

Small Farm Diversification Opportunities in Viticulture-Winemaking Sector of Georgia

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Abstract—The paper analyses the role of small farms in socio-economic development of agriculture in Georgia and evaluates modern concepts regarding the development of the farms of this size. The scale of farms in Georgia is studied and the major problems are revealed. Opportunities and directions of diversification are discussed from the point of increasing the share of Georgian grapes and wine both on domestic and international markets. It's shown that the size of vineyard areas is directly reflected on the grape and wine production potential. Accordingly, vineyard area and grape production dynamics is discussed. Comparative analysis of small farms in Georgia and Italy is made and the major differences are identified. Diversification is evaluated based on cost-benefit analysis on the one hand and on the other hand, from the point of promoting economic activities, protecting nature and rural area development. The paper provides proofs for the outcomes of diversification. The key hindering factors for the development of small farms are identified and corresponding conclusions are made, based on which recommendations for diversification of the farms of this size are developed.

Keywords—Farm diversification, scale of farms, small farms, viticulture-winemaking.

I. INTRODUCTION

DEVELOPMENT of small farming can significantly contribute to socio-economic development and improvement of living conditions for a large number of population in Georgia. Nowadays, there are mostly small-scale farms in the country and they mainly produce only for self-consumption. In fact, population of the country consumes more imported goods than it produces.

The approaches caused by open trade relations raise an issue of farm development in a new way. In particular, diversification of farms is one of the conceptual issues for modern Georgia as diversification of farms can make changes in the sectoral composition of the economy, make the policy focus on the priorities of agriculture, attract more investments for the development of this field, contribute to overcoming poverty in rural areas, use resources effectively, etc. In addition, diversification of farms will improve self-sufficiency in agricultural goods, create preconditions for entering international markets successfully and most importantly, play an important role in fostering the development of rural areas.

Production of strategic agricultural goods, which effectively uses natural, economic, traditional and export resource potential plays an important role in socio-economic development of Georgia. Development of viticulture and

winemaking is of utmost importance in this regard. Therefore, study of the problems of diversification which the small farms face is significantly important. Based on the analysis of development trends of small viticultural farms, the study aims to identify possibilities of diversification for such farms and develop relevant recommendations.

II. METHODOLOGY

The following research methods have been used in the research: desk research; statistical methods (selection, grouping, observation, trends, etc.) and qualitative research methods (in-depth interview). The obtained information is analyzed using the induction method. The analysis was based on grouping the data and revealing the similarities, identifying common tendencies and differences. The reports of the National Statistics Office of Georgia and the Ministry of Agriculture of Georgia, as well as the policy documents of the Parliament of Georgia, studies by Georgian and foreign researchers, analytical studies, publications and relevant research materials are used in the paper.

III. DISCUSSION

Currently, agricultural sector is developing slowly in Georgia and small farms cannot ensure high productivity. 20 percent of farmers hold small area of land and they only manage to satisfy themselves partly. The area held by most of the farmers (75%) ranges between one and three hectares and they mostly focus to satisfy themselves and sell only small part of what they produce; only 5% of farmers are fully market-oriented and they own 100 hectares and more of land area [1]. Obviously, in such situation, the demand and deficit in food products are mainly satisfied at the expense of import.

According to foreign trade indicators, imbalance of agricultural goods export and import remains high in 2014. Total Georgian export amounted to 2861.2 million USD, food products account for 10.5% of total export. Main export products are nuts (22%), wine (22%), mineral and still waters (17%), alcoholic beverages (12%), cattle (4%), soft drinks (3%), live sheep (3%), others [2]. Analysis of self-sufficiency indicators for agricultural products shows that there is a shortage of food products in the country and the demand is mainly satisfied with imported goods. In 2014 total import of Georgia amounted to 8596.3 million USD, food products accounted for 12% in total import. Main import products are: wheat (12%), tobacco (9%), poultry meat (6%), sugar (5%), alcoholic beverages (5%), pork (3%), confectionery products (3%), vegetable oil (3%), fish (2%), others [2].

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In terms of such structure of import and export, food market is partly satisfied with locally produced main agricultural products. Local products account for 45-48% of fruit, 40-45% of grapes, 75-80% of vegetables, 25-27% of beef and 38-42% of milk and dairy products sold on the agricultural market [3].

Georgia holds leading positions in grape and wine production both on domestic and international markets. Grape and wine production is highly depended on vineyard areas. Three countries - Spain, France and Italy – account for one third of total vineyards in the world.

Georgia accounts for 0.8% of total world's vineyards. According to 2004 census, total vineyard area was 48 thousand hectares. This data has not been officially updated so far. However, according to the data provided by the Ministry of Agriculture of Georgia tentative areas of the vineyards in Georgia reached 56 thousand hectares.

Most of the vineyard areas are distributed in East Georgia, in particular, Kakheti region accounts for 68% of total Georgian vineyards. In West Georgia Imereti is the leading region in this regard, which accounts for 18% of vineyards, Kartli 9% and other regions 5% [4].

