

## NEED OF AGRICULTURAL CONSULTANCY PUBLIC SYSTEM FOR FARMERS. CASE STUDY, CĂLĂRAȘI COUNTY, ROMANIA

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### Abstract

*In the context in which there is talk of “smart agriculture”, high precision technique, agriculture with high added value, but also increasingly sophisticated agricultural production marketing schemes, financial instruments available to farmers - the need for them to have access to all these news and innovations. All this is all the more relevant in a country like Romania, whose numerous small and medium-sized farms must produce really intelligently in order to be competitive and to resist the market. The purpose of this study is to identify and analyze the farmers needs regarding agricultural consultancy services, from the point of view of the content of the consultancy but also of the sources they turn to satisfy these needs. In this sense, we initiated a survey based on an interview with 4 questions, on a number of 110 respondents from all categories of existing legal forms in agriculture, with predominant activity - plant growing, and we collected information on the situations in which they appealed to consultancy services, the need for such services, the efficiency of agricultural consultancy services, the sources of information they turn to, etc. The research was based on the method of interview-based survey and  $\chi^2$  test. Analyzing the answers, it is found that farmers are relatively confused about the source they should turn to for the various types of consultancy regarding their business, the range being heterogeneous in this regard, from Agricultural Chambers, to private consultancy, internet, mass media, etc. These assessments of farmers needs, both in terms of required know-how content and preferred sources of agricultural consultancy, need to be updated and built on. In order to support farmers, it is needed to develop an integrated consultancy system into a regional ecosystem that also includes clusters, universities, information centers, research institutes.*

**Key words:** agricultural consultancy, farmers, rural area, Common Agricultural Policy, public system

### INTRODUCTION

The agricultural consultancy services represent a vital element in the field of informational and technological transfer in agriculture, providing farmers with information that can contribute to improve their living standard and that of the rural population [4, 20].

The need for farmers to access agricultural consultancy services arises in the context where, in order to run a successful business, they need both knowledge specific to the agricultural field, and skills related to business management, financing, and the implementation of innovations specific to the field [17, 11].

In Romania, agricultural consultancy services were established in the post-communist period and, since then, the system went through countless stages of reform [4, 18]. What it has

resulted is a **fragmented system**, with a multitude of institutions offering various atomized services to farmers, **unintegrated**, with institutions that do not communicate with each other and do not coordinate their activities in relation to farmers, and **insufficient** to meet the multiple needs of hundreds of thousands of small and medium farmers, family farms and micro-enterprises they target. At the moment, an agricultural consultant serves more than 4,000 farmers, while the experience of European states shows that an optimal proportion would be one consultant per 65-100 farmers [18, 11]. The public consultancy system consists, at the moment, of only 479 consultants subordinate to the 41 County Agricultural Directorates, that work in the offices in the county residences (about 200 consultants), as well as at the local level, through local centers (about 7-9 municipalities from each county that

belong to the local center have agricultural consultants; a total of 279 consultants are distributed at the level of all local centers). [18, 11].

The pace of changes in the economic, technological or social area in which farms operate became, in the 21st century, so fast that farmers and entrepreneurs in the food industry need specialized support to keep up and integrate into their activity all these new technologies, practices and business models [5, 10, 19].

In the specialized literature, the system of knowledge and innovation in agriculture (Agricultural Knowledge and Information Systems - AKIS) is a concept that includes "people, organizations and agricultural institutions involved in the generation, storage, transformation, recovery, integration, dissemination and use of knowledge specific to this field, with the aim of synergistically supporting decision-making, problem-solving and innovation in agriculture" [6].

There is no unified AKIS system in the countries of the European Union. Specifically, each European country has built its own system depending on the institutional structure, the ownership status of research institutions and consultancy organizations, the structure of education, the sources of funding, the characteristics of farms and farmers - their needs and expectations, as well as and the implementation of the Common Agricultural Policy (CAP) and national agricultural policies [1, 3,16].

According to the Ministry of Agriculture and Rural Development (MADR), on the one hand, farmers receive counseling and consultancy services in technical fields - agronomy, animal raising, access to new technologies in the field. On the other hand, consultants provide technical assistance to farmers in order to develop business plans and project proposals to access European funds. [11, 12].

From this last perspective, the consultants provide support to farmers especially in drawing up the necessary files for payments in the case of projects in the financing period. Apart from consultancy and technical assistance services, farmers also benefit from training and professional training courses, adapted to their needs [8, 11].

