An Innovative Inclusive Approach to Enhancing Agricultural Sustainable Development in Albania: The Case of Nucleus Albania

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Abstract: - Agriculture has been essential for humanity's survival, progress, and well-being throughout history, and yet it remains an essential and challenging sector of the global economy. While under a continuous transformational process, advancement towards inclusive and sustainable development of agricultural practice remains a challenge for the sector. In Albania, the agricultural sector is vital to the economy (particularly in the rural areas), accounting for a large share of gross value added, employment, and exporting activity in the country. Rooted in the early 90s land reform law and decollectivisation policy, multiple structural and non-structural challenges hinder the agricultural sector's full potential exploitation. This paper aims to assess the impact of Nucleus Albania's (NA) innovative nuclei approach in strengthening the MSME market position and, in turn, the agricultural sector and sustainable development in Albania. The impact assessment was conducted using a mixed methods approach, including secondary and primary data analysis (collected through a structured questionnaire and direct interviews). Combined findings suggest a positive impact of the NA-tailored support package on MSME business activity, including improved product quality and diversification, expansion of production capacities and customer base, increased employment and annual turnover, and investments in technology. In addition, the collaborative platform established through NA plays an important role in promoting innovation in agriculture and facilitating knowledge exchange among participants, making a substantial contribution to the overall development of the agricultural sector in Albania. Our findings support the NA approach's effectiveness and its role in modernizing and transforming the agricultural sector, contributing to long-term sustainable development in Albania and beyond.

Key-Words: - Albania, agriculture, sustainable development, access to finance, nucleus approach, SDG2.

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1 Introduction

Agriculture has been one of the most fundamental activities throughout history, essential to human survival and progress. The United Nations included agriculture in the Sustainable Development Goal No. 2: *"End hunger, achieve food security and improve nutrition, and promote sustainable agriculture",* [1]. Agriculture and rural development are important for a small economy like Albania and have drawn the attention of policymakers and policymaking over the years. In this realm, the Inter-sectorial Strategy for Agriculture and Rural Development translates the general vision of the sector stated in the National Strategy for Development and European Integration 2030 stated as *"to make possible an efficient, innovative and sustainable agro-food sector in Albania, which can better withstand the pressures of the national and international market and respond to the challenges of climate change and sustainable management of natural resources while contributing to improving the quality of life of the inhabitants of rural areas and further increasing the attractiveness to exercise economic activity that guarantees sufficient income to live there and provide products and services to agricultural and non-agricultural consumers visiting rural areas and beyond rural areas."* Efforts towards vision fulfillment call for important inclusive interventions, ensuring economic, environmental, and social sustainability

