# The Attitudes and Views of Farmers on the New Common Agricultural Policy and the Restructuring of Crops: the Case of Greece

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Abstract: Greek agriculture is today faced with the necessity to adapt a particularly tough, constantly changing international environment. Based on its structural characteristics and in view of the new requirements and directions of rural policy, it is considered essential for suitable measures to be adopted. The purpose of these measures will be to improve the competitiveness of the agricultural sector and to maintain the economic and social cohesion of Greek agriculture. This paper presents the results of an empirical study, conducted on a sample of 570 farmers through the use of questionnaires, with the aim of exploring the attitudes and views of farmers from the implementation of the new Common European Agricultural Policy (CAP), their level of satisfaction with Rural Policy bodies in managing the growth of their agricultural holdings, as well as the effectiveness of the various developmental financing programmes. Finally, it examines the impact of the farmers' demographic and social characteristics on the formulation of their attitudes and views regarding the abovementioned issues. After a series of statistical significance tests, based on the  $x^2$ -test and the correlation coefficient of Spearman's classes, as appropriate, it was found that only the farmers' income is correlated, in a statistically significant and negative way, to their satisfaction with the information provided by rural policy bodies. An upgrading of the services provided by rural policy bodies is expected to lead to an improved agricultural income and promote the business-oriented growth of agriculture.

**Key words:**Farmers' attitude • Common Agricultural Policy • Agricultural production • Developmental financing programmes

## INTRODUCTION

Greek agriculture is today facing the challenge of having to adapt the increase demands of a globalize market for agricultural products. It needs to overcome its structural weaknesses and valorize the comparative commercial advantages at its disposal, in order to improve its competitiveness [1, 2]. The competitiveness of the agricultural sector in Greece depends on economic, social and demographic parameters [2-4]. An important factor for the development of Greek agriculture is the exploitation of its workforce. Farmers, having nowadays at their disposal more business incentives and additional technical knowledge, are in a position to produce products of a better quality, that are competitive on the international market, thus supporting the continuation of traditional family holdings [5,6].

Nevertheless, in rural communities, the development of viable solutions for dealing with various economic, social and environmental problems is at risk due to the shrinking of the rural population [7,8]. Data from the National Statistical Service show that at the end of the third quarter of 2007, the total number of those employed in the primary sector was reduced to 496,700 persons, as opposed to 515,800 persons during the same period of 2006 and 531,400 persons in the same period of 2005 [9]. During the decade 1998-2007, the number of those working in the primary sector was decreased by 30%, as 213,500 persons opted for other employment. The percentage of the agricultural population is now equal to 10.9% of the country's total active population, when a decade ago, the relevant percentage amounted to 17.5%. This reduction acquires an even greater meaning, since the abandonment of the agricultural profession does not

only exacerbate the issue of unemployment, but is also connected to the downgrading of countryside regions, ecological and cultural disaster, social and political upheaval and a delay in agricultural progress [10,11].

The application of the revised Common Agricultural Policy (CAP) is considered by many to mark the beginning of a period of entrepreneurial growth in agriculture, which means that Greek farmers will have to adapt the messages they receive from the market. A major factor in preparing Greek farmers to adopt the principles of the new CAP and the new market trends for agricultural products is ensuring that they have access to the appropriate information and necessary training [12]. To these two parameters, we should also add the need for consultancy services, a term instituted by the CAP. More specifically, as regards the information required by farmers, it has been pointed out that European farmers (based on Agenda 2000) require information on the management of holdings, risk management (subsidy shift and therefore decision-making on alternative productive systems) and knowledge of investment programmes and measures (including their bureaucratic, managementrelated aspects) [13]. The same author also mentions some additional requirements, related to quality, alternative production methods, commerce, the evaluation and introduction of new technologies, diversification (within the framework of the multifunctionality model), as well as information on relevant investments, rural tourism and the management of alternative activities.

