this percentage represents one-fifth of total food consumption value.

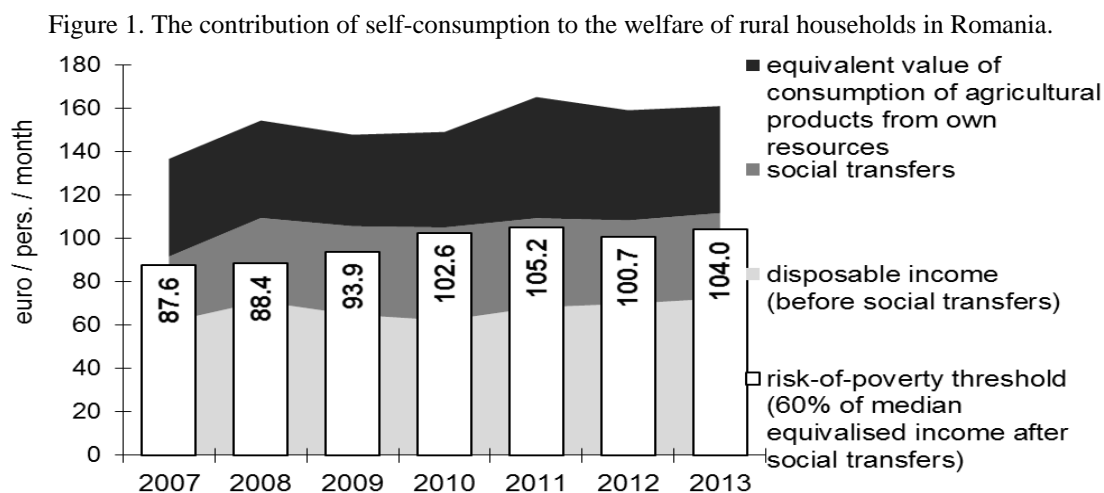
However, many analysts consider these an economic potential loss for Romania’s agriculture (Oțiman, 2012), representing an inefficient form of land resource allocation (Gavrilescu & Gavrilescu, 2007) by taking out of the agricultural circuit devoted to market production of about 30% of the country’s agricultural land area; they also contribute to maintaining land fragmentation, which is a cause of low yields (Steriu & Oțiman, 2013). These authors draw the attention on the need to reform the agricultural system in Romania in order to operate the land resources with economic efficiency, which should represent a primordial objective of the agricultural policies, in these authors’ opinion.

We cannot deny the truthfulness of these conclusions and recommendations, yet there are several arguments counterbalancing the unfavourable opinions regarding the existence of the small peasant family farm (Tudor, 2015).

The first argument is linked to the European and world strategies of *fight against poverty*, in which *self-consumption might have a lever effect* (which is perfectly applicable in rural Romania, as we have previously shown). But supporting this farming type (subsistence or semi-subsistence) comes into conflict with the agriculture restructuring objectives. Pouliquen (2011) concluded on the need to reach equilibrium between these two objectives and on the possible co-existence between the commercially oriented farming and that with social protection connotations. The recent economic and financial crisis reinserted, in the academic discourse, the importance that small-scale agriculture has in countering the effects of welfare decline, especially in the fight against poverty. Thus, in its report of 2014, the Food and Agriculture Organization (FAO) emphasized that small and medium-sized farms are essential for the sustainable management of global natural resources, for environmental protection, and to ensure food security. The FAO experts say that “... *nothing is closer to the paradigm of sustainable food production than family farming. ... Family farm is not part of the problem of hunger, but a vital component in solving this problem*” (FAO 2014, p. vi)

In the case of small agricultural holdings, the modernization process evolves slowly, as these do not have a commercial purpose, but rather a social one (meeting the consumption needs of the family members). The high consumption level limits the commercial actions and consequently, the possibilities to invest in farm modernization.

