

EFFICIENCY ESTIMATES OF STATE FINANCIAL SUPPORT FOR AGRICULTURE IN THE REGION OF KORÇA, ALBANIA

Arben Kambo 

Fan S. Noli University, Korçë, Albania

kambo.arben@yahoo.com

Klaudeta Merollari

Fan S. Noli University, Korçë, Albania

klaudetamerollari2010@hotmail.com

Myslym Osmani

Agricultural University of Tirana, Albania

Abstract

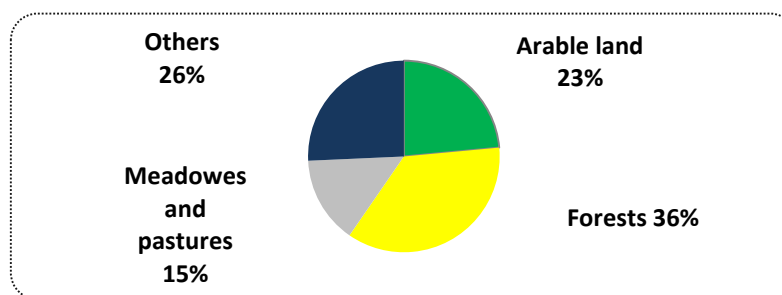
The efficiency of Albanian state support for agriculture is not yet assessed, although it began in 2007. The region of Korça has benefited greatly from this support, especially in the planting of fruit trees. Efficiency can be evaluated with the direct method or indirect methods. This paper is focused on the use of indirect methods, which enable the detection of the effect as well as a non quantitative assessment. In this context we used the method of farmer's participation to assess the efficiency of financial support by making an econometric and statistical processing of the results of accidental interviewing a sample of farmers in the area. Some key findings were: financial support in the region of Korça was considerable, with significant impact and it was generally efficient, orchard sector generally remains the most profitable, followed by livestock. Greater financial support is needed for planting fruit trees and vineyards as well as support and powerful parallel processing of agricultural and livestock products as well as maintaining and storing them. Portfolio diversification and improvement of the support, and the best technical advice, improved technologies and agro-processing capacity, would increase efficiency as well as the impact of financial support for agriculture in this area.

Keywords: Assessment, Support, Efficiency, Agriculture, Indirect Method

INTRODUCTION

Region of Korça, Albania is a traditionally agricultural area, with great potential and developed nationwide. He has about 13% of agricultural land nationwide, 9% of farms, 21% of fruit trees in production, 10% of vineyards, 13% of sheep, etc. A very significant indication is that the district has currently about 55% of apple trees nationwide. Korça farm size is about 20% greater than that in the whole country but Korça uses about 23% less fertilizer than the average farm in the country. As the figure 1 below shows, worked land in Korça occupies about 23% of the total land fund, but also forests, pastures and meadows occupy significant weight.

Figure 1: Korça Land Structure



Korça region is divided in four districts (Korçe, Pogradec, Devolli and Erseka). Korça district is the largest one, with more than half of the arable land area at regional level.

One of the main characteristics of Korça is that during the past 20 years was developed the sector of fruity-culture. The number of fruit trees compared with 1990 was increased by 120.7%, while compared to 1994 was increased by about 2.7 times, or 270%, where the apple trees were dominant. The Increase in orchards surface has come from farmers' investment with its financial resources, as well as the financial support given by the government since 2007.

In the period 2007-2010 the government has supported agriculture in Korça with about 6,6 million dollars. This amount was used for planting fruit trees and vineyards, dripping irrigation in the orchards and digging wells for irrigation, direct payments for cows or sheep, etc. Over 30% of the support has gone to planting fruit trees, about 3% for planting vineyards, about 15% for payment of farmers who breed sheep, etc.

Despite the rapid development of arboriculture in Korça and significant investments that have been conducted by the state budget, yet there are no estimates more or less complete and even published the effects of state financial support in this circuit. The research problem is the effect ignorance of the extent, and how efficient it has been the support for agriculture, specifically in this district. Therefore, our objective is to contribute in assessing of the impact and

efficiency of financial support for agriculture in the area of Korça. Specifically, through this research we aim to ascertain the impact or effect of financial support, to give a nominal efficiency rating for the main directions of support, especially arboriculture, to contribute to indirect processing methodologies for the identification and assessment of efficiency of financial support and to identify the key factors affecting the growth of the effect or in improving the its efficiency.

