

## CHALLENGES OF POPULATION DEVELOPMENT AND VALUE CHAINS IN ROMANIAN MOUNTAIN AREAS

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### **Abstract**

*The paper aims to make an assessment related to the Romanian mountain areas, insisting on the aspects in connection with the population from the rural areas and the evolution of the value chains in these areas. The research method is rather empiric, based on the recent evolutions related with the population and the food chain supply from the mountain areas. Most of the data are provided by the recently established Romanian Agency for the Mountain Area and the Ministry of Agriculture and Rural Development from Romania. The discussions are focused on how this mountain area evolved in the last years, in relation to the needs of its inhabitants. The paper is developing the idea of the mountain as a marketing argument. The results indicates that many aspects related with the mountain areas are not supported by the field studies and the researches in this field are a necessity.*

**Key words:** Romania, mountain, rural areas, value chains

### **INTRODUCTION**

The sustainable and growth-orientated development of the Romanian mountain areas is depending on the understanding of the need to extend the current level of knowledge by carrying out more faithful studies in these beautiful but disadvantaged areas. This study aimed to report to what is known about the mountain areas from Romania in order to give new directions of research which can contribute to the sustainable development of these areas. The Carpathians were evaluated from the point of view of social sustainability of agriculture in the neighbour country Serbia [5], based on a set criteria related with: density of agricultural population, density of active agricultural population or density of employees in agriculture. As in the other European countries with significant mountain areas, the rural depopulation affected most of the isolated and poor Romanian mountain areas [1]. A third of the Romanian territory in which live 15 % of the national population [2] is situated in the mountain areas. Almost 1 milion households faces harsh living

conditions, threatened by the lack of jobs and a variable income which already generated internal and abroad exodus of the young generation. Romania is the fourth largest mountainous agricultural area in the European Union, with 2.9 million ha [3], after Spain (7.4 million ha), Italy (4.4 million ha) and France. (Source 1), but even if at the national level where identified 658 territorial administrative units situated in the mountain area, we couldn't find any specific study dedicated to them. These territorial administrative units belongs to 27 of 42 total counties existing at national level. The lack of detailed studies related with the mountain areas from Romania is confirmed within the Memorandum Regarding the National Strategic Orientations (2014-2020) for sustainable development in the less-favoured mountain areas from 2014, which include many references about mountain agriculture in Romania from EU studies made by JRC and many outdate aspects related with the Romanian agricultural census from 2010. The Romanian Agency for the Mountain Area, which was established in 2014 provides

some data related only the repartition of the mountain territorial administrative units within the counties and the related mountain area, also calculated per county. Studies made within this agency [6] indicate in the Romanian mountain areas is situated 18.71 % from the total of Romanian agriculture land and 5.84 % from the total arable surfaces, 21.94 % from the total fruit trees, 1.7 % from the all vineyards, 37.43% from the total existing pastures at the national level and 59.51 % from meadows. Is also estimated that the ratio of land covered by forest vegetation in the mountain areas is about 56% while the share of the forest in the mountain areas is 59% from the total national forest area.

## MATERIAL AND METHODS

The study is based on data provided by the Romanian Agency for the Mountain Area and the Ministry of Agriculture and Rural Development from Romania. The research method is rather empiric, the study being focused on the evolution of two components related with the mountain areas: the population and the value chains. One of the challenges for the mountain areas approached in this paper is the use of the term of mountain product as an optional quality argument, which can lead to more attractive promotion and increased sales of products made in the mountain areas.

## RESULTS AND DISCUSSIONS

### Population living in the mountain areas.

The population that is living in the mountain area is decreasing, and the problems that the mountain people faces cannot be easily solved in order to change this trend. Approximately 3.3 million inhabitants, representing 15% of the national population, live in the mountain area. The mountain areas faced a double exodus: to the urban area and to the EU countries, especially Italy, Spain, Germany and UK. The exodus is noticed especially among young people who are looking for better live conditions and higher income jobs. The rate of natural increase of the population in the mountain area is negative, and it is

higher than the national average. Besides the economic aspects related, the population from the mountain areas face problems related with the poor infrastructure and reducing number of schools and hospitals, mostly in the rural areas. The rural population of the mountain area accounts more than half from the total population living in this area, but the future is uncertain. Only from 2005 to 2011, the number of pupils enrolled in primary and secondary schools decreased by 13%, while the number of primary and secondary units was reduced by 37%. [4]

**Challenges related with value chains.** The Romanian Carpathian, one of the high mountains of Europe, have the food supply chain affected by a significant inequality of bargaining power. Farm producers are generally small and economically drawback by limited access to the market, where the rules are made by processing industry and the retail actors. The livestock in the mountain area decreased in two phases: one related with the change of economic system from 1989 and one with the integration in the EU, when the farmers faced new challenges generated by the increase of food and safety standards and the rules related with animal welfare. The transhumance is still practiced in Romania, and large herds travel up to 1,500 km starting from middle of September when the pastors move their livestock from the mountain areas to the low valleys where they own or rent some winter stables. Until May the sheep and goats are returning to the mountain. The distances traveled are higher due to the areas they are not allowed to cross. The evolution of the livestock is related with the recent evolutions on the food supply chain. As a good example we can underline here the case of milk supply chain. In the communist era, in the milk sector, were organized state enterprises for the collection and industrialization of the milk. Some of these enterprises changed into joint stock companies since 1990 and have undergone several sales of the majority stake while other collapsed and disappeared from the market. From over 1,800 enterprises specialized in production of milk and milk products, around 32 are part now of the employers' association

