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## Family Farming – Examples for Rural Communities Development

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### Abstract

At present, family farming is a subject of great importance for sustainable development of rural communities and promotion of healthy lifestyle. According to FAO Policies, family farming is a means of organizing agricultural, forestry, fisheries, pastoral and aquaculture production which is managed and operated by a family and predominantly reliant on family labour, including both women's and men's. Family farming is the predominant form of agriculture in the food production sector for both in developing and developed countries. In this sense, Agropuzzle II is a partnership project under LLP Leonardo da Vinci Program targeting to develop, update and completing specific competence profile and training in sustainable agriculture and agribusiness, with a view for promoting knowledge transfer to all stakeholders in agricultural production and rural community development. The team of Bucharest Faculty of Agriculture is beneficiaries of education and training courses in the partner countries: Czech Republic, Portugal, Poland, Slovakia and Romania, leading to a European perspective on the importance of sustainable agriculture and agribusiness among all entities interested and involved in this orientation. During these mobilities it could be highlight the contribution of smallholder and family farmers to food security, rural development, developing new employment and management of natural resources and also, the opportunity to encourage research that improves food security and supports sustainable rural development, safeguards cultural heritage, protects the environment and maintains biodiversity.

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*Keywords:* family farming, rural communities, agribusiness, competences, education.

### 1. Introduction

At present, family farming is a subject of great importance for sustainable development of rural communities and promotion of healthy lifestyle. According to FAO Policies, family farming is a means of organizing agricultural,

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forestry, fisheries, pastoral and aquaculture production which is managed and operated by a family and predominantly reliant on family labour, including both women's and men's.

This is the predominant form of agriculture in the food production sector for both in developing and developed countries.

Subsistence and semi-subsistence small farms are of particular importance in the current global agricultural policy (Davidova, 2014). They are a way of life, through which much of the rural population provides their livelihood.

Traditionally, individual peasant households had for centuries as a prime investment work based on economic principles founded on an honest and moral responsibility for the environment and society. Family farming and smallholders play an essential role in food production, sustaining rural economies and maintain of biodiversity.

Conservation of natural resources and the diversity of agricultural activities are at the heart of family farming. For small farmers, land, water, biodiversity and soil inputs are viewed as a long term investment that must be preserved. By managing natural resources and landscape, these farmers are able to improve agroecosystems to adapt to climate change today. This supports the idea that these family farms aimed at sustainable productivity growth of agricultural production and natural resource protection (Ekwall, 2014).

An agriculture based on family farms can be a viable solution to solve economic, social and global environmental.

Family farms include small and medium farmers, peasants, shepherds, indigenous peoples and traditional communities. From a field of the past, they are increasingly recognized as part of the future and a key player for the sustainable development of rural communities.

## 2. Materials and Methods

“Agropuzzle II” project is a Partnership between institution/organization from Czech Republic, Poland, Portugal, Slovakia, Romania, under LLP Leonardo da Vinci Program targeting to develop, update and completing specific competence profile and training in sustainable agriculture and agribusiness for students and teachers participated, with a view for promoting knowledge transfer to all stakeholders in agricultural production and rural community development.

The team of Bucharest Faculty of Agriculture benefited, in the year 2014, of education and training program in countries participating in the project: Czech Republic, Portugal and Poland, leading to a European perspective on the importance of sustainable agriculture and agribusiness among all entities interested and involved in this orientation.

During these mobilities it could be highlight the contribution of smallholder and family farmers to food security, rural development, developing new employment and management of natural resources and also, the opportunity to encourage research that improves food security and supports sustainable rural development, safeguards cultural heritage, protects the environment and maintains biodiversity.

The main objective of this paper is to present a comparison of different traditional types of agricultural entrepreneurship in project participating countries with regards to sustainability of life and to understand advantages and disadvantages of various kinds of agribusinesses and choice personal way.

## 3. Results and Discussions

Currently, there are 500 million family farms in the world, accounting for 98% of farms and family farming is the main form of agriculture in the countries of the world. In developing countries, 70% of the population live in rural areas and depend on agriculture for subsistence and income obtained from agricultural activities. In 2013, the percentage of small farms means, on average, more than 82% for all countries participating in the project (Table 1).

