



NATIONAL CENTER FOR SOCIAL RESEARCH
INSTITUTE OF URBAN & RURAL SOCIOLOGY



Environmental Team

Program LIFE - Environment 2005



**-Environmental Friendly Technologies for Rural
Development-**

TASK 5:

INTEGRATION OF SOCIO-ECONOMIC ASPECTS

Concise Results of Researches and Studies On LaKonia's:

- 1. PROFESSIONALS - RESIDENTS**
- 2. ELECTED OFFICIALS - REPRESENTATIVES OF THE MUNICIPALITIES
AROUND EVROTAS**
- 3. FLOODS**
- 4. THE IMPACT OF FIRES**
- 5. THE RECYCLING PROCEDURES AND PROBLEMS**



2005 - 2009

- Environmental Team IURS / EKKE, 2009. *Concise Results of Researches and Studies*, in: Nikolaidis N., N. Kalogerakis, N.Skoulidakis, K. Tsakiris, (Eds), 2005-2009. Environmental friendly technologies for rural development. Life-Environment project, LIFE05ENV/Gr/000245 EE (Envi-Friendly).

Participated from EKKE:

- Theodoropoulos Kon/nos, Economist
- Kandyli George, Dr. Urban and Regional Planning
- Sakellaropoulos Kon/nos, Researcher-MSc. Economist, Expert on Regional Development
- Tsakiris Kon/nos, Researcher-MSc. Economist, Expert on Regional Development
- Gkekas Rallis, Dr. Economist
- Eustathiou Dionysios, MSc. Electrician and Computer Engineer
- Kalyvas Dionysios, Field Researcher
- Koumalatsou Eleuthera, MA Sociologist
- Kousouris Theodoros, Researcher-Dr. Environmentalist
- Kousouris Sotirios, Electrician and Computer Engineer, Candidate Doctor NMP
- Mitsou Ekaterini, MA History of Civilization
- Panagiotopoulos Andreas, MSc.Sociologist-Anthropologist
- Rapti Theodora, Dr. Geographer
- Spanodimou Stavroula, Sociologist
- Stringli Anastasia, Sociologist, Post Graduate in Applied Statistics

Partners and Responsible Persons of the Project:

- Name of Beneficiary: Prefecture of Laconia (D. Liakakos).
- Technical University of Crete (Prof. N. Kalogerakis & Prof. N. Nikolaidis).
- Hellenic Centre for Marine Research (Dr. N. Skoulikidis).
- National Centre for Social Research (K. Tsakiris).
- ALPHA MENTOR (A. Chatzinikolaou & K. Koukaras).
- Development Company of Laconia's Prefecture (I. Tsaggaris & E. Dentakou).
- Local Government: Municipalities of Elos, Skala, Pellana, Mystra, Inoudos, Faridos, Krokees, Therapna.

Project Managers, Advisors and Sub-Contractors

- Scientific Manager and Co-ordinator: Prof. N. Nikolaidis
- Beneficiary Representative : D. Liakakos
- Advisors: Dr. Th. Kousouris, Dr. R. Gkekas, Dr. E. Tiligadas, Dr. G. Bidoglio.
- Sub-contractors : Prof. I. Fountoulis, Prof. I. Mariolakos, Prof. P. Dimopoulos
- Participants: Local Agents
- Funding: European Commission (50%) and Project Partners (50%)



LIST OF CONTENTS

Public Participation and Information	5
1. Research Results on Professionals - Residents	6
2. Research Results on Elected Officials - Representatives of the Municipalities around Evrotas.....	9
3. Research Results on Floods	13
3.1. Results of the flood awareness questionnaire to local authorities..	13
3.2. Results of the flood awareness questionnaire to residents.....	14
4. Management Measures on the Impact of Fires.....	17
5. Survey on the Recycling Procedures and Problems.....	19
5.1. Questionnaire to public stakeholders	19
5.2. Questionnaire to the shopkeepers	20

PUBLIC PARTICIPATION AND INFORMATION

Within the framework of the LIFE project, the tasks of the EKKE research team included:

The study of the social implications of the project interventions and the attainment of social consent and acceptance

The planning and implementation of a dissemination campaign to inform the public about the objectives and the results of the project

The EKKE research team elaborated a series of studies and fieldwork activities seeking to reveal and register the local peculiarities and problems (floods, fires), as well as the local dimension of specific environmental management issues (recycling).

in the interim, the EKKE team also implemented a series of information and sensitization actions (production and dissemination of printed and electronic material, organization of workshops and public events), mostly meetings and contacts with local stakeholders.

