

AN EVALUATION OF TURKEY'S PARTICIPATION IN THE EU LIFE PROGRAMME



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PREFACE

This master's thesis is prepared by 10th Semester student Ömer Ceylan in the MSc Programme in Environmental Management in the Department of Development and Planning at Aalborg University.

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INTRODUCTION

With a view to supporting the realization of Community objectives and targets in the field of environment, the European Union grants financial assistance to environmental initiatives. The EU LIFE programme has also been established in this respect in 1992, and has been co-financing projects for the implementation, development and enhancement of the Community environmental policy and legislation as well as the integration of the environment into other EU policies. LIFE has been open to the participation of the EU Member States and certain third countries bordering on the Mediterranean and the Baltic Sea, and in those EU candidate countries that have decided to participate. Turkey has been participating in the programme under third countries assistance, and has benefited from a total of 27 projects since 1992.

Although EU funding for the environment is available through different instruments established in support of the other policies of the Union such as regional, rural development, and cohesion policies, the LIFE continues to be the only instrument dedicated to supporting Community environmental policy. In other words, whereas the LIFE is a separate instrument for actions of uniquely environmental nature, it is only an "option" to develop and carry out specifically environmental projects under the funding schemes of other policies. In view of this fact, the LIFE instrument should be utilized in an accurate way so as to obtain the highest benefit from it. From this point of departure, the objective of this study is to evaluate Turkey's participation in the LIFE programme since the commencement of the programme in 1992 until today, and to identify a strategy for her future participation in the last phase of the current LIFE programme (2005 – 2006) and in its successor LIFE+ programme (2007 – 2013).

The report opens with the theoretical considerations on evaluation research in order to establish the conceptual basis for the present evaluation study. Given the objective of the LIFE programme as to support Community environmental policy, the second chapter is devoted to the presentation of EC environmental policy – its emergence and evolution until today. The third chapter presents an overview of all funding opportunities of the EU available for the environment. This will reveal the place of the LIFE programme among various funding schemes that offer opportunities for environmental initiatives. Subsequently,

the LIFE programme is introduced in the fourth chapter by scrutinizing of its emergence, scope and objectives, structure and other relevant features. Based on this background, the final chapter evaluates Turkey's participation in the LIFE programme. The evaluation is based on a set of criteria, which are defined in the relevant sections of Chapter 1 and Chapter 5.

1. THEORY ON EVALUATION RESEARCH

This chapter presents the theoretical background of evaluation research by exploring relevant literature on the definition of evaluation, types of evaluation, and evaluation design. Based on this theoretical background and the purpose of the current evaluation study, the outcome of this chapter will be an evaluation framework that will be utilized throughout the evaluation process.

1.1. What is Evaluation?

Trochim (2000) puts down the most frequently given definition of evaluation:

“The systematic assessment of the worth or merit of some object.”

However, Trochim (2000) criticizes that, this definition lacks the “information processing” and “feedback” functions of evaluation. He explains that, many types of evaluations such as descriptive studies and implementation analyses do not necessarily result in an assessment of worth or merit. Therefore, he proposes the following amended definition of evaluation:

“The systematic acquisition and assessment of information to provide useful feedback about some object.”

The term “object” in the definition refers to a program, policy, intervention, innovation, person, need, activity, etc. However, Robson (2002) identifies that, evaluation has been commonly referred to as “program evaluation”, the spelling of which reflects that it started out as a largely North American activity. Similarly, Petheram (1998) mentions that, when the US government invested large sums of money towards social programs (education, health, housing, etc.) around 1960, program evaluation evolved in order to assess the accountability and outcomes of these social programmes.

1.2. Types of Evaluation

Depending on the purpose of an intended evaluation activity, there can be different types of evaluation. McNamara (1999) states that program evaluation can include any or a variety of at least 35 different types of evaluation, such as for needs assessments, accreditation, cost/benefit analysis, effectiveness, efficiency, formative, summative, goal-based, process, outcomes, etc. However, most of the literature on the matter classifies these varieties under two major types: **Formative** and **summative** evaluation. These

concepts are sometimes expressed also as **process** and **outcome** evaluation respectively (Robson, 2002). These categories all take their point of departures from the intended purpose of the evaluation:

- *Formative evaluation* examines the development of the project, programme, innovation or whatever is the focus of evaluation, and may lead to changes in the way that the project or programme is structured and carried out.
- *Summative evaluation* concentrates on assessing the effects and effectiveness of the programme, by looking at the actual accomplishments in terms of the stated goals together with the other consequences that can be detected.

(Robson, 2002; Frechtling and Westat, 1997)

Correspondingly, Frechtling and Westat (1997) mention that there are two simple reasons for conducting an evaluation:

- To gain direction for improving projects as they are developing, and
- To determine projects' effectiveness after they have had time to produce results.

Taking the point of departure from these two purposes, in order to shed light to the actual evaluation process Frechtling and Westat (1997) list some questions that should be answered to fulfill the purpose of the evaluation:

Formative evaluations (which include implementation and process evaluations) address the first set of issues (i.e. the first purpose). Questions typically asked include:

- To what extent do the activities and strategies match those described in the plan? If they do not match, are the changes in the activities justified and described?
- To what extent were the activities conducted according to the proposed timeline? By the appropriate personnel?
- To what extent are the actual costs of project implementation in line with initial budget expectations?
- To what extent are the participants moving toward the anticipated goals of the project?
- Which of the activities or strategies are aiding the participants to move toward the goals?
- What barriers were encountered? How and to what extent were they overcome?

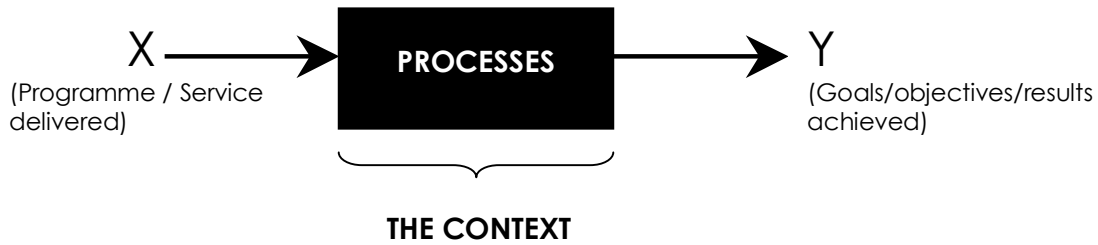
Summative evaluations (also called outcome or impact evaluations) address the second set of issues (i.e. the second purpose). Questions of summative evaluation are as follows:

- To what extent did the project meet its overall goals?
- Was the project equally effective for all participants?
- What components were the most effective?
- What significant unintended impacts did the project have?
- Is the project replicable and transportable?

There are other approaches in the literature to define types of evaluation. For instance Wilde and Sockey (1995) indicate **objectives-oriented** (or goals-oriented) evaluation while McNamara (1999) mentions about **process-based** evaluation. These types correspond to summative and formative types of evaluation respectively. This is also clear in their definitions:

- Objectives-oriented evaluation determines the success of a programme by measuring whether the specific objectives have been met (Wilde and Sockey, 1995).
- Process-based evaluation aims at understanding how a program really works, and its strengths and weaknesses (McNamara, 1999).

The distinction between objectives-oriented and process-based (or summative and formative) evaluation could be better explained by associating the evaluation process to a chemical reaction. In a basic chemical reaction, substance X goes into the reactor, and after various processes, product Y comes out of the reactor. Here, X represents the programme/service to be delivered, and Y the goals/objectives/results achieved after the implementation or the delivery of the programme/service. In objectives-oriented evaluation, we employ the “black-box” approach. We know our goals and targets, and we try to identify whether we have been able to achieve them or not after the programme/service is delivered. However, we do not focus on what is going on inside the black box. On the other hand, the process-based evaluation looks into the “reactor” in order to understand the processes involved during the implementation of the programme or the delivery of services. This way, it becomes possible to get answers to many further questions that are linked with the success/failure of the programme/service. This approach is illustrated below.



Although the literature on the theory of evaluation makes a differentiation with respect to the types of evaluations – primarily as formative and summative (or with different but corresponding terminology) – Robson (2002) points out that the distinction is not absolute. He emphasizes that, in particular, summative evaluation could well have a formative effect on future developments, even if it is presented after a particular ‘run’ of a programme or intervention. The reflections on these matters for the present study will be identified in Section 1.4. below.

