THE IMPACT OF THE APPLICATION OF THE NATIONAL PROGRAM OF RURAL DEVELOPMENT ON AGRICULTURAL HOLDINGS IN ROMANIA
RESTRUCTURING MEASURES FOR AGRICULTURAL HOLDINGS THROUGH NRDP 2007-2013

Adrian Turek Rahoveanu

University of Agronomic Sciences and Veterinary Medicine of Bucharest,
UASVM, Bucharest, Romania.
aditurek@yahoo.com

https://doi.org/10.26782/jmcms.spl.9/2020.05.00016

Abstract

After joining the European Union, Romania benefited from over € 8 billion in funding for 2007-2013, plus national co-financing, funds that had to be directed to rural areas and agriculture to solve the multiple problems with which they are facing. To this end, in the present paper I proposed to analyze the impact of the implementation of measures under the National Rural Development Program on agricultural holdings in Romania during the programming period 2007-2013. I analyzed the situation of agriculture: the rural population and human resource, the number and size of farms and the average size of farms, then briefly presented the measures 141 and 142 for the restructuring of agricultural holdings through the National Rural Development Program 2007-2013 and finally we highlighted the impact of Measures 141 and 142 at the end of the 2007-2013 programming period as well as the extent to which the objectives of these measures were met.

Keywords: Agrarian structures, measures 141 and 142, sustainable growth, competitiveness

I. Introduction

The territory of Romania, as it appears, illustrates the harmony of the geographic structure and the agrarian potential - starting with the relief forms; hydrographic network, soil, vegetation, land use, landscaping and ending with communication routes, the network of localities and economic activities, reflecting its natural-economic valences integrated into a continuous process of development, exploitation, harmonious restructuring, arrangement and organization.

With a total area of 238 thousand km² and a population of over 22 million inhabitants (55% is urban and 45% rural), Romania accounts for 6% of the total European Union area and 4% of its population. Investments and competitiveness in Romania are
elements that need to be improved in order to accelerate economic growth and ensure the convergence of revenues with those in the EU.

Against this background, Romanian agriculture has been and remains in the general attention of the potential of land resources, occupied population and achievable production that make food security and the welfare of farmers conditional.

The current state of Romanian agriculture is determined by the agrarian structure of Romania - an economic and social issue of utmost importance and topicality for Romania. (Zahiu, Dachin, Turek Rahoveanu, A., 2007).

Romania's agriculture is inhomogeneous in terms of exploitation structures and its dual character is accentuated by the vast majority of the Member States of the European Union. Although some progress has been made, an excessively large number of individual, small and very low-performing farms, as well as a small number of large and very large units whose activity has not been restructured to become compatible with market requirements unique. There is a lack of a medium-sized sector, which characterizes the "European agricultural model" that has long been formed under the impact of the Common Agricultural Policy. (Popescu, 2004; Zahiu, Toma, Dachin, Alexandri, 2010).

The existence in our country, predominantly, of subsistence households, leads to such productive behavior. Such a situation, given that the area owned by each household is reduced, leads to its fragmentation, which does not favor the rational development of agricultural works and the efficient use of different resources, such as technical means. In addition, it is difficult to practice a performing farm in such a state of affairs. In developed agriculture such households are endangered or have ceased to exist.

In Romania, the agricultural land fund is heavily affected by the process of fragmentation in small plots, which in many cases leads to the impossibility of applying modern agricultural agro technology technologies leading scientifically to the cultivation of cultivated lands stable productions both in terms of quantity and quality. Agricultural production is mostly supported by small farms and therefore the performance of the agricultural sector in Romania is affected by the excessive fragmentation of property. (Turek Rahoveanu, A., 2007).

II. Results and Discussions

In Romania, as a result of land restitution, most individual farms are characterized by a reduced economic power and consumption-oriented consumption of their own production, with more subsistence and semi-subsistence. Their opening to the market is relatively small, both in terms of inputs and outputs.

