

## **The influence of agritourism on the human and social environment: The cases of Trikala and Ikaria in Greece**

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### **Abstract**

The aim of the present study was to examine the role of agritourism as a part of livelihood rural system in two areas of Trikala and Ikaria. Trikala is a mountainous area of central Greece and Ikaria is a mountainous island in Aegean Sea in Greece. The economy of both areas is characterised by the lack of an industrial sector and their dependence on crop and livestock farming as well as tourism. Agricultural production is the most important economical activity, where more than 24% of the active population is occupied. On the other hand, agritourism started to grow significantly during the 90s providing another source for income for the local population

Sample data on demographic characteristics, education, employment status, and income of farmers were collected. In addition, the study explores the wiliness of the farmers to participate in agritourism programs financed by E.U. and the success of these programs.

It was found that the younger and more educated farmers are involved with agritourism. Also, it was found that agritourism increases farmers' income. On the basis of these results it is proposed that agritourism can contribute to family income and provide a better life for the young generation in order to settle in rural areas and therefore moderate the danger of desertion of disadvantaged mountainous or island areas.

**Keywords:** Agritourism, Livelihood, Rural, Development

### **Introduction**

The agricultural sector of Greece is an important economical activity occupying 12% of the active population (National Statistical Service of Greece, 2003). On the other hand, people employed in the agricultural sector in Greece have to face difficult conditions since the land is mainly very mountainous. In most of those rural areas, where the welfare and food security cannot just be assessed in terms of local crop and livestock production systems, the existence of non-farm income sources and assets is of a great importance for a successful local development. In this case, policies diversifying income sources can help to reduce the risks associated with bad weather and unfriendly ecological conditions. This process is an important livelihood strategy by which families in rural areas are involved into different farm and non-farm activities in order to survive and to improve their standards of living. Therefore, rural livelihood systems particularly in Greek mountainous or island disadvantaged areas are often complex and flexible and most of them are continuously in search of new opportunities for economic development. Agritourism, as a part of livelihood system within the rural sector, can be an appropriate 'tool' for integrated local development in socioeconomically mountainous or island disadvantaged areas (Corbett, 1996; Goodball & Ashworth, 1985).

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In addition, agritourism provides the flexibility to engage in parallel activities, in cases where the possibilities for occupation in farms are limited, thus in this manner, agritourism can contribute to the preservation of small farms and prevent them from being supplanted. Agritourism started to grow significantly during the 90s owing to the increased demand for soft tourism by the visitors who at that time preferred a quite inexpensive vacation close to the nature in comparison to the previous decades. In addition, it contributes to the preservation of an acceptable population level in rural areas, since it offers the possibility to earn a family income comparable to that of urban incomes. Moreover, it can play a significant role in the preservation of the ecological and social balance of disadvantaged and under-populated areas, thus moderating the danger of desertion. In particular, the last decades have seen the growth of intense local and state interest in the development of agritourism, in an attempt to function as a supplementary economic activity and not as a rival to agricultural occupations. Indeed, a small percentage of farmers in mountainous areas is turning to agritourism, which they use as a secondary seasonal occupation, in order to supplement their income from agricultural activities (Theodoropoulou et al, 2003; Apostolopoulos et al, 2001; Ellis, 1998; Alexopoulos, 1997; Apostolopoulos & Giagou 1996; Corbett, 1996; Kloeze 1995; Giagou, 1994; Chiotis & Coccossis, 1992; Damianos, 1991; Logothetis 1988).

More specifically, the present study examined on one hand the region of Trikala in central Greece, which is mainly a rural area where the income of the local population is generated only from agricultural activities. Eighty percent of the region of Trikala is a mountainous landscape, where there is ecotourism and agritourism because the surrounding area is physically attractive with a lot of historical monuments such as old churches and buildings. The population in this area is 134.000 people. The active population is 52,379 people (39%), of which 14.869 are occupied in the agricultural sector (28%), and the unemployment rate is 4,17% when the country's unemployment rate is 10%. Agricultural activities such as farming and agritourism are the main source of income for the people in the rural region of Trikala, Greece. Agritourism and ecotourism activities started in the region of Trikala mainly to contribute to the family income, otherwise most of the people had to abandon the area because of the lack of employment. On the other hand, in the island of Ikaria in Greece, the employment in the goat livestock and agritourism sectors are considered the most important activities for its rural development. Ikaria is a mountainous island in Aegean Sea, where there is ecotourism and agritourism because the climate is mild and the nature very attractive. The active population in the island is 2.478 people, which are the 32,8% of the local total population. In the agricultural sector is occupied 24,3% of the active population, and the unemployment rate is 6,3%. Agritourism and ecotourism activities started in both areas mainly to contribute to the family income, otherwise most of the people had to abandon their places because of the lack of employment.