1.3. Evaluation Design

Evaluation design has one purpose: to provide a framework for planning and conducting the study (Wilde and Sockey, 1995). Wilde and Sockey (1995) suggest that there are two major components of evaluation design:

- defining the criteria by specifying exactly what information is needed to answer substantive questions regarding the effectiveness of the program and
- selecting the method by determining an optimal strategy or plan through which to obtain descriptive, exploratory, or explanatory information that will permit accurate inferences concerning the relationship between the program implemented and the outcomes observed.

Robson (2002) mentions that fixed or flexible designs can be used, with either qualitative or quantitative methods, or some combination of both types. Robson (2002) underlines that, it is sometimes claimed that the strongest evaluation studies follow an experimental strategy in making comparisons between at least two groups (one of which has received the new programme, service or whatever, while another has not). He adds, however, while the study of outcomes in this comparative way is often important, evaluations can sensibly target other aspects, such as *whether or not a programme meets the needs of those taking part*.

Little (2002) shows the difference between quantitative and qualitative data with a table as given below:

	Definition and Uses	Methods
Quantitative data	<ul style="list-style-type: none"> • Numeric information that is subject to statistical analyses • Can be used to compare outcomes associated with an intervention 	<ul style="list-style-type: none"> • Tests/assessments • Secondary source/data review (i.e. pre-existing data sources) • Surveys/questionnaires
Qualitative data	<ul style="list-style-type: none"> • Text-based information, collected systematically • Can be used to understand how a program operates and how participants experience the program 	<ul style="list-style-type: none"> • Document review • Interviews • Focus groups • Observation

Table 1. The difference between quantitative and qualitative data (Little, 2002)

These theoretical considerations on evaluation research are discussed below for the present study.

1.4. An Evaluation Framework for Evaluating Turkey's Participation in the LIFE Programme

The objective of this report is to evaluate Turkey's participation in the European Community LIFE programme since the commencement of the programme in 1992 until today, and to identify a strategy for her future participation in the last phase of the current LIFE programme (2005 – 2006) and in its successor LIFE+ programme (2007 – 2013). On the basis of this objective, this section will discuss the above mentioned theoretical considerations for the current evaluation research, and identify a framework for carrying out the evaluation.

Evaluation purpose

Looking at the objective of this report, it can be identified that the purpose of the evaluation comprises *assessing the effectiveness* of the implementation of the LIFE programme in Turkey until today, and also proposing a *strategy for an accurate and improved* future participation in the programme. In this respect, it is possible to note that the evaluation will have both a formative (process-based) and a summative (objectives-oriented) character. On concrete terms, for instance, the evaluation will not only examine what the LIFE projects implemented in Turkey have achieved in terms of their stated goals,

but will also scrutinize the processes involved, problems encountered, etc. that affect the implementation of the projects. The formative and summative character of the present evaluation can be observed more clearly in the evaluation questions, which will be presented in the evaluation Chapter (i.e. Chapter 5).

Temporal variants

The objective of the report and the purpose of the intended evaluation indicate that the evaluation possesses three parts with respect to its coverage of different time segments. In other words, the evaluation will include;

- Turkey's previous participation in the LIFE programme, which will look at the completed projects and achieved results until today,
- Turkey's current participation in the programme by investigating the ongoing and recently funded projects, and
- Turkey's future participation in the last phase of the current LIFE and the prospective LIFE+ programmes through identifying a strategy

This brings the **temporal variants** of evaluation into consideration. The three temporal variants of evaluation are *ex ante*, *interim* and *ex post* evaluation. These are briefly defined as follows:

- *Ex ante* evaluation is carried out prior to the inception of an initiative and aims to ensure the delivery of the programme in a successful way.
- *Interim* evaluation examines an ongoing activity and produces direct feedback into the implementation process.
- *Ex post* evaluation embraces the entire intervention period, with a special interest on the impacts, efficiency and effectiveness of the intervention, also with sustainability consideration.

(European Commission, 2004a)

Within this framework, the present evaluation will employ the characteristics of *ex ante*, *interim* and *ex post* temporal variants of evaluation throughout the above mentioned three parts of evaluating Turkey's participation in the LIFE programme (i.e. previous, current, and future participation).

Evaluation framework

A diagram in the evaluation guide of the European Commission (2004a)¹ indicates and explains different evaluation criteria for ex ante, interim and ex post stages of evaluation. The evaluation framework of the present study will include the *relevance*, *effectiveness*, *sustainability*, and *consistency* criteria from this diagram in order to carry out the evaluation. Not all of the issues in the diagram are possible to be covered due to time constraints, subjective interests and also due to the specific purpose of the intended evaluation stated above. The selected criteria are defined below:

- **Relevance:** The extent to which an intervention's objectives are pertinent to needs, problems and issues to be addressed. This issue is most applicable for ex ante and interim evaluation.
- **Effectiveness:** The extent to which objectives set are achieved. This issue is most applicable for ex ante, interim and ex post evaluation.
- **Sustainability:** The extent to which positive effects are likely to last after an intervention has terminated. This issue is most applicable for ex post evaluation.
- **Consistency:** The extent to which positive/negative spillovers onto other economic, social or environmental policy areas are being maximized/minimized. This issue is most applicable for ex ante, interim and ex post evaluation.

On the basis of these criteria, a set of evaluation questions are developed for each part of the evaluation (i.e. ex ante, interim, ex post). Section 5.1., entitled Evaluation Methodology and Framework, presents these evaluation questions, and explains the evaluation design and sources of data used in the evaluation. These elements are not detailed at this stage in order not to disturb the fluency of the evaluation process, which is carried out in the 5th Chapter.

¹ The guide entitled "Evaluating EU Activities – A Practical Guide for the Commission Services" provides guidance on ex ante, interim and ex post evaluation of programmes and policies. This guide is prepared by DG Budget.

2. EUROPEAN COMMUNITY ENVIRONMENTAL POLICY

LIFE is the financial instrument of the European Union, developed to assist in the implementation of the environmental policy, associated strategies and targets of the Union through co-financing projects. This chapter will, therefore, introduce the environmental policy of the European Community taking the departure from the Treaty of Rome in 1957 until today. The emergence and development of Environmental Action Programmes, the EU legislation and other instruments will be presented following a timeline. The current structure of the EC environmental policy will be elaborated on by looking at the most recent Environmental Action Programme (6th EAP) and relevant Community strategies.

2.1. The Emergence and Development of EC Environmental Policy

The non-mentioned environment

Environment was not mentioned in the founding treaty – the Treaty of Rome – of the EU (then European Economic Community) in 1957 (Jordan, 1998; Durmaz, 2004; IEEP, 1991). Barbagallo (1996) mentions that, when the Rome Treaty was written, its authors did not take into account the environment, since Member States were only concerned about post-war reconstruction and underestimated the link existing between economic development and environmental protection. The Treaty of Rome stated that the primary objective of European integration was the promotion of “a harmonious development of economic activities.” Some items of legislation concerned with the environment (e.g. labeling of chemicals in 1967, vehicle noise in 1970) were indeed adopted, but only to ensure the integrity of the common market (IEEP, 1991).

If we look at the driving forces and the underlying effects of how environmental policy developed in the EU, Barbagallo (1996) indicates that this was not a spontaneous incident. According to her, the Union moved its first steps in the environmental field just to abolish obstacles to trade between the Member States. Barbagallo (1996) explains that, what transformed environmental policy from an incidental to an essential part of the Union policy was the awareness of the environmental consequences of unregulated economic growth, the alarming appeals coming from the scientific community and increased public sensitivity to environmental issues, which in some Member States conveyed to the institutional channels of the political system giving life to green parties throughout in Europe in 1980s.

Similarly, Jordan (1998) mentions that, it was only after the surge of environmental awareness in the late 1960s and early 1970s, which culminated in the United Nations Conference on the Human Environment in Stockholm in 1972, that the EU started to deal purposively with the environmental repercussions of integration. These are outlined below.