equilibriums. In addition, aspirations of EU integration are an added force for sector performance improvement to face single-market competitive pressures (the EU is Albania's main trading partner) for food and agricultural products, [2], [3]. Albania's agriculture sector is of multi-dimensional importance, from providing food for households and alleviating extreme poverty to a significant contribution to GDP (app. 20%), employment (more than 40%), and export activity of the country (about 11.3%), [3]. Progressive improvements in the sector have not necessarily translated into increased competitiveness trailing behind regional competitors, [3], [4], with Albania being a net importer of agri-food products (export-to-import coverage ratio averaging at about 28% over the last five years based on INSTAT data) on the back of imports increasing at an accelerated rate and sluggish export activity. Despite the relative importance and interventions, several factors hinder international growth and competitiveness, largely stemming from its transition into a market economy in the early 90s (in particular, the early 90s land reform law and de-collectivisation policy, [5]). Land fragmentation (small farm size) and property rights uncertainties, [3], [6], insufficient investments in supporting agricultural infrastructure, limited technological penetration in the sector, low productivity, [7], instability of policy and legal framework, low market integration, and intensive import competition, and restricted access to finance, [3] and hedging are among the main problems hindering competitiveness and the efficient development of the sector, [8]. Due to the variety of issues characterizing the sector, policy response and strategy have also been diverse (ad-hoc, inconsistent, and mildly orientated towards EU Common Agricultural Policy). In particular, being a sector dominated by more than 98% of family-owned small businesses/farms, operators in the sector find it difficult to participate and compete for support in national and international programs such as the pre-accession instrument of IPARD or others. That is because these kinds of businesses do not fulfill the condition of the land plot size/farm size, present a high level of informality, [8], [9], [10], cannot provide for requested documentation, and often are not informed, or the information does not penetrate remote areas and in some cases do not have the capacities of preparing the necessary documents requested by a call. In addition, public financial support for the sector is low, assessed at an average of about Eur 29 million or 1.5% of sector GVA during 2007-2018, [2], [11] the lowest compared to Western Balkan and EU countries average support, [8]. In this context, there is a mismatch between the designed schemes for support and the typology of agricultural activities embedded in the local fabric, failing to produce the expected results at the sector level. Therefore, implementing alternative, small-scale, and broad geographical coverage initiatives might benefit participants and the sector. In this study, we investigate through a mixed method approach the impact of an innovative approach in fostering development in MSME in the agricultural sector and the sustainability of the results achieved, the appropriateness of the approach, and the replicability of the best practice in other sectors of the economy using the case of Nucleus Albania. The study sheds light on how small-sized but capillary interventions can have accelerating effects on agricultural activities, even in the most remote areas.

While internationally recognized (its genesis can be found in Latin America in the early 90s), NA represents an innovative methodology and approach in Albania. The project was launched in 2015, aiming to support micro, small, and medium-sized enterprises (MSME) in Albania's agricultural sector. The NA nuclei approach groups MSMEs with similar core activities within a region into nuclei. The members of the formed nuclei are invited to participate in a series of activities and services tailored to their sectoral-specific needs – a tailored support package (more information can be found at www.nucleus.al) aiming at improving business performance, employment, integration in value chains, and contributing to overall agricultural sector development. Monitoring the effectiveness and sustainability of the results achieved by NA at different points in time advances knowledge regarding long-term results and outcomes of the intervention. It provides a best practice that applies to other sectors of the economy, promoting inclusion and sustainable development practices. Being a sector dominated by small-size farms, designing and implementing technical and financial support schemes must bear in mind this feature for effective environmentally sustainable interventions.

2 Methodology

Assessing the NA impact in fostering agricultural activity in Albania employs a mixed methods approach, combining secondary and primary data analysis. Secondary data relate to official statistics from national and international statistical agencies, providing insights into agricultural sector developments and contribution to economic growth, employment, and trade. Primary data are collected

through two survey rounds with all participants in all nuclei (the targeted population) and interviews with a restricted number of members (therefore, no sampling technique was used). In two consecutive rounds at different points in time, all participants in all nuclei were invited to participate and provide insights on different aspects of the NA approach and their experience using a structured questionnaire (the same questionnaire was used in both rounds of the survey to ensure comparability). Participation in the survey was voluntary upon a clear explanation of the scope of the survey and informed consent on the use of the data for study purposes. Intentionally, the questionnaire was supplied at the end of the periodic meetings (to maximize response), and nuclei members filled it out autonomously and anonymously (paper and pen system). Nevertheless, in each meeting, a trained member of NA was present for any clarification and support needed in filling out the questionnaire.

2.1 The questionnaire

The structured questionnaire used in the survey included 27 questions (non-symmetric and symmetric Likert scale, dichotomous, and one open-ended question) organized in four sections: section 1 including six questions aiming at exploring the socio-demographic profile of the nuclei members; section 2 included six questions aiming at exploring aspects of doing business in the agricultural sector such as overall business performance, investments, employment and their expectations on business activity over the next year; section 3 including 11 questions assessing NA approach impact on products and services, access to raw materials and finance, technology and production efficiency, diversification of agricultural products and services and other aspects; section 4 including five questions aiming at gathering feedback on the innovative NA Albania approach and perceived relative importance of activities and services carried out.