Previous studies have examined the influence of agritourism on the differentiation of the rural system in disadvantaged areas in Greece. Results from those studies showed that agriculture and tourism are two sectors that influence each other by means of agritourism. Agritourism provides the flexibility to engage in parallel activities, in the cases where the possibilities for occupation in farms are limited, thus in this manner, agritourism can contribute to the preservation of smaller farms and prevent them from being supplanted. In addition, it contributes to the preservation of an acceptable population level in rural areas, since it offers the possibility to earn a family income comparable to that of urban incomes. Moreover, it can play a significant role in the preservation of the ecological and social balance of disadvantaged and under-populated areas, thus moderating the danger of desertion (Alexopoulos, 1997; Konsolas & Zacharatos, 1992; Keane & Quinn, 1990).

This influence of agritourism, largely positive, is strengthened to a much greater extent through the operation of activities parallel to agritourism, such as rural home crafts and small industry, as well as traditional folk art. These extra activities offer to rural households more capabilities to improve their livelihood security and to raise their living standards (Apostolopoulos & Giagou, 1996). Income from agriculture in disadvantaged areas is continually shrinking and for this reason agritourism, as an additional economic activity, contributes positively to the income of the farmers in these areas. The supplementary income from agritourism helps families in the mountainous areas and the islands to remain in their communities and preserve the traditional way of life of their region (Papakonstantinidis, 1993).

In light of the above, another study showed that, agritourism must include all services for accommodation, facilitation, service and entertainment of visitors, as well as services pertaining to the preservation and protection of the environment and the cultural wealth of the country. Creation and organisation of all these services calls for the co-operation of the residents of the community, the local services and the state, in order to successfully achieve offering high quality services and products at affordable prices, linked directly with Greek tradition (Apostolopoulos & Giagou 1996).

Also, in a previous study it was shown how agritourism and its parallel activities could contribute to the development of rural systems and therefore moderate the danger of desertion of disadvantaged mountainous areas (Theodoropoulou et al 2003; Theodoropoulou and Apostolopoulos, 2000). The objective of the present study was to present the profile of the farmers and their involvement in agritourism in the mountainous region of Trikala, located in central Greece and the island of Ikaria, located in Aegean Sea in Greece. In addition, the study explores the willingness of the farmers to participate in agritouristic programs financed by E.U. and the success of these programs. Also, another issue was whether the two activities can remain complementary. For that to be accomplished, income from tourism must not suffice, therefore, the farmer will have to continue his rural employment and visa - versus. If agritourism requires more and more contributors, then it could be possible to develop at the expense of agriculture, and runs the risk of converting agriculture to a part - time occupation or even wiping it out completely. Finally, There was a question if the wife and the children undertake the largest portion of the agritourism enterprise, while the husband's primary occupation remains rural activity. In this case, it could be possible for the youth to consider that the agritourism enterprise is that which will ensure the future, since that is the activity they know, and they may abandon rural exploitation.

## Materials and Methods

The statistical frame of the study was based on 124 farmers living in the mountainous region of Trikala. Thirty-five of those farmers were not involved with agritourism. Sixty-two of the farmers were involved with agritourism related Bed and Breakfast small hotels (B&B). And 27 were involved with other agritourism related enterprises such as taverns (traditional restaurants, where they serve local traditional food), bakeries (traditional bakeries, where they sell local made bread, sweets, pastries and pies) and folklore art (local hand made clothes and accessories). The size of the sample used in the study covered 50% of agritourism B&B and other enterprises and 7% of the total population of registered farmers in the mountainous region of Trikala.

Also, a random sampling of 24 agritourism enterprises and 76 goat livestock' farmers in the island of Ikaria was used. The size of the sample used in the study covered 38% of agritourism enterprises and 11% of the total population of registered goat farmers in Ikaria.