In the conditions in which the potential of remunerated job supply decreased almost by half compared to 1990 (NIS data), the rural household and the small peasant farm around it became the main means to cover the primary consumption needs for almost half of the country's population (45% of Romania's population currently lives in the rural area). Due to the lack of non-agricultural opportunities on the rural labour market and the prevalence of subsistence and semi-subsistence farms, the welfare of rural households significantly depends on the self-consumption of their own agricultural products (Figure 1).



Source: own calculations based on NIS data – TEMPO on-line database.

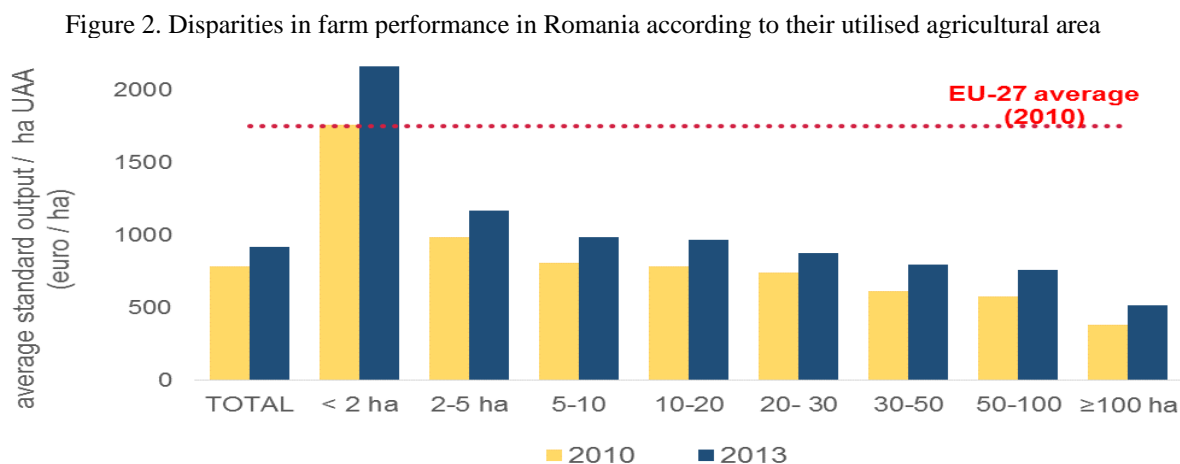
The statistical data reveals that, *generally speaking, without self-consumption, the Romanian rural population would be at risk of poverty*. At the level of Romanian rural households, the social transfers allow to one rural resident person to overtake the poverty threshold (in the peak of the economic crisis -2010 - and in the next years, disposable income per adult equivalent exceeded by only 2% and 7% threshold of relative poverty rate). The same data shows that the value of consumption from own resources significantly contribute to improving the welfare of rural household members; during the economic crisis, the equivalent own consumption represents one-third of the total income of a person in rural (Figure 1).

The second argument is linked to the fact that the small rural household farms are *the main carriers of job supply in the countryside*. Hence, their contribution to the rural population's social sustainability cannot be denied in the conditions of job scarcity in the rural area, but also in the urban areas. Thus, about 90% of the regular labour force that perform farming activities in Romania is working on the farms with utilized agricultural areas smaller than 5 ha and only 1% of these are working on the farms larger than 100 ha. Furthermore, the farms provide occupational opportunities not only for the farm head's family members but also for other unrelated persons, thus contributing to the labour market in agriculture by more than 20% (according to Eurostat data, the number of persons that represents regular non family labour force at the level of small farms – under 5 ha – accounts for about 20% from the total number of these persons in the Romanian agriculture in the last five years).

