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The regionalization of production as strategy for the orientation of the agriculture support policies

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Abstract

The statistics, but also many studies, show that Albanian agriculture faces a high costs of activity and as a consequence, it is characterized by a very low level of efficiency of the economic activities. The aim of this study is to investigane on the production regionalization, for a better orientation of the agriculture support policies. To fulfill this study we have used several methods like, Review of the previous studies on the above mention topics, and consultation with the OECD and EU papers related to the regionalization of agriculture; Detailed interviews with experts of various fields; Interview with the focus groups; Structured questionnaires; Workshops.The study areas during this research has been the most popular agriculture areas of Albania. One of the conclusions of this study is that; considering all the factors, it is recommended that the wheat has economic efficiency, climate conditions and rational use of natural resources (land, water, vegetation, landscape) and it must be planted under this priority: Korca (district of Korca), Fier (district of Fier) and Elbasan (district of Elbasan).

Keywords: farm production; crop productivity; livestock productivity; production efficiency; regionalization of production.

1. Introduction

The production structures of the Albanian agriculture are characterized from the development of plant systems made up by a great number of plants (4-7 open field plants as well as fruit trees, generally dispersed on the farm) and livestock systems, which encompass a considerable number of livestock types. In these conditions, the link of the farmers to markets is very weak. This is so because the conception logic of the production structures from the side of the farmer is based on objectives, which are related to guaranteeing of the food needsof the family and minimize the economic risk. It is clear that such behavior shall continue for as long as the agricultural development policies are not led by policies thatgive precedence to the regionalization of production. The absence of the regional policies of agriculture development has been associated with a number of negative phenomena: (1) the efficiency of agricultural production results to be very low (almost 1/3 of the potential opportunities); (2) the farms is still “far away” from the market and processing industry and the level of competitiveness of agricultural products and of those from processing, in the internal and external market, is very low; (3) the impact of these public policies, employed so far, in support of agriculture, doesn’t appear to be the one expected. These Policies have had more as their focus poverty reduction rather than the implantation of a long-term strategy for economic development and a balanced and sustainable agricultural development. A policy or strategy regionalization of production on country level, according to the regions and districts, and subsequent planning of the agriculture support policies on this basis, would enable the: (1) increase of the production capacities in agriculture; (2) more opportunities for the establishment optimal structures of production (3) rational use of land, manual labor and other production skills; (4) Intensification of production through the application new production technologies, of higher effectiveness; (5) efficient employment of production inputs and environmental protection; (6) development of efficient marketing systems; (7) market integration of the farmers; (8) availability of an agricultural map, which would enable a proper addressing of the agricultural support policies. The agriculture regionalization strategy would be completely serving a better orientation of the agricultural support schemes, implemented by the Agriculture and Rural Development Agency.

2. Material and Methods

The completion of the study shall be based on a wide base of information and more concrete on the:

- Review of the previous studies on the above mention topics, and consultation with the OECD and EU papers related to the regionalization of agriculture;
- Detailed interviews with experts of various fields;
- Interview with the focus groups;
- Structured questionnaires;
- Workshops.

3. Results and Discussion

Agriculture in Albania makes up a very important sector of economy and contributes with about 18% of GDP in the country. Although the trend is that contribution from agriculture to be reduced, we need to emphasize that in absolute value the weight of agriculture is increasing and that the attention towards agriculture should be seen in the increase of the production potentials as well as increase of their efficient use. It is a known fact that the development of the agriculture sector and along with it the agro processing industries, isconditioned by a number of external and internal factors, but up to now, external factors have generally not been subject to agrarian policies. Considering this fact, the agriculture sector is generally seen as not attractive to crediting, particularly from financial institutions. Some of the arguments regarding this problem are:

- Capital circulates slowly because of the organic nature of agriculture, which means it is depending on the growth season, their long cycles, risks associated with the production such as disease, weather, etc. The workload is longer than the production time.
- Economies of scale are hardly achieved.
- Higher marketing costs, variations in soil fertility, topography, and climate, making it more difficult the management of large enterprises, compared with other enterprises in other industries.
- The offer of the agricultural products is fragmented in many small farms and with non-uniform distribution, while demand, is constant and inflexible.
- Profits per unit of product are lower compared to other sectors.

To make possible the achievement of the objective of the study is necessary to identify and analyze some of the most fundamental problems which characterize the agribusiness sector, and in particular, agricultural producers. Some of them would be:

- Large number of agricultural farms and of rural population.