Launch of Environmental Action Programmes

The first declaration on the protection of the environment was published by the European Commission in 1971, which was followed by the Paris Summit in 1972 at which the need for an environmental policy was emphasized officially for the first time (Durmaz, 2004; Barbagallo, 1996). A concrete outcome of the Paris Summit was an Environmental Action Programme. This First Environmental Action Programme, adopted by the European Council in 1973, was designed for a five-year period, contained mainly corrective measures, and laid down the polluter-pays principle (Waldmann, 2003). It started with a general statement of the objectives and principles of a Community environmental policy and then went on to spell out action that the Commission would propose (IEEP, 1991):

- to reduce pollution and nuisances;
- to improve the natural and urban environments;
- to deal with environmental problems caused by the depletion of certain natural resources;
- to promote awareness of environmental problems and education.

Some institutional developments took place during the same years. In 1973, the Environment and Consumer Protection Service was installed by the European Commission and integrated into Directorate General (DG) III, responsible for industrial policy (Waldmann, 2003). Waldmann (2003) indicates that, later in 1981, during the reorganization of the Commission, and due to the increasingly recognized importance of environmental policies on the European Community level, environmental protection duties was transferred from DG III to the reformed DG XI – the current Environment DG responsible for environment, nuclear safety and civil protection. Again in 1973, the European Parliament set up a Parliamentary Committee, which has the responsibility for giving its opinion on all environmental initiatives proposed by the Commission (Gervais, 2002). In addition, McCormick (2001) identifies that, the European Foundation for the improvement of living and working conditions was also established in 1975 by the European Council.

Environment introduced in Treaties

By 1987 some 200 items of environmental legislation had been agreed (Jordan, 1998; IEEP, 1991) and four action programs of steadily increasing complexity and scope had been adopted (Jordan, 1998). Subsequent amendments to the Treaty of Rome, namely the Single European Act of 1987 and the Maastricht Treaty (formally the Treaty on European Union) of 1993, gave environmental protection a firm legal basis and enunciated principles to guide the EU in enacting new legislation (Jordan, 1998).

IEEP (1991) states that, the Single European Act also introduced the important new principle that “environmental protection requirements shall be a component of the Community’s other policies”. According to IEEP (1991), this was the beginning of a new direction for the Community’s environmental policy, which is now effectively composed of two elements. The first is the “Community Policy on the Environment” which includes Community legislation that has to be implemented in the Member States. And the second element is regarding the “integration” requirement which states that “environmental protection requirements must be integrated into the definition and implementation of the (other) Community policies”.

The most recent initiative on a Treaty level is the Treaty of Amsterdam (1999). The Treaty of Amsterdam “enshrines the principle of sustainable development as one of the European Community’s aims and makes a high degree of environmental protection one of its absolute priorities” (EUROPA, 2001). EUROPA (2001) states that the Treaty of Amsterdam seeks to provide stronger guarantees than given by the Single Act and the Treaty on European Union by inserting the concept of sustainable development plus a new article in the Treaty establishing the European Community. Consequently, the new Article 6 puts at the start of the Treaty the clause calling for environmental protection requirements to be integrated into the definition and implementation of other policies, together with stating such integration as one means of promoting sustainable development.

In line with these developments in the Community environmental policy, institutional developments have also continued. McCormick (2001) indicates that The European Environment Agency (EEA) in 1990 and the European Green Forum in 1993 were established. In addition, EEB (2005) identifies that at European level, a considerable number

2. EUROPEAN COMMUNITY ENVIRONMENTAL POLICY

of new ECO (Environmental Citizens' Organization) offices, mainly establishing access to the EU institutions for their national members, were set up between 1986 and 1992, and improved in capacity considerably in terms of staff, professionalism and networking with members and experts during the nineties. Other developments include the creation of EMAS (Eco-Management and Audit Scheme) Regulation for industry in 1993, and environmental funding programmes from mid 80s, which will be presented in the next chapter.

Before getting into the current status of the European Union environmental policy, the timeline figure given below will serve as a summary of the above portrayed development of environmental policy in the EU.

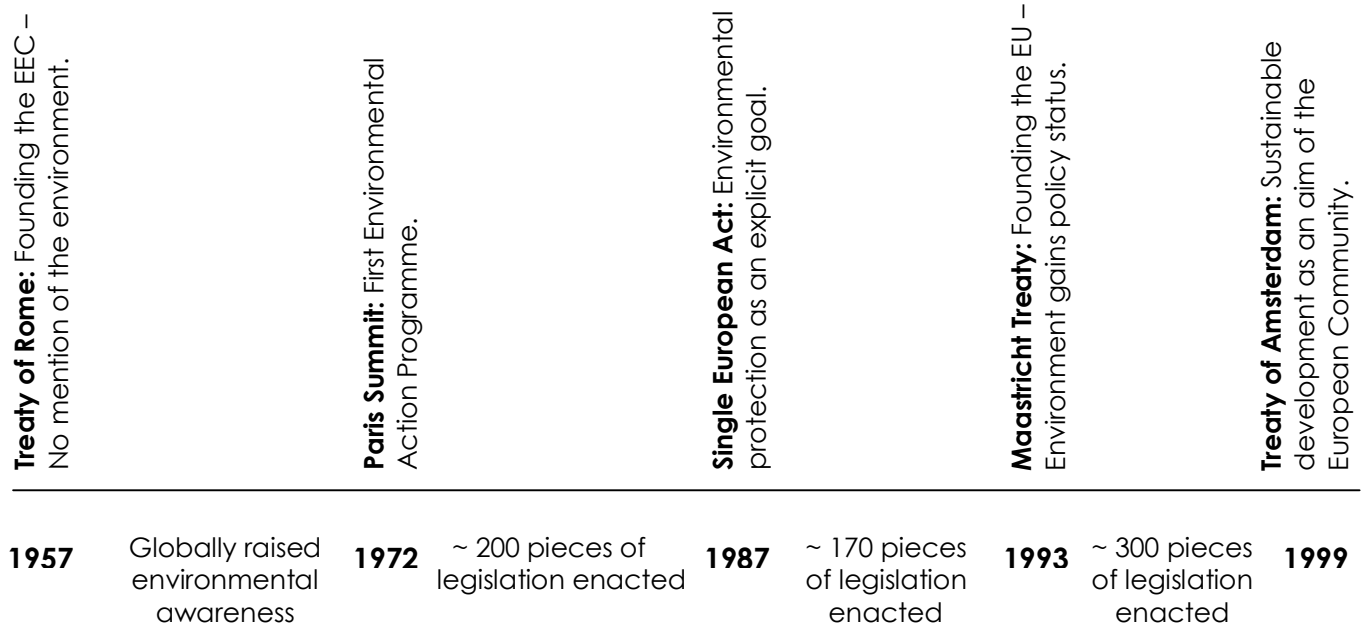


Figure 1. Development of EC environmental policy

2.2. European Union Environmental Policy: Current status and trends

This section will focus on the recent state of affairs and trends in European Union environmental policy by looking at the developments in the last decade and especially since the Amsterdam Treaty of 1996 which lays down the principle of sustainable development as the Community policy.

2.2.1. Environmental Action Programmes

Environmental Action Programmes outline the Commission's intentions and recommendations regarding environmental policy, and consider what goals will need to be met and what actions will be necessary to meet those goals over the period of the Programme (Clinch, 1999; University of Bradford, 2003). EDF (2005) explains that, although these programmes prepare the basis of integrated environmental policy of the Community, they are not legally binding since they are not directly launched by the European Council or Commission. Nevertheless, since the intended actions necessitate the establishment of laws, these programmes are ultimately translated into Regulations, Directives, Recommendations and non-binding Opinions, of which, Regulations and Directives must be translated into national legislation (Clinch, 1999, Durmaz, 2004).

As mentioned in the previous section, the First Environmental Action Programme was published in 1973 following the Paris Summit in 1972. The latest Action Programme currently operational is the Sixth Environmental Action Programme (6th EAP) entitled "Environment 2010: Our Future, Our Choice". It has been running since its adoption in 2001. As a matter of fact, the action programmes have undergone changes and have developed in time. Barbagallo (1996) explains that the Union has slowly changed its approach to environmental problems, so that if the First Action Programme just suggested how to cure the injures provoked by the industrial society, the fifth one stresses the need of integrating environmental considerations into the formulation and implementation of economic sectoral policies through the concept of "sustainable development". Sustainable development was perceived as a tool for improving the state of the environment, social efficiency and competitiveness simultaneously (EEB, 2005).