Data on the demographic characteristics, education, employment status, and income of the farmers were collected through a questionnaire survey. Investigators on location completed the questionnaires. The data collected were analysed by using descriptive statistics for calculating the means and standard deviations of continuous variables and the frequencies and percentages of discrete variables.

## Results

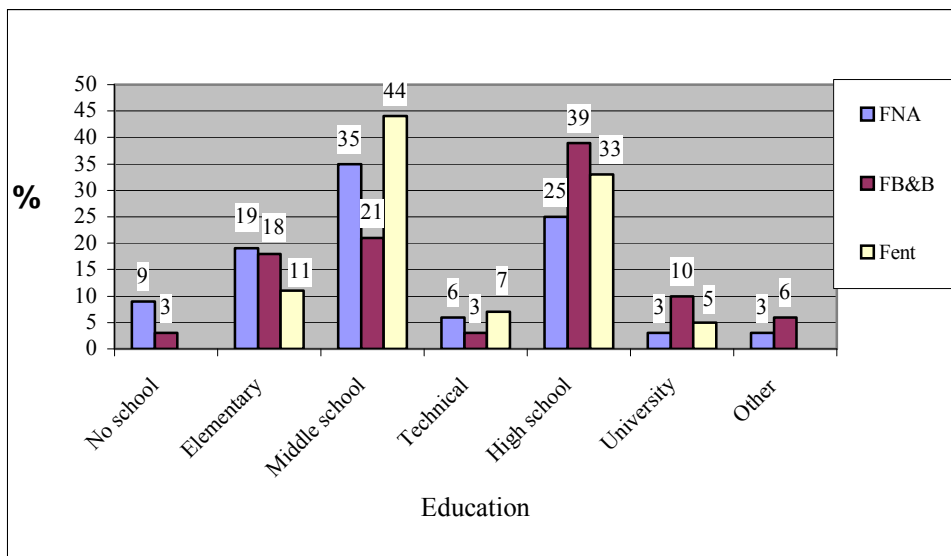
### *A. Results for the mountainous region of Trikala in Greece:*

According to the data analysis the majority of the 35 farmers who are not involved with agritourism (FNA) (74%) were men. Most of the individuals were married (69%) and the average number of children per responder was two. The educational level of the FNA farmers was mostly middle school (35%), while for 25% was high school (Diagram 1, 1<sup>st</sup> column). The age of responders ranged from 30 to 44 (31%) and 45 to 64 (26%) years old (Diagram 2, 1<sup>st</sup> column). Thirty four percent of the FNA farmers had monthly family income between €501 and €1000 (Diagram 3, 1<sup>st</sup> column).

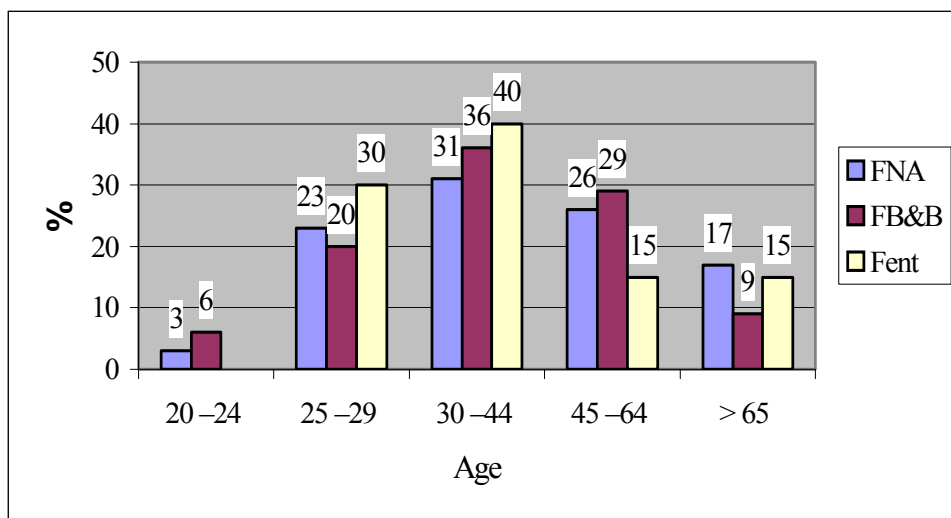
Furthermore, 86 percent of the 35 FNA farmers would like to attend vocational courses about agritourism and soft tourism and to participate in agritourism programs financed by E.U. Seventy six percent of the FNA farmers receive subsidies for farming up to € 5800 per year (€483 per month) and they replied that subsidies are important to boost their family income.