The first survey round was conducted in 2018 and included 529 NA members. The second survey round was conducted between 2019 and 2020, totaling 1,000 members distributed across 90 micronuclei.

Cumulatively, 34% of the members joined NA during 2015-2017 and about 66% during 2018-2019. In this paper, only the second-round survey results will be presented since the second round includes the members of the first round. Ten direct (semi-structured) interviews with nuclei members and the NA team were conducted in 2023 to understand better the sustainability of the effects of the NA approach in the agricultural sector. The information from the interviews will be blended into the results obtained from the survey.

The information in the questionnaire was duly coded and digitalized for processing purposes. The database was cleaned from errors (typing) and processed in the SPSS program, summarising information using frequencies, net balances, and simple averages (based on question typology). In the case of missing values, only valid percentages are presented (including the number of respondents for that question).

2.2 Reliability Test

The reliability of the information gathered through the questionnaires was evaluated using the Cronbach Alpha test, [12]. Cronbach's (α) is a widely employed metric for assessing the consistency of responses within a set of questions sharing a similar structure, often characterized by using a symmetrical Likert scale with three alternatives. In the context of survey data, an acceptable range for Cronbach's alpha is considered to be $0.7 \leq \alpha \leq 0.8$. Lower alpha coefficient values ($\alpha \leq 0.7$) indicate a lower quality of survey responses, while higher values ($\alpha \geq 0.8$) signal good to excellent reliability in the obtained survey responses.

3 Results

Participation in the survey was high, and the response rate registered almost 100% of participants in all nuclei (all submitted questionnaires were returned fully or partly filled and were included in the analysis). The Cronbach's (α) test results show an excellent internal consistency of the information collected with the survey presented in Table 1, with small differences on a gender basis.

Table 1. Cronbach alpha tests by gender

	Cronbach's (α)	
	Men	Women
Section 2: P2.1; P2.2; P2.4	0.724	0.796
Section 3: P3.2-P3.10	0.969	0.953
Section 4: P4.2; P4.3	0.960	0.959

Source: Author's processing

General information on respondents. The data from about 80 micronuclei are grouped into 17 aggregated nuclei, with the largest represented by livestock and olive farmers (18% of total respondents, respectively), as presented in Table 2. Men predominate livestock and olive farming activity (96% and 93%). Artisans represent the third largest nuclei, with 15% of total respondents. In

contrast to livestock and olive farming activity, artisans' activity is dominated by women at 99% of the total respondents. Beekeeping, accommodation, and food services account for about 10% of respondents. Men mostly carry out beekeeping activities, while in local tourism services, women represent about 51% of nuclei members. It is to be noted that there is no women's participation in apple, onion, pomegranate, and vineyard farming. The lower participation of women in some nuclei, as shown in Table 2 and affirmed during the direct interviews, is mainly associated with local traditions, culture, and physical labor intensity required by the activity to be performed.

Table 2. Respondents by nuclei and gender

	Nuclei members					
	Total		Men		Women	
Nuclei	No	Frequency	No	%	No	%
Accommodation & Foo	96	10%	47	49%	49	51%
Apple Farmers	25	3%	25	100%	0	0%
Arable Crops	13	1%	11	85%	2	15%
Artisans	146	15%	1	1%	145	99%
Beekeepers	96	10%	84	88%	12	13%
Cherry Farmers	32	3%	28	88%	4	13%
Fig Farmers	32	3%	27	84%	5	16%
Greenhouses	56	6%	54	96%	2	4%
Livestock	176	18%	169	96%	7	4%
Local tourism services	11	1%	5	45%	6	55%
Olive Farmers	183	18%	170	93%	12	7%
Olive Oil Producers	11	1%	8	73%	3	27%
Onion Farmer	24	2%	24	100%	0	0%
Pomegranate Farmers	15	2%	15	100%	0	0%
Vineyards	46	5%	46	100%	0	0%
Wellness	38	4%	34	89%	4	11%
Total	1,000	100%	748	75%	251	25%