Overall, the whole of the aforementioned activities set the basis for a long-term constructive public consultation process that evolved throughout the various research project phases (goal setting, opinion-registering, information about the project's actions and the foreseen implications, new meetings and new information events based on the latest data collected etc.)

Thus, the EKKE team established a solid network of co-operation with the local stakeholders which resulted in spectacular partnerships (e.g. the creation of Open Farms with New Farmers' Union, the Mapping Trails with the Sparta Hacking Association etc.)

The co-operation with local stakeholders, such as the municipal authorities around Evrotas, the local agencies for land reclamation (TOEB) of these municipalities and the environmental education institutions of the wider area, was continuous.

The overall objective of the aforementioned co-operation was the viability of the Network of Co-operation of Local Stake-Holders following the completion of the project. This Network will be based on the Observatory for Sustainable Development. Its operation will be the responsibility of the Prefecture of Laconia and its tasks will include the collection of information material regarding local development perspectives, the provision of information to and the collection of feedback from all stakeholders and citizens, the overall coordination of the development actions and the participation to the resolution of the emerging development problems.

Brief summaries of these surveys and studies are presented below, offering a synopsis of the views and observations of the responsible (in each case) local actors and of a sample of the local population.

1. RESEARCH RESULTS ON PROFESSIONALS - RESIDENTS

Comparative presentation of the results of two surveys

Following the completion of two surveys (initial and repetitive) the individual results have been correlated by the EKKE researchers. An overview of the comparison of these results is given below:

a) According to the initial survey, the Evrotas River is perceived primarily as a significant agricultural asset (55.00%) and secondarily as a source of natural wealth (31.00%). Only 14.00% of the respondents consider Evrotas as a historic and local cultural asset.

Respectively, according to the repetitive survey, the Evrotas River is primarily perceived as a considerable agricultural asset (60.7%) and secondarily as a source of natural wealth (19.7%). Only 12.1% of the respondents perceive Evrotas as a historic and local cultural element.

By comparison, the findings are similar and indicate a marked increase in the proportion of responses that positively value the contribution of Evrotas in the rural development especially as a supplier of water resources (44.4%).

b) Regarding the problems that Evrotas presents, respondents in the initial survey emphasized primarily the problem of pollution (total of relevant answers 65,00%) and secondarily the fact that most of the river's development potential remains unexploited (23.00%). A 12.00% percentage of the population referred to the problem of floods and draught.

In the repetitive survey, 38.9% of the respondents stress the population problem while there is a marked increase in the percentage of respondents who consider draught and floods to be the primary problem generated by the Evrotas River (36.2%). This marked increase is attributed both to the damage caused by the relatively recent floods and particularly by the prolonged drought. The percentage of respondents that emphasized the unexploited development potential of the river (the irrational use of water resources) was about the same (22.2%).

c) With reference to the expectations generated by Evrotas, according to the results of the initial multiple-choice survey, the majority of respondents stressed the river's value as a clean and abundant source of water (72.2%) and a wetland of valuable flora and fauna (62.1%). Secondly, in the opinion of respondents, Evrotas could be used as a recreational area (22.7%) and serve as an incentive to attract tourists (19.5%).

The findings of the repetitive survey are similar. Considering the future contribution of

the Evrotas River in local development, 70.9% of respondents identified Evrotas' significance as a high-quality water resource (which contributes to the increase of agricultural production and the enhancement of quality of life), 16.2% of respondents referred to the rivers' use as a tourist attraction incentive, while 12.2% mentioned the use of Evrotas as a means to raise funding from Community and national resources.

d) According to the initial survey, respondents considered that the contribution of the LIFE / EnviFriendly project to the resolution of the Evrotas' management problems should primarily focus on the reduction of pollution (39.6%) and the elaboration of water resources and riparian land management plans (36.6%); and secondarily, on the best exploitation of the river (13.4%) and the management of seasonal floods (10.4%).