This paper presents the results of an on-site survey conducted at the Prefecture of Etoloakarnania, one of most traditional rural prefectures in Greece. According to the OECD [14], the regions defined as being "predominantly rural regions", are those with a population density below 150 inhabitants per km<sup>2</sup> and where 50% or more of the population resides in rural communities. The Prefecture of Etoloakarnania is characterized as a "predominantly rural region", given the fact that its population density is 41 inhabitants per km<sup>2</sup> and 50% of the Prefecture's population resides in rural communities [15]. A major role in the selection of this region was also played by the great importance of the agricultural sector for the local community, since its share in the total employment is equal to 32% [16]. The prefecture of Etoloakarnania is the first tobacco-producing region in Greece, the third in the production of cheese and fifth in meat production [17]. The objective of this paper is to study and analyze the attitudes and views of farmers regarding the application of the new CAP, their satisfaction with the Rural Policy bodies in relation to

managing the development of their agricultural holdings, as well as the effectiveness of developmental financing programmes. Finally, we examine the effect of the farmers' demographic and social characteristics on the formulation of their attitudes and views regarding the abovementioned issues and the way in which their agricultural income affects their level of satisfaction with the information received from Rural Policy bodies. The aim of this study is to portray the attitude of men and women farmers in the Prefecture as regards the provision of advisory services and guidance, to diagnose relevant needs and to map out the guidelines that the creation of similar structures in rural areas should follow. Based on the above-mentioned analyses, it will be possible to portray the expectations of local farmers regarding the improvement of their agricultural income and also the potential of the farming profession.

#### MATERIALS AND METHODS

This study was based on the collection of primary data, through personal interviews from a sample of 570 farmers, who were beneficiaries of a similar number of agricultural holdings in the Prefecture of Etoloakarnania. The size of the sample represents 5% of the total number of agricultural holdings in the Prefecture (11,400 holdings) and permits the generalization of a percentage from the sample to the population with a  $\pm 4\%$  error, at a significance level  $\alpha$ =0,05. Therefore, the sample is considered sufficient in order to safely draw satisfactory conclusions for the total region in question. The selection of the farmers and by extension of the agricultural holdings in the sample, was made using systematic random sampling from the lists of the Farmers' Register at the D/ate of Rural Development, Prefectural Authorities of Etoloakarnania. The study was carried out during the period 2006-2007. The questionnaire used includes 52 questions, divided into 5 units. More specifically, it includes units on the demographic sample data, the technical-economic profile of the agricultural holdings, the prospects of the agricultural profession, sources of information and advice and finally the attitudes and views of the farmers regarding the CAP. For this purpose, apart from examining the socio-economic profile of the interviewees, questions also involved the use of EU programmes, participation in vocational training programmes and their evaluation, the farmers' experiences from the information and consultation services on offer and their attitude vis-à-vis the developments in the CAP, the challenges facing the agricultural sector and the

development of their region. Most of the questions were closed, multiple choice questions, where the interviewees were also required to answer questions on a "Likert-type" or Hierarchical rating scale. For a concise presentation of the available data, methods from Descriptive Statistics were applied to calculate the absolute and relative frequencies (percentages %), central tendency indicators (mean, median values) and dispersion indicators (standard deviations).

In order to check the correlations between the categorical variables (nominal and/or ordinal), the results of the  $X^2$  test were evaluated on a case-by-case basis, along with the results of the significance test of the correlation coefficient of Spearman's rho classes [3]. The observed significance level (p-value) of the Non-Parametric statistical tests was calculated using the Monte-Carlo simulation method [9]. This method reinforces the validity of the conclusions, in cases where the preconditions for the application of the tests are not upheld (independent observations, random samples and asymptotic approaches of the involved probable-theoretic or empirical distributions) and/or when the sample sizes of the involved sub-groups are small. The statistical analyses were carried out with the SPSS version 15 software, with the sub-system Exact Tests also installed.