The third argument is linked to their *economic performance*, which, per unit of utilized agricultural area, seems to be *higher than that obtained on the large-sized farms* on the basis of their production diversification. The statistical data of the last agricultural census 2010 and the Structural survey from 2013 reveals that the small-sized farms in Romania have the highest economic performance in relation to the unit of utilized agricultural area, the value of agricultural Standard Output (SO<sup>2</sup>) per one UAA hectare being three times as high for the farms under 5 ha

<sup>2</sup> The *standard output* (abbreviated as SO) of an agricultural product (crop or livestock), is the average monetary value of the agricultural output at farm-gate price, in euro per hectare or per head of livestock. There is a regional SO coefficient for each product, as an average value over a reference period (5 years). The sum of all SO per hectare of crop and per head of livestock on a farm is a measure of its overall economic size, expressed in euro.

compared to the large-sized farms over 100 ha (Figure 2). Furthermore, the farms smaller than 2 ha are the only farms in Romania that reach the EU-27 average of SO/ha UAA value in the year 2010 (in the peak of the economic crisis -2010), maintaining a growing trend of economic performance, till 2013. This efficiency difference in the utilization of land resources, in favour of small farms, can be largely explained by the production structure adopted by the different categories of farms to which we shall next refer.



Sursa: own calculations based on EUROSTAT data.

Generally speaking, the very small farms from Romania (those with utilized agricultural area under 2 ha) are not specialized in their agricultural production. They integrated livestock and crop production in the structure of their production and use part of the vegetable products to feed their livestock. On account of this integration, the value of their agricultural production per unit of utilized agricultural area is higher, above the EU average. At the other extreme, large farms in terms of utilized agricultural area, have specialized production structures in field crops (cereals and oilseeds) but their yields per hectare are lower than the average of European countries. Therefore, standard output value per unit of operated area, obtained from these farms is low (lower than those of small farms in Romania).

The analysis of the same indicator according to farm economic size strengthens the conclusion on the higher economic performance obtained on the small-sized farms in Romania. Thus, at the level of farms whose standard value of annual economic output is lower than 2000 euro (generally considered subsistence and semi-subsistence farms and representing 70% of the number of farms in Romania and 18% of UAA), the SO/ha value is getting closer to the national average. The Romanian farms whose value of annual standard output ranges from 2000 to 8000 euro (considered semi-subsistence farms and accounting for 26% of the number of holdings and 21% of UAA) obtain the highest performance levels per unit of utilized area compared to the farms from the other size categories (Figure 3). The same data reveal that only 17% of the country's agricultural area is operated under the large-sized farms (with agricultural productions whose standard economic value exceeds 500000 euro annually). For the large farms, the economic efficiency of land use decreased in 2013 compared to 2010; it is, in fact, the only category of farms that recorded such a trend between 2010 and 2013. Therefore, we believe that the large farms have achieved the maximum in the economy of scale paradigm and their economic performance is likely to decrease in the coming period.

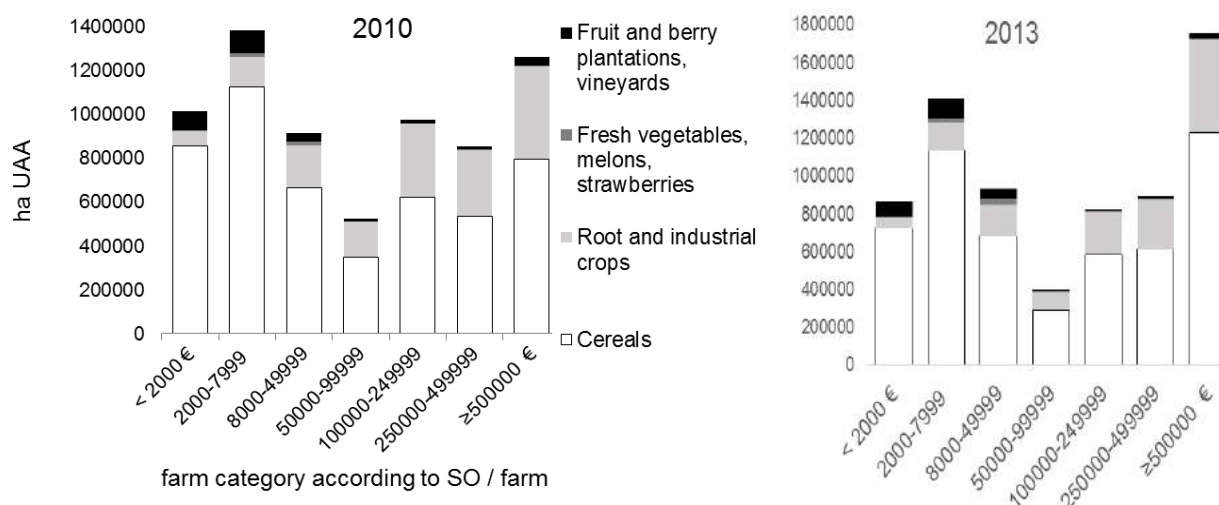
Figure 3. Disparities in farm performance in Romania according to their economic dimension