Financial support in the region of Korça is of considerable importance, with significant impact and it is generally efficient because generally rely more potential sectors. Arboriculture sector generally remains the most profitable, followed by livestock, but vegetables are not far behind the first two sectors. If we continue with current priorities, where the planting of orchards brunt voice and is accompanied with great support in the processing of agricultural and livestock products as well as storage and warehousing, the overall efficiency of support financial would be smaller. Terms and tradition are important factors that make effective and efficient financial support for the production of fruit. For livestock products are the most important factors and market price, and somewhat less conditions and traditions. For vegetables the most important factors are assessed and price conditions. For all sectors, technical advisory, not a good level or lack of technology and lack of capacity in the area of agro-processing factors remain strong negative impact on economic efficiency in all these sectors. There is a statistically significant connection between efficiency in orchards, and especially vegetables, the use of agricultural inputs, and the increased availability of food processing.

RESEARCH METHODOLOGY

The Study

The approach used in this search was the measurement of the farmer's standpoint as the farmers think and appreciate the financial support. This approach provides real results as a part of farmers have benefited from the support and its effects are tangible and concrete for them. Even if some of them have not directly benefited, farmers have their experiences and are able to make estimates of impact or efficiency, provided that they be made simple and understandable meaning of these terms. Farmers constantly communicate among themselves and learn from each other. Even in this case they exchange information, learn and make assessments through the exchange of information.

Interviews with Farmers

We selected the method of selecting the 72 accidental farmers from the district of Korça and Devolli. This is a choice that allows science to be indicative estimates, approximations, or the

efficiency effect of financial support. Our focuses were orchard, livestock, vegetables and potatoes. The statement below shows the structure of management discretion farm production and education of the respondents.

Table 1: Grouping by Level of Education and Farm Management Respondents

Management	Elementary education	Primary education	High school	University	Total
Livestock	1	3			4
Arboriculture	8	27	19	2	56
Arboriculture and livestock		1			1
Mix	2	1	6		9
Vegetables			1	1	2
Total	11	32	26	3	72

The basis for obtaining data through surveys and performance evaluations were indicators that appear in the table 2. Table heads are some indications that we think were important factors of efficiency. The first column of the statement showing the main activities where each interviewee has made appreciation for the impact of each factor on the effect or efficiency of state subsidies.

Table 2: Potential Factors Leading Efficiency by Agricultural Activities

Activity	Good tradition	Good soil and climatic conditions	Good market for sale	Convenient extension services	There is good technology	Good prices	Experience	Market demand	Processing demand	Total points
Arboriculture										
Livestock										
Vegetables										
Potato										

Another important information is obtained through surveys on the benefits from support schemes, as well as what farmers think to the focus (directions) to current support and according to them how should be the focus.

Econometric Model

Through econometric modeling we tried to do two things First to discover who were the most important factors that influence the extent of the impact and effectiveness of financial support

and Second, we evaluated the extent of the effect that these factors have on the impact or efficiency.

Statistical Approach

The method of parametric correlation and regression method were used to assess the extent of the co or the link between indicators of efficiency and its different factors, such as the use of agricultural inputs, access to market agricultural products, agro-processing, etc.

ANALYSIS AND DISCUSSION OF RESULTS

We postulate that the economic concept implies profitability as economic efficiency. To get farmers estimates on efficiency we used the term profitability of specific products or agricultural sectors, because of the efficiency term is generally not understood by the farmers. For a general introduction to the interview results on efficiency, below we present an evaluation of the efficiency of the farmers by major sector, the educational level of the respondents (Table 3) and the direction of the farm and potential sectors (Table 4). Figures statements are average estimates of efficiency in the scale 0 to 10.

Table 3: Efficiency by Education Level of Respondents and Key Sectors

Education	Arboriculture	Livestock	Vegetables	Potato
Elementary	7.291	7.233	6.243	5.522
Primary	6.910	6.842	6.258	5.708
High school	7.392	7.276	6.405	5.838
University	6.867	6.850	7.300	7.100
Total	7.144	7.068	6.352	5.780

Table 4: Efficiency under the Management of Farm and Interviewed Key Sectors

Farm management	Arboriculture	Livestock	Vegetables	Potato
Livestock	6.900	6.950	7.400	7.200
Arboriculture	7.164	6.986	6.395	5.811
Arboriculture and livestock	6.100	6.700	4.900	4.800
Mix	7.411	7.533	5.989	5.356
Vegetables	6.250	7.000	7.300	6.750
Total	7.144	7.068	6.352	5.780

Overall estimates by education level (Table 3) differ not significantly, with the exception of vegetables and potatoes which are considered more efficient by farmers with high school.

As is appeared from the table 4, farmers generally appreciate more products or activities in which they focus themselves, with a few exceptions but visible, as the evaluation of vegetables and potatoes as efficient products by glazier's and farmers to cultivate vegetables. However, arboriculture is considered more efficient and less efficient as potatoes.