### RESULTS AND DISCUSSION

**Demographic Data:** The study was conducted on a sample of farmers, consisting of 81.3% men and 18.7 women. Their ages are mainly 40-65 years (54%), while the age group 18-39 represents 40.3% of the sample. As regards their educational level, 50.9% are Primary School graduates, 27.5% are Lower Secondary school graduates and only 2.1% have attended higher education. If we analyze the reasons they became involved with agriculture, 52.8% state that they needed to find some form of work, 22% mention the inability to find any other work opportunity in the region, 19% that they were obliged to work in the agricultural sector as sole heirs to their family's holding and 9.7% relate their involvement in agriculture to their dislike of school and learning. An important percentage (14.3%) refer to their love of nature and working in the countryside, while 10.4% say they continued to work in agriculture due to their inclusion in programmes for young farmers, early retirement schemes for beneficiaries, investments, etc. The largest percentage of farmers has been working in the agricultural sector over a long period (40.4% have been employed for 10 to 25 years and 26.6% for over 25 years). For 27.1% of the sample, the family income related to agricultural work amounts to 10.001\_ and above, while the income of 72.9% is lower. The highest participation of subsidies in the formulation of the agricultural income (over 50%) is found in 11.3% of the holdings in the sample. For 46.5%, the participation of subsidies in the formulation of their agricultural income ranges between 30 and 50% and for 28.9% it ranges from 10 to 30%. The remaining 13.3% has a very low share of subsidies (up to 10%).

#### **Technical-Economic Characteristics of the Holdings:**

The study shows that 42.7% of the holdings in the sample are located in dynamic regions, 29.1% in disadvantaged regions and 28.2% in mountainous regions. More specifically, 30.1% of the holdings are included in settlements with fewer than 500 inhabitants, 39.8% in settlements with a population of 500-2,000 inhabitants and 30.1% in settlements with a population of over 2,000 inhabitants. In 8.6% of holdings there is full ownership of the land, while in 20.3%, privately-owned plots make up to 20% of the total area. Furthermore, 43.2% of the agricultural holdings are fully dependent on the leasing of land. In 74.7% of the sample, all the privatelyowned part of the holdings belongs exclusively to the same family. In addition, we observe that in 73.3% of the holdings, the total area is smaller than 50 stremmata and only larger than 250 stremmata in 2.3%. In 53.5%, irrigation is possible due to an organized collective irrigation network, while for 22.6%, irrigation is linked to a natural source (riverbed, dam and tank). The structure of the holdings as regards fixed installations and mechanological equipment is provided in Table 1.

As we can see in Table 1, the investments made by the agricultural holdings in the sample in mechanological equipment and fixed installations are limited. No investment in mechanological equipment has been made by 45.6% of the sample, 34.9% have made investments of up to 30,000 euros and only 0.6% over 200,000 euros. Investments for fixed installations have not been made by 42.5%, while 43.8% have made fixed capital investments of up to 30,000 euros and only 0.9% of over 200,000 euros.

If we examine the type of production at the holdings, we observe that 66.5% are exclusively involved in plant production, 1.9% exclusively involved in animal production, 30.8% have a mixed production, while 0.8% are active in the agrotourism and agro-industry sector.

The production plans of 63.5% of the agricultural holdings also include tobacco production, with an average area of 15 stremmata, which yields 186.92 euros

Table 1: Distribution of permanent capital

	Zero equipment (%)	Up to 30000€ (%)	Up to 50000€ (%)	Up to 100000€ (%)	Up to 200000€ (%)	Over 200000€ (%)
Mechanological equipment	45.6	34.9	11.3	5.8	1.8	0.6
Fixed installations	42.5	45.8	7.4	2.6	0.8	0.9

