

## NATIONAL RURAL DEVELOPMENT PROGRAMME - NRDP 2014-2020 CONTRIBUTION TO MARKET INTEGRATION OF SMALL AND MEDIUM-SIZED FARM PRODUCTION IN ROMANIA

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### Abstract

*The Romanian system of small and medium farms generates significant amounts of agricultural raw materials, an important part of which remains outside the market. On the other hand, Romania registers ever-increasing deficits in the trade balance with food products for which, however, it would have sufficient potential to be covered from national resources. In the current context of frequent crises and external shocks affecting the flow of goods and the availability of food globally (pandemics, armed conflicts, blockages in international transport, price volatility resulting from the growing demand for food from an increasingly large global population), increasing autonomy in ensuring food from internal sources appears as a necessity for ensuring economic and social stability. Agricultural policies are called to contribute to this goal by supporting a better integration of Romanian farm products in national agri-food chains. The paper aimed to carry out an assessment of Romania's vulnerability to food insecurity caused by dependence on agri-food imports during the 2013-2022 period, supplemented by an analysis of the contribution of the National Rural Development Plan 2014-2020 to the reduction of this risk. The study carried out a literature review on the analysed topic and a descriptive analysis of secondary statistical data provided by the National Institute of Statistics - regarding the trade balance and by the Payments and Interventions Agency for Agriculture - regarding the public intervention through NRDP 2014-2020. The study showed that, during the analysed period, Romania consolidated its position as a supplier of agricultural raw materials with low added value and, on the same time, its dependence on processed food imports significantly increased. NRDP measures have had low effectiveness in reducing food insecurity risks. The authors recommend re-shaping of public policy to support the local processing sectors for which the trade balance registers the largest deficit and for which Romania already supports the increase in the performance of primary production.*

**Key words:** market integration, agri-food system, agri-food trade balance

### INTRODUCTION

According to experts' calculations, Romania has a significant agricultural potential, having the possibility to cover the food consumption needs of 38.5 million people [12], almost double the country's population. However, after 1989, the agri-food trade balance was and remains deficient [10], [2].

Romania's dependence on agri-food imports entails a whole series of risks in terms of ensuring the food security of the population, out of which the most important are:

- food availability - sufficiency of agricultural and processed food production, the risks in ensuring food supply generated by different

shocks and crisis (climatic, social and economic conflicts etc.), the ability to distribute food at national level,

- food accessibility - evaluates the ability of consumers to buy food, their vulnerability to price variations that could be generated also by above mentioned kind of crises [3].

Both parameters mentioned above can suffer significant damage in situations of import dependence especially when shocks and crises intervene in the functioning of global supply chains (see the blockages in international transport generated by the recent pandemic with COVID-19) or humanity facing a global food shortage [1]. In this context, increasing the coverage of the Romanian population's

food consumption from domestic production must represent a priority objective of policies and programs in the field of agri-food industry, as stated by the experts of the Romanian Academy. The emphasis is placed on those agri-food products where the Romanian trade balance is deficient (processed foods, vegetables, fruits, meat) [18].

As a result, the purpose of this research is to carry out an ex-post analysis of the responsiveness of the National Rural Development Plan (NRDP) 2014-2020 to the need to increase degree of self-sufficiency from domestic production, especially for processed foods, products for which Romania has a significant dependence on imports.

## MATERIALS AND METHODS

Firstly, a descriptive statistical analysis of the structure and evolution of agri-food trade balance for Romania was performed, to capturing the *vulnerability to food insecurity* that our country faces from the perspective of import dependence.

Main aggregates of the trade balance was performed based on a statistical analysis and led to deepening the study on agri-food sector structural deficiencies.

NRDP interventions aimed at correcting the structural deficiencies of Romanian agri-food industry responsible for most of the deficit in the trade balance were analysed in the second part of the study to evaluate their effectiveness and formulate recommendations leading to the increase of the efficiency of this category of public policies in the future and, through this, to decrease the food vulnerability of Romanian population.

Both, for descriptive analysis of the trade balance with agri-food products and for the structure of the Romanian agri-food sector, the secondary statistical data provided by the National Institute of Statistics (NIS) for NRDP 2014-2020 implementation period were used. The data of the Payments and Interventions Agency for Agriculture (AFIR) for the implementation of the NRDP 2014-2020 constituted the documentary basis for the second part of the analysis and mainly concerned the Multi-annual programme

measures dedicated to supporting the integration of domestic products into the agri-food chains:

- i) investments in processing / marketing of agri-food products (sM4.2) and
- ii) supports horizontal and vertical cooperation between the actors in the agri-food supply chain (sM 16.4).