Source: Author's processing

In line with NA's general approach and working philosophy, nuclei members are well distributed at the region's level (covering 9/12 regions/qarks in Albania). The highest concentration is noted in the Korça region, aligning with the region's significance in agriculture, livestock, and tourism activities. Conversely, lower participation in nuclei is noted in the regions of Tiranë, Durrës, and Vlorë, as presented in Table 3. From a gender point of view, women's participation is higher in the regions of Korçë, Gjirokastër and Vlorë. On the contrary, women's engagement in agricultural activities is absent in Durrës and low in the regions of Elbasan and Tiranë.

Nuclei members affirm being approached directly by counselors (about 85%) and, to a lesser extent, being invited by partners/colleagues, advertisements, chambers of commerce, and others, both for men and women (Figure 1). Access through chambers of commerce might be improved, indicating a potential lack of guidance regarding development opportunities in the agricultural sector. The rationale for joining NA is driven by the possibility of networking and sharing experiences (with a higher percentage among women), the curiosity to explore the approach to business in the agricultural sector, and the hope of getting loans or subsidies (higher among men).

Table 3. Respondents by region and gender

	Nuclei members					
	Total		Men		Women	
Regions	No	Frequency	No	%	No	%
Berat	135	14%	108	80%	27	20%
Durrës	15	2%	15	100%	0	0%
Elbasan	161	16%	157	98%	4	2%
Fier	157	16%	119	76%	38	24%
Gjirokastër	98	10%	59	60%	39	40%
Korçë	232	23%	132	57%	100	43%
Shkodër	135	14%	107	79%	28	21%
Tiranë	33	3%	30	91%	3	9%
Vlorë	33	3%	21	64%	12	36%
Total	999	100%	748	75%	251	25%

Source: Author's processing

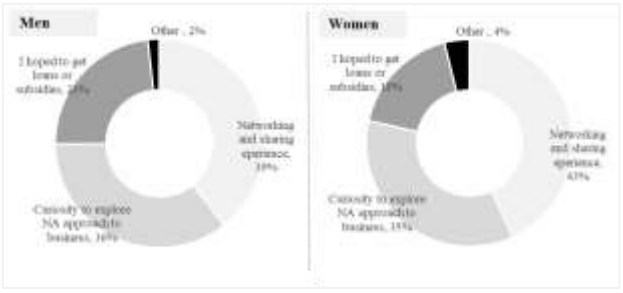

Fig. 1: Rationale for joining NA by gender
Source: Author's processing

Information on business activity. Since participating in NA, nuclei members affirm witnessing positive developments across several aspects of the business as presented in Figure 2: overall business performance and employment have improved among men and women (net balances recorded positive values). The positive effects on business activity seem to be perceived more by women than men (for both aspects, net balances recorded higher values.

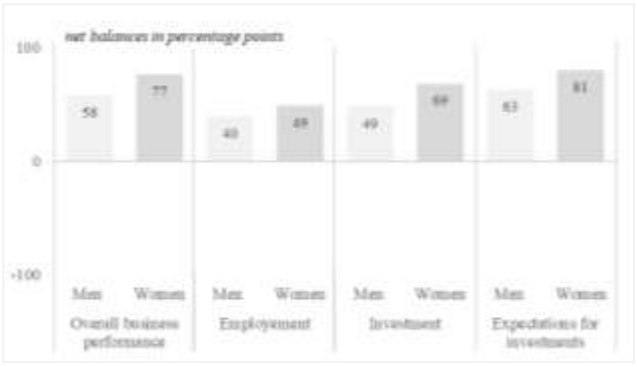

Fig. 2: Business activity aspects by gender
Source: Author's processing

The affirmed improvement in overall business performance is reflected in a higher level of investments implemented and positive expectations for future developments (net balances shown in Figure 3 are positive in both cases and higher values reported by women). To a large extent, women's and men's responses converge into channeling funds into investments to increase production capacity and technological upgrades.