Table 2: Profile of the crops in the sample

			Lowest	Highest	A (in the		Standard
Crops		Holdings	value	value	total area)	Mean	Deviation
Wheat	Area in str.	116	3	200	3,419.00	29.470	29.050
	Production(in kgs/stremma)		20	1,500	32,160.00	287.140	167.730
	(income/stremma)		0.1	1,200	15,134.77	137.580	152.870
Maize	Area in str.	199	2	200	4449.00	22.350	27.710
	Production (in kgs/stremma)		12	5,000	176,452.00	928.690	402.830
	(income/stremma)		0	300	23,832.08	133.140	53.950
Cotton	Area in str.	20	4	160	916.00	45.800	41.670
	Production (in kgs/stremma)		9	400	4,939.00	259.940	93.060
	(income/stremma)		10	300	1,635.00	102.180	83.350
Tobacco	Area in str.	362	1	500	5,494.50	15.170	27.790
	Production (in kgs/stremma)		100	3,600	13,0590.00	377.420	195.600
	(income/stremma)		0.12	1,000	59,629.69	186.920	169.260
Medic	Area in str.	242	1.5	280	6,168.00	25.480	37.420
	Production (in kgs/stremma)		35	2,200	216,525.00	921.380	634.950
	(income/stremma)		0.12	600	37,091.96	163.400	84.820
Olive crops	Area in str.	320	1	3,200	9,749.00	30.460	184.330
	Production (in kgs/stremma)		0	9,000	143.245	513.420	626.620
	(income/stremma)		0	2,000	92,457.20	372.810	322.440
Arboriculture	Area in str.	19	4	50	296.00	15.570	13.150
	Production (in kgs/stremma)		50	2,500	17,900.00	1118.750	739.110
	(income/stremma)		0.15	1,500	3,821.10	254.740	430.790
Field vegetables	Area in str.	25	1	100	508.50	20.340	24.340
	Production (in kgs/stremma)		100	6,000	34,000.00	2000.000	1640.880
	(income/stremma)		0.07	4,000	12,165.07	868.930	1020.650
Greenhouse vegetables	Area in str.	13	1	15	65.50	5.038462	3.770
	Production (in kgs/stremma)		300	10,000	43,800.00	4,866.667	3643.140
	(income/stremma)		500	5,000	20,300.00	2,255.556	1785.430
Aromatic plants	Area in str.	35	2	200	932	26.62857	38.077
	Production (in kgs/stremma)		100	1,000	10,410	547.8947	232.200
	(income/stremma)		2.5	1,600	17,685	884.25	721.920

per stremma (Table 2). There are also several agricultural holdings in the sample (56%) that are involved in olive crops, cultivating olives on 30.5 stremmata on average and receiving an income of 372.81 euros per stremma. Medic is cultivated by 42.4% of the agricultural holdings on an area of 25.5 stremmata with a yield of 133.14 euros per stremma. Maize is cultivated by 35% of the holdings in the sample on 22.4 stremmata on average and yields an income estimated at 133.14 euros per stremma. Wheat is selected by 20.3% of the holdings that cultivate it on an area of 29.5 stremmata on average and receive an income of 137.58 euros per stremma. Cotton is cultivated by 3.3%

of the holdings in the sample on an average area of 45.8 stremmata and the yield per stremma is about 102.18 euros, while 3.3% of the holdings include arboriculture in their production plans. Trees cover on average 15.6 stremmata and yield an income of 254.74 euros per stremma. Finally, the response of farmers in the prefecture to the messages coming from the marketplace and the principles of the CAP, is obvious in their shift towards dynamic crops. Of the agricultural holdings in the sample, 4.4% are involved in the cultivation of field vegetables on an average plot of 20.3 stremmata, receiving an income of 868.93 euros per stremma. Another 2.3% of agricultural

Table 3: Views of farmers on the results of the new CAP

	I fully		I neither agree		I fully			Standard
	agree (5)	I agree (4)	nor disagree (3)	I disagree (2)	disagree (1)	Mean	Median	Deviation
A large number of farmers will abandon farming	26.2%	33.8	22.6	16.2	1.3	3.68	4	1.07
Farmers will become involved in more productive crops	31	47	17.5	3.6	0.9	4.03	4	0.84
Most farmers will receive the subsidies until 2013,								
while also pursuing another profession	29	46.8	20.6	2.9	0.7	4.01	4	0.82
More people will be moving to urban centres	24.2	33.1	25.7	15	2	3.63	4	1.06
Farmers will also become involved in animal breeding	20.1	47.3	24.2	6.5	1.8	3.77	4	0.90
There will a shift towards business-oriented agriculture	21.1	42.2	26.5	5.7	4.4	3.70	4	1