Sursa: own calculations based on EUROSTAT data.

The fourth argument is linked to the *much more diversified production structure* on the small farms compared to the commercially-oriented farms, which better responds to the final consumption needs of the country's population and implicitly *to the domestic food security requirements*. Thus, while the small-sized farms have quite diversified production structures, integrating the crop and livestock productions, as the farm land size increases, there is a tendency of production specialization and orientation towards crop production (mainly grains and industrial crops – oil crops – suitable for exports and which can be organized on large-sized field areas with minimum technical and technological effort) (Tudor, 2014).

Figure 4. The structure of crop production on Romanian farms after their economic size



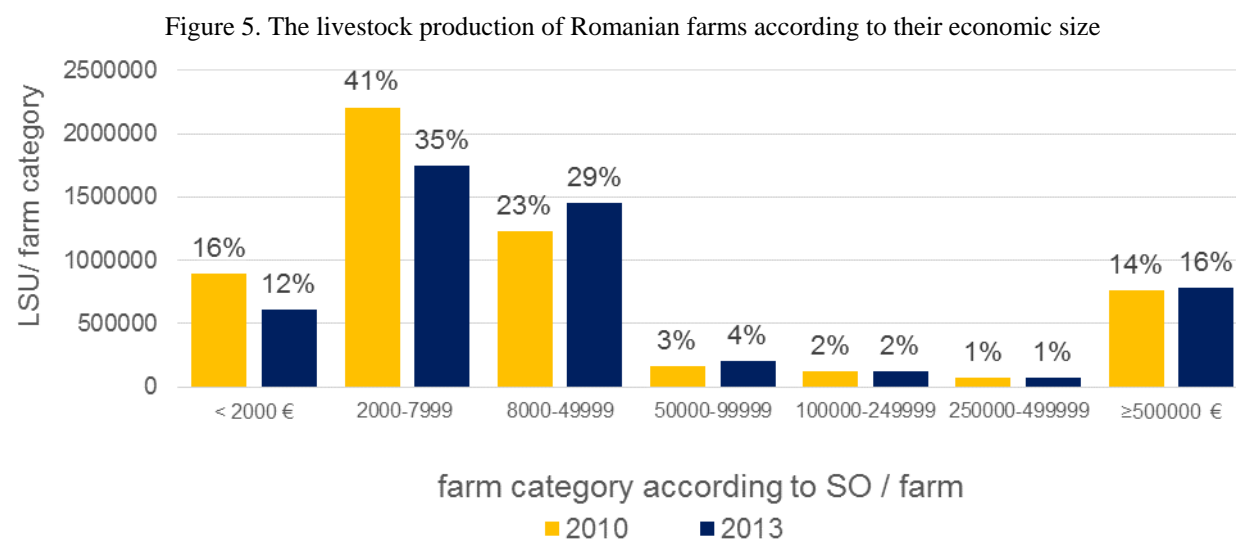
Sursa: own calculations based on EUROSTAT data.