According to the repetitive study, from the whole of the respondents who were familiar with the implementation of the LIFE / EnviFriendly project, 47.7% considered the project's main contribution to be the monitoring of pollution and of the pollution sources, while 15.4% most highly valued the quantitative and qualitative management of the water resources. Adding to the above percentages the percentage of respondents who emphasized the anti-pollution measures adopted for the Evrotas River (relevant categories) it is clear that the two major inputs of the projects consisted of the reduction of pollution and the wise water resources management.

The above findings lead to the conclusion that both the initial content and objectives of the LIFE / EnviFriendly project and the implemented actions (elaboration of management proposals, dissemination – sensitization activities, local events and workshops etc.) evolved in accordance with the priorities and the expectations of the local professionals and residents.

Subsequently, the EKKE research team argues that the goal of social acceptance of the proposed interventions has been largely achieved. Moreover, it is indicative that 16.9% of respondents have positively valued the contribution of the project to the mobilization of the relevant communication mechanisms and the provision of information to the local population regarding the prospects of sustainable local development.

The basic conclusion of both the initial and (especially) the repetitive surveys is the promotion of the urgency of the Evrotas pollution problems and of the need for wise water resources management, and the realization by the vast majority of the local community of the fact that the aforementioned problems cannot be resolved without the adoption of relevant planning measures.

This conclusion has been verified by the respondents' demand for the prioritization of pollution reduction and specialized water resources management plans in any future programming.

2. RESEARCH RESULTS ON ELECTED OFFICIALS – REPRESENTATIVES OF THE MUNICIPALITIES AROUND EVROTAS

Overview of the findings of the initial survey

One of the most important, if not the most important, research findings is the fact that elected officials positively view their participation in practices that promote sustainable development (95%), particularly through institutional and communicative means. Moreover, a significant percentage (62.4%) of elected officials is familiar with the «integrated forms of agricultural production» and vastly supports the dissemination of information about them (76.5%).

The aforementioned findings are indicative of the existence of a particularly fertile framework for the long-term exploitation of the project's results. The long-term implementation of the project foresees the establishment and operation of the Local Development Observatory. The positive inclination and the high degree of awareness of the elected officials will positively contribute to the success of the Observatory given that it will be housed in the prefecture and will be staffed by employees of the local authorities.

As already mentioned, elected authorities have a primary role to play in the dissemination of information since they are themselves communication channels between the citizens and the project administrators. The dissemination of the relevant information can be realized through three different ways:

- a) First, through the information sources elaborated by the project: information workshops, website, environmental education, printed material, posters etc.
- b) Second, through the active participation of the elected authorities in the implementation of the project and the constant co-operation with the project managers; this is necessary for the two-way dissemination of information. The project seeks to produce a know-how totally adapted to the peculiarities and the needs of the local community.
- c) Finally, the elected local authorities can function as opinion leaders and disseminate information about the project, generate discussion over the achievement of the project's objectives and communicate expectations, ideas and solutions regarding the development perspectives of the region.

One more remarkable finding is the fact that the majority of respondents perceive Evrotas as primarily contributing to the irrigation of the region and local agricultural development (39.8%). Simultaneously, respondents blame industrial, agricultural and house wastes (35.8%) and the irrational water resources management (29.9%) as the main sources of the pollution of the Evrotas River. Subsequently, elected authorities argue that the LIFE /

EnviFriendly project should directly focus on the monitoring of the pollution and the pollution sources and the quantitative and qualitative management of the water resources (81% and 77% respectively).

The managers of the project should take into consideration the above perception and combine the aforementioned priorities with other goals relevant to the management of the Evrotas River. Within this framework one has to find practical and feasible solutions to combat pollution and achieve wise water management. For example, the local community should recognize the fact that the different types of waste are not the only source of pollution and that the irrational use of pesticides constitutes a similarly significant pollution source. The project has to transfer the necessary knowledge about environmental friendly technologies to the residents in order for them to be able to wisely manage the water resources and maintain the good quality of the Evrotas River.