Faced with this situation, it should be noted that the management of the sector is more difficult, effective employment becomes more problematic, supporting management is more costly, regulation of the sector is highly difficult.

- The presence of small and fragmented farms (340 000 family farms, with an average size of about 1.1 ha).

This situation has played an inhibitory role in the development of the credit market for farmers, of the agricultural marketing and processing industry, but also for foreign direct investment in agriculture.

- Lack of regionalism policies for production and along with it the low level of product intensification.

It is difficult to speak of a real map of the location of agricultural and a livestock activity, as it does not exist and, moreover, the level of production capacity utilization (soil, plants, animals, etc.) is quite low.

- In rural areas, the new generation is not sufficiently passionate about agriculture.

This can create problems with the legacy of the tradition, which may have effects on the development of sustainable production sources, mainly agricultural land.

- Extreme diversification of farm production.

It is the most fundamental characteristic that stands out in small Albanian farms. This is due to food insecurity, but also because of considerable commercial risk and the different difficulties of agricultural marketing.

- Financial difficulties for providing inputs and especially of water for irrigation.

Problems related to irrigation remain essential. Also, family farms have numerous financial difficulties for providing the inputsof production, a phenomenon reflected in terms of lack of inputs, high prices etc. This has made impossiblethe intensification of the product.

- Inefficient production structure.

Statistics show that currently in production prevail the production structures, which have the objective of meeting the needs of the family and not the market.

- Low competition level in the field of agricultural production

The above conclusions confirm the level of the import-export balance and levels of agricultural exports.

- Lack of information and infrastructure.

The current situation shows that rural producers are not informed about production, prices, markets, etc., not to mention major problems related to the infrastructure.For the purpose of preparation of the country's agricultural map, there is the need for detailed identification, evaluation and analysis of the problems, which the agriculture sector faces, knowing, taking into consideration and evaluating more in detail, the strengths, weaknesses, opportunities andthreats (SWOT) of the businesses in this sector. For the purpose of concretizationof the SWOT analysis, in this study is presented the analysis of weakness factors and its solutionsalternatives.

N0	The weaknesses agricultural sector	Solutions alternatives
1	Lack of regionalization of production	⇒ Implementation of a regionalization strategy of production ⇒ Policies promoting regionalization& intensification of production
2	Poor links to agroindustry	⇒ Policies promoting regionalization& intensification of production ⇒ Promotion of contract system ⇒ Promotion of "Cluster" organizations according to the value chains ⇒ Promotion of marketing cooperatives organizations ⇒ Training at farm level ⇒ Development human resources.
3	A large number of farms & high density rural population	⇒ Policies promoting regionalization& intensification of production ⇒ Promoting the development of non-agricultural activities ⇒ Development of production potentials ⇒ Promotion of renting ⇒ Promotion of cooperation ⇒ Effective strategy for a sustainable rural development ⇒ Promoting the development of agroindustry.
4	Small and very fragmented farms	⇒ Promotion of renting ⇒ Promotion of horizontal integration ⇒ Promotion of the land markets.
5	A younger generation, a little interested in farming	⇒ Policies promoting regionalization& intensification of production ⇒ Steering of the production structures ⇒ New crediting products that give priority to young people.
6	Complex production diversification at farm level	⇒ Policies promoting regionalization& intensification of production ⇒ Steering of the production structures
7	Financial difficulty in buying inputs	⇒ Promoting the organization of savings-credit cooperatives ⇒ Training at farm level and for suppliers
8	Low level of intensification of production	⇒ Regionalization& intensification strategies of production ⇒ Training at farm level and for suppliers ⇒ Development of human resources.

9	Lack of irrigation	⇒ Special focus towards investments on irrigation
10	Inefficient production structures	⇒ Policies promoting regionalization& intensification of production ⇒ Steering of the production structures ⇒ Training at farm level ⇒ Development of human resources.
11	Low level of competitiveness	⇒ Steering of the production structures ⇒ Trainings at farms level & agroindustry ⇒ Development of human resources.
12	Farmer's lack of partnerships & negotiating skills	⇒ Promotion of cooperation at sales level ⇒ Promotion of the "Cluster" organizations according to their value chains ⇒ Training at farm level & agroindustry ⇒ Development of human resources.
13	Problems with the quality and qualification of staffs	⇒ Trainings at the level of all the actors in the value chain.