The Fifth Environmental Action Programme is deemed as a remarkable point in the development of the Community environmental policy by some scholars as follows. The 5th EAP was entitled "Towards Sustainability" and ran from 1993 till the 6th EAP was introduced. According to Barbagallo (1996), the 5th EAP is a highly significant policy development, especially because it emphasizes the need of integrating environmental considerations into other policy areas. Indeed, as EUROPA (2004d) writes, the 5th EAP was underpinned by the principle that *the integration of the environmental dimension in all major policy areas is a key factor, because environmental protection targets can only be achieved by involving*

those policy areas causing environmental deterioration. The five target sectors for the integration of environmental considerations were industry, energy, transport, agriculture, and tourism (EUROPA, 2004d).

Another significant development attributed to the Fifth Environmental Action Programme is that it introduced the New Environmental Policy Instruments (NEPIs) with a point of departure from the idea of "shared responsibility". EUROPA (2004d) explains that, *only by replacing the command-and-control approach with shared responsibility between the various actors (e.g. governments, industry and the public) can commitment to agreed measures be achieved.* As Gouldson and Murphy (1996) identify, the 5th EAP proposed that the range of policy instruments needed to be extended beyond traditional regulation to incorporate market related measures, financial support mechanisms and the provision of information, education and training. In the same respect, Jordan et al. (2003) bring up that, the regulatory philosophy of the Commission has changed since 1992. He explains that, although the command and control nature of EU environmental legislation continues, EU policy innovation and instrument selection have undergone changes: Wider stakeholder involvement has been targeted, and instruments like eco-label scheme, Access to Information Directive and Consultative Forums have been created accordingly. This meant that the dominant public environmental regulations would shift some weight onto self regulation and market regulations. Within this framework, Gouldson and Murphy (1996) conclude that, the 5th EAP sought not only to control specific action or substances, but also to influence modes of production and consumption.

European Commission's Global Assessment report on the implementation and success of the 5th EAP concludes in overall that, although some progress has been made in putting into place new and improved instruments for environmental protection, practical progress towards sustainable development remained limited due to lack of commitment from Member States and stakeholders and little ownership by other sectors of the programme (European Commission, 2000b). In addition, European Commission (2000b) identifies that, the fifth programme raised awareness of the need for stakeholders, citizens and decision-makers in other sectors to actively pursue environmental objectives; however, less progress has been made overall in changing economic and societal trends which are harmful to the environment.

2.2.2. Lack of Implementation and Effectiveness

Although it is possible to observe and acknowledge that several concrete and positive initiatives have been taken and policies have been established in the EU – as in the case of the Fifth Environmental Action Programme – the implementation of these policies and improvements in the natural environment are considered insufficient by scholars, the European Environment Agency and also by the European Commission itself. European Commission (2004c) indicates that, shortcomings in the implementation and practical application of EC environmental legislation are reflected in the number of complaints received, and infringement cases opened by the Commission every year. According to European Commission (2004c), environment sector represents over a third of all complaints and infringement cases concerning instances of non compliance with Community law, and the number of complaints in the environment sector remains higher than 500 per year between 2000 and 2003. The number of complaints was 161 in 1996 and has risen to 453 until 1999.

Waldmann (2003) identifies that, the enormous productivity in the law-making field, which reached its peak in 1993/94, is accompanied by a plain implementation deficit. Similarly, Skjærseth and Wettestad (2002) highlight that, on the one hand, the impact assessments of the European Environment Agency (EEA) indicate that the quality of the European environment is deteriorating; on the other hand, the EU institutional machinery has produced a comprehensive environmental policy in depth and scope: about 300 environmental regulations, directives and decisions have been adopted to date. According to Waldmann (2003), adoption rates of environmental *acquis* by Member States vary from 76 to 82 per cent in Italy, Britain and Portugal and from 98 to 100 per cent in the Netherlands and Denmark. However, even in countries with a high level of adoption of environmental *acquis* there are doubts about the quality of implementation and the efficiency of application (Waldmann, 2003).

Likewise, Jordan (1998) draws attention to two significant gaps that the EU suffers from. According to Jordan (1998) there exists an implementation gap – the failure of Member States to put its mandates into action – and an integration gap – the failure to incorporate environmental considerations into decision-making at all levels. He further states that these gaps are worsened by the unique multilevel governance structure of the EU, that is a

federal system with more than one legislature, but where the higher level of government is not itself a nation state. Jordan (1998) argues that over time the EU evolved into a hyperactive "regulatory state" that is extremely good at setting standards and timetables but not greatly concerned about their implementation.

As Jordan (1998) cites from an analyst, there are structural reasons why implementation is an ongoing problem in the EU. One of the problems he underlines is that unlike the bodies responsible for economic affairs (e.g. competition, mergers, and the protection of fisheries), DG XI (Environment) enjoys no direct powers of enforcement and has no agents to carry out its policies. This means that in the very places where environmental policy really needs to "bite" – factories, river banks, beaches, and so on – it has little or no direct presence. It certainly cannot compel national or subnational actors (either public or private) to comply with its policies. In addition, enforcement proceedings remain slow and complicated, and individuals and pressure groups have limited means of redress and to take cases before the European Court of Justice. The Commission knows full well that the environment will probably be damaged irreparably by the time the Court issues a ruling, so wherever possible it tries to work with states directly and uses legal proceedings only as a last resort. (Jordan, 1998)

Despite this problematic picture, Jordan (1998) indicates that the EU is getting better at an institutional level to cope with these problems. He explains that the multilevel governance structure of the EU is now institutionally "thicker" and more mature than it was in the 1970s and 1980s. And also the other directorates now realize the importance of environmental rules and make sure their views are known.

In terms of the implementation and enforcement efforts of the EU, the IMPEL² network can be considered as a noteworthy achievement. IMPEL is described by the DG Environment as follows:

IMPEL is an informal network of European regulators concerned with the implementation and enforcement of environmental legislation. The network is a powerful tool for sharing experience and information on the practical application of environmental legislation across Europe. Co-operation among practitioners in the

² European Network for the Implementation and Enforcement of Environmental Law

fields of inspections, permitting and enforcement under the IMPEL network started in 1992. 30 countries – all Member States of the European Union, the two acceding countries Bulgaria and Romania, the two candidate countries Croatia and Turkey as well as Norway – and the European Commission now participate in the network. (EUROPA, 2005)

Consequently, if this nicely thought-out network can operate effectively, and the constituent states of the network share their experiences on good practices, solutions to encountered problems, etc. for the implementation and enforcement of EU legislation, then the impediments may gradually be overcome.

Last but not least, it is certain that the implementation of Community legislation will very much depend on the acknowledgement of the idea of "shared responsibility" – as described previously – by other actors, especially the industry and consumers; so that the regulatory burden on the Commission is facilitated.

2.2.3. Instruments of Environmental Policy in the EU

In order to realize the objectives of Community environmental policy, the European Union has launched a number of policy instruments. These instruments are mainly in the form of financial and technical measures, whereas some sources include also certain established institutions among these instruments. EUROPA (2001) indicates that the range of environmental instruments available has expanded as environmental policy has developed. In this respect, Clinch (1999) explains that, since 1992 there has been a broadening of the range of policy instruments with a greater use of taxes, environmental agreements and information. According to Clinch (1999), the extended use of voluntary agreements and environmental taxation is a clear example of a shift towards the use of economic instruments. In other words, there has been a certain level of shift from public regulations (i.e. command-and-control mechanisms through Community Directives) towards market and self regulations (i.e. Environmental Management Systems, environmental reporting, taxes, etc.). Then again, Clinch (1999) mentions that most EU-level environmental policymaking is executed through Directives.