The statistical data reveal that most livestock herds (expressed in LSU<sup>3</sup>) (Figure 5) and the domestic production of meat and meat products are obtained on the farms that are considered subsistence and semi-subsistence farms; it is also on these farms that the largest part of the production of fruit and vegetable at national level is obtained. Thus, in the year 2010, about two-thirds of the areas under vegetables or under orchards and vineyards were operated by farms with economic sizes lower than 8000 euro/year. The large-sized farms, which have in view the maximization of economic effects with minimum effort, are getting their production structures more

<sup>3</sup> The *Livestock unit* (abbreviated as LSU) represents a conventional reference unit that facilitates the aggregation of livestock herds from different species and ages, by using certain conversion coefficients established on the basis of nutritive or feed requirements for each category of animal in part.

and more oriented towards those agrarian economy segments that satisfy their objectives. Their almost exclusive orientation towards the large field crops (cereals and industrial crops) results in scarcity of other vegetable products (fruit and vegetables in particular) on the domestic market (Figure 4).

The same conclusion can be extended to the livestock production. Following the prevalence of cereal crops in the Romanian agriculture, with increasing tendencies, the agri-food balance of trade, except for grains (maize, wheat) and industrial crops (soybean) was and continues to be negative. Significant deficits can be noticed in meat, dairy, fruit and vegetables (Steriu & Otiman 2013: 98; Luca, 2014: 93), products that are mainly produced on the small farms (Figure 5). Without the small-scale farming contribution to livestock production and fruit and vegetables production, the deficit of Romania's agri-food trade balance is under risk of growing larger, due to the productive orientation of large-sized farms.



Sursa: own calculations based on EUROSTAT data.

As a result, the small farming role in the domestic food security for the population in Romania cannot be denied. Moreover, the recognition and support of these farms is absolutely necessary, taking into consideration their social and economic importance.

## CONCLUSIONS

In (post-communist) Romania, a series of great economic and social changes were produced, which were difficult to manage for a large part of the Romanian society. Small-scale agriculture (that is practiced according to traditional pre-communist patterns) represented an adaptive response to the transition shocks. In the last quarter of the century (after 1989), in Romania, the rural space and the small rural household represented high stability systems, suppliers of economic and social security.

*Given the arguments set out above and the persistence of small farms in rural areas, we can appreciate that small-scale farming is an economic and social system with high resilience, who resisted to the external changes and, through its features and functions, it acted as a safety solution against rural population's economic and social vulnerabilities.*

Yet, in order to face the permanent changes and challenges of the globalized world, of the digital era, etc., the small-scale agriculture system needs to be invested with new abilities to increase its adaptation opportunities and its capacity to find new equilibrium levels. This statement is also supported by the conclusions of studies on resilience, according to which resilience is not a fixed characteristic, but under continuous dynamics, having to modify its parameters according to the evolution of human systems (Simmie & Martin, 2010).

As a result, small-scale agriculture has to get support in order to surmount its vulnerabilities and the simple condition of "socio-economic buffer" and to become a factor of progress. It is only in these conditions that we can speak about the increase of the capacity to resist, to cope with the permanent external changes on an adaptive basis, resilience strengthening decisively contributing to the diminution of recurrent crises impact.

Taking into consideration the great socio-economic changes produced in the transition period, the main vulnerabilities of the rural population that adversely affect their adaptive capacities are the following: redundant qualifications on the labour market; demographic ageing; obsolete technologies, technical means and managerial practices in agriculture.

The potential ways to increase resilience are generally subsumed to the intervention need through public policies targeting the following:

- Increase of the knowledge and professional abilities stock and their diversification, so as to allow the rural population's ascending occupational mobility in a modern knowledge-based society and to break up the opacity to technical and technological innovation;
- Support to increase technical performance while maintaining agricultural production structure diversity, which proved to best meet the domestic food consumption needs;
- Decrease of dependence on agriculture through on-farm activity diversification and increasing the value added of agricultural products through processing.

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