According to the data analysis for the 62 farmers involved with agritourism related B&B small hotels (FB&B) was found out that most of them (66%) were men. Also, most of the FB&B farmers were married (81%). The educational level of the FB&B farmers was mostly high school (39%)(Diagram 1, 2<sup>nd</sup> column). Most of the FB&B farmers (36%) were 30-44 years old (Diagram 2, 2<sup>nd</sup> column). Thirty six percent of the responders had monthly family income between €1001 and €1300 (Diagram 3, 2<sup>nd</sup> column).

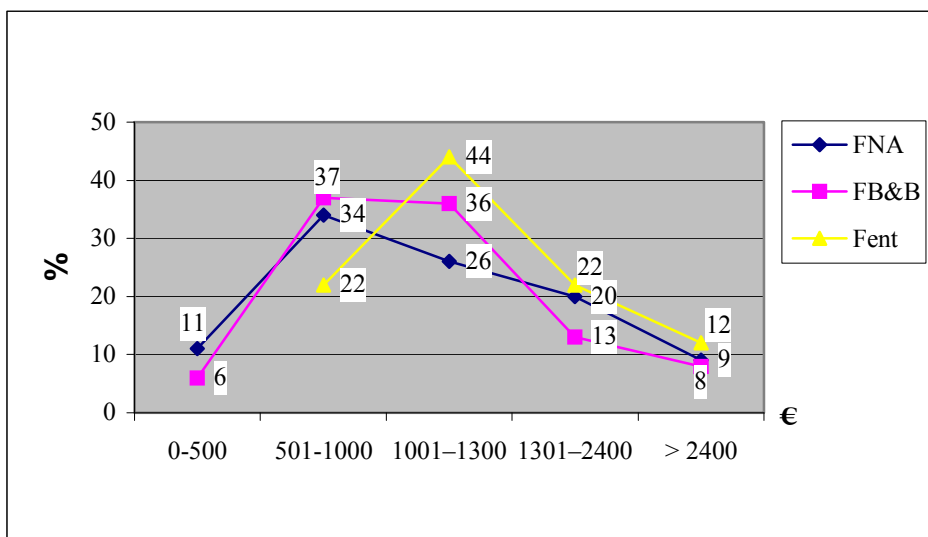
According to the data analysis for the 27 farmers involved with other agritourism-related enterprises (Fent), such as taverns, bakeries, and folklore art was found out that half of them were women and most of them were married (83%). Their educational level was mostly middle school (44%) and high school (33%) (Diagram 1, 3<sup>rd</sup> column). The age of the Fent farmers was from 30 to 44 (40%) (Diagram 2, 3<sup>rd</sup> column), and their monthly income was between €1001 and €1300 (44%) (Diagram 3, 3<sup>rd</sup> column). Also, Table 1 shows the educational, age and income percentages for all the farmers.



**Diagram 1: Percent of Educational level. Where FNA: farmers, who were not involved with agritourism. FB&B: farmers who were involved with agritourism related Bed and breakfast small hotels and Fent: farmers who were involved with agritourism enterprises except B&Bs such as taverns, bakeries and folklore art**



**Diagram 2: Percent of farmers' age. Where FNA: farmers, who were not involved with agritourism. FB&B: farmers who were involved with agritourism related Bed and breakfast small hotels and Fent: farmers who were involved with agritourism enterprises except B&Bs such as taverns, bakeries and folklore art.**



**Diagram 3: Percent of farmers' income.** Where FNA: farmers, who were not involved with agritourism. FB&B: farmers who were involved with agritourism related Bed and breakfast small hotels and Fent: farmers who were involved with agritourism enterprises except B&Bs such as taverns, bakeries and folklore art.

In addition, on average the agritourism enterprises had gross earnings up to €130000 and their expenses were up to €73000 per year. Most of those B&B (53%) have employed on average 13 employees of which 3 as administrative personnel. All of the employees are living in the specific area, fifty two percent were women, and they were 30 to 44 years old (35%). The educational level of the employees was mostly elementary school (24%) or high school (21%) and their average monthly income was €1100.

Furthermore, the agritourism enterprises in the region of Trikala were family operated and were funded by the E.U. LEADER II program.