II.i. Population and Human Resource at Rural Level

The rural population is not evenly distributed throughout the country. Thus, the rural population has a high share in some regions (South Muntenia - 58.6%, North East - 56.8% and South-West Oltenia - 51.9%), the highest density except the Bucharest-Iffov region, (63.24 places / km2), while in the western part of the country the rural area is less populated (26.51 places / km2 in the West region). These
disparities are reflected in the socio-economic development of the area and the quality of life of the rural population.

Within the EU, Romania is the country most dependent on agriculture and the country with the largest number of farmers. Not only do they have the highest percentage of farmers in the EU but they account for 20% of the entire EU labor force mobilized by agriculture. (Alboiu, 2009).

Labor force in agriculture remains much oversized compared to other EU countries. The employment rate in agricultural, forestry and fisheries activities remains at a high level (28.0%) compared to the European average (4.7%), and its evolution over the past few years has not seen spectacular developments.

The labor force in agriculture is aging, with a low level of education, socially vulnerable. In addition, there is a decrease in the level of training of the employed rural population: the younger (under 35) labor force has a lower level of training than the mature population (35-45 years old), which, is appreciated, limits the possibilities of implementing advanced business-based business initiatives. (Done, Chivu, Andrei, Matei, 2012).

II.ii. Number and Size of Agricultural Holdings

The increase in domestic agricultural production is the main factor by which agricultural policies influence the food security of the country. Farm structure adjustment measures are instruments that have the potential to bring about lasting solutions to the supply of agricultural products, including by supporting the increase in the physical and economic size of holdings, in line with developments in agricultural production technologies. Comparing the economic performance of farms of different sizes between Romania and those of the EU member states shows that Romania is only at the beginning of the road to a performing agriculture.

With an agricultural area of 13.3 million hectares (representing 55.8% of Romania's territory), Romania has important agricultural resources. Although there are areas of used agricultural area classified as disadvantaged, pedological conditions are particularly favorable to agricultural production activities in the southern and western regions of the country. Most of the utilized agricultural area is arable (8.3 million ha), followed by pastures and meadows (4.5 million ha), permanent crops (0.3 million ha) and familiar gardens (0.2 million ha).

Considered globally, EU agriculture is characterized by a continuing decline in the number of holdings maintained since the 1970s (the EU-5.8 million EU-9 since 1975 decreased to 2.6 million EU-15 in 2007), then with the EU-27 expansion, the number of holdings increased substantially to 12.24 million in 2010 at EU-28 level.

According to Eurostat statistical data, there are 12248 thousand farms in the EU-28. These farms use an area of 174.1 million hectares, the average area of a farm being 14.2 ha. (Table 1, Table 2).
Table 1: Number of farms according to their size in EU28 vs. Romania

| Size Range | UE-28 | RO |
|------------|-------|----|
| < 2 ha     | 6018390 | 2866440 |
| 2-5 ha     | 2474030 | 727390  |
| 5-10 ha    | 1337660 | 182440  |
| 10-20 ha   | 916570  | 43610   |
| 20-30 ha   | 382560  | 9730    |
| 30-50 ha   | 399160  | 8210    |
| 50-100 ha  | 393890  | 7480    |
| > 100 ha   | 325820  | 13730   |

| Size Range | UE-28 | RO |
|------------|-------|----|
| < 2 ha     | 49.1% | 74.3% |
| 2-5 ha     | 20.2% | 18.8% |
| 5-10 ha    | 10.9% | 4.7%  |
| 10-20 ha   | 7.5%  | 1.1%  |
| 20-30 ha   | 3.1%  | 0.3%  |
| 30-50 ha   | 3.3%  | 0.2%  |
| 50-100 ha  | 3.2%  | 0.2%  |
| > 100 ha   | 2.7%  | 0.4%  |