Regarding the analysis, we examined earlier in main agricultural potential in the area of Korça, in terms of potential climatic-terrestrial conditions, tradition and experience, market demand, etc. A detailed study of these potentials is carried out [table, 5]. According to the study, the main potential area of Korça is as in the table 5:

Table 5: More Potential Products of Korça Region

Products	Evaluation in points	Products	Evaluation in points	Products	Evaluation in points
Apple	315	Goat cheese	167	Plum	84
Sheep milk	197	Cow cheese	152	Wheat	83
Pear	191	Tomato	142	Mize	74
Cow milk	188	Cabbage	132	Peach	71
Goat milk	180	Pepper	118	Cucumber	67
Sheep cheese	179				

From the table we conclude that apples and pears, as well as dairy products are the most potential in the area of Korça while the main financial support is focused on the production of apples and dairy products. Production of grape product is not listed as a potential need, while the vegetables such as tomato is a potential product. Seen in this perspective, financial support in the region of Korça is generally efficient because generally rely more potential sectors. However, efficiency can be increased further, if some products, such as vineyards, peaches or plums, will not be supported.

Second, we compared the current focus of support financial leverage what they would like farmers, which according to them is more effective, has more impact and is more efficient. Table 6 provides the information necessary to make appropriate analysis. It shows the average rating for the beneficiary farmers and non-sectorial support schemes, in a system of 10 points maximum.

Table 6: Comparison of the Current Focus of Support with the Focus that Farmers think is better

Beneficiaries	Planting trees	Livestock	Planting vineyards	Warehousing	Processing	Other
No beneficiaries of the schemes						
Actual Focus	7.50	5.40	4.88	4.68	3.80	X
Proper Focus	9.60	8.20	7.40	9.43	8.83	3.80
Difference	2.1	2.8	2.52	4.75	5.03	X
Beneficiaries of the schemes						
Actual Focus	8.87	6.21	5.69	4.45	3.45	3.71
Proper Focus	9.20	7.80	6.62	8.48	7.97	3.71
Difference	0.33	1.59	0.93	4.03	4.52	0
Total						
Actual Focus	8.08	5.73	5.21	4.58	3.66	3.71
Proper Focus	9.43	8.03	7.07	9.03	8.46	3.75
Difference	1.35	2.3	1.86	4.45	4.8	0.04

Having carefully reviewed the table we noticed that both beneficiaries and no beneficiaries, particularly the latter, require a strong focus on more financial support for the Korce. Focus (support) with strong financial required for all sectors of agricultural production, but in a comparative view, less focus required for planting fruit trees and vineyards; strong focus is required in the processing of agricultural and livestock products as well as maintaining and storing them. Apparently, farmers feel great difficulty in processing (agro-processing sector is still underdeveloped) and in the preservation and storage of their products.

With other words, with a formal economic logic, the increased focus on the above aspects would increase the impact and efficiency of financial support for agriculture in this area. More clearly, whether to continue with the current priorities for where the planting of fruit trees and / or vineyard occupies the largest share, efficiency of financial support would be smaller.

Further, to assess the efficiency of financial support in the area of profitability factors analyzed in the main sectors of agricultural production potential in this area. Farmers themselves assessed the degree of importance of each factor for each of the sectors, through a system with 10 maximum points. Table 7 presented in summary estimates of aggregate (average) of the farmers interviewed by production sectors and effectiveness factors.

Table 7: Average Estimates by Sector Profitability Factors in the Region of Korça

Branch	Tradition	Conditions	Market	Advices	Technology	Prices	Experience	Requirements	Processing	Total
Fruits	8.79	8.66	7.59	5.30	6.68	7.32	7.79	7.61	4.50	7.14
Livestock	6.86	7.20	8.04	5.32	6.02	8.04	7.23	8.46	6.43	7.06
Cattle	6.75	7.38	7.89	5.55	6.11	8.09	7.11	8.38	6.70	7.11
Vegetables	6.83	7.25	6.60	5.34	5.68	7.19	6.51	6.64	5.11	6.35
Potato	6.21	6.57	5.90	5.24	5.91	6.59	5.84	5.78	4.00	5.78

By analyzing the data we found that Arboriculture sector generally remains more profitable, followed by livestock, whereas vegetables were not far behind the first two sectors.

Terms and tradition are important factors that make effective and efficient financial support for the production of fruit, at a time where demand and market for them are evaluated at a good level.

For livestock products the most important factors are the market and the price, and somewhat of less importance conditions and traditions.

For vegetables the most important factors evaluated were conditions and pricing, although compared with fruit trees and livestock these factors appear less important.