The situation of rural population and employment in agriculture is present in table 2. The highest share of the population living in predominantly rural regions was recorded for Romania and Slovakia (46%), by comparison with Czech Republic was recorded the lowest of 27%. On the other hand, the highest employment rate in agriculture was in Romania of 29% and the lowest was in Slovakia and Czech Republic.

Table 1. The situation of small farms in project participating countries (Source: Eurostat, 2014).

Country	Number of total farms (thou)	Number of small farms (thou)	Small farms as % of all farms
Czech Republic	39	29	72.3
Portugal	275	237	86.2
Poland	2,391	2,146	89.8
Romania	3,931	3,065	78.0
Slovakia	75	64	84.5
<i>Average</i>	-	-	<i>82.16</i>

Table 2. The situation of rural population and employment in agriculture in project participating countries (Source: Eurostat, 2014).

Country	Rural population (% of total population)	Employment in agriculture (% of total employment)
Czech Republic	27	3
Portugal	38	11
Poland	39	13
Romania	46	29
Slovakia	46	3

*Experience in Czech Republic.* In January 2014 was held mobility in the South-East of Czech Republic within Opava area. During this educational visit it was observed that in a region with agriculture profile and without significant industrial activities, the local policies are interested in using the local resources and pursue development activities that allow reducing unemployment. The integration of agricultural production systems and agricultural products processing enterprises (SMEs) in international commercial activities (milk is processed in Poland, bee products are marketed in Israel, organic fruit juices in Germany), contributing to economic and social revitalization of rural areas. During the meetings were held with representatives of local and regional concerns and insisted on supporting agricultural activities and human resources in the Opava area.

There were also presented lectures on the conservation of germplasm and varieties of fruit trees present within the area and concern for the re-establishment of orchards in family gardens and promoting of traditional local products.

Another topic of the courses was the issue of biodiversity conservation in the Opava region, through tree planting activities and protection of endangered species by establishing nature park Arboretum Opava.

We can mention some family farms that can provide new ideas for reviving rural communities. An example could be the family farm “Vitaminor”, which starts the activity in 1921, in the village Sosnová. The family as true farmers began growing vegetables and fruits tree. Since 2002 they have been able to restore the production of fruit. The main crops became red and black currant, plum and apple trees. At the beginning they only wanted to produce fruit and crops (grains, potatoes), but over time began to consider how to increase the value of own crops, and they started to process 100% natural juice of fruits and vegetables.

In 2006 in close collaboration with the “Vorán” company develop a mobile processing line for the processing of fruits. Over the past few years, in part due to the interest of the Czech public in healthy foods, they were able to develop cooperation with a number of schools, hospitals, restaurants, health food stores and many other businesses for domestically market and for the export. This farm provide 100% natural juices, mostly from own orchards and gardens, for all who are interested in their own health. It was highlighted importance of decision makers in the development and promotion of existing resources and local traditions, permanent concern for the initiation of new

business ideas for small businesses and permanent contact with the rural community and civil society in the area ([www.tripmondo.com](http://www.tripmondo.com)).

*Experience in Portugal.* The team of our Faculty participated in Portugal mobility organised by Rural Development Agency (RUDE). Rural Development Agency, based in Covilha, in North-East of Portugal, is an association with knowledge and experience accumulated over the 22 years of the EU LEADER Initiative management and implementation of the local development strategy in Cova da Beira, which comprehends 49 parishes in Belmonte, Covilhã and Fundão municipalities. In these areas, many farms are characterized by steep and dry land, often located in the remoter and mountainous areas, where it is difficult to achieve additional income. Since 1992, RUDE have been run and financed almost half a thousand projects in Cova da Beira involving co-financing investment of approximately EUR 14 million by LEADER programme. Many dozens of entrepreneurs, craftsmen, companies and associations have found the resources required for highly useful for local development projects. In the management of the LEADER Programme RUDE knew catalyze essential resource for actions to promote local development. In this sense, acquired an experience and a very favorable position for together with several partner organizations, continue to support the many projects and ideas of the promoters, and organize initiatives to mobilize the economic agents particularly in sectors most entrepreneurs, but also promoting spaces cooperation between the various actors of local development, regional and international levels, to thereby give continuity to its main objective to contribute to improving the quality of life of rural populations (<http://ec.europa.eu/agriculture/publi/reports/portugal/>). In this sense, an example of family farm established at the initiative of RUDE was “Sabores da Gardunha” - a small company that makes good quality jams, jellies, compotes and liquors and formed only by family members. The recipe and techniques of production are traditional. For the production they use mostly fruits from the region to help the development of local producers. The final products are sold all over Portugal and also a big quantity goes to export.