Table 4: The farmers' views regarding Rural Development

	I fully		I neither agree		I fully			Standard
	agree (5)	I agree (4)	nor disagree (3)	I disagree (2)	disagree (1)	Mean	Median	Deviation
Expansion into complementary activities								
(agrotourism-agro-industry)	14.1	28.1	33.1	18.7	6	3.26	3	1.09
Will continue working in agriculture	24.7	45.8	22.3	5.2	2	3.86	4	0.91
Testing of new crops and new methods	29.8	51	13.9	4	1.3	4.04	4	0.84
Shift towards high-quality products	40	50.3	8.1	1.1	0.5	4.28	4	0.70
Professional collaboration with other producers	30.5	45.1	17.7	5.4	1.3	3.98	4	0.90
Shift towards rural management issues	41.5	46.7	9.1	2	0.7	4.26	4	0.76
Collaboration with agronomist-consultant	32.5	51.2	11.8	3.3	1.3	4.10	4	0.82

Sources of information - training

holdings invest in greenhouse vegetables on an average area of 5 stremmata and make an income amounting to 2,255 euros per stremma, while 3.3% of agricultural holdings introduce the cultivation of aromatic plants into the production plan of their agricultural holding, using on average 26.6 stremmata for the cultivation of aromatic plants, which yields 884.25 euros per stremma.

As regards the applied cultivating methods, 18.8% are involved in organic farming, 21.7% in integrated management, 4.6% in ecological treatment of diseases and 11.6% in total quality. It is worth noting that, based on the producers' statements, the produced agricultural goods are supplied to: open-air markets 5%, retail stores 2.3%, wholesale 56.7%, processing industries 8.7%, cooperatives 32.4% and other 30.7%. It is also important to note that 58% of producers mention that they are facing problems with the sale of their products and 64.8% state that they have never been included in a subsidy programme. Of those who are included in subsidy programmes, 17.1% submitted improvement plans, 64.6% were included as young farmers, 2.9% took part in a programme for the transfer of an animal breeding unit, 22.3% in an organic farming or animal breeding programme and 5.1% did so for a different purpose.

Attitudes and Views on the New CAP: According to the answers given by farmers, there is an interest in becoming involved in new crops. More specifically, 50.7% express the desire to work on a new crop, 21.8% state that they are unable to do so, while an important number (27.5%) have

no opinion on the matter. Based on the statements of farmers who are considering becoming involved in new crops, it is observed that 58.5% are mainly interested in energy plants, 47.8% on aromatic-medicinal plants, 9.7% on fruit trees, 13.1% on vegetables and 5.5% on others. If we examine the criteria by which farmers select a new crop, we see that 60.1% of their statements are related to ensuring the sale of the produced goods, 58.7% to the subsidy provided, 5% have had some encouragement, 5.9% see a change in market demand, 11.2% are introducing the new crop on a trial basis and 3.9% for a different reason. The farmers in the sample show a relatively high participation in programmes or innovations (41.2%), while another significant number would take part if and when the new crop has been tried and tested by other producers or is being used by the majority. Finally, 15.1% state that they would only get involved in a programme or innovation if they were obliged to do so.

In an analysis of the views on the results of the new CAP (Table 3), the farmers fully agree with the need to turn towards more profitable crops and with the view that a large number of farmers will continue to be subsidized until 2013, while at the same time pursuing another profession. In addition, the interviewed farmers basically agree with the view that a significant percentage of farmers will be obliged to give up farming, others will also become involved in animal breeding, there will be a major shift towards business-oriented agriculture and mobility towards urban centres among the rural population.