Barbagallo (1996) lists the key instruments of environmental policy in the EU as follows:

- Environmental Impact Assessment: is a directive aiming at assessing potential damage which may come out from individual projects.
- European Environment Agency: based in Copenhagen and operational since 1994, the Agency was supposed to become the official network to exchange information on the health of the planet, on the basis of which the EC institutions, Member States and other third countries could elaborate scientifically founded decisions. The case of EEA provides a good example of the capacity of the European Parliament to influence European Commission legislation and underlines the tenacity of the Environment Committee in pursuit of "green" policy resolutions, giving proof of its dynamic conception of policy issues.
- Free access to information on environmental pollution: national authorities must make information on the environment available to any natural or legal person on request without the person concerned having to prove an interest.
- Eco-label: in March 1992 a regulation was adopted on the application of an eco-label on environmentally friendly products. A competent body in the Member State decides whether to award a label after assessing the product.
- Eco-audit: it is a voluntary environmental auditing scheme coordinated by Member States and requiring participating companies to incorporate environmental protection standards into their production processes.
- The LIFE regulation: adopted by the Council in 1992, the financial instrument for the environment provides funding for realizing the Union's policies in the field of environment. LIFE also supports projects in third countries bordering on the Mediterranean and the Baltic Sea.
- Legislation: covering mainly the areas of water pollution, atmospheric pollution, noise, chemicals, waste disposal, and nature protection.

2.2.4. The Lisbon Strategy, 6th EAP and the Stance of DG Environment

The Lisbon Strategy

European Commission (2003a and 2005a) states that, the EU environmental policy has been placed within the context of the Lisbon Strategy on economic and social renewal launched in 2000. The objective of the Lisbon Strategy is "to make the EU the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic

growth with more and better jobs and greater social cohesion" by 2010. The Lisbon Strategy was supplemented by a third, environmental, pillar following the adoption of the EU Sustainable Development Strategy at the Gothenburg European Council in 2001 (European Commission, 2003a). EEB (2005) stresses that this Sustainable Development Strategy should theoretically become the umbrella under which the more focused and shorter term Lisbon process should fall. According to European Commission (2003a), the adoption of the EU Sustainable Development Strategy at the Gothenburg European Council in 2001 marked a turning point: the need to pursue in a balanced way economic growth, social improvements and environmental protection was translated into a set of detailed objectives and actions.

The Sixth Environmental Action Programme

The Sixth Environment Action Programme has been adopted in 2002 which sets the EU's environmental roadmap for the next 10 years. The 6th EAP is the main vehicle by which to achieve the environmental goals of the Sustainable Development Strategy. (European Commission, 2003a)

The 6th EAP focuses on four priority areas: climate change, nature and biodiversity, resource management, and environment and health. The objectives of each priority area are underlined in the 6th EAP:

- Tackling climate change: to stabilize the atmospheric concentrations of greenhouse gases at a level that will not cause unnatural variations of the earth's climate.
- Nature and biodiversity - protecting a unique resource: to protect and restore the functioning of natural systems and halt the loss of biodiversity in the European Union and globally. To protect soils against erosion and pollution.
- Environment and health: to achieve a quality of the environment where the levels of man – made contaminants, including different types of radiation, do not give rise to significant impacts on or risks to human health.
- Sustainable use of natural resources and management of wastes: to ensure the consumption of renewable and non-renewable resources does not exceed the carrying capacity of the environment. To achieve a de-coupling of resource use from economic growth through significantly improved resource efficiency, dematerialization of the economy, and waste prevention.

The Stance of DG Environment

The Lisbon Strategy and the 6th Environmental Action Programme are the two major action lines for implementing the current environmental policy of the EU. The above information on the Lisbon Strategy and the 6th EAP has been acquired and summarized from the two Environmental Policy Reviews (2003 and 2004) of the European Commission. Although both of these documents are placed within the context of the Lisbon Strategy and assess achievements in line with the 6th EAP, there seems to be considerable differences in the “standpoints” of the two reviews. This difference is even more obvious in the forewords of the former Commissioner Margot Wallström in the 2003 review and the new Commissioner Stavros Dimas’ foreword in the 2004 review as indicated below.

It is firstly possible to observe that competitiveness and innovation issues have become very frequently articulated in the EU in the last couple of years, and these issues consequently are reflected in the objectives of the development policy of the EU. The Lisbon Strategy, as mentioned above, is a concrete outcome functioning for the achievement of these objectives.

On this basis, if we make sort of a discourse analysis of the forewords of the two Commissioners in 2003 and 2004 reviews, it is possible to notice significant differences in personal intentions and possible prevailing policies of the EU over the environment.

In Wallström’s words, there’s no reference to “competitiveness”. She emphasizes the significance of “a clean and healthy environment for the well-being and prosperity of the society”. She underlines that “the EU’s strategies and policies must have sustainable development at their heart and economic growth must go hand in hand with social progress and environmental responsibility”. According to Wallström, the 2003 Environmental Policy Review helps “to consolidate the environmental pillar of the EU’s sustainable development strategy”. In the overall analysis, Wallström continuously stresses the necessity of the existence of sustainable development element in all policies, and additionally, the need to strengthen particularly the environmental pillar among others. In the same way, the review suggests that a renewed approach to environmental policy that focuses on integration, implementation and information is necessary for the effectiveness of the EU in enhancing the environmental component under the Lisbon Strategy.

2. EUROPEAN COMMUNITY ENVIRONMENTAL POLICY

The 2004 Environmental Policy Review, on the other hand, “puts particular emphasis on the relationship between environment and economy” (European Commission, 2005a). The review states that, during the past year competitiveness concerns dominated the EU policy debate, in the course of which a growing consensus has now developed on the contribution that eco-innovations and resource efficiency make to EU competitiveness and on the market opportunities they offer.

The Commission seems to focus very much on eco-innovation. According to the 2004 review, there are growing findings that environment policy and eco-innovation can promote economic growth and maintain and create jobs, contributing to competitiveness and employment. Climate change, biodiversity and environment and health continue to be priority issues in the light of the 6th EAP and the review also assesses the achievements in this respect.

The discourse of Dimas is in line with the environment–economy relationship approach as mentioned above, and is quite different when compared with Wallström's discourse. According to him “environmental action is important for our quality of life, because it contributes to sustainable growth and the long-term competitiveness of the EU at the same time as improving our environment and protecting our health”. Taking the point of departure from the Lisbon Strategy, Dimas states that “in order to achieve higher economic growth and increased employment the policy makers and stakeholders need to ensure that environmental improvements are a central consideration”. With respect to the content of the 2004 review, Dimas says “the focus is in particular how environmental policy can support competitiveness”. Dimas further mentions that “the review also shows the need for action in the short term to address climate change, loss of biodiversity and to reduce the impacts of the environment on health”.

The most significant distinction between the two discourses is that while Wallström focuses on environmental protection for the sake of the natural environment itself, Dimas constantly underlines the importance of environmental improvements for the benefit of competitiveness, employment and economic growth. It is possible to recognize this distinction in Dimas' sentences. In his sentences Dimas emphasizes the importance of environmental action for competitiveness in the first place, and connects the sentence with

“also” or “at the same time” to mention about the importance of environmental protection for human health, or whatsoever in the second place. Such discourse clearly shows a value distinction.

From a realistic point of view, it is understandable that the Commission may dedicate higher importance to issues like competitiveness, economic growth and employment as these are crucial for European life. However, the stance of DG Environment should be different. Bearing in mind the “fragility” of the environment (as an issue, policy), DG Environment should make “positive discrimination” towards the environment pillar of sustainable development. This would be the essential way to balance various priorities.

Concluding the section:

The actions proposed in the First Environmental Action Programme in 1972 are still addressing the main environmental problems in the EU. Obviously, changes in the character of environmental problems and the people's and policy-makers' perception of these problems have brought about developments into EU environmental policy. It seems that the six consecutive action programmes since 1972 till now have been able to follow these changes and address them accordingly. In addition, developments with respect to the introduction of new environmental policy instruments have also granted the involvement of various actors in environmental protection. The integration policy, which requires the integration of environmental considerations into other policy areas, is one of the most significant achievements to date. However, despite these positive developments, the actualization of these stated policies have remained insufficient so far. Lack of implementation and enforcement is acknowledged both by the European Commission and other related institutions as a major problem.

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This chapter presents the financial assistance mechanisms of the European Union available for the environment. As mentioned in the previous chapter, financial assistance is one of the means for supporting the Union's environmental policy, and the EU offers various funding opportunities for the environment. Given the inter-sectoral and supra-sectoral character of the environment, EU environmental funding is not only allocated through specific environmental financial instruments like the LIFE programme, but also through other programmes under regional policy, research and development policy, etc. On this basis, this chapter will present an overview of all funding opportunities in the field of environment. The LIFE programme, which is the main focus of this study, will be investigated in the next chapter.