As it can be seen, the most of the problems identified as weaknesses, as a solution alternative is suggested policies that promote the regionalization and intensification of production.

Wheat production

Planted for centuries in Albania, in the last decade it occupies approximately 18% of the cultivated land. In comparison with the year 1990, its area is reduced to almost 64%, yet, as the cultivated area is ranked second after forage plants. Considering these problems but and for purposes of completing the objectives of this study, to determine the place of wheat in the agriculture map of the country and at regional level, the data collected from the surveys conducted, as well as the assessments of the working group, according to the matrices for each type of activity, there were given many important directions. The matrices developed for each type of activity, took into consideration 13 indicators, economic and agronomic, as follows:

Economic Indicators:

- Yield, Added Value, Employment of Labor Resources, Labor Resources, Added Value in the Chain, Processing Capacities, Contribution in the Import-Export balance, Being or not a Strategic Product.

Agronomic Indicators:

- Climate Conditions, Soil Conditions, Irrigation, Tradition, Crop Rotation, Biodiversity.

The use of the abovementioned indicators encountered many difficulties. The difficulties consisted in determining the intervals and measure of value that each agriculture activity represents, for each region. The value interval for all the indicators is the same (from 1 to 10 points), whereas the determiningof the average values calculated for all of the indicators isset out three levels (not good,averagely good, very good). After taking into consideration all the used indicators in the construction of the matrix, and that condition the cultivation of wheat, it is stressed that wheat has economic effectiveness and a rational use of the natural resources (land, water, vegetation, landscape) in some areas, that is why its cultivation should follow this priority: Korça (district of Korça), Fier (district of Fier) and Elbasan (district of Elbasan). Analyzing the above, a number of qualitative indicators to assess the performance of any agricultural activity are taken into consideration as well as the place it should have in the regional agricultural map and in country level.

Tabela 1.2. Data for the indicators and their share in assessing priorities in the agricultural map

No.	INDICATORS	Their nature of operation and consideration	Assessment degree and scoring					
			Degree	Score	Degree	Score	Degree	Score
Agrotechnic Indicators								
1	**Climatic conditions**	Three climatic zones of our country are taken in consideration: Mediterranean area, continental Mediterranean and pre mountain Mediterranean. The assessment is based on the concept to establish eligibility (suitability) of culture in different climatic situations	**Not good**	**1- 4**	**average**	**5-7**	**High**	**8-10**
2	**Soil conditions**	The assessment is based on two concepts: (i) production capability-soil fertility function directly influenced by the chemical, physical, and biological qualities (capability) and (ii) the combination of productive capacity with suitability (suitability). The dominance of the type of land and topography were the most visible elements of assessment.	**Not good**	**1- 4**	**Average**	**5-7**	**Very good**	**8-10**
3	**Irrigation**	Water resources are assessed considering the plant's need for water, irrigable surfaces for regions / districts. Values are linear inverse to the plant's need for water - as a natural and right resource use with irrigation capacities. Plants that require more water have lower values than those that require less. Regions with larger irrigation surface and guaranteed water resources are higher estimated.	**Not good**	**1- 4**	**Average**	**5-7**	**Very good**	**8-10**
4	**Tradition**	The value for the plant tradition is based on: (i) history of agricultural development in Albania and (ii) historic use of agricultural product. The assessment is proportionally positive.	**Poor**	**1- 4**	**Good**	**5-7**	**Very good**	**8-10**
5	**Crop rotation**	The values for crop rotation are based on the importance of the culture in an agriculture crop rotation scheme for each of the climate zones. The more the improvement scale of the land for the role of the flowing plants (all categories of land involved) the higher the values.	**Poor**	**1- 4**	**Good**	**5-7**	**Very good**	**8-10**
6	**Biodiversity**	The values of biodiversity are based on: (i) impact that the plants have in improving or deterioration compared with the natural one of the respective study zone, (ii) improving or deterioration of the habitats, (iii) the intensification degree of agriculture and (iv) the presence or not of protected zones and especially of those with National Parks status. The assessment is proportionally linear negative[1]	**Poor**	**1- 4**	**Good**	**5-7**	**Very good**	**8-10**

[1]*Biodiversity and Habitat disturbance from agricultural activity is an important indicator in regionalization based on the fact that it is referred by strategic documents on the regional and global level as follows:*Methodology; Overview of Evaluations; JRC Research; Studies and Research Projects Relating to the CAP. COMMISSION WORKING PAPER IMPACT ASSESSMENT COMMON AGRICULTURAL POLICY TOWARDS 2020 ANNEX 11