Source: Eurostat

Table 2: Usable agricultural area (UAA) depending on the size of the farms in EU28 vs. Romania

| Size Range | UE-28 | RO |
|------------|-------|----|
| < 2 ha     | 4301640 | 1718360 |
| 2-5 ha     | 7810520 | 2229930 |
| 5-10 ha    | 9368890 | 1210510 |
| 10-20 ha   | 12851610 | 571390  |
| 20-30 ha   | 9323600 | 233850  |
| 30-50 ha   | 15429640 | 315400  |
| 50-100 ha  | 27605440 | 518300  |
| > 100 ha   | 87424210 | 6508390 |

| Size Range | UE-28 | RO |
|------------|-------|----|
| < 2 ha     | 2.5%  | 12.9% |
| 2-5 ha     | 4.5%  | 16.8% |
| 5-10 ha    | 5.4%  | 9.1%  |
| 10-20 ha   | 7.4%  | 4.3%  |
| 20-30 ha   | 5.4%  | 1.7%  |
| 30-50 ha   | 8.9%  | 2.4%  |
| 50-100 ha  | 15.9% | 3.9%  |
| > 100 ha   | 50.2% | 48.9% |

Source: Eurostat

However, there are strong contrasts in the structure of agriculture at European level: on the one hand there is a very large number (6018 thousand farms) of very small farms (less than 2 hectares), which use a small percentage (2.5%) of the area total land (4.3 million hectares) and on the other hand there are small farms (2.7% of total farms) of very large farms (over 100 ha), which use 87424 thousand ha (50.2%) of the total land area used at EU-28 level.

Also, the share of holdings ranging from 0-2 ha is 47.6% of the total number of holdings, which is the fragmentation phenomenon of the Romanian agricultural holdings, with negative effects on their economic and developmental performances.
II.iii. Average Size of Farms

According to Eurostat, the average size of a farm in the EU-28 was 14.2 ha and in Romania 3.45 ha (over 4 times lower), which negatively influences the use of available agricultural and rural resources, with direct effects on the rural economy and, implicitly, farmers' incomes. There are, however, at EU level a number of states where the average size exceeds several times the European average: the Czech Republic 152.4 ha; United Kingdom 90.4 ha; Slovakia 77.5 ha; Denmark 62.9 ha; Luxembourg 59.6 ha; Germany 55.8 ha; France 53.9 ha; Estonia 48.0 ha; Sweden 43.1 ha. (Table 3).

Table 3: Number of holdings vs. the average size of agricultural holdings in the EU28

| Country | Number of holdings (mii) | Average size (ha) |
|---------|--------------------------|-------------------|
| UE-28   | 12248                    | 100,00            |
| RO      | 3859.0                   | 31,51             |
| IT      | 1620,9                   | 13,23             |
| PL      | 1506,6                   | 12,30             |
| ES      | 989,8                    | 8,08              |
| EL      | 723,0                    | 5,90              |
| HU      | 576,8                    | 4,71              |
| FR      | 516,1                    | 4,21              |
| BG      | 370,5                    | 3,02              |
| PT      | 305,3                    | 2,49              |
| DE      | 299,1                    | 2,44              |
| HR      | 233,3                    | 1,90              |
| LT      | 199,9                    | 1,63              |
| UK      | 186,8                    | 1,53              |
| AT      | 150,2                    | 1,23              |
| IE      | 139,9                    | 1,14              |
| LV      | 83,4                     | 0,68              |
| SI      | 74,7                     | 0,61              |
| NL      | 72,3                     | 0,59              |
| SE      | 71,1                     | 0,58              |
| FI      | 63,9                     | 0,52              |
| BE      | 42,9                     | 0,35              |
| DK      | 42,1                     | 0,34              |

Copyright reserved © J. Mech. Cont.& Math. Sci.
Adrian Turek Rahoveanu
As can be seen from Table 3, the agricultural farms in Romania, Italy and Poland together account for 57% of the total number of farms at EU-28 at the level of 2010. Also, the distribution of the used agricultural area is totally inhomogeneous at the level EU-28. Thus, 49.1% of the total number of farms ranges from 0 to 2 hectares and occupies only 2.5% of the total utilized agricultural area. On the other hand, 325820 farms at EU-28 (2.7% of the total) use an area of at least 100 hectares (268.3 ha, on average) and total 50.2% of the total area EU-28. (Dobre, Cîrstea, 2013).