in the milk industry (APRIL), which include the main brands on the market, but few of them have a network in the mountain areas. As regarding the production of milk, the impact of collectivization was not as accentuated in the mountain areas as in the plain parts of the country and the mountain farmers kept their traditional animal husbandry system despite the economic and political changes. The milk which is not used for self-consumption is brought nowadays by farmers in collection points where can be found milk cooling tanks distributed in the villages, by SMEs specialized in industrialization of the milk, who designates a person in charge with each collection point. Several hundreds of liters are collected each day from each collection point, using auto tankers that belongs to the SMEs. Usual a SMEs industrialized thousands litres of row milk per day and have several processing hale, resulting in different varieties of dairy products. The price of the milk in the supermarkets is 4-5 times larger than the farm gate, which has discouraged production and led to a significant reduction of the number of milk cows in Romania in the last decade. While some SMEs specialized in the milk industrialization have their own network stores and also promote their product through websites and also developed online selling, other producers have contracts with retailers or wholesalers. The deliveries made for the online command are made either faster by deliver companies, and the consumer support the transport cost, which is related with the weight (e.g. 4 euro/ 1 to10 kg for goat dairy products, or 6.5 euro/10 to 19 kg for the same products), or through the SMEs own transport system which is made in specific days of the months through all country regions and is usual free of charge. The reduction of the livestock led to raw milk shortage and the SMEs with large industrial capacity are obliged to import milk from abroad in order to maintain the level of production and their commitments. At national level, in Romania there is monopoly in the commercialization of pharma-veterinary products. Only one enterprise has a national network for selling biological products, medicaments, medicated

and vitamin-mineral premixes, feed additives, culture medium, disinfectants, hygienic-sanitary materials, protective equipment, either manufactured in Romania or imported.

**Is mountain a marketing argument?** Since 2016, when in the national legislation were implemented the provisions of EU Regulation no 665/2014 related with the conditions of use of the optional quality term ‘mountain product’, several producers applied and have been accepted with their products in The National Mountain Products Register.

Table 1. Samples with the products entitled to use the optional quality term: ‘Mountain product’ - Category: Milk and milk products, included in The National Mountain Products Register

Year	County	Products	Company
2017	Mureş	 Cascaval Ibăneşti	S.C. Mirdatod Prod S.R.L.
2017	Mureş	 Smantana Ibăneşti	S.C. Mirdatod Prod S.R.L.
2017	Mureş	 Urda Ibăneşti	S.C. Mirdatod Prod S.R.L.
2017	Prahova	Cascaval taranesc Valdostana Brânză de burduf Valdostana Caşcavea Valdostana	S.C. Ferma IP Valea Doftanei S.R.L.

Source: Ministry of Agriculture and Rural Development from Romania

Source of images: <http://mirdatod.ro>

Now this register includes 30 produces in the categories: milk and milk products (21), meat and meat products (2), fruits and vegetables (6) and honey (1). Some of these products are

well identified on the market, but most of them are products without any brand image promoted on the internet.

## CONCLUSIONS

Few studies are approaching the mountain rural areas and their current issues. The studies related with the value chain are not recently and none of them was focused on the mountain rural areas. Few things are known about who is dealing with farmers, both on the factor and food side. Also few data are known about local food chains. The population from these areas have for certain low levels of income but no average income was calculated for a region or for the all mountain areas. The national statistic is not divided between the plane and mountain areas and data related with farm structure or land use are few or inaccurate. Mountain yet is rarely a marketing argument, but several efforts made by entrepreneurs or enterprises are on their way to be rewarded on the market.

## REFERENCES

- [1] MacDonald, D., Crabtree J.R., Wiesinger G., Dax, T., Stamouc, N., Fleury P., Gutierrez Lazpitae, J., Gibon, A., 2000, Agricultural abandonment in mountain areas of Europe: Environmental consequences and policy response, *Journal of Environmental Management*, Vol. 59 (1): 47-69
- [2] Mountain Agency from Romania, 2018, Activity report for 2017, available at: <http://azm.gov.ro/wp-content/uploads/2018/01/Raport-de-activitate-AZM-2017.pdf>, accessed at 15 February, 2018.
- [3] National Strategic Guidelines for Sustainable Development of Disadvantaged Mountain Area (2014-2020), Available at: <http://www.madr.ro/docs/dezvoltare-rurala/memorandum/Anexa-Memorandum-zona-montana-defavorizata-2014-2020.pdf>, accessed at 14 February, 2018
- [4] Santini, F., Guri, F., Gomez y Paloma, S., 2013, Labelling of agricultural and food products of mountain farming, European Commission, JRC, Institute of Prospective Technological Studies, available at: [https://ec.europa.eu/agriculture/sites/agriculture/files/external-studies/2013/mountain-farming/fulltext\\_en.pdf](https://ec.europa.eu/agriculture/sites/agriculture/files/external-studies/2013/mountain-farming/fulltext_en.pdf), accessed at 14 February, 2018.
- [5] Subić, J., Jeločnik, M., Jovanović, M., 2013, Evaluation of social sustainability of agriculture within the Carpathians in the Republic of Serbia, *Scientific*

Papers. Series "Management, Economic Engineering in Agriculture and Rural development", Vol. 13 (2): 411-416.

[6] Ungureanu, D., 2017, Mountain Agency from Romania, 2017, Sustainable development of the Romanian mountain areas, Realities and prospects, <http://www.turismulresponsabil.ro/wp-content/uploads/2017/01/2.-Danut-Ungureanu-Zona-montana.pdf>, accessed at 15 February, 2018