3.1. Introduction to EU Funding: Where is the money coming from?

The origin of EU budget goes back to the establishment of the European Coal and Steel Community's (ECSC) budget. Originally, the budget only covered the administrative expenses of the Community. However, following the Paris Summit in 1952, the European Coal and Steel Community was granted its own resources to allocate financial and professional assistance to workers in coal and steel industry, and to give housing and investment loans to corporations (EUROPA, 2005a; Sahin, 1998). The Rome Treaty, which was signed in 1957, provided for the two Communities set up by the Treaty – the European Economic Community (EEC) and the European Atomic Energy Community (EURATOM) – to be financed by contributions from the Member States (EUROPA, 2005a). Sahin (1998) indicates that, later in 1967 when the organs of the three Communities, namely the European Economic Community (EEC), the European Atomic Energy Community (EURATOM) and the European Coal and Steel Community (ECSC), were merged, a single budget was formed under the budget of EEC. Following this, the own resources decision of 21 April 1970 replaced national contributions by a system of "own resources" (EUROPA, 2005a). This is explained below.

Today, the EU budget is financed by the so-called "own resources" system and other revenue. The own resources system is divided into the following three categories:

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- Traditional own resources → customs duties, agricultural duties and sugar levies collected by Member States on behalf of EU
- Value-added tax (VAT) resource → levied on the statistical harmonized VAT bases of Member States, which is calculated on the basis of national VAT receipts
- GNI (Gross National Income)-based resource → residual resource used to balance the budget; levied as a uniform rate in proportion to the GNI of each Member State (EUROPA, 2005a; European Commission, 2004d)

EUROPA (2005a) states that, own resources finance the bulk of the EU budget, but there is also a small share of other revenue such as tax and other deductions from staff remunerations, bank interest, contributions from non-member countries to certain Community programmes etc.

3.2. EU Funding for the Environment

European Union funding is allocated in line with the defined political priorities and objectives of the Union. Funding may be granted within the EU policy areas as diverse as enterprises, competition, employment and social affairs, agriculture and rural development, environment, energy and transportation, regional policy, education and culture, etc. In order to manage the allocation of financial resources towards the policy areas in a proper way, the EU has been establishing financial frameworks of certain periods. For instance, the future financial framework for 2007-2013 period comprises six headings in accordance with the Community priorities set for this period.

HEADING	
1	Sustainable growth
1a	Competitiveness for growth and employment
1b	Cohesion for growth and employment
2	Preservation and management of natural resources
3	Citizenship, freedom, security and justice
4	The European Union as a global partner
5	Administration
6	Compensations

Table 2. EU Financial Framework 2007-2013 (EUROPA, 2005b)

As mentioned previously, with respect to its inter- and supra-sectoral character, environment, as a policy, is intended to be integrated into all of the above headings, and

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therefore, funding for the environment comes from different schemes concerning different policies. Supporting this view, European Parliament (2005a) identifies that, EU funding for the environment is mainly done through policies, which are not specifically labeled as "environment policy". European Parliament (2005a) further mentions that, at present, for example, around 16.5 % of the ERDF (European Regional Development Fund) and 50% of the Cohesion Fund are devoted to the environment. In addition, all cohesion, agri-environment and rural development interventions must respect Community law on the environment (European Parliament, 2005a).

WWF (2005) underlines that, the extent to which EU Member States manage to implement key EU environmental policies, halt biodiversity loss and climate change, and achieve long-term sustainable development will in large part depend on money. According to WWF (2005), the regulations proposed by the European Commission for the most relevant EU funding instruments contain more possibilities for financing environmental and conservation priorities than ever before; nevertheless, the inclusion and integration of environmental priorities in programming and actual spending is an option, not an obligation for the individual EU Member States. Similarly, EEA (2005) states that, over the years, increasing amounts of financing have been used to support environmental programmes or projects within the Member States and developing countries; however, as EEA (2005) identifies, environmental funding still represents a relatively small proportion of total EU expenditure.

The rest of this section focuses on the funding schemes allocated for the environmental field either through direct environmental instruments, or indirect instruments under regional policy, research and development policy, etc. This section will, therefore, let us see the place of the LIFE programme among different funding schemes that offer opportunities for environmental initiatives.

European Commission (2005b) arranges EU funding for the environment under five areas with respect to EU policies:

- Environmental integration – with financing through the cohesion policy and rural development
- Core environmental financing

- Environmental external financing
- Environmental research financing
- Environmental financing through the educational, vocational training, culture and youth programmes

Funding mechanisms under these areas are briefly explained in the below sub-sections. The information is mainly summarized from European Commission (2005b) Handbook for Environmental Project Funding.

3.2.1. Environmental Integration

Economic and social **cohesion policy** of the EU aims at decreasing the disparities in levels of development and standards of living among different regions of the Member States (European Commission, 2005b; EUROPA, 2003). To assist in the goal of cohesion and sustainable development, the European Commission has created financial instruments (the Structural Funds, and the Cohesion Fund) to co-finance regional and sectoral operations in the Member States which fall within the competence of the national governments (European Commission, 2005b).

At present, four **Structural Funds** allow the European Union to grant financial assistance to resolve structural economic and social problems:

- the European Regional Development Funds (ERDF), whose principal objective is to promote economic and social cohesion within the European Union through the reduction of imbalances between regions or social groups;
- the European Social Fund (ESF), the main financial instrument allowing the Union to realize the strategic objectives of its employment policy;
- the European Agricultural Guidance and Guarantee Fund (EAGGF - Guidance Section), which contributes to the structural reform of the agriculture sector and to the development of rural areas;
- the Financial Instrument for Fisheries Guidance (FIFG), the specific Fund for the structural reform of the fisheries sector. (EUROPA, 2004a)

To improve the effectiveness of the Structural Funds, three measures were adopted by the Union for the period 2000-2006 (European Commission, 2005b). These are called Objective 1, Objective 2 and Objective 3.

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- Objective 1 promotes the development and structural adjustment of regions whose development is lagging behind, i.e. whose average per capita GDP is less than 75% of the European Union average.
- Objective 2 aims to contribute to the economic and social conversion of regions in structural difficulties other than those eligible for Objective 1.
- Objective 3 gathers together all the measures for human resource development outside the regions eligible for Objective 1.

(European Commission, 2005b)

There are also so-called **Community Initiatives** (Interreg, Urban, Leader+ and Equal), and the strengthened second pillar of the CAP (Common Agricultural Policy), the rural development policy, as an opportunity to finance environmental projects (European Commission, 2005b).

The tables below show the amount of Structural Funds for the 2000 – 2006 period, and explain which of the four Structural Funds serve for which of the Objectives and Community Initiatives.

	Objective 1	Outside Objective 1 regions	Objective 2	Objective 3	Interreg III	Urban II	Leader+	Equal
ERDF	X		X		X	X		
ESF	X		X	X				X
EAGGF	X	X					X	
FIFG	X	X						

Table 3. The Structural Funds (EUROPA, 2004a)

(million EUR, 2004 prices)	Objective 1	Outside Objective 1 regions	Objective 2	Objective 3	Community Initiatives
EU-15	150 104	1 226	24 367	26 553	11 361
EU+10	14 959	-	136	126	710
EU-25	165 063	1 226	24 503	26 679	12 701

Table 4. The Amount of Structural Funds 2000 – 2006 (EUROPA, 2005h)

The **Cohesion Fund** was set up to enable Spain, Greece, Portugal and Ireland to catch up in economic terms in the fields of transport and environment. From 2004 the ten new Member States are also be eligible. (European Commission, 2005b)

Projects to be eligible must belong to one of the two categories:

- **Environment** projects helping to achieve the objectives of the EC treaty and in particular projects in line with the priorities conferred on Community Environmental policy by the relevant Environment and Sustainable Development action plans. The Fund gives priority to drinking-water supply, treatment of wastewater and disposal of solid waste. Reforestation, erosion control and nature conservation measures are also eligible.
- **Transport infrastructure** projects establishing or developing transport infrastructure as identified in the Trans-European Transport Network (TEN) guidelines.
(EUROPA, 2005c)

European Commission (2005b) gives two project examples realized through the Cohesion Fund. These are Integrated Management of Municipal Waste in Galicia, Spain and Improvement of Water Quality of Beaches in Estoril, Portugal.