In Romania there is a large and very large category of farms with areas over 100 ha, which represent 0.4% of the total holdings (13730 holdings), but which use 48.9% of the agricultural area used at the level national. The average size of such a holding is 474 ha, compared with 268 ha as the EU-28 average. The share of these holdings is 2.7% at EU-28, 21.00% in the UK, 19.19% in Denmark, 18.26% in France, 11.20% in Germany and 5.17% in Spain.

The phenomenon of structural duality of agricultural holdings is maintained, a long-term process being necessary to produce restructuring effects at farm level.

II.iv. Restructuring Measures for Agricultural Holdings Through NRDP 2007-2013

During the period 2007-2013, the National Rural Development Program (NRDP) included two measures with direct effect on the consolidation of the farms, proposed by the European Regulation in order to speed up the structural transformation of the agriculture of the new Member States (adhered after 2004). These are the transitional measures 141 "Supporting semi-subsistence farms" and 142 "Setting up producer groups", aimed at speeding up the market integration of smaller farms.

Measure 141 – „Support for semi-subsistence farms”

The measure was included in Axis I - "Increasing the competitiveness of the agricultural and forestry sectors" and had as a general objective to increase the competitiveness of the agricultural holdings undergoing restructuring in order to facilitate the resolution of the transition problems, given that the agricultural sector and the rural economy are exposed to pressure competitive single market.

The specific objectives of the measure were: increasing the volume of production to be marketed in order for semi-subsistence farms to become economically viable;
diversification of production according to market requirements and the introduction of new products.

The operational objectives were to ensure the necessary income support during the restructuring of semi-subsistence farms for a better use of human resources and production factors through: stimulating entrepreneurship and diversification of activities and revenues.

*Measure 142 – „Establishment of producer groups”*

General objectives: to increase the competitiveness of the primary agricultural and forestry sectors by balancing the relationship between producers and the processing and marketing sectors and adapting production qualitatively and quantitatively to the requirements of consumers.

Specific objectives: Encourage the establishment of agricultural and forestry producer groups in order to obtain quality products that meet Community standards by applying unit production technologies and supporting market access for their own members.

Operational objectives: increase the number of supported producer groups for the establishment and administrative operation and increase revenue by improving the technical and management capacity of their members.

**II.v. Impact of Measures 141 and 142 at the End of the 2007-2013 Programming Period**

By measure 141, semi-subsistence farms could be supported to restructure individually on the basis of a development plan involving better market integration, while measure 142 was aided for a collective integration activity on market through the common marketing of products.

If measure 141 meant increasing production, through a vertical form of production coordination (selling on an organized market or even integrating into a tiered firm), measure 142 encouraged the association to sell the production through a horizontal coordination between farmers through the establishment of producer groups, with a special contribution to the structure of the agri-food chains in Romania.

The field of action of Measure 142 was to encourage the establishment and the administrative functioning of the producer groups recognized in accordance with the provisions of the national legislation in force, which led to the adaptation of production to the requirements and requirements of the market; ensuring product sharing, including preparing for sale, centralizing sales and distributing wholesale products; increasing the added value of joint production and better economic management of resources and results; establishing common rules on production information, in particular on quantity, quality and type of supply, paying particular attention to products obtained in appropriate quantities for the processing industry and for the marketing network.
Results of Implementation of Measure 141

By the end of 2015, five sessions for the submission of projects during which 88,846 projects with a public value of 666,345.00 thousand Euros were submitted. Of the 88,846 projects submitted, 63,544 projects were selected.

52,768 projects have been contracted (the number reflects the financing decisions remaining in the system after funding decisions that have ceased for various reasons excluded), respectively 83.04% of the NRDP target of 63,544 projects and a public value of 375,592 thousand Euros.

Of the total number of projects contracted in the amount of 52,768 semi-subsistence holdings: 16,599 farms were run by women; 33,892 holdings were run by young people under 40 years of age; 22,181 farms were located in less-favored areas; 11,844 farms have applied for agri-environment.

Until the end of 2015, payments of EUR 333,413 thousand were made, the EAFRD contribution amounting to EUR 297,821.89 thousand (the financial execution rate is 92.73%, out of the allocation of 359,568 thousand Euros).