Some of the stated priorities of the 2014-2020 NRDP was the provision of consultancy and consulting services for farmers, adapted to real market requirements, as well as training, knowledge transfer and innovation in agriculture. This approach also comes against the background of the results of the previous programming period of European funds, 2007-2013, in which the system was considered "insufficiently adapted in terms of CAP requirements, quality and farmers access to agricultural consultancy services [13, 14].

Throughout the 2007-2013 programming period, only 15,717 farmers benefited from support through Measure 143 "Provision of consultancy and consulting services for farmers".

According to SWOT analysis of NRDP 2014-2020, the low rate of achievement recorded at the end of 2013, of only 31.4%, can be attributed to the high degree of complexity of the contracting procedure, as well as to the faulty correlation of the measures whose beneficiaries were those targeted for consultation [14].

Specifically, in the field of agricultural consultancy and counselling, NRDP 2014-2020 aimed at modernizing farms, strengthening competitiveness, sectoral integration, association and short supply chains, innovation, market orientation and promotion of entrepreneurship in rural areas, as well as the implementation of commitments made for environmental and climate measures (agri-environment, ecological agriculture [5,14].

The new framework of public policies and financing of agriculture and rural development through European funds in Romania is the National Strategic Plan (PNS) 2023-2027, which was approved at the end of 2022. According to the PNS, a digital platform will be created, with the role of hub, through which the relevant actors in the field of knowledge and innovation in agriculture are integrated [11,15].

All of these will operate under the MADR umbrella through the AKIS Coordination Unit and there will also be an AKIS Support Unit (which brings together relevant and representative actors for the field from

ministries, universities and high schools with an agricultural profile, research institutes, SME- companies with innovative research activities and providers of digital solutions, digital innovation hubs, representative associations of farmers, local action groups, specialized NGOs, etc.) [15].

All this institutional architecture, of programs and funding dedicated to the transfer of knowledge and innovation in agriculture to farmers, can only be evaluated through a juxtaposition with the real needs of farmers in Romania [17, 18].

The purpose of this study is to identify and analyze the farmers' needs regarding agricultural consultancy services, from the point of view of the content of the consultancy but also of the sources they turn to satisfy these requirements.

## MATERIALS AND METHODS

The purpose of this study is to identify and analyze the farmers needs regarding agricultural consultancy services, both in terms of the content of the consultancy, respectively, information, training needs, as well as the sources that agricultural entities turn to, respectively, the level of trust granted these sources. The case study was carried out in Călărași County, where the public agricultural consultancy service is served by 10 consultants, subordinate to the County Agricultural Directorate. Starting from the reality that farmers need consultancy services for the efficiency on all levels (technical, economic, financial) of the activity carried out, we initiated a survey based on interviews on a number of 110 agricultural entities, with legal forms and different sizes, having in the object of activity also CAEN code 0111 - Growing of cereals (excluding rice), leguminous plants and plants producing oilseeds, located in different areas of Călărași county, and we considered the questions: *Did you use consultancy services for the activity you carry out? In what context, for what problems? What are the main sources you turn to find out about news/changes in the agricultural field? What proposals do you have for making the public agricultural*

*consultancy service more efficient?*, as edifying to capture the perception of the managers of these agricultural structures on the need and efficiency of the public agricultural consultancy system. Through this approach, we proposed that, in addition to collecting information related to the objective of the study, we would inform the respondents about the role and importance of the activity carried out by these public agricultural consultancy structures. The research was based on the method of questionnaire survey and  $\chi^2$  test [21].

The questions were structured on 2 levels, respectively, 3 filter questions and 4 questions with open answers, even if the process of completing and analyzing the answers was more difficult, but we aimed for the respondents to answer freely, their answer to reflect the most well the perception of that question, and also to gather other information necessary for the analysis made by this study.

A number of 110 people responded to the interview-based study, applied at the respondents' headquarters, the managers of the agricultural units studied. The age groups were structured in four steps, as follows: up to 30 years, between 31-45 years, between 46-60 years, over 60 years. We have also broken down the size of the farm that they manage in 5 steps, starting with the category of farms that have up to 50 hectares, up to farms/associative structures of over 400 hectares.