Fifty five percent of those farmers, who are involved with agritourism and receive subsidies, will continue to be involved with agritourism activities even without subsidies. In addition, 62% of those farmers who are involved with agritourism would like to cease farming and confine their activities only with agritourism activities.

**Table 1. Demographic characteristics of farmers not involved (n=35) and involved (n=62) with agritourism lodge facilities (B&B small hotels) and (n=27) with enterprises such as taverns, bakeries, and folklore art, except B&B hotels**

Characteristic	Farmers not involved with agritourism (n=35)		Farmers involved with agritourism lodge facilities (B&B) (n=62)		Farmers involved with agritourism ent/ses (except B&B) (n=27)	
	No.	(%)	No.	(%)	No.	(%)
<i>Education</i>						
No school	3	(9)	2	(3)	-	-
Elementary school	7	(19)	11	(18)	3	(11)
Middle school	12	(35)	13	(21)	12	(44)
Technical school	2	(6)	2	(3)	2	(7)
High school	9	(25)	24	(39)	9	(33)
University	1	(3)	6	(10)	1	(5)
Other	1	(3)	4	(6)	-	-
Total	35	(100)	62	(100)	27	(100)
<i>Age (years)</i>						
20–24	1	(3)	4	(6)	-	-
25–29	8	(23)	12	(20)	8	(30)
30–44	11	(31)	22	(36)	11	(40)
45–64	9	(26)	18	(29)	4	(15)
> 65	6	(17)	6	(9)	4	(15)
Total	35	(100)	62	(100)	27	(100)
<i>Monthly income (€)</i>						
0-500	4	(11)	4	(6)	-	-
501-1000	12	(34)	23	(37)	6	(22)
1001 – 1300	9	(26)	22	(36)	12	(44)
1301 – 2400	7	(20)	8	(13)	6	(22)
> 2400	3	(9)	5	(8)	3	(12)
Total	35	(100)	62	(100)	27	(100)

*B. Results for the island of Ikaria in Greece:*

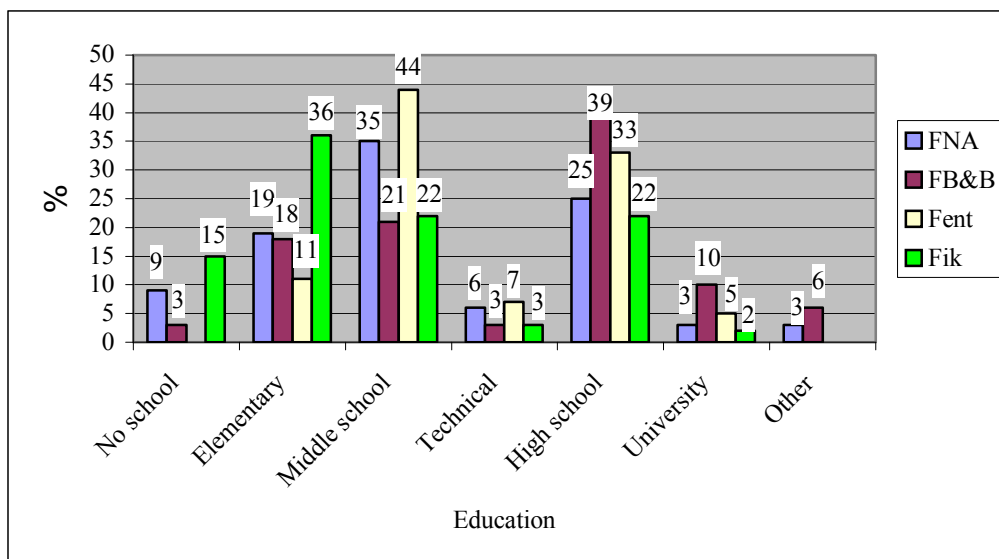
According to the data analysis the majority of the farmers involved with agritourism and goat farming were men (66%). Most of the owners of agritourism establishments (39%) were 45-64 years old. Also, most of the farmers were married (81%) and only 7%. The educational level of the farmers was mostly elementary or no school (51%). Thirty five percent of the responders had monthly family income between €733 and €978 (Table 2). Ninety seven percent replied that their income from agritourism or goat farming is not enough to cover their family needs. Ninety five percent of the farmers are subsidised. Diagrams 4,5 and 6 show the farmers educational, age and income level in Ikaria (Fik) in comparison with the FNA, FB&B and Fent farmers in Trikala.