By the end of 2015, 8,984 financing decisions had been canceled, out of which 5,923 at the request of the beneficiaries, 3,058 due to non-compliance with the contractual clauses and 3 contracts terminated from other causes.

Results of Implementation of the Measure 142

By the end of 2015, 86 projects with a public value of 16,870 thousand Euro have been submitted. Of the 86 submitted projects, 80 projects were declared eligible for funding, out of which 58 projects (remaining in the system following the operation of the terminators) and 35.15% of the target were declared, the projects having a public value of 11,921 thousand Euros.

Cumulatively, by the end of 2015, payments of EUR 5,405 thousand were made, the EAFRD contribution amounting to 4,993 thousand Euros. Also, by the end of 2015, 18 funding contracts were terminated, of which 8 at the request of the beneficiaries and 10 due to the non-observance of the contractual clauses.

II.vi. The Degree of Achievement of the Objectives of Measure 141 and 142

As regards the degree of achievement of the objectives of Measure 141, namely the progress of the National Rural Development Program 2007-2013 in terms of reaching the set targets, it is as follows:

- number of supported semi-subsistence farms - compared to the proposed target of 63,544 holdings, support received through Measure 141 52,768 semi-subsistence farms, the execution rate of NRDP being 83.04%.

- the financial execution rate (payments made) was 92.73%, out of the allocation of 359,568 thousands Euro being used 333,413 thousands Euros.

- Measure 414 was multiannual (5 years), the first contracts were signed in the second half of 2009, so that by December 2015 3,025 projects had been finalized. In addition to the 3,025 projects, 15,216 projects were added, which
at the end of 2015 had all five payment installments paid, and the completion note was drawn up;

- By the end of 2014, only 371 semi-subsistence farms had entered the market due to their support. Regarding the proposed NRDP target of 50,836 semi-subsistence holdings entering the market as a result of the support obtained, the target of 0.73% is reached; The actual achievement of the target was 13.17%, as of the 371 projects declared finalized, 6,324 projects were added, which at the end of 2014 had all five payment installments paid, and the completion note was drawn up. Thus, all 6,695 holdings following the obtained support entered the market, increasing their production for sale by at least 20%, fulfilling the condition in the measure sheet.

- out of the 371 beneficiaries, who had projects completed by the end of 2014, only 18% introduced a new product / new farm technique as a result of their funding. Compared to the NRDP target of 25,419 holdings, the target reached only 0.26%.

Regarding the achievement of the objectives of Measure 142, namely the progress of the National Rural Development Program 2007-2013 in terms of reaching the set targets, it is as follows:

- The number of supported producer groups was 58, representing 35.15% of the proposed target of 165. With regard to sectoral breakdown, the proposed targets are 64.15% for crops (34 groups targeted at 53), 15.22% for livestock breeding (7 groups targeting 46), 30.77% for livestock excluding milk (4 groups reported at target 13), 50% for granivores (6 groups targeting 12), 33.33% for the mixed sector (4 groups for the target 12) and 17.65% for other types (3 groups for target 17).

- The turnover / year of the supported groups is 103.96 million euro / year, representing 39.38% of the target of 264 million euro / year.

- "Total number of members in supported producer groups" was 20.79%, respectively 2,194 members, against the target of 10,553

III. Conclusions

In semi-subsistence farms, farmers carry out various agricultural cultivation and animal husbandry activities based on traditions specific to the Romanian village. These farms are characterized by a very diversified production structure, determined by the needs of the household, as well as by a reduced and inadequate technical endowment, which prevents the increase of productivity and the obtaining of a surplus of products for sale. Guiding these farms to the market requires changing the production system and implicitly additional financial costs that farmers can not afford.

Consequently, support for the restructuring of semi-subsistence farms was an instrument designed primarily to improve management, accompanied by their transformation into commercial family farms, capable of identifying new opportunities for capitalizing on production.
The support provided by this measure was aimed at securing the necessary income during the restructuring period and transformation of semi-subsistence farms into market-oriented holdings through the sustainable use of inputs, improved management through diversification of agricultural production, and the introduction of technologies performances adapted to local conditions. As a result, the implementation of the measure has led to an increase in the income of these farms, together with lower production costs.