These findings are very important since they reflect the needs and problems of the local community. Furthermore, they highlight particularly interesting issues such as the local authorities' utilitarian perception of the Evrotas River as a water source and their weakness up-to-date to fully explore the river's cultural, historical and environmental development potential. The rich and long-term history of the region, if properly explored, could contribute both to the economic development of the area, e.g. as a tourist attraction, and to the enhancement of the quality of life of the residents. However, it seems that today the agricultural qualities of the river have prevailed over its cultural, environmental and tourism qualities.

Finally, elected officials have expressed their belief that the LIFE / EnviFriendly project would lead the way for the implementation of similar projects by local stake-holders (91.9%). However, the project partners need to clarify that the implementation of new projects is not the only goal of the project. The project also seeks the elaboration of a set of feasible solutions fully adapted to the local needs, the improvement of the current conditions and the dissemination of local "best-practice" examples.

The implementation tools of the project can be grouped in three broader categories:

- a) demonstration of environmental friendly technologies addressing such issues as the monitoring of natural restoration and water management, the management of drainage channels and of riparian regions, and the management of agricultural waste,
- b) elaboration of management plans for the catchment,
- c) evaluation of social acceptance and dissemination of results.

The overall objective of the project is to make the region more attractive in order to enhance the quality of life of the residents and contribute the region's long-term development.

Summary conclusions of the repetitive survey

Following the completion of the survey and the analysis of the data, the following conclusions can be drawn:

a) Overall, the vast majority of elected officials is substantially informed about the progress of the LIFE / EnviFriendly project and the project's implementation guidelines. Moreover, many elected officials had been directly participated in the information meetings that concerned the local peculiarities and needs, as well as to the various dissemination activities throughout the implementation of the project.

b) Elected officials have demonstrated only limited awareness of the Observatory for Local Development. This could be due to the organizational difficulties that have hindered the smooth operation of the Observatory and the only partial clarification of the Observatory's tasks. The EKKE researchers estimate that in the long-run and following the full operation of the Observatory elected officials will comprehend its significant contribution in the development of the region mostly as a co-ordination and information mechanism.

c) Regarding the familiarity of local officials with the "integrated forms of agricultural production" there are significant differentiations depending on the orientation of each municipality (i.e. whether the municipality is oriented towards the primary or the tertiary sector). However, it is indicative that the elected officials who have a relevant professional activity are fully aware of the "integrated forms of agricultural production" and could subsequently disseminate the relevant information to the residents of their locality.

d) The whole of the officials have a positive opinion as regards the content and objectives of the LIFE / EnviFriendly project and its successful implementation. Moreover, they fully agree with the project's prioritization of the local development problems, as well as with the project's proposals regarding the required managerial measures.

e) Finally, nearly the whole of the respondents consider the implementation of the LIFE / EnviFriendly project to have provided the local community with considerable know-how regarding the implementation of European projects in the field of local development and to have opened the way for participation in future European projects. Considering the fact that elected officials have agreed with the importance attributed by the LIFE / EnviFriendly project to the exploration and wise management of the water resources of the Evrotas River, it would be reasonable for any future European projects to follow the thematic lines of the LIFE / EnviFriendly project.

The above findings allow a lot of optimism regarding the future participation of local officials in the management of forecoming projects and the achievement of the necessary social acceptance by the whole of the community.

3. RESEARCH RESULTS ON FLOODS

The pilot research on the floods of the Evrotas River in Laconia complements the research «Reducing the floods' impact - New methods to cope with flooding and the central role of local authorities” of Dr. R. Gkeka and A. Mitsou.

To get a broad picture of floods in the case-study region the EKKE researchers first contacted the Laconia branch of the General Secretariat for Civil Protection (GSCP) and then the Greek Agricultural Insurance Organization (first the Tripolis Branch and second the Central Office in Athens) from where they obtained the approvals and allowances tables for 2003 and 2005 and the Prefecture of Laconia Annex Graphs.

Then, the EKKE researchers specially designed two questionnaires to address the specific target-groups. The first questionnaire was addressed to the local authorities of the municipalities around the Evrotas River and was completed by the Mayors with the goal to register the readiness and the prevention and recovery capacity of the municipalities in case of flood. The second questionnaire was addressed to the residents affected by floods and was completed through personal interviews with the aim to detect the residents' familiarity with the protection measures and the relevant compensation and rehabilitation procedures. Below there is a brief overview of the relevant findings.