In order to evaluate the results of the interview, we used the  $\chi^2$  ("Chi-square") concordance test, with the aim of determining whether there is a causal relationship between the variables, and then, to take from the  $\chi^2$  distribution table the value of, theoretical  $\chi^2$ ; the obtained results were compared, and it was determined whether or not to reject the null hypothesis [7, 22]. The calculated  $\chi^2$  was compared with the theoretical  $\chi^2$  for different probability thresholds.

## RESULTS AND DISCUSSIONS

The main natural wealth of Călărași county is the agricultural land, in percentage of 84% of the county surface, suitable for the vegetable

sector, especially cereal, with very high productions. Through the prism of the comparison between the counties of the South-Muntenia region, Călărași county (20.84%) occupies the second place with the most extensive arable surface, after Teleorman (23.10%) [2].

In the rural area of Călărași county, all the agricultural structures that we find at the national level operate, in terms of their legal and associative form. As shown in Table 1, the share is held by the Commercial Companies based on Law 31/1990, followed by small businesses, constituted, from a legal point of view, as Individual Enterprises (I.I.), authorized natural persons (PFA) or family associations.

Table 1. Structure of agricultural entities in Călărași county, in year 2023

Organization form	Number
PFA-Authorized Physical Person, I.I.-Independent Individual/Family associations	537
Agricultural cooperatives	57
Groups of producers	21
Autonomous administrations, joint stock companies	4
Commercial companies based on Law 31/1990	509
Agricultural companies based on Law 36/1991	45
Farmers without legal status	6,458

Source: Călărași County Agricultural Directorate [2].

Among these, as study sample, 110 structures were considered, as it is shown in Table 2., most of them being from the categories that predominate, as organization, at the county level.

Table 2. Structure and share of respondents depending on the juridical form of administered agricultural entity

Juridical form of farm	No. respondents	%
PFA, I.I., Family association	38	34.5
Commercial company based on Law 31/1990	35	31.8
Agricultural companies based on Law 36/1991	13	11.8
Agricultural cooperative/Group of producers	24	21.9
<b>Total</b>	<b>110</b>	<b>100</b>

Source: Interview for farmers needs' assessment on public services of agricultural extension in Călărași county [9].

In Table 3, the respondents structure is presented, depending on the farm size they administer. We notice a balanced distribution of the respondents on categories of farms regarding their size, the share is of the farms contained between 100.11 and 200 ha, respectively, 26.37%

Table 3. The structure of the respondents according to the size of the farm

Farm size	UM	Total	
		No.	%
< 50 ha	No	12	10.91
	%	100	X
50.1 -100 ha	No	26	23.64
	%	100	X
100.1 ha-200 ha	No	29	26.37
	%	100	X
200.1 ha -400 ha	No	21	19.09
	%	100	X
>400 ha	No	22	19.99
	%	100	X
Total	No	110	100.0

Source: Interview regarding the evaluation of farmers needs on public services of agricultural consultancy in Călărași county [9].

Starting from the consideration that the farm manager age has a high influence on accessing consultancy services and different sources of information, we analyzed the sample structure also depending on age, as it is shown in Table 4.

Table 4. Structure and share of respondents according to age

Age group	No respondents	%
< 30 years old	21	19.09
31-45 years old	38	34.55
46-60 years old	33	30.00
>60 years old	18	16.36
<b>Total</b>	<b>110</b>	<b>100</b>

Source: Interview regarding the evaluation of farmers needs on public services of agricultural consultancy in Călărași county [9].

From the data presented in Table 5., we find that a percentage of 19.09% are under the age of 30 and manage farms of up to 200 ha, and one of them manages an agricultural cooperative that has approximately 400 ha, an encouraging aspect in terms of comparison

with the national statistics, according to which the agricultural population is aging. Among those aged between 31-45, a balanced distribution by size category of the farms they manage is found, with the share being in the over 100 ha category. Farms with an area of over 400 ha are mostly owned by those between the ages of 45-60. The  $\chi^2$  test, by fitting the value of 20.12 for the calculated

Chi, between the values of 17.14 and 20.15 of the theoretical Chi, shows us a significant relationship between the respondents age and farm size they manage.

From the information shown in table 6, we find out that there is a significant correlation between the respondents age, managers of farms and size of farm/associative structure they manage.