The parents of 81% of the farmers in Ikaria were farmers also. Only 41% of these farmers were satisfied with their occupation. Seventy four percent of the farmers would not like their kids to follow the same occupation. Farmers had on average 2.4 children, but only 0.2 children were involved with their parents' enterprise and only 0.2 children plan to get involved with their parents' enterprise when they grow up. Seventy percent of the farmers replied that better infrastructure and health services would improve their life conditions in the island. Fifty four percent of the farmers would like to attend vocational courses about agritourism and soft tourism. Fifty five percent of the farmers have employed one worker to help them with their jobs.

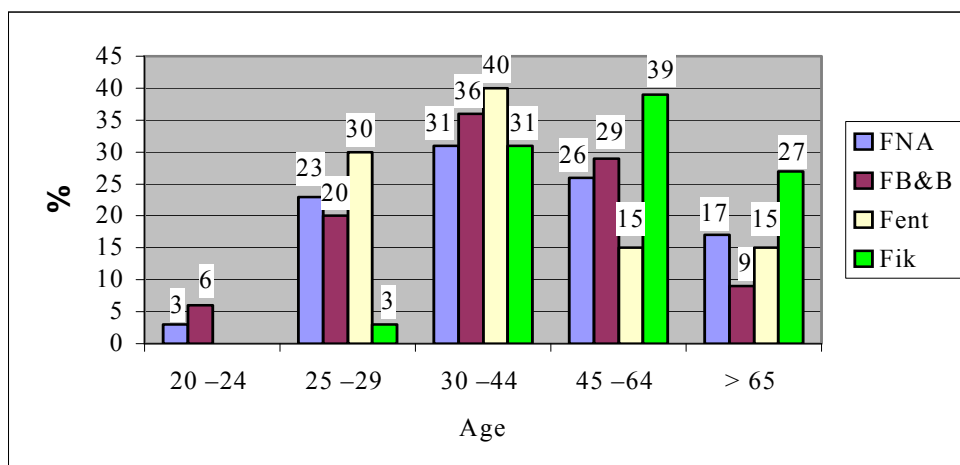
**Table 2. Characteristics of the farmers in Ikaria involved with goat livestock and agritourism (n=100)**

Characteristic		(%)
<i>Age</i>	25-29	(3)
	30-44	(31)
	45-64	(39)
	> 65	(27)
	Total	(100)
<i>Education</i>	No school	(15)
	Elementary school	(36)
	Middle School	(22)
	High School	(22)
	Technical school	(3)
	University	(2)
Total	(100)	
<i>Monthly income (€)</i>	0-488	(21)
	489- 732	(33)
	733-978	(35)
	979-1,467	(10)
	> 1,468	(1)
Total	(100)	

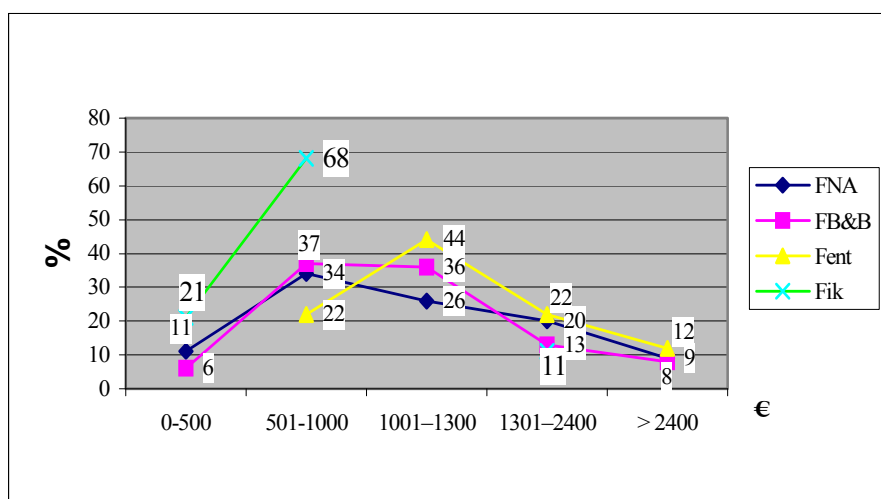




**Diagram 4: Percent of Educational level.** Where FNA: farmers, who were not involved with agritourism. FB&B: farmers who were involved with agritourism related Bed and breakfast small hotels. Fent: farmers who were involved with agritourism enterprises except B&Bs such as taverns, bakeries and folklore art. Fik: farmers who were involved with agrotourism and goat keeping