Being situated in a region famous for its fruit production the company has easy access to quality raw materials. Although at the moment they do not have organic products, they plan to develop this segment by creating organic baby food. Another example is “Quinta Dos Termos” – a winery with 120 hectares of vines that produces 24 varieties of wine that translates to 600.000 bottles of wine per year. The farm has an old tradition in wine making and it’s in the family for a couple of generations. The owner has education in textile industry but he learned to make wine from his father ever since he was a child. For modernizing the winery they accessed EU funding. At the moment the winery exports 20% of its production, and it plans to increase this proportion at 50% in the next 3 to 5 years. The sandy soil, the good control of the humidity and temperature in the fields, and sunny weather makes for a great quality of grapes. The southern exposed slopes and the protection given by the mountains make this a perfectly suitable place for vine growing which results in a quality wine. For the wine making, the company uses only 5 local people. In the fields they have 12 more but because they do the harvesting manually, in that period they need 60 more. In the plantation they use integrated crop management which means that they minimize the use of chemicals. Are similar are the farms “Loca/Vinolive” and “Beiraberry”. “Loca/Vinolive” started 18 years ago and it specializes in extracting virgin olive oil. It now has a capacity of 3000 t/year. In the fields and in the plantations they have over 50 workers, most of them being from the region. “Beiraberry” is a farm with 4 ha of blueberry that started in 2013. The cost of the plantation was 160000 euros, part of which came from the EU. They plan to export most of their products because Portugal is not a big blueberries consumer. At the moment only 2 people work in this plantation.



Fig. 1. Preparing jams in “Sabores da Gardunha”, Portugal.



Fig. 2. “Beiraberry” farm plantation, Portugal.

In the exchange of best practices, unlike Romania, in Portugal, was noticed idea of association of farmers as cooperatives through which they are able to effectively manage their products and that they use the resources of the farm to a higher value and better prices, making it possible to resume production process in good condition. Such cooperative visited were: “Cooperativa Fructicultores da Cova da Beira” built in 1966 with 4 partners that now has over 220 partners that gathers and sells local fruits; “Quinta dos Lamacais” established in 1992 with 8 members with a total of 106 hectare which include apple, peaches, pears and cherry plantations, and collecting, storing, packing and selling fresh fruits for internal and external market; “Adega Cooperativa do Fundao” with over 1000 associates, that was founded 65 years ago by the grape producers in the region to make and market wine; “Quinta dos Lamacais” established in 1982 and gathers about 15 fruit producers, in the locality of Orjais (Belmonte), dedicated to the production of around 300 tons of peaches, apples and cherries, that are mostly to sell fresh in the national market.

*Experience in Poland.* During 8 to 14 of June held mobility in South-West of Poland, in Opole area. Opole is one of the smallest and least-populous provinces with the richest agricultural tradition. The favourable climate, fertile soils, and high farming culture contribute to the development of agriculture, which is among the most productive in the country. Nearly two-thirds of the land is used for agriculture, and production is high. The chief crops are cereals, potatoes, rapeseed, sugar beets, and fodder. Cattle breeding, pig rising, and chicken farming are of considerable importance. Industrial production is strongly linked to the province’s agricultural sector, and food processing, brewing, and meatpacking are important local industries (European Commission, 1998).