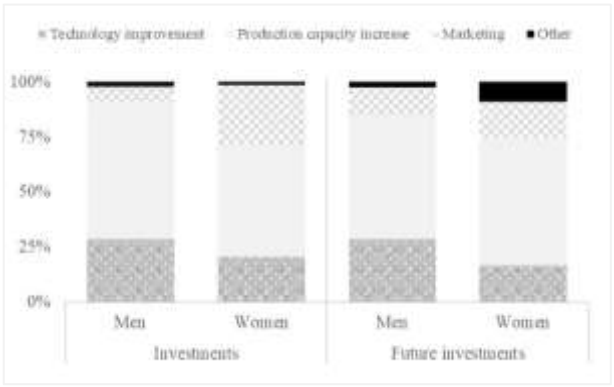

Fig. 3: Typology of investments by gender
Source: Author's processing

The NA support impact. The approach adopted by NA for the agricultural sector support includes bundled services and activities such as consultancy, training and technical assistance, study visits, engagement with businesses conducting similar operations, information about financing opportunities, and others. The members participating in the survey assessed the importance of these activities on a scale from 1 (least important) to 3 (very important) and results are presented in Figure 4. According to women respondents', the most important activities are related to monthly consultative meetings, training, and technical assistance (average 2.9). Male respondents assessed the most important activity as facilitating participation in fairs (to reach a broader market) and less important benchmarking activities (2.4).

Participation in nuclei has contributed positively to different aspects of the business (in particular women–led businesses), as measured by the net balances (Figure 5). Since participating in NA, both categories of respondents affirm improved quality of products, increased number of customers, and annual turnover. The latter has enabled nuclei members to increase the number of employees to respond to the increased business activity (market demand). In addition, with the support of technical expertise, NA members affirm diversification of product portfolio, better access to raw materials and finance, and technological improvement. On the contrary, the nuclei members affirm that participation in NA has not brought new financial opportunities (net balance is negative for men and slightly positive for women), an aspect also stressed during the interviews. While benefiting from a positive momentum, information from interviews pointed out that the COVID-19 pandemic caused a deterioration of business activity in the agricultural sector with a sluggish recovery to date. Nevertheless, the network and collaborative relationships established during the NA support are still in place, mutually helping and exchanging information and resources.

Fig. 4: Importance of services received by gender
Source: Author's processing

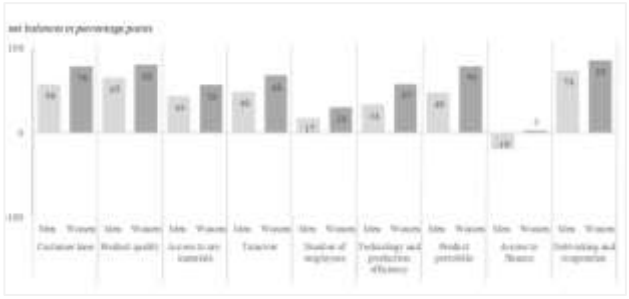

Fig. 5: NA participation impact on different aspects of the business (1)
Source: Author's processing

The nuclei methodology. The NA methodology includes blending a series of services and activities to improve the business activity of its members (no funding scheme is included). Participation in these activities, and services were free for nuclei members. Independent of gender, the advisory monthly meetings are the most frequented activities, followed by hands-on training and technical assistance by national and international experts (Figure 6). B2B meetings and benchmarking are activities less frequented both by men and women.