3.1. Results of the flood awareness questionnaire to local authorities

The questionnaires were completed with the assistance of the elected officials – managers of the LIFE / EnviFriendly project in January 2007 by the Mayors of 7 out of 8 municipalities to which the questionnaires had been originally distributed.

The findings of the questionnaire to the local authorities and the relevant research “Plan for flood disaster management in Laconia” are summarized below:

1. 4 out of 7 municipalities ignore the existence of an emergency plan in case of flood in their region.
2. The vast majority of respondents (5 municipalities) declared the flood readiness of both manpower and equipment.
3. During the peak rainfall periods 4 out of 7 municipalities are particularly alert.
4. Only 2 municipalities are aware of the regular monitoring of the hydrology and geomorphology of the river by the Prefecture.
5. Most of the municipalities regularly follow the weather forecast (meteorological data) on the Media (TV, radio etc.) while one municipality has its own local meteorological station.

6. 3 out of 7 municipalities monitor the history of floods in their region while 2 keep a record of floods.
7. In all 7 municipalities, there is no municipal institutionalized specialized mechanism to coordinate activities in case of emergency (there are however cases of co-operation between municipalities, e.g. the co-operation between the Skala and Elos municipalities).
8. Similarly, there is no compensation foreseen (through contribution) for properties which have been shown to impede the flow of the river.
9. Municipal authorities in all the municipalities ignore the existence of information and education programmes for the citizens whose property is located in high risk areas.
10. In over half of the municipalities the local population (agricultural associations and citizens) participate in flood protection actions.
11. 5 out of 7 municipalities agree on the need for better information and enhanced readiness of the local community regarding flood prevention and rehabilitation.
12. The majority of the municipalities agree that flood management is problematic and recognizes the need for inter-municipal co-operation for flood protection and rehabilitation in the case of the Evrotas River.

3.2 Results of the flood awareness questionnaire to residents

The questionnaires were completed in Sparta in January 2007. The respondents affected by floods can be grouped in 3 categories:

1. Rivotissa area: The GSCP had prepared an initial list of the financial compensation petitions of the home owners affected by the 2006 floods.
2. Klada area: The GSCP possessed information about those affected (crop production) by the 2003 flood.
3. In the street market of Sparta the EKKE researchers interviewed four producers who had been affected by floods outside the Sparta Municipality (harvest located in other municipalities).

A number of questionnaires were also completed by Rivotissa and Klada residents not recommended by the GSCP.

More specifically:

- 12 questionnaires were completed in Rivotissa.

- 6 in Kladas
- 4 in regions of other municipalities outside the Sparta Municipality

To the question « Is your property located in a high risk area? » the majority of the Rivotissa residents and the whole of the residents of Klada and of the regions outside Sparta gave a positive answer.

The land uses in the case-study regions consisted of:

1. Half of the Rivotissa residents and all of the Kladas / other regions' residents answered that they have crops (orange trees in Rivotissa and Klada and garden produce in the other regions).
2. In Rivotissa there is one enterprise; all respondents have their primary residence in Rivotissa, Kladas and the other regions.
3. With the exception of the aforementioned enterprise, 2 farms exist in Rivotissa, 1 in Kladas and 1 in the other regions (sufficient number of animals, sheep and goat).

To the question « Do you think that a system of early warning would more efficiently protect your property? » responses were divided in all three cases: Rivotissa (40-60%), Kladas (70-30%) and other regions (50-50%).

To the question « Do you know how to protect your-self from floods? » most of the respondents in Rivotissa (10 out of 12) gave a negative answer, while most of the respondents in Kladas gave a positive answer (5 out of 6).

To the question « Do you know whom to contact in case of flood?;» responses were divided with 7 out of 12 respondents in Rivotissa, 2 out of six in Kladas and 1 out of 4 in the other regions giving a negative response.

To the question « Would you be willing to participate to a system of prevention of the impact of floods in Evrotas? » the majority gave a positive response in all three cases.