A very good example for family farm is farm “Szparg-Rol”, specialized in asparagus and strawberry production, managed by Ms. Sylwia Krol with her husband and daughter that started activity 10 years ago. They cultivate asparagus on 3 ha with a production around 4 tons and strawberry on 2 ha with a production around 5, depends on weather. By this moment the farmer didn’t access any EU funds, but in the future they intend to apply for modernization and develop of activities. The biological material for asparagus plantation comes from The Netherlands. The first production is harvested after 3 years of plantation and the culture remains up to 10 years. The biological material for strawberries is also from The Netherlands. The strawberry crops duration is 5 years. The production it’s used only for local market by selling directly and fresh to customers who came at farm. Since asparagus is a deep-rooted crop, soils need to be well drained. Alluvial loams, peaty soils and sandy loams are the most suitable soils for growing asparagus. According with that the farm is situated in an area with the best soil properties from Poland and suitable climate conditions for cultivation of asparagus.

For obtain the high quality of products the technology of cultivation includes: organic fertiliser, very good preparation of soil (planting bed), mulching, certificated biological material for planting, weed control only manually, few treatment for pests control, manually harvesting at time and storage in good condition of temperature to keep the quality of products.

The farm has 15 workers full time and in the harvesting time of crops they hire local people.

Another family farm visited in Opole area is “Honey and vegetables eco farm” of Martin Luks. He has 27 ha in which he cultivate in organic farming: spelt, rye, buckwheat, rape, beans and vegetables such as carrot, onion, cabbage, garlic, roots, radish, etc. Also, he has around 45 bees families in conventional system.



Fig. 3. Soil preparation for growing asparagus in farm “Szparg-Rol”, Poland.



Fig. 4. Aspects of “Honey and vegetables eco farm”, Poland.



For organic production receive 10% like subsidy from local administration for certification of products. For eco farm the seeds for crops are used from own production. To develop the apiculture activity the farmer use own bees' families. The farmer has own land (26 ha) and also 1 ha it is rent from other farmers. By the moment he is not involved in organic association farmers but intend in the future. The vegetables and crops are exported to Czech Republic, Belgium, Germany and The Netherlands directly to customers. The honey is only for local market. The farmer use old crops varieties for organic productions because are not picky about soil and climate conditions and resistant at pest and disease. The farmer cultivates melliferous crops such as facelia, rape and buckwheat for bees families.

Because it is situated in a wet area they don't need irrigation system. The spontaneous flora is used to harvest the pollen for honeybees. And the bees are used to pollinate the crops. Also in organic farming it is necessary to find some buffer zone for useful entomofauna, for pest and diseases control around the farm crops. In organic farming obtained products have a good taste and flavour. For this the farmer doesn't use any chemicals for control of pests and weeds. To prevent the attack of pest organisms and weeds and also to improve the quality of soil and organic matter, the farmer use only crop rotation and green fertiliser like beans. The seeds used for sowing come from own organic production. For health of bees (Varroua) the farmer uses only non-toxic smog. The high quality of honey is proved by the certificate of quality given by a special laboratory. The farm has 2 workers full time and in the harvesting time of crops they hire local people.

#### 4. Conclusions

The percentage of small farms means, in average, over 82% for all countries participating in the project.

The highest share of the population living in predominantly rural regions was recorded for Romania and Slovakia (46%), by comparison with Czech Republic where it was recorded the lowest share of 27%.

The highest employment rate in agriculture was in Romania of 29% and the lowest was in Slovakia and Czech Republic.

Improving living standards through policies and reforms, combined with practical support in terms of capacity, tools, technology, infrastructure and access to basic services should be a priority for national and international efforts for durability conservation of the environment, biodiversity and natural resources.

It was highlighted importance of decision makers in the development and promotion of existing resources and local traditions, permanent concern for the initiation of new business ideas for small businesses and permanent contact with the rural community and civil society in the areas.

During these mobilities it could be emphasized the contribution of smallholder and family farmers to food security, rural development, developing new employment and management of natural resources and also, the opportunity to encourage research that improves food security and supports sustainable rural development, safeguards cultural heritage, protects the environment and maintains biodiversity.

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