Table 5. Analysis of the correlation between the age of the respondents and the size of the farm owned

Age	UM	Farm size (ha)					Total	
		< 50	50.1 -100	100.1 - 200	200.1 - 400	>400	No.	%
< 30 years old	No.	7	6	7	1	0	21	19.09
31-45 years old	No.	3	8	9	9	9	38	34.55
46-60 years old	No.	2	7	8	6	10	33	30.00
>60 years old	No.	0	5	5	5	3	18	16.36
Total	No.	12	26	29	21	22	110	100
	%	10.91	23.64	26.37	19.09	19.99	100	X
Indicators	Test $\chi^2$	Significance threshold						
	$\leq$	0.2	0.1	0.05	0.01	0.001		
Chi theoretical	$\geq$	17.14	20.15	22.16	25.07	28.35	*	
Chi calculated	20,12*							

Source: Own calculations.

Table 6. Analysis of correlations between respondents age and juridical form of farm they manage

Age	UM	The juridical form of the agricultural holding				Total	
		PFA, I.I., family association	Commercial company	Agricultural company	Agricultural cooperative/Group of producers	No.	%
< 30 years old	No.	14	5	1	1	21	19.09
31-45 years old	No.	13	13	5	7	38	34.55
46-60 years old	No.	11	8	3	11	33	30.00
>60 years old	No.	0	9	4	5	18	16.36
Total	No.	38	35	13	24	110	100
	%	34.50	31.80	11.80	21.90	100	X
Indicators	Test $\chi^2$	Significance threshold					
	$\leq$	0.2	0.1	0.05	0.01		
Chi theoretical	$\geq$	17.14	19.55	23.24	27.19	30.13	**
Chi calculated	24,31**						

Source: Own calculations.

Thus, the age group of up to 30 years old, manages farms from category PFA, I.I. and family associations in a percentage of about 67% of total respondents of this age category. Among the 38 respondents in the 31-45 age group, an equal percentage of 34% manage commercial companies and PFA, I.I. and Family Associations and about 18% are chairmen of Agricultural Cooperatives or

groups of Producers, which manage large areas of land. The age category 46-60 years, administers in equal percentage both Agricultural Cooperatives or Groups of Producers (having the share in this category) but also companies and PFA, I.I. and family associations. The category of over 60 years old, in percentage of 50% manage commercial companies.

Test  $\chi^2$ , by fitting the value of de 24.31 for Chi calculated, between values 23.24 and 27.19 of Chi theoretical, show a distinctly significant connection between the respondents age and legal/associative form of the farm they manage.

We mention the fact that we included in the study sample only the respondents who stated that they used consultancy services for the activity they carry out.

In Table 7 we included the problems/situations in which the respondents used consultancy services. The percentage

determination was made by relating the number of respondents to the total sample in the respective category. It is found that the majority of farmers, regardless of the form of organization, used consultancy services for the documentation for the establishment of the agricultural structure (84% of the total sample), for accessing European funds and APIA subsidies (79% of respondents), for professional training courses in the field (49%), organized by the County Agricultural Directorates, for the preparation of crop calamity files, etc.

Table 7. Problems/situations in which the respondents used consultancy services, depending on the organization form of the agricultural structure

Crt. No.	Problems/situations mentioned	PFA, I.I., family association		Commercial companies		Agricultural companies		Agricultural cooperative/ Group of producers	
		No.	%	No.	%	No.	%	No.	%
1	When establishing agricultural entities	35	92.1%	27	77.1%	9	69.2%	21	87.5%
2	Accessin subsidies and European funds	38	100%	31	88.6%	10	76.9%	18	75.0%
3	Professional training courses in the field	19	50.0%	14	40.0%	10	76.9%	11	45.8%
4	Technical information, support in introducing new varieties and hybrids in crop	21	55.3%	7	20.0%	4	30.8%	5	20.8%
5	Informatisation of farm management	7	18.4%	3	8.6%	3	23.1%	7	29.2%
6	Eradication of some diseases and pests of crop	9	23.7%	7	20%	4	30.8%	2	8.3%
7	Purchahse of high performance agricultural equipment and machinery	17	44.7%	13	37.1%	5	38.5%	4	16.6%
8	Preparation of crop calamity files	19	50.0%	9	25.7%	7	53.8%	6	25.0%
9	Other problems/situations	3	7.9%	2	5.7%	1	7.7%	2	8.3%
	TOTAL	38	*	35	*	13	*	24	*

Source: Interview regarding the evaluation of farmers needs on public services of agricultural consultancy, in Călărași county [9].