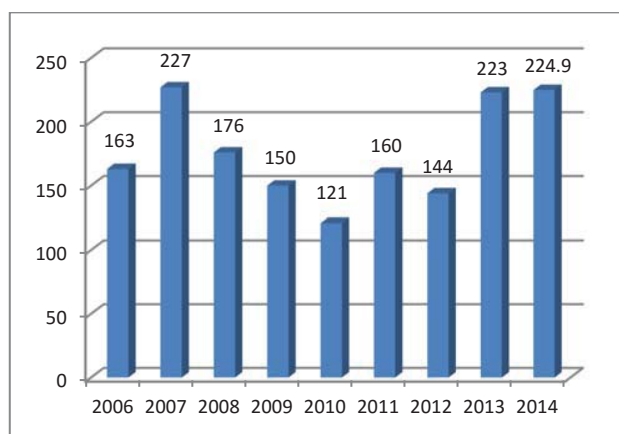


Fig. 1 Grape Production in Georgia, thousands of tonnes

In 2014, grapes accounted for about 1.4% of GDP of Georgia. Grape production dynamics show that most of grapes, 227 thousand tonnes, were produced in 2007, then production indicator began to decline till 2011 when it recovered again and reached 224.9 thousand tonnes in 2014 [5].

In 2014, 8% of total grapes produced in Georgia have been consumed in the form of grapes, the rest of 92% was used for wine production. In recent years, the highest consumption rate was in 2006, self-sufficiency indicator in 2014 was 141% [6].

Georgia accounts for 0.37% of total wine production and holds 26th position on the world market. Analysis of the wine consumption trends showed that despite small number of population (3.7 million people) Georgia has a rather high rate of wine consumption. The country accounts for 0.3% of world wine consumption and holds 40th position [7]. In addition, wine consumption in the countries (Russia, Belarus, Ukraine, Kazakhstan) where wine is imported from Georgia is characterized with an increasing trend [8].

In order to identify European models of small farm diversification we have studied researches about small farms [9]-[11]. In particular, theoretical paradigms regarding diversification and small farm development indicators have been analyzed; a particular role of small farms in activation of agricultural activities, achieving productivity objectives, nature protection and stimulation the development of rural areas has been assessed.

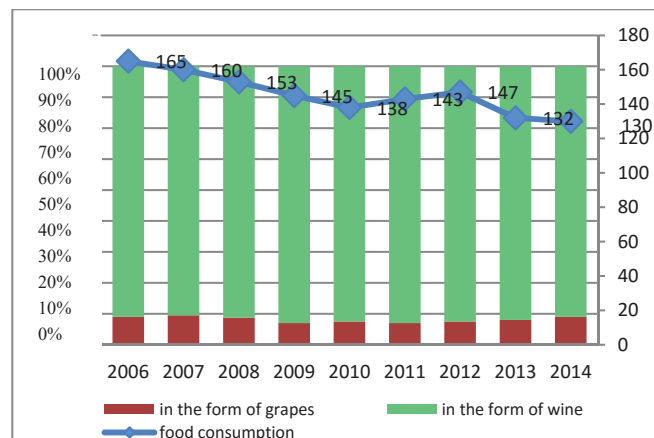


Fig. 2 Grape Consumption in Georgia, thousands of tone [12]

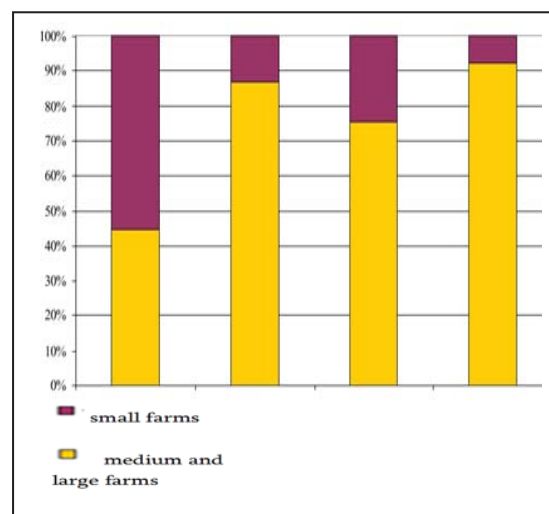


Fig. 3 Small, medium and large farms in Italy [10]

Fig. 3 shows that small farms in Italy have quantitative advantage. They account for 53% of the total farms in the country, while they occupy 13% of the total cultivated land, use 24.7% of total workforce and produce less than 10% of total agricultural goods produced in Italy. In terms of such a structure, the role of small-scale farms in agricultural development needs to be assessed. In addition, key similarities and differences compared to other countries need to be identified.

Currently, there are different opinions regarding the role of small farms in agricultural development. The discussions mainly refer to orienting the objectives of this type of farms. An answer is needed to the question: what is to be preferred –

achievement of productivity based on cost-benefit analysis or protection of environment and landscapes?