## RESULTS AND DISCUSSIONS

Although for the year 2013, statistical data on agri-food foreign trade show that Romania's trade balance was a bit positive, however, a significant imbalance is revealed by the structural analysis. Thus, a large part of Romania's agri-food exports consists of agricultural raw materials (with low added value) and imports are primarily represented by processed food products (with high added value). Moreover, exports are dominated by cereals and oilseeds, which have become the main specialization of (large) farms in Romania [1]. Therefore, in order to increase the contribution of the agri-food industry to the GDP, a change in the productive paradigm would be necessary through: restructuring through the diversification of agricultural production, increasing the processing capacity of domestic agricultural raw materials [4] to cover the consumption needs of domestic production (not from import). The need for these changes was revealed by the SWOT analysis and included into the objectives of the NRDP 2014-2020.

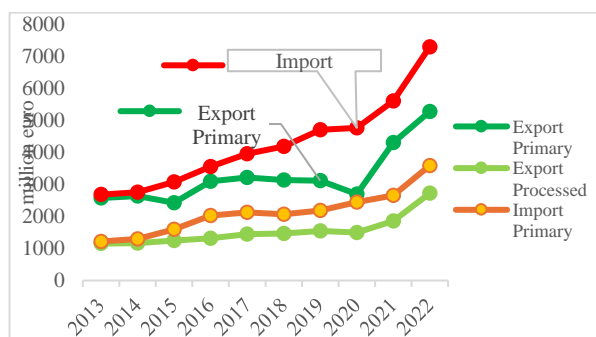


Fig. 1. Structure of Romanian agrifood trade balance  
Source: NIS, Tempo on-line database, [TBQ0253] [9].

However, during the period on implementation of the NRDP 2014-2020, Romania's trade balance with agri-food products continued to

deteriorate, with the value of processed food imports increasing almost three times while exports of raw materials increased only two times (Fig. 1).

Degree of market integration of agricultural raw materials, especially those of animal origin, fruits and vegetables produced, in particular, by small and medium-sized farms in Romania [14] was and continues to be at a low level. Thus, statistical data for 2013 showed that less than a third of the quantities of these primary agricultural products reached the market. On the other hand, the agricultural products of the large farms (cereals, oilseeds and industrial plants) are primarily intended for the market (Fig. 2).

Limited market integration of small and medium-sized agricultural producers is motivated, primarily by the poor development of the marketing and processing infrastructures for the raw materials offered by them, as well as the poor suitability of the marketing and processing capacities to the characteristics of their supply (territorial fragmentation and low homogeneity) [15], [17], [16].

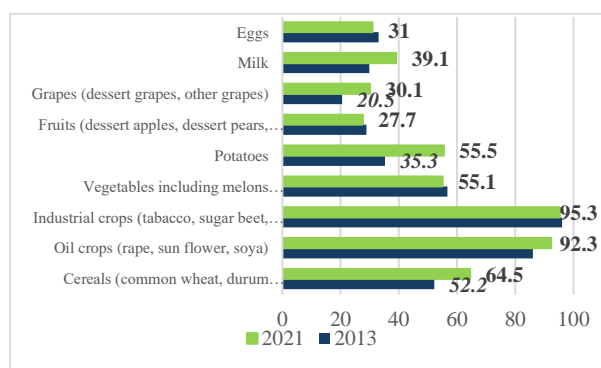


Fig. 2. Share of sales outside the industry in total gross agricultural production-quantitative (2013 & 2021)

Note: sales outside the agricultural industry = transfer of agricultural raw products to processing, consumers or export (exclusive self-consumption and transfer for other uses within the agricultural branch)

Source: NIS, Tempo on-line database, [TBP0252] [9].

### NRDP support for market integration of domestic products

The most important of the NRDP 2014-2020 measures which, in the opinion of the authors, aimed at increasing the market integration of Romanian products were sub-measure 4.2. “Investments for processing/ marketing of agricultural products” and sub-measure 16.4.

“Supports horizontal and vertical cooperation between the actors in the agri-food supply chain”.

Next, we will analyse the implementation of these measures during the 2014-2021 programming period with reference to their effectiveness in responding to the needs of sustainable integration of domestic agricultural production on the market.