Regarding the main sources of information that farmers turn to for their activities, as shown in Table 8, the distribution by sources is quite heterogeneous, but most of them mention first the public consultancy service, to which farmers from structures organized in the form by PFA, I.I. and Family Association appeals in 100% percentage, followed by the Internet, the expertise of other farmers and the mass media. Commercial companies call on the public consultancy service (88% of the respondents in this category), participate in trade fairs and profile exhibitions, call on the

mass media and use the Internet. And agricultural companies put the public consultancy service first (77% of the group's respondents), followed by mass media and the Internet. Regarding Agricultural Cooperatives/Group of Producers, in the first place in terms of sources of information, they mention participation in fairs and profile exhibitions, the Internet, private consultancy firms and then the public agricultural consultancy service, which they say they receive a lot of or too general and non-specialized information.

Table 8. Main sources used by farmers for information about news/changes in the agricultural field, depending on the organization form of agricultural structure

Crt. No.	Problems/situations mentioned	PFA, I.I., family association		Commercial companies		Agricultural companies		Agricultural cooperative/Gro up of producers	
		No.	%	No.	%	No	%	No	%
1	Internet	27	71.1%	11	31.4%	8	61.5%	15	62.5%
2	Mass-media	17	44.7%	19	54.3%	9	69.2%	9	37.5%
3	Participation in profile fairs and exhibitions	14	36.8%	25	71.4%	5	38.5%	23	95.8%
4	Firms of private consultancy	2	5.3%	6	17.1%	1	7.7%	11	45.8%
5	Public service of consultancy	38	100%	31	88.6%	10	76.9%	8	33.3%
6	Expertise of other farmers	19	50.0%	4	11.4%	3	23.1%	2	8.3%
7	to experts in profile universities	3	7.9%	3	8.6%	1	7.7%	3	12.5%
8	Other sources	2	5.3%	2	5.7%	1	7.7%	2	8.3%
	TOTAL	38	*	35	*	13	*	24	*

Source: Interview regarding the evaluation of farmers needs on public services of agricultural consultancy, in Călărași county [9].

Table 9. main proposals on efficiency of public service of agricultural consultancy, depending on organization form of agricultural structure

Crt. No.	Problems/situations mentioned	PFA, I.I., family association		Commercial companies		Agricultural companies		Agricultural cooperative/ Group of producers	
		No.	%	No.	%	No	%	No	%
1	Establishing a regional network of physical offices of specialized consultancy	29	76.3%	24	68.6%	10	76.9%	18	75.0%
2	Establishing a network of lots/demonstrative farms	26	68.4%	15	42.9%	8	61.5%	19	79.2%
3	Increasing the number of consultants in the system and increasing their specialization	30	78.9%	19	54.3%	11	84.6%	15	62.5%
4	Organization of round tables, workshops with specialists in the field	21	55.3%	20	57.1%	7	53.8%	20	83.3%
5	Visits of consultants on site	19	50.0%	17	48.6%	7	53.8%	11	45.8%
6	Organization of best practice visits for farmers	21	55.3%	15	42.9%	6	46.2%	5	20.8%
7	Creation of digital platforms, with Access of all farmers	19	50.0%	21	60.0%	4	30.8%	17	70.8%
9	Other proposals	2	5.3%	3	8.6%	1	7.7%	2	8.3%
	TOTAL	38	*	35	*	13	*	24	*

Source: Interview regarding the evaluation of farmers needs on public services of agricultural consultancy, in Călărași county [9].

As shown in Table 9, the farmers have a series of proposals for the efficiency of the public consultancy service, to which approximately 72% of the respondents turn. Among these proposals, the first place is the establishment of a regional network of physical consultancy offices, with 78% of the respondents' opinions, even more so since, from the discussions held with them, they prefer to access the consultancy services individually,

on point problems. 75 respondents (68%) mention that it is necessary to increase the number of consultants in the public system but also mention their specialized qualification; 55% of the respondents know the new framework of public policies and financing of agriculture and rural development through European funds, respectively the provisions contained in the National Strategic Plan 2023-2027, according

to which a digital platform will be created, with the role of a hub, through which to either integrate the relevant actors in the field of knowledge and innovation in agriculture and support this initiative.