Table 5: Sources of information for farmers

	OGEEKA Dimitra	Training by private bodies	Training by public bodies	Consulting firms
Organization of agricultural holdings	11.6%	10.7%	14.8%	15.7%
Crop restructuring – subsidies	13.3%	11.3%	21.2%	19.2%
Automation of agriculture	4.6%	11.3%	11.3%	11.7%
Quality systems Organic farming				
Integrated agriculture	28.1%	23.8%	29.9%	28.3%
New techniques	29.3%	21.4%	24.9%	25.1%

If we examine the views of farmers regarding agricultural development issues (Table 4), we can observe that they more or less agree with the need to expand into new crops and techniques/methods, they also consider the shift towards high-quality products and agricultural management issues to be essential, along with professional cooperation with other producers and with agronomists-consultants. The farmers seem to have a neutral view on the necessity to expand into other complementary activities (Agrotourism – agro-industry).

In the unit on sources of information and training, we examine the type and level of education and training received by the farmers. More specifically, as regards organizational issues for agricultural holdings and the trading of agricultural products, the farmers were informed and trained through OGEEKA Dimitra (11.6%), private seminars and workshops (10.7%), public seminars and workshops (14.8%) and through consulting firm services (15.7%) (Table 5). On issues of crop restructuring, procedural issues linked to the new CAP and subsidiesinvestment programmes, they were informed and specially trained by OGEEKA Dimitra (13.3%), private seminars and workshops (11.3%), public seminars and workshops (21.2%) %) and through consulting firm services (19.2%). On automation issues for agriculture and other innovations, they received specialized information and training from OGEEKA Dimitra (4.6%), private seminars and workshops (11.3%), public seminars and workshops (11.3%) and through consulting firm services (11.7%). On quality systems for agriculture and techniques for organic-integrated agriculture, they were informed and trained at OGEEKA Dimitra (28.1%), through private seminars and workshops (23.8%), through public seminars and workshops (29.9%) and through consulting firm services (28.3%). Finally, regarding new cultivating techniques, the farmers were specially informed and trained by OGEEKA Dimitra (29.3%), through private seminars and workshops (21.4%), public seminars and workshops (24.9%) and consulting firm services (25.1%).

New techniques 29.3, 21.4, 24.9 and 25.1% In relation to the activities and support provided by rural policy

bodies, it was found that for this purpose, according to the producers' statements, 85.8% approach Agricultural Cooperative Unions, 48% go to Municipalities-Municipal Enterprises, 45.7% to OGA (the Farmers' Insurance Organization), 41.5% to KEP (Citizen Support Centres), 19.5% to Prefectural Authorities, 33.2% to the Ministry's 37.4% to shops selling agricultural Departments, supplies, 33% to Regional Offices, 27.5% to agricultural consultants' offices, 9.9% to Educational Institutes, 1.6% to Credit Institutions and 3% to Developmental Agencies. Based on the farmers' statements, their interests include: financial support programmes (55.2%), the directives of the new CAP (29.7%), young farmer programmes (8.5%), the development of quality systems (8.8%), licensingtechnical studies (23.8%), feasibility studies (18.4%), integrated services (6.3%) and other business (21.4%). If we prioritize the technical information they require in hierarchical order, then the farmers mentioned, in order of significance, that they need information on: investment programmes (AVG=2.19, SD=1.35), new crops (AVG=3.14, SD=1.492), new cultivating techniques (AVG=3.29, SD=1.375), the trade and prices of products (AVG=3.62, SD=1.462), accreditation (AVG=4.01, SD=1.864) and finally, on new machinery (AVG=4.71, SD=1.534).

In an effort the determine how satisfied farmers feel with the bodies in charge of Rural Policy, we can conclude that the farmers are more satisfied with the services provided by Educational-Research Institutes, the KEP, Developmental Agencies and Regional Offices, while in the last places we find Cooperatives and Agricultural Cooperative Unions (Table 6).