#### **Sub-measure 4.2. “Investments for processing/ marketing of agricultural products”**

The incomes of individual farmers are low in Romania, to a great extent because they sell unprocessed raw agricultural products. To increase the incomes of small farmers, an important role can be played by adding value to farm products through processing, accompanied by an adequate marketing to promote the final products on the market. Sub-measure 4.2 “Investments for processing/ marketing of agricultural products” responds to this major challenge that Romanian farmers are facing, small farmers in particular.

Adding value through the processing of raw agricultural products and the approach to new market niches through the development of new agri-food products are the main activities for which support is received under this sub-measure.

The degree of accessing sM 4.2 was low among potential beneficiaries. The highest addressability was found for the Commercial companies (85% from total number of project that received fund under sM 4.2), functional Cooperatives and Producer groups. However, we mention that the share of beneficiaries in total eligible operators reached low weights, between 2 and 3% (2.3% for Commercial companies and Producer groups, respectively 2.9% for Cooperatives). For the other categories of eligible operators for sM 4.2, the number of funded projects was much lower (Table 1).

Only 25% of the amounts invested through sub-measure 4.2 were directed to projects for processing and marketing of products with animal origin, and other  $\frac{3}{4}$  were dedicated to crop products processing (Fig. 3).

Table 1. Structure by legal forms of eligible operators and beneficiaries of sM 4.2

Legal status	No. of registered operators potentially eligible for support	No of projects financed by s.M 4.2****
Registered person	16,042*	7
Commercial companies	13,308*	305
Cooperatives	1,486**	43
Producer group	131***	3
<b>Total</b>	<b>31,293</b>	<b>358</b>

Sources: \*NIS – Farm structure survey 2016; \*\* MARD - National register of agricultural cooperatives in Romania; \*\*\*MARD – Producers groups database, <https://www.madr.ro/docs/dezvoltare-rurala/grupuri-producatori/grupurile-producatorilor-recunoscute-update-01.04.2021.pdf>; \*\*\*\* AFIR database [9, 5, 13].

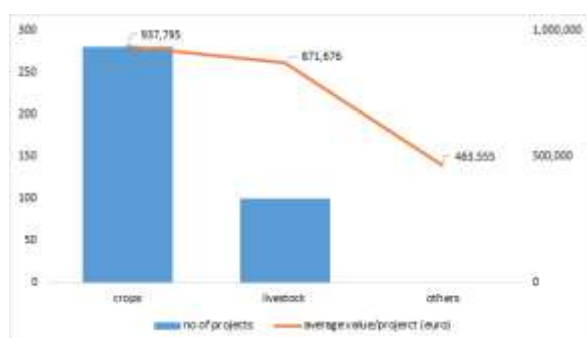


Fig. 3. Structure of projects financed under sub-measure 4.2 by specialization and average value in euro  
 Source: AFIR database [13].

The reduced investment in processing facilities for animal products, leads to the export as raw products of the live animals, meat, milk etc. (which are additionally created as a result of investments in the development of livestock farms through sub-measures 4.1, 6.1, 6.3 of NRDP 2014-2020). The reduced synergy between measures financing the development of livestock farms and those supporting the processing of livestock products can lead to negative effects such as: low value added and minimum effects on farmers' welfare and also on the economic performance of the Romanian agri-food industry.

According to the respondents benefitting from NRDP support through sM4.2, "the measure had a medium contribution to the support of associative forms, such as producer groups and agricultural cooperatives, which contribute to the creation of synergies between farmers" [5].

**Sub-measure 16.4. "Supports horizontal and vertical cooperation between actors in the agri-food supply chain"**

Sub-measure 16.4 was dedicated for promoting local actors' cooperation for sell the agri-food products through short food supply chains under cooperation partnerships. Through that, sM16.4 provided support for a horizontal and/or vertical cooperation between different actors from the (local and short) agri-food supply chain: farmers, processors, traders, NGOs, local councils, schools, healthcare, leisure and public catering units. Into this, sub-measure 16.4a was dedicated to cooperation in the fruit sector.

For sM16.4, eligible applicants were partnerships among actors in the primary production sector (farmers, farmer's cooperatives, producer groups) and final consumption actors (local councils/townhalls, school units, medical units etc.). The data from AFIR database showed that by the end of March 2021, 136 contracts had been signed under sub-measure 16.4 (99 projects for sub-measure 16.4 and 37 projects for sM 16.4a). Hypothetically, 9.2% of functional cooperatives, benefitted from support under sub-measure 16.4.