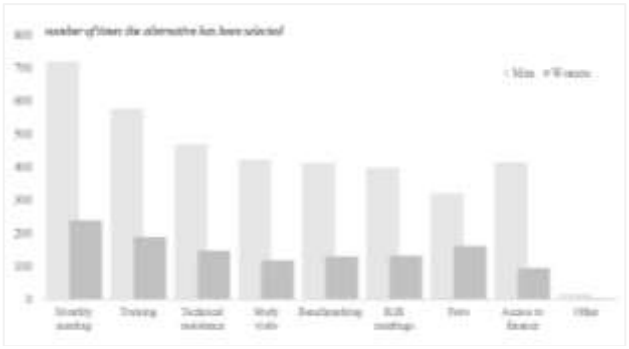

Fig. 6: NA activities and services assessment
Source: Author's processing

The method and approach adopted by NA are innovative in the Albanian context, and based on the assessment of respondents, both are deemed appropriate (net balances are positive as presented in Figure 7). The appropriateness of the method and approach is also confirmed by respondents agreeing to recommend NA to a friend or a business they work with (98% of male and 94% of female respondents). Information from direct interviews confirms the positive feedback and effectiveness at a three-year distance.

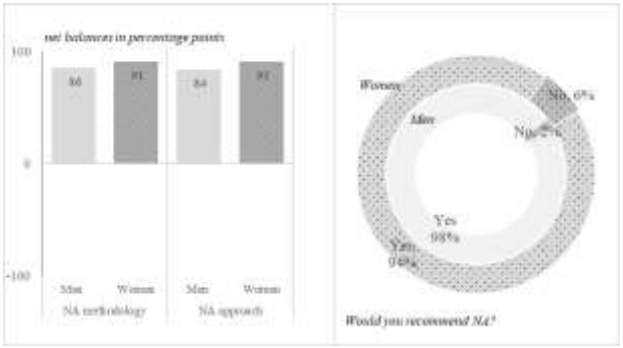

Fig. 7: NA methodology and approach assessments by gender
Source: Author's processing

During the interviews, it was affirmed that the techniques and lessons learned are still applicable and shared with peers in the respective field. In addition, the interviewees suggested that the NA approach is very suitable, particularly for the micro–small farmers / agricultural enterprises who have limited capacities to access both information on support schemes and modern technical knowledge for the agricultural sector and in remote areas. At the same time, during the interviews, it was stressed that a higher intervention's effectiveness would be achieved if a financing scheme was included. That is particularly important for the micro- and small-sized farmers who cannot access bank loans and other more complicated financial instruments (often, the requirements to access financing are impossible to fulfill for this category).

4 Conclusions

Findings from primary data and direct feedback from the interviews suggest the effectiveness and sustainability of the results achieved with the support of NA, affirmed by men and women. In addition, NA fostered women's participation and promotion of their activities (survey results show that women respondents consistently assessed more positively the effects achieved through participating in NA). Respondents affirm a qualitative improvement in products and services provided and diversification of product/services portfolio to satisfy customers' demands better. Improved supply of products and services was welcomed and reflected in an increase in the number of customers and annual turnover of the involved enterprises in the agricultural sector. Better access to raw materials, increased production capacities due to technological improvement, and increased production efficiency overall contributed to an ameliorated performance of the nuclei members. In addition, the NA activity incentivized women's participation and representation. Networking and collaboration within and between nuclei members are still in place through sharing important information and experience, identifying novel markets, and sharing/pooling resources.

The bundling of products and services in a single assistance package is assessed as appropriate to support micro, small, and medium-sized farmers/enterprises in the agricultural sector. The capillary intervention in a large part of the Albanian territory (particularly in remote areas) is assessed to have matched the interests and expectations of participants during and beyond the project duration. In addition, training and technical assistance activities are valuable and should be provided regularly by public authorities to guarantee the legacy of authentic agricultural products and services.

NA's innovative approach has proven effective by providing collaborative platforms that support the growth of agricultural businesses and foster sustainability in the sector. The method and approach might also be applicable in other sectors of the economy, ensuring broad outreach and effective and sustainable interventions. Nevertheless, these efforts should go hand in hand with other policy actions addressing major structural issues to harvest the agricultural sector's embedded value potential.

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