For the Cohesion Funds EUR 15.9 billion are available for the years 2004-2006. More than half of the funding (EUR 8.49 billion) is reserved for the new Member States. (EUROPA, 2005c)

3.2.2. Core Environmental Financing

Core environmental financing refers to funding opportunities that are directly and specifically allocated for environmental initiatives. In other words, the funding schemes under core environmental financing have specific objectives as to protect and improve the environment.

The main source of core environmental financing operated by DG Environment is the LIFE programme; nevertheless, there are also annual calls for proposals for environmental NGOs and civil protection, grants and loans for certain environmental projects, and under the nature and biodiversity theme, opportunities for better protection of forests and for raising awareness (European Commission, 2005b). These funding mechanisms are briefly introduced below. The LIFE programme will be elaborated separately in Chapter 4.

- **Civil Protection Assistance Interventions** mechanism aims to help ensure better protection of people, the environment and cultural heritage in the event of major emergencies. Budget for 2005: EUR 2.5 million.
- **Environmental Awareness** instrument aims to raise environmental awareness through financing campaigns, events, etc. Announced annually under General Call for Proposals provided that funds are available.
- **Financial Support for European Environmental Organizations** instrument supports NGOs for environmental policy development and implementation. Budget for 2005: EUR 8.4 million.
- **General Call for Environmental Proposals** support projects in several fields including climate change, chemicals, enlargement, global biodiversity, etc. Budget for 2005: EUR 2 million.
- **Marine Pollution** instrument aims to support the efforts and build the capacities of Member States in the field of deliberate marine pollution. Budget for 2005: 3.2 million.
- **LIFE** instrument co-finances projects for the implementation, development and enhancement of the Community environmental policy and legislation as well as the integration of the environment into other EU policies. It has been operating in three successive phases since 1992. The current phase, LIFE III, covers the 2000 – 2004 period. However, it has been extended to cover the years 2005 and 2006 as well. From 2007, it will be replaced by the new LIFE+ programme, which will be introduced in Section 4.4. Budget for 2005 and 2006: EUR 317 million.

As mentioned above, the LIFE programme will be explained comprehensively in Chapter 4.

3.2.3. Environmental External Financing

European Union grants funding to countries other than the EU Member States, which include candidate countries that have applied to become members of the EU, and other third countries from Asia, Latin America, etc. Below is presented only the funding available for EU candidate countries.

In order to help the countries that have applied to become members of the European Union and to carry out the reforms required, the Union is providing financial assistance in different areas. As far as the 10 new Member States from Central and Eastern Europe are concerned, these include institutional building measures through the **PHARE** programme,

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environment and transport investment support under the **ISPA** programme, and agricultural and rural development support by means of the **SAPARD** programme. These financial mechanisms are classified under the umbrella called "pre-accession funds". (European Commission, 2005b)

From 1 May 2004 on, the 10 new Member States are also eligible for the Structural Funds and Cohesion Fund. However, the candidate countries Romania and Bulgaria have still access to PHARE, ISPA and SAPARD. For Cyprus, Malta and Turkey separate aid packages were drawn up in 2000, carrying on from earlier programmes run under the financial co-operation and MEDA (Euro-Mediterranean Partnership) agreements (EUROPA, 2004b). EU-Turkey financial cooperation has been supported by MEDA and there are still ongoing projects funded under MEDA. However, following the confirmation of Turkey's candidacy at the Helsinki Summit in 1999, financial assistance to Turkey was placed within the pre-accession assistance, through which a single budget item is allocated to Turkey each year (DELTUR, 2003). Turkey uses this budget in the light of the National Programme on the Adoption of the *Acquis* (NPAA).

As stated above, ISPA, PHARE and SAPARD have been created to assist the Central and Eastern European candidate countries in their preparation for accession. When compared with other instruments like LIFE, these pre-accession instruments have been used for larger sized, infrastructure projects with sizeable budgets. For instance, under the ISPA programme the sewerage and wastewater treatment system of the city of Constanta in Romania has been rehabilitated with a budget of EUR 96.6 million; the Mińsk Mazowiecki – Siedlce section of the E20 railway line, which connects Berlin to Warsaw, and beyond to Byelorussia and to Moscow has been modernized with a budget of EUR 124.6 million (European Commission, 2005b). PHARE has been supporting institution building and investment projects with a total budget of about EUR 11 billion during the period 2000 – 2006. Similarly, SAPARD has been supporting projects in the agricultural sector and specifically regarding the implementation of the CAP (Common Agricultural Policy) and related legislation with an annual budget of EUR 520 million.

Another instrument is the Short and Medium-term Priority Environmental Action Programme (**SMAP**) which runs from 2002 till 2006. The SMAP is the common basis for environmental

purposes (as regards both policy orientation and funding) in the Mediterranean region, and therefore, it is a framework programme and not a separate funding instrument. As regards any EU funding for activities undertaken by the Mediterranean Partners, the major financial instrument for the implementation of the SMAP is the **MEDA** Programme, providing funding for all activities foreseen by the Barcelona Declaration with a budget of EUR 5 350 million for the period of 2000 – 2006. (EUROPA, 2004c)

3.2.4. Environmental Financing through Research, Education and Loans

Funding for the environment is also possible through the research and educational programmes of the EU. In addition, European Commission (2005b) includes the loans of the European Investment Bank (EIB) and the European Bank for Reconstruction and Development (EBRD), which grant funding for environmental investment and infrastructure projects. These are briefly explained below.

Research

The Framework Programmes for Research, Technological Development and Demonstration is the main instrument for funding research within the EU. The current **6th Framework Programme (FP6)** runs for the period 2002 to 2006 with a budget of EUR 17.5 billion. FP6 funds actions under seven thematic priorities:

- Life sciences, genomics and biotechnology for health (EUR 2 514 million);
- Information society technologies (EUR 3 984 million);
- Nano-technologies and nanosciences, knowledge-based multifunctional materials, and new production processes and devices (EUR 1 429 million);
- Aeronautics and space (EUR 1 182 million);
- Food quality and safety (EUR 753 million);
- Sustainable development, global change and ecosystems (EUR 2 329 million);
- Citizens and governance in a knowledge-based society (EUR 247 million).

Among these thematic priorities, it has been possible to realize projects in the field of energy, environment and sustainable development under the "Sustainable development, global change and ecosystems" thematic priority, which has a budget of EUR 2 329 million (i.e. 18.7% the total budget of thematic priorities).

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The Seventh Framework Programme (FP7), the successor of the current FP6, will run from 2007 to 2013. This new programme will have a new thematic component, namely "Socio-economic sciences and humanity", which will give the opportunity to also develop environmental projects.

Education

Culture 2000, **Leonardo da Vinci**, **Socrates**, and **Youth** programmes have specific aims as promoting a common cultural area, exchange of cultures through mobility of students, etc. Nevertheless, financed actions and projects may sometimes cover issues with environmental relevance. Examples include "Euro Roots European Training for Conservation Trainers of the Future" realized under the Leonardo da Vinci programme, which aims to raise awareness of the European dimension of environmental training and to share good practice, or the "SEED (School Development through Environmental Education)" project which aims to promote environmental education with funding from the Socrates programme.

Loans

The **European Investment Bank (EIB)** helps the EU to implement its policy objectives. The Bank provides long-term financing for investment projects both in the public and private sector, furthering EU policies. Water supply and sewerage and wastewater treatment plants, flood prevention and reconstruction, construction of urban waste processing and recycling plants are examples to EIB funded actions. EIB's loans in water and sewerage sector amounts to EUR 2 billion in 2005.

The **European Bank for Reconstruction and Development (EBRD)** finances projects lending and operational needs by borrowing funds on the international capital markets. Projects with specific environmental aims include energy efficiency credit lines and municipal wastewater treatment plants. There are also projects where environmental benefits are incidental as a result of, for example, technology upgrades which improve environmental efficiency. The EBRD has, for instance, funded by 20% the rehabilitation of the sewerage and wastewater treatment system of the city of Constanta as presented in the previous pages under ISPA.

Concluding the section:

It is possible to observe that various avenues exist in the EU for funding environmental projects. However, it is only the instruments under "Core Environmental Financing", and the relevant components of the Cohesion Fund and the Sixth Framework Programme that grant funding *solely and specifically* for environmental projects. Furthermore, it can be seen that, among these instruments, the LIFE instrument possesses a unique role in terms of its scope and budget. This will be more clear in the following chapter which investigates the LIFE programme.