**Diagram 5: Percent of farmers' age.** Where FNA: farmers, who were not involved with agritourism. FB&B: farmers who were involved with agritourism related Bed and breakfast small hotels. Fent: farmers who were involved with agritourism enterprises except B&Bs such as taverns, bakeries and folklore art. Fik: farmers who were involved with agrotourism and goat keeping



**Diagram 6: Percent of farmers' age. Where FNA: farmers, who were not involved with agritourism. FB&B: farmers who were involved with agritourism related Bed and breakfast small hotels. Fent: farmers who were involved with agritourism enterprises except B&Bs such as taverns, bakeries and folklore art. Fik: farmers who were involved with agritourism and goat keeping in the island of Ikaria.**

Farmers in the island of Ikaria have lower educational and income levels and they are older in comparison with the farmers in the mountainous area of Trikala. This difference maybe due to the fact that farmers in Ikaria are involved with goat farming while farmers in Trikala are involved with crop farming.

More specifically the statistical analysis for the goat farmers showed that 74% of them have goat livestock as their primary occupation. Their mean monthly income from this activity was €500. Twenty three percent of the owners of agritourism settlements were farmers in their primary occupation and their mean monthly income from this activity was €500. Fifty-four of the farmers started agritourism because they received E.U. funding in order to have a supplement in their monthly income.

## Conclusions

The region of Trikala is a rural mountainous area where farming is the main activity. Because of the harsh ecological conditions of the area, many of the habitants are searching for new employment opportunities in order to increase their income. Also, there is a tendency for the younger generation to abandon the land and immigrate in urban areas, where there are more opportunities for employment and a better life. During the last decade mainly, the above area is experiencing the influence of agritourism, as well as that of parallel agritouristic activities. In this way the system is being diversified, since these new activities bring about conditions conducive to multiple activities and increase rural family income. Also, the rural family is changing, its members are becoming individuals with multiple activities, and they are becoming involved in the manufacture of agricultural products, as well as in the provision of services. These new conditions result in young people becoming more interested in staying in the village, a satisfactory tendency to avoid deserting these areas is being created, and these areas are even being revitalised.

On the other hand, the prospects for goat farming in the island of Ikaria are not optimistic. The agricultural labour force occupied with goat farming is ageing and the new generation is not encouraged by their parents to take over. On the other hand, farmers who opted to continue goat farming did so due to limited job opportunities. The main reason farmers wish to get involved with agritourism is to supplement their income. Since the economic and societal life of the island depends on the agricultural sector, wise investments should be directed for an infrastructure that will ensure the growth of goat farming and the attraction of tourists with an eye for sustainable development. Two other important observations made in the present study were first that overall, most of the farmers were of old age and low educational level and second that their children were not involved or plan to get involved with their parents' enterprise. These two factors are ominous for the future of the island, since farmers of old age and low educational level will not be able or have the time to adapt their enterprises to the future demands of globalisation in the market, while the people of the new generation are not willing to become the entrepreneurs of the future.

Based on the results of this study it was found that combining farming with agritourism is beneficial to the farmers due to the expansion of the market for their products, which increases their incomes. Of course, for agritourism to be established in an area there are some restrictions such as nice environment, mild weather and an infrastructure that will ensure the growth of agritourism.

Farmers involved with agritourism consider the earnings from this activity as significant contribution to their income to the point that most of them would like to cease farming and confine their activities only with agritourism. This view, if it becomes a trend, may jeopardise rural diversification. It is wise to combine agritourism with the primary sector, in order to give the rural family the ability to become financially stronger and to become socially reinstated, without the risk of degenerating the rural environment. Since the economic and societal life of the area depends on the agricultural sector, wise investments should be directed for an infrastructure that will ensure the growth of agritourism and the attraction of tourists with an eye for sustainable development.

Furthermore, agritourism contributes to the employment of women by the establishment of agricultural enterprises. In addition, local young people get fulfilment and respect by finding employment in the agritourism sector. Therefore, agritourism is a desirable policy objective, which can be one of the profitable alternatives to improve livelihood security and to raise living standards in rural areas.

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