## CONCLUSIONS

The research reflects the opinions and experiences of 110 farmers from Călărași county, regarding their assessment of the need and efficiency of the public agricultural consultancy service.

The most important conclusions of the research are:

- All categories of organizational structures in agriculture, and in particular, commercial farms with legal personality, say to a greater extent that they need advice than other forms of organization (agricultural cooperatives/group of producers), the main reason being, the most probably, a better awareness by them of the need for development, which is closely related to access to information and know-how. Most of this category are either young farmers taking over the business from their parents, or farmers who have understood that developing a competitive business in agriculture depends on outside informational support.
- The state consultancy system is requested especially in the field of accessing subsidies and European funds, when setting up the organization, but farmers mention the gaps of this system in the technical field, innovations, marketing, farm management, business or association models.
- About half of the respondents have high and very high trust in the Internet and the media when it comes to information in the agricultural field, but admit that technical information on informal groups on social media can be of questionable quality, as it is not validated by specialists.
- Farmers are dissatisfied that they often receive too general and unspecialized information in a highly fragmented and unmonitored consultancy market in terms of the quality of the services provided.
- In reality small farmers get their information in an ad hoc way from the media, the internet

or the community and private providers of consultancy services, provide services on a fee basis especially to large farms and strong agricultural cooperatives

- As the vast majority of farmers prefer to access consultancy services in person, they consider it necessary to strengthen a regional network of physical offices, where farmers can access the widest possible range of information, advice and services. They also support the establishment of a network of demonstration plots/farms, where farmers can practically test various seeds, methods, innovations, etc.
  - At the top of farmers' needs in terms of the type of services they need is specific advice on a given problem, being cited by almost three quarters of those who were aware of the need for advice services. Only slightly more than a quarter say they would need vocational training services – short or long courses.
  - In reality, the range of DAJ services is less than that presented in official documents by MADR or on DAJ websites. This means qualification courses, grant consultancy, technical monitoring/inspections. Most services are provided in the office, face to face with the applicant, while farm visits are only made in cases of drought or serious crop diseases
  - Among the solutions identified by the farmers, in order to make the public agricultural consultancy service more efficient, there are also: increasing the number of consultants, creating regional consultancy centers, but also closer and more homogeneous collaboration with educational and research institutions.
- The reality is that small and medium-sized commercial farms need relevant, accessible and easy-to-integrate information in order to survive in the market and grow. And the information, training and consultancy services offered exclusively by the private system (against cost) are physically and financially unavailable for this category of farms, which now get their non-scientifically validated information ad hoc from neighbors, from social media groups or from the press. Many of these farmers still go to county residences and access the few remaining

experts within the DAJ for various cases that they sometimes cannot/do not know/do not have the resources to address.

Farmers in Romania need informational support from the state consultancy system, which at the moment is massively under-budgeted and should be invested in - by increasing the number of counselors, but also through their continuous training, to be able to keep up with the rapid developments in the field of contemporary agriculture, strongly digitized.