- Brunner, A., Huyton H. 2007The Environmental Impact of EU Agric.l Subsidies in the WTO Green Box (A paper for the International Centre for Trade and Sustainable Develop.)
- Synthesis of ex-ante evaluations of rural development programs 2007–2013 (2008); the study Defining EU Priorities: A Review of Rural Development Instruments (2008)

In the linear negative assessment are not placed the values per region/culture but values ≤5.0

Economic Indicators								
1	**Productivity (according to type)**	Performance assessment system of yield as one of the most important indicators of productivity and identification of comparable advantages is based on the statistical indicators at regional level for each. Since the advantages are the product of a number of factors (especially the specific share of the surface planted at regional level compared to the total has a very important impact on average yield at the regional level) then to determine the productivity advantage should be used an indicator that takes account of both indicators (yield and specific share of the surface of the plant). This is achieved by standardizing both indicators due to different measurement unit. By collecting all the standardized indicators, we choose a single indicator which is identified as determinant of the advantage from productivity of a particular region.		**1- 4**		**5-7**	**High**	**8-10**
2	**Added value from the productions**	Represents the annual benefit for a fixed activity and reflects the effectiveness of the investment and the level of conversion of inputs in outputs and this are calculated as a difference between the estimated productions for each product with the costs of inputs used.	**Poor**		**Average**		**High**	**8-10**
3	**Use of working recourses**	The extent to which a given agriculture activity uses its workforce for an average production technology. The assessment is proportionally positive: (lower values have the crops that require less labor forces).	**Low**		**Average**		**High**	**8-10**
4	**Availability of working recourses**	The availability of the working force, differentiated according to the regions, makes possible the opinion regarding the distributions of plants and animals.	**Low**		**Average**		**High**	**8-10**
5	**Impact on value added chain**	Reflects the place and role that has a certain agricultural activity in the chain of the related chains. This represents the added value which comes as a result of the process of processing, sales etc. Values are not differentiated between regions for a given culture but are more differentiated especially among cultures.	**Low**		**Average**		**High**	**8-10**
6	**Existing processing capacities**	Represents the state, distribution and relevant capabilities of the agroprocesing industry. This is very important because a significant part of agricultural and livestock products are intended for processing. Values are almost not differentiated between regions for a particular crop, but more differentiated especially between group cultures.	**Low**		**Average**		**High**	**8-10**
7	**Impact on Import – Export ratio**	Represents the role that a certain product has in the improvement of import-export balance. Values are almost not differentiated between regions for a given culture but more differentiated especially between group cultures.	**Low**		**Average**		**n/a**	**8-10**
8	**Being or not a strategic product**	Aims to identify whether a particular product is or not potentially a strategic product. Values are almost not differentiated between regions for a given culture but more differentiated especially between group cultures.	**Not strategic**		**Average**		**n/a**	**8-10**

As it can be seen in the table below, the identified indicators are classified in two major groups: **(i) Agricultura**

l Indicators and (ii) and Economic Indicators. An accurate assessment of their share for each activity[2], at the regional and national level, **would allow the establishment of the matrix and based on this, a much more fair judgment related to the share of wheat in the structure of agricultural productions.**
The results of the matrix for wheat are as below:

Table 2.1. Indicator matrix for the assessment of wheat[3]

No.	Region/ District/	Economic Indicators								Agronomic Indicators						
		Productivity	Added value	Use of work resources	Work resources	value added chain	Processing capacities	Imp-Export ratio	Strategic products	Climatic condition	Land condition	Irrigation	Tradition	Crop rotation	Biodiversity	
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	
1	**Berat**	32	29	7	2	5	4	2	3	5	8	3	6	3	4	**113**
2	**Diber**	16	14	5	4	5	3	2	2	8	4	2	3	3	2	**73**
3	**Durres**	15	13	7	2	5	7	2	2	5	7	3	6	3	4	**81**
4	**Elbasan**	70	77	8	2	5	8	2	6	5	7	3	7	3	4	**207**
5	**Fier**	112	123	10	2	5	10	2	7	7	8	2	10	3	7	**308**
6	**Gjrokaster**	12	11	4	5	5	3	2	2	3	3	7	5	3	2	**67**
7	**Korce**	91	100	7	2	5	10	2	8	10	10	5	10	3	7	**270**
8	**Kukes**	9	8	3	5	5	3	2	2	7	3	7	2	3	3	**62**
9	**Lezhe**	25	23	7	2	5	5	2	2	5	5	2	2	3	3	**91**
10	**Shkoder**	12	11	5	4	5	3	2	2	5	5	4	2	3	5	**68**
11	**Tirane**	23	21	7	2	5	10	2	2	5	5	2	4	3	4	**95**
12	**Vlore**	14	12	5	4	5	3	2	2	3	2	2	3	3	2	**62**