Concerning the issue of financial compensation, 40% had submitted the necessary documents and had already received or were in the process of receiving financial compensation, 32% had submitted the relevant documents but had been rejected while 27% had not taken any action.

(The storage equipment enterprise in Rivotissa which had flooded did not apply for financial compensation).

In conclusion, the following remarks can be made:

- The residents are well aware of the fact that their property (produce/residences) is located in high risk areas.

- There is a need for the establishment of an information and early warning system.
- There is a need to inform the population as to the agencies involved in the repairing of the damages following a flood.
- People are willing to participate to preventive actions and activities.

4. MANAGEMENT MEASURES ON THE IMPACT OF FIRES

The LIFE project research team thoroughly analyzed the impact of the 2007 fires and prepared a series of studies on fire restoration treatment.

In particular, the researchers of EKKE examined the prospect of the creation of Animal Parks in the region and prepared a relevant study whose main findings are presented below.

ANIMAL PARKS

It is obvious that livestock farmers in the affected areas are in need of extensive support and better information. Furthermore, the recent damages and the subsequent need for restoration – reform demand radical changes in the operating system of the animal farms and the adoption of improved (if not integrated) long-term business actions by the producers. All these constitute prerequisites for the restructuring of animal husbandry and of the broader primary production in accordance with the new Common Agricultural Policy (CAP) requisitions.

At this point it would be useful to mention the peculiarities of Greek animal husbandry. The Greek land use agenda, rural infrastructures and climate conditions constitute a framework with the following dimensions:

- a) Animal husbandry consists of numerous small units, many of which are located within settlements.
- b) The urban organization of the countryside and the relevant differentiation of land use and infrastructures, combined with the small size of plots, have led to the emergence of agricultural settlements rather than scattered farms.
- c) The climate conditions do not allow the development of natural pasture of large grazing-capacity resulting in animal husbandry directly depending on agricultural fodder production.

The aforementioned points demonstrate the need of the creation of animal reception and husbandry units that will be adapted to the local conditions and the pre-defined organizational framework. Subsequently, the creation of Animal Farms would enhance the livestock producers' capacity to find effective and economically-sound solutions to their problems, and would simultaneously secure the operation of the smaller units and the protection of the environment.

Today, there is an urgent need for animal stalling at least in the fire-affected areas. However, a lot of complexities emerge and need to be considered:

- a) **Technological complexities:** bio-ethical reasons and enhanced production purposes demand the modernization of the animal stalling conditions.

b) **Social complexities:** animal stalling requires the improvement of farmers' working conditions, the protection of the agricultural environment (villages and settlements) and the safeguarding of residents' health.

c) **Financial complexities:** animal stalling demands considerable financial resources and defines the sustainability of goat, sheep and cow breeding.

The main benefits of the operation of Animal Farms include:

Significant increase in the livestock farmers' income, protection of the environment, enhanced quality of the produce, improved health and controlled feeding of the animals, improved living conditions for the animals and working conditions for the people, farmers and herds spending the winter with the mountain Communities avoiding the disorganization of the latter, co-operation and trust between different small animal husbandry groups, use of the common infrastructure of the parks, pre-planned and controlled pasture management and exploration, more effective environmental protection (στην αποτελεσματικότερη προστασία του περιβάλλοντος (infestation, pollution, degradation) and beautification of agricultural landscape with the building of environmentally harmonized farms.

The main points of the study together with the operation model of the Animal Farm of the Kyrou Municipality in Pella (the research team visited the farm and collected information) were presented to the stakeholders of Lakonia during a specially organized workshop.

5. SURVEY ON THE RECYCLING PROCEDURES AND PROBLEMS

5.1 Questionnaire to public stakeholders

During the first week of April 2008, the EKKE researchers conducted their fieldwork in the Municipality of Sparta regarding public and private stakeholders' role in the recycling of paper, personal computers, printers and ink cartridges.

The completion of the relevant questionnaires took place in the Prefecture of Laconia, the Municipality of Sparta, the educational institutions of the region and other public actors (Banks, Hospital, Tax Office, Hellenic Telecommunications Organization, Social Insurance Institute, Public Power Corporation and Library), as well as in private businesses involved in the transfer of paper.