40% of the projects signed for sM16.4 were concentrated in only 2 counties (Cluj- 32% and Hunedoara – 8%). For sub-measure 16.4.a, most projects were contracted by the counties Cluj 27% and Satu Mare 19%. There are counties with tradition in fruit farming, with no contracted project under sub-measure 16.4a: Covasna, Iași, Brașov, Sălaj, Dolj, Buzău, Sibiu, Alba, Arad, Argeș, Bacău, Caraș-Severin, Mehedinți, Neamț, Prahova, Suceava (AFIR database).

Also, NPRD had a beneficial impact in other counties from the South Muntenia region like Calarasi, Teleorman, Dambovita, Ialomita [11].

By type of investment promoted through sM16.4 and sM16.4a, the funded projects could be classified as follows:

- 16% aimed to establish and develop short supply chains,

- 4% had as objective the establishment and development of local markets,

- 80% aimed to establish and develop local markets through short chains exclusively [6].

According to the Evaluation Study of NRDP, 90% of respondents in the opinion poll

consider that the projects under sM 16.4 had a major impact in the integration of small agricultural producers in the agri-food chain. The survey addressed to sM 16.4 beneficiaries (from the Evaluation Study II of NRDP) showed that the projects had averagely about 5 partners. The created partnerships rather represent the first cooperation attempt between the involved subjects than the continuation of previous cooperation or the extension of the experience of partners who have collaborated or cooperated in other development programs [5].

Indeed, “Local markets” principle applied in the selection of projects funded through sM 16.4 and sM 16.4a stimulated the integration of small producers in the short supply chains on local markets [8] but the absorption rate of the amounts allocated in the NRDP for this measure barely exceeded 20% at the end of the year 2021. It seems that a major impediment in accessing the measure was the given definition of the local market, considered impractical by small farmers whose farms are located at distances greater than 50 km of urban markets [15].

The conclusions of the evaluation studies indicate that the impact of NRDP 2014-2020 measures on the increase of the bargaining power of small farms is low - only 50% of beneficiaries noticed an improvement in this respect. But all beneficiaries agree that the NRDP strategy facilitates cooperation, with the following considerations: for the larger-sized holdings (over 12,000 standard output), NRDP capacity to support integration in the supply chain and promotion on local markets is considered relatively low (6 scores were assigned, on the average, of total 10 scores), while for the small holdings (less than 12,000 standard output), NRDP seems to have a higher contribution (an average of 7 scores were assigned for the integration of small holdings and 9.5 scores for promotion on local markets). These findings can be explained by the farm size, the smaller the farm, the greater the effectiveness of NRDP support. Moreover, the partnerships, mainly consisting of medium-sized farms, are not necessarily interested in the demand of local markets, as their products (e.g. grains, durum wheat, etc.) are not

products intended for sale on the local market, but for processing or wholesale marketing and export. In the near future, the association forms could affect and even modify the supply chain, provided that the demand for local products becomes stronger [7].

## CONCLUSIONS

The capacity of the Romanian agri-food system to cover the food needs of the population from internal sources seems to be deteriorating rapidly, especially in terms of processed food. The Romanian farm system, especially the small and medium ones, produces significant quantities of primary agricultural products that are not integrated into the market. Attracting the currently under-utilized primary agricultural production into the agri-food chains could cover part of the deficit in the trade balance with agri-food products.

The NRDP 2014-2020 support contributed to the increase of small farms participation in agri-food chains, but there are impact differences across sectors and measures. Thus, NRDP support through sM 4.2 was less effective in the integration in the value chain of animal products, vegetable and fruits of small holdings and supported more processing and market integration of cereals, oilseeds and industrial crops produced mostly by bigger farmers. Also, sM 16.4 and 16.4a were considered helpful on integrating small farmers on short food supply chains but was hindered by “local market” definition applied.

Therefore, the impact of the NRDP 2014-2020 on balancing the agri-food trade balance was reduced.

A more appropriate targeting of public policy measures is recommended to support the development of those processing sectors for which the trade balance registers the largest deficit and for which Romania already supports the increase in the performance of primary production: meat, milk, tomatoes, fruits. Adequacy of support to the characteristics of primary production (fragmented) through the establishment of local / micro-territorial capacities for storage and primary processing of agricultural raw

materials could contribute to limiting the under-utilization of the production of small farmers.

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