In order to qualitatively adapt production to market requirements, semi-subsistence farmers through the NRDP have been able to associate with producer groups and also be able to access measures to improve professional training and the use of consulting services.

The process of retrocession of agricultural land from state ownership to private ownership has led to the establishment of agricultural holdings of different sizes depending on their type: semi-subsistence holdings, subsistence holdings and commercial holdings. The structure of holdings, mainly semi-subsistence farms - subsistence, as well as insufficient cooperation of agricultural producers, led to a poor development of the agricultural sector in terms of its competitiveness.

Increasing the competitiveness of this sector is conditioned by the capitalization on the market of suitable agricultural products in qualitative and quantitative terms. Adaptation of production to market requirements can be accelerated significantly by the association of agricultural producers, which has the consequence of being aware of the importance of applying unitary production technologies to the demands of processors or wholesalers.

Also, the lack of financial support for the establishment and operation of association forms has led to the maintenance of a duality on the one hand from subsistence and semi-subsistence holdings and on commercial holdings on the other.

To this was added the reticence and the low interest of the agricultural producers towards the associative forms due to:

- Awareness: lack of information and experience in such activities, low awareness of farmers in terms of benefits resulting from joint action;
- Economic and legislative aspects: insufficient sources of financing for the start of an economic activity, lack of interest of primary processing units in agriculture and forest sector to conclude commercial contracts, continuous modification of the legislation in the field;
- The aspects of training, counseling and counseling: the different degree of training of the persons involved in the associative forms, as well as the different understanding of their purposes and principles of functioning, the lack of counseling and counseling services and their concentration on the quantitative and not the qualitative aspect and economic.

Following the analysis of the relationship between subsistence and semi-subsistence holdings with the market, it is still necessary to identify opportunities for better capitalization of agricultural production. Considering that association in producer
groups was a lever in the process of transforming semi-subsistence farms into commercial family farms, this measure was extremely important.

References

I. *** Ancheta Structurală în Agricultură 2013 - rezultate finale, INS 2014

II. *** Eurostat - Agriculture, forestry and fishery statistics - 2013 edition

III. *** MADR, Direcția Generală de Dezvoltare Rurală AM PNDR, Situația proiectelor depuse la data de 30.12.2015, PNDR 2007-2013

IV. *** Programul Național de Dezvoltare Rurală 2007-2013

V. Alboiu Cornelia (2009) - Agricultura de Subzistență în România: un modus vivendi? Seminar 111 EAAE-IAAE

VI. Dobre Ramona, Cîrstea A. C. (2013) - Land property structure - a limiting factor in strengthening the agricultural holdings, Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, Vol. 13, Issue 2

VII. Done I., Luminita Chivu, Andrei, J. V., Mirela Matei (2012), Using labor force and green investments in valuing the Romanian agriculture potential, Journal of Food, Agriculture & Environment Vol.10 (3&4 ): 737 – 741

VIII. Popescu M. (2004) - Eficiența economică, socială și ecologică în contextual dezvoltării durabile a agriculturii și integrării în Uniunea Europeană,

IX. Turek Rahoveanu A. (2007) - Evoluția formelor de proprietate funciară în agricultura României, Editura Cartea Universitară, ISBN 978-973-731-493-2

X. Turek Rahoveanu A., Stoian Elena, Turek Rahoveanu Magdalena (2013) - Analysis of the exploitation structures and land management in Romania vs. European Union; International Journal of Sustainable Economies Management, Vol.2, Issues 4, pg. 47-54, ISSN 2160 -9659

XI. Zahiu Letiția, Dachin Anca, Turek Rahoveanu A. (2007) - Factorii care influențează performanța economică în fermele mari din România, Dezvoltarea durabilă a spațiului rural”, ASE, Facultatea de Economic Agroalimentară și a Mediului, București, 15-16 iunie 2007, volum ISBN 978-606-505-025-9

XII. Zahiu Letiția, Toma Elena, Dachin Anca, Alexandri Cecilia, (2010) - Agricultura în economia României : între așteptări si realități, Editura Ceres, ISBN: 978-973-40-0841-4