For all sectors, technical advisory, not a good level or lack of technology and lack of capacity in the area of agro-processing factors remain strong negative impact on economic efficiency in all sectors. In addition, to assess the implications of interactions among its efficiency and factors we build econometric models. In this article we confine ourselves only to the model of efficiency in arboriculture dependence on the degree of use of agricultural inputs. Assuming a linear relationship between these variables, profited the model:

$$\text{Efficiency} = 5.8243 + 0.1495 * \text{Input} + e$$

With correlation coefficient 0.28

This result shows that between input use and efficiency in arboriculture has positive correlation: the use of inputs with a unit increase in the scale from 0 to 10, in orchards efficiency increases by 0.15 units. This result is due to the "measurement" that farmers make input use efficiency in scale or 0 to 10 is imprecise, defect of this type of measurement scale.

Finally, we analyzed the strength of the relationship between efficiency and some of its factors. We were focused on mainly in two sectors, arboriculture regarding the use of inputs,

agro-processing access and access to the market in general, and vegetables on the use of agricultural inputs. To eliminate to some extent the impact of variables measuring the degree of the scale 0 to 10, as noted above, we conducted group of respondents in the form of a 2x2 table, then two efficiency groups and two groups for each the factors examined. In any case, we calculated the coefficient of the co. Four groups were as follows:

Table 8: Arboriculture v/s. Agricultural Inputs

Efficiency in arboriculture	input		Total
	2.7-6.7	6.7-10	
3.8-6.2	3	6	9
6.2-8.8	5	57	62
Total	8	63	71

Table 9: Arboriculture v/s Agro Processing

Efficiency in arboriculture	Agro processing		
	Total	1-5	6-10
3.8-6.2	9	5	4
6.2-8.8	61	12	49
Total	70	17	53

Table 10: Arboriculture v/s. Market

Efficiency in arboriculture	Market		Total
	2-5	6-10	
3.8-6.2	6	3	9
6.2-8.8	10	52	62
Total	16	55	71

Table 11: Arboriculture v/s. Agricultural Inputs

Efficiency in vegetables	Input		Total
	2.7-6.7	6.7-10	
Up to 4.4	8	11	19
4.4-8.4	2	52	54
Total	10	63	73

Considering this indication as a rough correlation coefficient of linear econometric model, the corresponding regression coefficient was estimated, which shows the change in the marginal efficiency for each additional unit of its respective factor. The calculations were summarized in table 12.

Table 12: Coefficients of Correlation between Efficiency and Some of its Factors

Efficiency	Inputs	Agro-processing	Market
Arboriculture	0.70	0.67	0.82
Vegetables	0.90	X	x

It was observed a significant correlation between efficiency in fruit trees and vegetables, especially in the use of agricultural inputs, agro-processing capability and the possibility of sales of agricultural products in the market.

Further analysis of the in potato shows that efficiency depends greatly on the level of input use. There are empirical indications that cooperation is a factor that increases the efficiency (in vegetables).

These results indicate that the efficiency of financial support also depends greatly on the availability of a number of factors, such as inputs, agro-processing, market, cooperation, etc. Therefore, its efficiency would be greater in sectors or areas where the availability of the above factors is more powerful, or in other words, whether to improve the efficiency of support Financial leverage this then should the policy to increase the use of inputs agricultural, food processing improvement and increase of access to market, promote cooperation between farmers, etc.

CONCLUSION AND RECOMMENDATIONS

- Financial support in the region of Korça is considerable, with significant impact and it is generally efficient because generally rely sectors with great potentials.
- Arboriculture sector generally remains the most profitable sector, followed by livestock, whereas vegetables are not far behind the first two sectors. However, the overall efficiency can be further increased if several products, such as vineyards, peaches or plums, would not rely or will rely to a lesser extent.
- In general it is required more financial support for the region of Korça. Greater financial support is required for all sectors of agricultural production, but in a comparative view, the support required for the planting of fruit trees and vines; and support and powerful parallel processing required of agricultural and livestock products as well as maintaining and storing them.
- Increased support above would increase efficiency as well as the impact of financial support for agriculture in this area. If we continue with current priorities for where the planting of orchards and / or vineyards voice brunt of unaccompanied and with great support in the

processing of agricultural and livestock products as well as storage and warehousing, general efficiency of financial support would be smaller.

- Conditions and tradition are important factors that make effective and efficient financial support for the production of fruit at a time and demand and the market for them currently considered at a good level.
- For livestock products are important factors in the market and the price, and somewhat less conditions and traditions.
- For vegetables the most important factors evaluated are conditions and pricing, although compared with fruit trees and livestock these factors appear less important.
- For all sectors, insufficient technical advice, not a good level or lack of technology and lack of capacity in the area of agro-processing factors remain strong negative impact on economic efficiency in all sectors.
- Observed significant correlation between efficiency in fruit trees and vegetables, especially in the use of agricultural inputs, agro-processing capability and the possibility of sales of agricultural products in the market.
- Even in potatoes cultivation efficiency depends greatly on the level of input use.

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