Assessment of production scale is of special importance from the point of cost-benefit analysis. Obviously, use of technical facilities increases opportunities to expand production scale and reduces per unit costs, which, in turn, calls into question the effectiveness of small farms. However, an opposite trend is observed in small land countries. According to this opinion, some individuals might become the owners of large areas of land, which poses serious threats to the population of small land countries. Such threat is especially acute for the countries like Georgia as almost half of the population is employed in this field and agriculture is a means of self-survival for them.

Criticism of the traditional theory of comparative advantage of large farms began in the mid-20th century. In the late 1990s, some studies began to argue that in many cases the higher production efficiency of small farms over large farms is observed [11]. Advocates of the efficiency of small farms argued that although small farmers have lower per unit profit compared to the large farmers, they are more sensible and flexible with respect to transaction costs. Effectiveness of small farms isn't lower compared to large farmers in case low labor costs of small farmers and externalities are taken into consideration.

Study of multifunctionality at the beginning of the second half of the 1990s revealed other processes in farm diversification, which included production of intangible services. Most of the studies focused on the role of multifunctionality in small and medium farms. The study of the influence of diversification on farm incomes showed that such opportunity might be limited in regard with small farms. However, small farms may contribute to the development of multifunctional activities and may cause activation in long run. Such economic strategy is an important opportunity of diversification, which will ultimately help them to survive and reduce marginal costs.

The study of the scales and diversification possibilities of grape farms in Georgia revealed that small farms can't compete with imported agricultural goods. Such farms focus only on self-satisfaction (Table I).

TABLE I
 NUMBER AND SCALE OF FARMS IN GEORGIA

Scale of farms(ha)	Number of farms	%
<0,1	57019	8.24
0.1-1	462340	66.85
1-5	160993	23.28
5-50	10112	1.46
50-500	1041	0.15
500>	72	0.01
Total	691577	100.0

According to 2004 agricultural census, one household averagely owns 1.32 hectares of land area, which consists of two or three plots of land of about 0.45 hectares. Plots of less than 5 hectares account for 98.4% of total number of farms in Georgia. The share of this size of farms in total land areas is

relatively low but still quite high – 63.4%. Any farm in Georgia owning between 2 and 3 hectares has to work mainly for self-satisfaction. The farms owning over 5 hectares may sell half of the goods they produce. Naturally, this quantity varies depending on the types of species grown and the number of family members. If only farms of over 5 hectares are market-oriented ones, there are around 11500 farms that account only 2% of all the farms in the country. Land fragmentation causes a number of problems; as a result, land market in Georgia is not effective. Therefore, have level of farms is very low and in general, agricultural sector is in decay. Expert evaluations showed that a significant part of land owned or leasehold is not cultivated. Government should ensure increasing production scales through developing effective stimulation mechanisms.

Viticulture and wine production sectors were selected in order to assess the scale of farms and reveal opportunities for diversification. Kakheti was chosen as a research area; accordingly, information about viticulture farms in this region was obtained. The initial database included 1952 farmers and 175 winegrower/winemakers. Two strata groups were identified based on stratified random sampling defined:

- a) Farmers engaged only in farming;
- b) Entrepreneurs engaged in winegrowing and winemaking.

Geographical distribution was made according to strata groups and the list of core and additional sampling was formed. The structure and object of the research were determined; 15 respondents were selected for the qualitative research.

Analysis of in-depth interviews revealed that it is necessary to continue development of the marketing strategy and action plans in a number of directions of grape production sector and wine market diversification. Significant problems have been revealed in small farms from this point of view:

- 75% of grape farms are small ones;
- Coordination between small farmers as well as between market agents is weak;
- combination of product varieties is limited;
- Farmers lack information about markets;
- Most of them don't have education in farming;
- Farmers' poor qualification and limited opportunities to provide them with appropriate knowledge;
- Limited opportunities to use modern technologies;
- Farmers lack production resources;
- Small farming plots are fragmented and due to underdeveloped land market possibilities to widen plots is limited;
- Wine market diversification strategies need to be changed;
- Statistical data and analytical information about small farms are quite limited; this makes studies of such farms and decision making process even more difficult;
- There is no legal basis for stimulating expansion of production and strategic development.

IV. CONCLUSION AND RECOMMENDATIONS

For farm diversification it's necessary to:

- improve the structure of grapes supply based on the combination of wine and table grape varieties;
- improve coordination between small farmers;
- prepare and adopt appropriate legislation in case economic cooperation groups of farmers are formed;
- effectively provide small farmers with up-to-date theoretical knowledge and information about modern technologies;
- establish refrigerated warehouses and small wine factories;
- diversify wine markets and thus reduce dependence on traditional but volatile markets;
- maintain sustainability of wine market diversification and expansion on strategic markets (including, the USA, China, UK, Poland);
- diversify in new wine markets (the Baltic countries, Japan).

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