**Correlation Tests:** A series of significance tests based on the  $x^2$ -test and the correlation coefficient of Spearman's classes as appropriate showed that the demographic characteristics (gender, age, educational level and income) of the farmers in the sample do not have a statistically significant correlation with their degree of satisfaction with the provided information and operation of the various Rural Policy bodies. In all tests, the observed significance level was p>0,05. However, a series of

Table 6: Satisfaction of farmers with the CAP bodies

	Municipality	Citizen Support	Prefectural			Ministry of		Educational			Stores selling	Agricultural
	-Municipal	Centres (KEP)	developmental	Prefectural		Rural	Regional	-Research	Cooperatives	A.T.E	agricultural	Consultants'
	Enterprises		agencies	Authorities	OGA	Development	Offices	Institutes	-Unions	(A.B.G.)	supplies	Offices
AVG	2.52	2.54	2.27	2.67	2.70	2.61	2.18	1.86	3.33	2.8	3.01	2.58
Median	3	2	2	3	3	3	2	1	4	3	3	3
StandardDeviation	1.27	1.39	1.25	1.42	1.40	1.36	1.26	1.22	1.27	1.38	1.32	1.52

Table 7: Satisfaction of farmers with Rural Policy Bodies in relation to their agricultural income

	Spearman	Monte
Rural Policy Bodies	Correlation (rho)	Carlo p
Municipalities-Municipal Enterprises	-0.108	0.010
Citizen Support Centres (KEP)	-0.192	0.000
Farmers' Insurance Organization (ÏGA)	-0.137	0.005
Ministry of Rural Development Services	-0.137	0.005
Educational-Research Institutes	-0.220	0.000
Private Developmental Agencies	-0.111	0.019
Private Agricultural Consulting Firms	-0.108	0.023

significance tests based on the correlation coefficient of Spearman's classes has shown that the farmers' income is statistically significantly and negatively correlated with their satisfaction from the information provided by rural policy bodies (Table 7).

The values of the correlation coefficient *rho* indicate that the intensity of the correlations is weak to medium. The negative sign shows that for an important number of farmers, their high income is related to a low level of satisfaction from the information provided by the specific Rural Policy bodies.

#### **CONCLUSIONS**

Within the framework of the competition and challenges facing Greek agriculture, it is considered necessary to examine the factors that determine its growth. One of the basic developmental factors for agriculture is human resources. This paper presents the results of an empirical research conducted in the Prefecture of Etoloakarnania, on a sample of 570 heads of agricultural holdings, through the use of questionnaires, in order to examine the expectations of farmers from the measures of the new CAP, their satisfaction with the information services provided, as well as the effect of their demographic and social characteristics on formulating their attitudes and views regarding the above-mentioned issues.

According to the results of the study, a positive attitude is observed by farmers, regarding their decision to remain in the agricultural profession, due to the

significant percentage of young farmers in the sample (40.3%). A major role in this decision was also played by the participation of a great number of farmers (64.6%) in the financing programme for young farmers.

The agricultural holdings in the sample are mainly located in dynamic regions, are small in size (up to 50 stremmata) and depend on the leasing of land from others. They present a low investment rate, particularly regarding mechanical equipment and fixed installations. The agricultural income of a large percentage of farmers depends on the provision of subsidies. The focus of the agricultural holdings is mainly on plant production and the primary crops are tobacco, olive, medic, maize and wheat.

Nevertheless, influenced by the messages from the market and the CAP principles, the farmers seem willing to turn towards new dynamic crops, such as energy plants, aromatic plants and greenhouse crops, that they will produce with the use of environmentally-friendly methods. However, they insist that one of the most serious problems is the sale of the goods they produce, which is why one of the criteria for introducing new crops into the production plans of their agricultural holding, is the selling potential of the product and any related subsidies that may be provided.

In order to develop business-oriented activities, farmers are interested in receiving information about financial support programmes, the directives and principles of the new CAP and the development of quality systems. They choose specialized information sources, depending on the thematic unit, in order to acquire this knowledge. Thus, for issues related to subsidies, crop restructuring and quality systems, they turn towards public information bodies. They address consulting firms, as regards the organization of agricultural holdings and approach OGEEKA "Dimitra" for information on new production techniques.