## REFERENCES

- [1] Bleahu A., 2019, Rural Development in the European Union, [https://www.researchgate.net/publication/237527540\\_DEZVOLTAREA\\_RURALA\\_IN\\_UNIUNEA\\_EUROPEANA/link/00b7d53bfab52e2467000000/download](https://www.researchgate.net/publication/237527540_DEZVOLTAREA_RURALA_IN_UNIUNEA_EUROPEANA/link/00b7d53bfab52e2467000000/download) Accessed on 07.06.2024.
- [2] Călărași County Agricultural Directorate
- [3] CAP-Common Agricultural Policy, [https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-glance\\_ro](https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-glance_ro), Accessed on 10.07. 2024.
- [4] Cretu, D., Iova R.A., 2023, Agricultural consultancy, Ed. Kovachev, Bulgaria, p. 67.
- [5] Crețu, O.R., Tudor, V.C., 2021, Aspects of association and cooperation in Romanian agriculture - Lambert Academic Publishing, Berlin, Germany, p.76.
- [6] Epi. Agri. Agriculture and Innovation, AKIS, <https://ec.europa.eu/eip/agriculture/en/about/akis-eip-> Accessed on 14.05. 2024.
- [7] Hatmanu, M., 2020, Statistical and econometric methods in economic, institutional and environmental studies, Thesis for Habilitation, Alexandru Ioan Cuza University of Iași, Romania Faculty of Economics and Business Administration Department of Accounting, Business Information Systems and Statistics (CIES) [https://doctorat.feaa.uaic.ro/abilitare/PublishingImages/Rezumat\\_abilitare\\_Mhatmanu.pdf](https://doctorat.feaa.uaic.ro/abilitare/PublishingImages/Rezumat_abilitare_Mhatmanu.pdf), Accessed on 04.07.2024.
- [8] Iova, R.A., Cretu, D., 2013, Perception of the life quality in the rural communities in Romania. Case study. Călărași County, Lambert Academic Publishing, p.58.
- [9] Interview regarding the evaluation of farmers needs on public services of agricultural consultancy, in Călărași county
- [10] Marcuța, L., Popescu, A., Tindeche, C., Fintineru, A., Smedescu, D., Marcuța, A., 2023, Study on the evolution of fair trade and its role in sustainable development. Scientific Papers Series Management, Economic Engineering in Agriculture & Rural Development, 23(2), 427-436.
- [11] Ministry of Agriculture and Rural Development, MADR, Presentation of agricultural consultancy activity, <https://www.madr.ro/protectia-plantelor-si-carantina-fitosanitara/227-prezentare-consultanta-agricola.html>, Accessed on 10.06. 2024.
- [12] Ministry of Agriculture and Rural Development, MADR, Governing program, June 2023 – December 2024, <https://www.madr.ro/docs/minister/2023/program-guvernare-2023-2024-agricultura>. Accessed on 11.07. 2024.
- [13] Ministry of Agriculture and Rural Development, MADR, Partnerships in rural area <http://madr.ro/docs/dezvoltare-rurala/rndr/buletine-tematice/PT37.pdf> Accessed on 10.06.2024.
- [14] National Program for Rural Development, PNDR 2014-2020 <https://www.fonduri-ue.ro/pndr-2014>, Accessed on 01.07. 2024.
- [15] National Strategic Plan, PNS 2023-2027 <https://apia.org.ro/planul-national-strategic-2023-2027-pns-al-romaniei/>, Accessed on 07.05.2024.
- [16] Răduț-Seliște, D., 2010, Networking for community development - establishment and management of an intervention network and local level, intercultural methods, University of Craiova, p.14.
- [17] Romanian Center for European Policies, CRPE, 2019, Agricultural consultancy in Romania, [https://www.crpe.ro/wp-content/uploads/2019/03/CRPE-Policy-Memo-75\\_Consultan%C8%9Ba-agricol%C4%83-%C3%AEEn-Rom%C3%A2nia.-Evolu%C8%9Bie-%C8%99i-propuneri-de-politici-publice-1.pdf](https://www.crpe.ro/wp-content/uploads/2019/03/CRPE-Policy-Memo-75_Consultan%C8%9Ba-agricol%C4%83-%C3%AEEn-Rom%C3%A2nia.-Evolu%C8%9Bie-%C8%99i-propuneri-de-politici-publice-1.pdf), Accessed on 10.06.2024.
- [18] Romanian Center for European Policies, CRPE, 2023, System of agricultural consultancy in Romania, <https://www.crpe.ro/ro/sistemul-de-consultanta-agricola-din-romania/> Accessed on 11.06.2024.
- [19] Rural Development, European Commission, [https://agriculture.ec.europa.eu/common-agricultural-policy/rural-development\\_ro](https://agriculture.ec.europa.eu/common-agricultural-policy/rural-development_ro), Accessed on 08.03, 2023
- [20] Sandu, D., 2011, Community of regional development, University of Bucharest, Faculty of Sociology and Social Work, [https://www.researchgate.net/profile/Dumitru\\_Sandu/publication/242654602\\_Dezvoltare\\_comunitara\\_si\\_regionala/links/55314b250cf27acb0dea93b8.pdf](https://www.researchgate.net/profile/Dumitru_Sandu/publication/242654602_Dezvoltare_comunitara_si_regionala/links/55314b250cf27acb0dea93b8.pdf), Accessed on 07.05. 2024.
- [21] Tănăsioiu, O., Iacob A., 2017, Econometric Models Volume I, Second Edition, Course Notes, ASE Publishing House, Chapter 2, p. 132.
- [22] Wikia.org. Statistics, Characterization of frequency distributions, <http://ro.math.wikia.com/wiki/Statistică>, Accessed on 19.04. 2024.