The existing situation in the recycling field is presented below based on the replies of the respondents:

Paper recycling: the Municipality lacks a system of organized and regular collection. Thus, the actors that collect paper for recycling do not know how to dispose of the collected material.

The whole of the respondents have expressed their will to participate in any future recycling action, though some (Tax Office and other public stakeholders) emphasized the existence of confidential documents that should be destroyed.

PC and printers' recycling: there is considerable variation in the disposal of older or obsolete appliances. More specifically, the Prefecture gives them for recycling, the Municipality grants them to schools, the educational institutions and the Hellenic Telecommunications Organization save them for potential future use while the private companies store them in their basement.

Ink cartridge: the Prefecture and the Library are the only public or private stakeholders with a collection system. There are individual recycling initiatives (a teacher collects cartridges from all the educational institutions and recycle them in Tripoli). A lot of the respondents argued for the necessity of a municipal collection system.

Finally, special comments were made by the respondents for the proper disposal of infectious waste (hospital waste), as well as for the disposal of aluminum packaging to street gypsies.

Not ignoring the good intention of the respondents and the existing individual attempts to solution there is no doubt that the lack of an organized collection system for paper and ink cartridges in Sparta should be rapidly addressed.

5.2 Questionnaire to the shopkeepers

The study was conducted from 22 to 28/02/2008 and involved the interviewing of shopkeepers (mass catering and leisure) in Sparta and in the settlements of: Skala, Vlahiotis, Gythio, Krokees, Xirokampi, Goritsa, Geraki, Mystras, Parori and Agios Ioannis. The EKKE researchers studied the participation of the relevant shopkeepers in a system of collection and recycling of plastic, aluminum and other packaging.

The first finding is that the aforementioned Laconia municipalities lack even an elementary system of collection of recyclable waste.

More specifically:

- In the Municipality of Sparta, no business participates in a system of collection of recyclable wastes. A small number of shops collect paper for recycling and used cooking oils. Most of these shops were coffee places. The consumption of soft drinks, bottled water and relevant products substantially increases during the summer months, while tetra-pack packaging is more often used compared to other regions.
- In Skala there is no collection system; a relevant attempt was never made. However, the Municipality attempts to inform the local population about the collection of used cooking oil. Nevertheless, very few shopkeepers participate in this initiative, while others seem to completely ignore it. Considering the operation of a system for recyclable products, respondents prioritize the installation of collection points near their shops over the regular and orderly collection by the recycling agencies. Finally, in Skala too, there is an increase (slight) of consumption and tetra-pack packages during the summer months.
- The picture is similar in Gythio, though there are cases of shopkeepers who properly dispose of paper and used cooking oils. Respondents here emphasize the existence of an organized system of recycling over the distance factor. The average consumption per shop is larger than that of Skala, however there is no significant increase during the summer months.

In the smaller municipalities the picture is similar and the only differentiation is that the consumption patterns are much smaller. More specifically:

- In Elos there is no collection / recycling system and respondents emphasize the need for organized collection and sanitation.
- In Krokees, there is no collection system; a relevant attempt was never made. Consumption increase during the summer months however it remains smaller compared to Gythio and Skala. With reference to the setting up of a recycling system, respondents emphasized the significance of the location of the collection point issue.

- A recycling attempt was never made in Mystras. In view of the establishment of such a system respondents are divided between those who stress the significance of the proximity of the collection points and those who emphasize the issues of sanitation and organized collection.
- In the municipality of Farida the picture is the same with small consumption patterns and emphasis placed by respondents on the organized collection dimension of any future recycling system.
- In the Municipality of Therapnes, despite the lack of an organized system a small percentage of shopkeepers collect aluminum packaging. Here too, consumption increases during the summer months and the organized and orderly collection of recyclable products is considered to be the most important factor of success for any future organized recycling activity.
- The Municipality of Geronthron presents exactly the same picture with the Municipality of Therapnes.

It should be stressed here that, independently of the location and the size of the respective municipality, shopkeepers declare their will to participate in any future organized recycling action, however they often present as an insurmountable obstacle the existing workload and the problem of assigning new (recycling) responsibilities to old personnel.

On the basis of the analysis of the findings there is no significant variation (attitude, practice) with regard to demographic characteristics such as gender, age and education level.