If we examine the farmers' degree of satisfaction with Rural Policy bodies, we can conclude that farmers are more satisfied with the services provided by Educational-Research Institutes, followed by Citizen Support Centres, developmental agencies and Regional Offices. It is worth noting that we find Cooperatives and Agricultural Cooperative Unions in the last positions, which is evidence of the crisis affecting the agricultural cooperative movement.

A study of the effect of demographic characteristics (gender, age, educational level and income) on the level of farmers' satisfaction with the provided information and operation of Rural Policy bodies, indicated that only their income is correlated in a statistically significant and negative way. More specifically, we observe that farmers with a high agricultural income are not satisfied with the services of Rural Policy bodies. This fact reveals the weakness of the latter to effectively support the new increased demands of business-oriented agriculture, according to the principles of the new CAP.

#### REFERENCES

- 1. N.S.S.G., 2006. Agricultural Statistics of Greece, 2006.
- Rezitis, A., K. Tsiboukas and S. Tsoukalas, 2002. Measuring technical efficiency in the Greek agricultural sector. Appl. Econom., 34(11): 1345-1357.
- Zioganas, C., 1998. The organization of Primary Agricultural Production in Greece: Evolution and New Challenges for Re-Orientation. Dordrecht, Holland: Kluwer Academic Publishers.
- Zioganas, C., 2003. Agricultural Development Economics. Zitis Publications, Thessaloniki (in Greek).
- Gidarakakou, I. and L. Kazakopoulos, 2002. Incentives for young farmers. The case of young women farmers in the region of Thessaly. Proceedings of 7th Pan-Hellenic Conference on Agricultural Economy. Published by the Ministry of Rural Development and Food, Athens, pp: 573-587 (in Greek).
- 6. N.S.S.G., 2003. Agricultural Statistics of Greece, 2000-2003.
- Sarris, A. and S. Zografakis, 1996. Agricultural income statistics and policy: A view from Southern Europe, Luxembourg: European Commission, Eurostat, pp:160-170.

- 8. European Parliament, DG for Research, 2000. The Future of Young Farmers in the European Union. Working Paper AGRI 134 EN, Luxembourg.
- 9. Mehta, C. and R. Patel, 1996. SPSS Exact test 7.0 for Windows, SPSS Inc. Chicago.
- Fennell, R., 1999. The Common Agricultural Policy: Continuity and Change. Athens: Themelio Publications (in Greek).
- 11. Villa, M., 1999. Born to be farmers? Changing expectations in Norwegian farmers' life courses. Sociologia Ruralis, 39(3): 330-342.
- 12. Alexopoulos, G., A. Koutsouris and E. Tzouramani, 2006. Consultancy services in the agricultural sector: Results of on-site research regarding the attitudes and needs of young people in rural areas. Proceedings of the 9<sup>th</sup> Pan-Hellenic ETAGRO Conference, Athens.
- 13. Boggia, A., 1998. The changing information needs of farmers in Europe. Paper in the Sixth Joint Conference on Food, Agriculture and the Environment, Center for International Food and Agricultural Policy, University of Minnesota, Minneapolis, Minnesota, USA.
- O.E.C.D., 2007. Agricultural Policies in OECD Countries: Monitoring and Evaluation 2007, Technical report.
- 15. Mamatzakis, E.C., 2003. Public infrastructure and productivity growth in Greek agriculture. Agricultural Economics, 29(2): 169-180.
- Kinsella, J., S. Wilson, F. De Jong and H. Renting, 2000. Pluriactivity as a livelihood strategy in Irish farm households and its role in rural development. Sociologia Ruralis, 4(40): 481-496.
- 17. Prefectural Authorities of Etoloakarnania, 2008. D/ate of Agricultural Development, Registry.
- 18. N.S.S.G., 2007. Agricultural Statistics of Greece, 2007.
- 19. Dafermos, V., 2005. Social Statistics with the SPSS. Thessaloniki. Zitis Publications (in Greek).