[2]In this case it refers to wheat

[3]To better inform the readers, we are presenting as an integral part of the report only the matrix of indicators for the assessment of wheat cultivation, meanwhile, the assessment matrix for all the other activities will be found in the relevant annexes to the report.

The conclusions from the analysis and interpretation of the results of the above matrix for wheat production is as follows:

- Wheat is spread in twelve regions throughout the country because: (i) is used as a culture in crop rotation in the three eco-climatic zones, that despite the few positive effects on biology of successive cultures and land is needed for the rotation of hoed crops; (ii) used as a culture with a special role in food, especially in hilly and mountainous areas. The assessment in points varies from 62 points for Kukes and Vlora regions, to 308in Fierregion.
- In terms of importance of wheat among the different regions, the results show that three regions are evaluated at the first place between 207 and 308 total points: Fier, Korca and Elbasan. The regions ranked at the fourth fifth and sixth place, or at the second group of regions, are evaluated with more than 90 and less than 113 points. The average point of the second group is almost three times lower than the average of the first group of regions.
- Two economic indicators (productivity and added value) with greater share have made the difference between regions. The region of Fier has the greatest planted area and greater yield provided and for that reason it is more highly estimated than Korca in the scoring of regionalism.
- Climate indicators of utilization of natural and tradition resources are higher in the region of Korca followed by the region of Fier.

Considering all the factors, it is recommended that the wheat has economic efficiency, climate conditions and rational use of natural resources (land, water, vegetation, landscape) and it must be planted under this priority: Korca (district of Korca), Fier (district of Fier) and Elbasan (district of Elbasan).

Planting on other regions is justified on other grounds, but not according to the above mentioned indicators. The same procedure has been followed for the construction of matrices of all crops, fruits and livestock. On this basis was developed a map of regionalization of agricultural products at the national and regional level:

No	Agricultural activities/Regions	BR.	DI.	DU.	EL.	FR.	GJ.	KO.	KU.	LE.	SH.	TR.	VL.
	I. OPEN FIELDCROPS												
1	Wheat												
2	Maize												
3	Beans												
4	Vegetable and watermelon												
5	greenhouse												
6	Potato												
7	Tobacco												
8	Medicinal plants												
9	Forage												
	II. FRUIT TREES												
1	Apple												
2	Nut trees												
3	Plums												
4	Cherry												

5	Peach											
III	VINICLUTURE											
IV	OLIVE ORCHARDS											
V	CITRUS											
VI. LIVESTOCK												
1	Cattle/Cows											
2	Sheep											
3	Goats											
4	Swine											
5	Bees											

Legend:	Main priority	Average priority	Not a priority

4. Conclusions

The results of this study help us identify the best policies for development in the perspective of Albanian agriculture, as follows:

- Policies that promote the regionalization and intensification of production; promotion of the contract system in agriculture; promotion of marketing cooperatives; promotion of the "Cluster" organizations according to their value chains; development of human resources; promotion of renting; effective strategies for a sustainable rural development; promotion of the development of agro industry; steering of the production structures; new crediting products that give priority to young people; promotion of savings-credit cooperatives; training at farm level and for agro industry; promotion of development of non-agricultural activities; development of the agriculture production potentials; training at the level of all the actors involved in the value chain.
- A policy or strategy regionalization of production on country level, according to the regions and districts, and subsequent planning of the agriculture support policies on this basis, would enable the: (1) increase of the production capacities in agriculture; (2) more opportunities for the establishment optimal structures of production (3) rational use of land, manual labor and other production skills; (4) Intensification of production through the application new production technologies, of higher effectiveness; (5) efficient employment of production inputs and environmental protection; (6) development of efficient marketing systems; (7) market integration of the farmers; (8) availability of an agricultural map, which would enable a proper addressing of the agricultural support policies.
- The agriculture regionalization strategy would be completely serving a better orientation of the agricultural support schemes, implemented by the Agriculture and Rural Development Agency.

5. References

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