4. THE LIFE PROGRAMME

LIFE is the acronym for the French title *L'instrument Financier pour l'Environnement*, literally “financial instrument for the environment”. This chapter will introduce the EU LIFE programme, its emergence, scope and objectives, structure and other related background information prior to discussing Turkey's participation in the programme in the following chapter. The successor of the current LIFE programme, LIFE+, will also be introduced separately in Section 4.4.

4.1. The Context

EUROPA (2005d) identifies that, European Community financial assistance for the environment was first made available for nature protection in the early 1980s. It is explained that, the Birds Directive was adopted in 1979 and the European Parliament introduced a small budget for co-financing the management of Special Protected Areas dedicated to birdlife preservation in 1982 (EUROPA, 2005d). This funding was repeated in 1983 and provided support for small-scale, preparatory projects and was known as pre-ACE in respect of the later ACE Regulations (Action Communautaire pour l'Environnement or Community Action for the Environment) (EUROPA, 2005d).

Until the LIFE programme was initiated in 1992, ACE, MEDSPA, NORSPA and ACNAT programmes were in effect; these are briefly presented below.

ACE (Action Communautaire pour l'Environnement) ran in two phases, from 1984 till 1987, and from 1987 till 1991. The first phase supported projects in three fields:

- Development of new clean technologies
- Development of new techniques for measuring and monitoring the natural environment
- Help to protect habitats of endangered species of particular importance to the Community, as defined by Directive 79/409/EEC

(EUROPA, 2005d)

The second phase was expanded in scope to include the financing of demonstration projects in the fields of waste, contaminated site restoration and remedial action for land

damaged by fire, erosion and desertification. In all, the ACE programme funded 53 nature protection and 55 clean technology projects with a budget of ECU 98 million. (EUROPA, 2005d)

MEDSPA (ECU 38 million) and **NORSPA** (ECU 16 million) ran concurrently with ACE and covered the Mediterranean and Northern European maritime regions respectively. MEDSPA, which ran from 1986 to 1991, supported 198 projects in areas such as water resources, prevention of water pollution, waste disposal and – more than 25 percent of supported projects – conservation of habitats and endangered species. EUROPA (2005d) states that NORSPA had a shorter life, running from 1989 to 1991, and aimed to support projects on conservation of marine life and integrated management of biotopes, with a particular emphasis on international cooperation and coordination. A total of 38 projects have been realized under NORSPA. (EUROPA, 2005d)

ACNAT, Actions by the Community for Nature, replaced ACE which was concluded in 1991. EUROPA (2005d) identifies that ACNAT was designed to help support the implementation of the newly adopted Habitats Directive in May 1992. Soon after ACNAT was adopted, **LIFE I** was born with a budget of ECU 400 million in 1992.

4.2. The Scope and Objectives

As DEFRA (2005) underlines, while many other EU funding programmes have environmental strands – as indicated in the previous section – LIFE is the only programme devoted entirely to supporting and developing EU environmental policy throughout the Community. The LIFE programme has been implemented in three phases since it was initiated in 1992. The first phase ran from 1992 to 1995, the second phase between 1996 and 1999, and the third phase from 2000 till 2004 with an extension till the end of 2006. Therefore, currently the extension of LIFE III is in effect.

This section will present the scopes and objectives of the LIFE programme mainly in a descriptive manner by identifying the changes and modifications the programme has undergone throughout its three phases from 1992 until today. As the third phase of the programme is currently in operation, LIFE III will be elaborated upon and its scope, objectives and structure will form the determining background for Chapter 5. Section 4.3.

will be devoted to the findings of the “Mid-term evaluation on the implementation of the LIFE financial instrument” carried out by AEA Technology Environment in July 2003. This will also form a useful background for the specific evaluation of Turkey's participation in the programme.

4.2.1. LIFE I (1992 – 1995)

EUROPA (2005d) points out that, LIFE I coincided with the first time that EU environmental policy was given a firm Treaty basis, in the Single European Act, and with the Fifth Environment Action Programme, which was adopted in 1992. The LIFE programme and each of its three phases have been established through *Council Regulations of the European Communities*. Therefore, the programme is also referred to as “the LIFE Regulation” at times. LIFE I was established by the Council Regulation (EEC) No 1973/92 of 21 May 1992. Article 1 of this Regulation identifies the general objective of the LIFE programme:

The general objective of LIFE shall be to contribute to the development and implementation of Community environmental policy and legislation by financing:

(a) priority environmental actions in the Community;

(b) (i) technical assistance actions with third countries from the Mediterranean region or bordering on the Baltic Sea;

(ii) in exceptional circumstances, actions concerning regional or global environmental problems provided for in international agreements.

Turkey's participation in the LIFE programme was granted through Paragraph (b) (i) of Article 1 of the Regulation as stated above. Turkey still participates in the programme through the third-country assistance component.

The general objective of the programme has undergone some changes in the following phases of the programme, namely in LIFE II and LIFE III. Both of these phases will be elaborated below, after looking at the details of LIFE I.

The above stated general objective of LIFE I would be realized through the following components:

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- Promotion of sustainable development and quality of the environment (new monitoring techniques, clean technologies, waste disposal, restoring contaminated sites, land-use planning and management, aquatic pollution, urban environment) - indicative allocation: 40 percent of the programme budget
- Protection of habitats and of nature (protecting endangered species and threatened habitats; combating desertification, erosion, etc.; marine conservation; freshwater conservation) - indicative allocation: 45 percent of the programme budget
- Administrative structures and environment services (cooperation and network development) - indicative allocation: 5 percent of the programme budget
- Education, training and information (professional training, environmental education and understanding, dissemination) - indicative allocation: 5 percent of the programme budget
- Actions outside Community territory (third country assistance) - indicative allocation: 5 percent of the programme budget
(EUROPA, 2005d)

As mentioned above, Turkey's participation would be under third country assistance, which, according to the LIFE I Regulation of 1992, financed actions;

- to promote the establishment of the necessary administrative structures in the environmental field;
- to provide the technical assistance needed for the establishment of environment policies and action programmes;
- to promote the transfer of appropriate environment-friendly technologies and to foster sustainable development;
- to provide assistance for third countries faced with ecological emergencies.

LIFE project database³ shows that, during the first phase of LIFE, between 1992 and 1995, the number of projects selected under third country assistance is 51. 23 out of these 51 projects have been realized by International Organizations, mostly by the World Bank or European branches of other international organizations like WWF (World Wide Fund for Nature), IMO (International Maritime Organization), etc. For instance, "METAP (Mediterranean Environmental Technical Assistance Programme) Albania, Turkey, Tunisia, Algeria" is one of

³ The LIFE project database lists all funded LIFE projects since 1992.
See: <http://europa.eu.int/comm/environment/life/project/Projects/index.cfm>

the first projects of LIFE I, and was implemented by the World Bank for the general objective of sustainable development in the Mediterranean Basin by realizing specific actions like water supply and sewerage management, cultural heritage, municipal environmental plans, etc. Eight subsequent METAP projects, with specific objectives in the same region and targeting single countries, have been realized under LIFE I following this first METAP project. For the duration of LIFE I, Turkey has received funding for 1 project in 1995. Therefore, although Turkey has benefited from the programme through projects like METAP, which were implemented by international organizations and covered the Mediterranean region, it was not until 1995 that Turkey was involved in the programme as a direct beneficiary. Turkey's participation and the projects implemented to date will be specified in the next chapter.

EUROPA (2005d) mentions that, during its lifetime, LIFE I funded a total of 731 projects with a total funding of EUR 400 million. The number of LIFE I projects according to years is as follows:

Year	1992	1993	1994	1995
# of projects	105	144	245	237

Table 5. LIFE I projects (1992 – 1995)

Further statistics on third country projects will follow in Section 4.3.

4.2.2. LIFE II (1996 – 1999)

The second phase of the LIFE programme covered an enlarged EU with the new membership of Austria, Finland and Sweden in 1995. LIFE Regulation was amended, and the programme was divided into three strands, namely LIFE Nature, LIFE Environment and LIFE Third Countries.

According to the amended LIFE Regulation (EC) No 1404/96 of 15 July 1996, the general objective of LIFE, as stated in Article 1, should be;

“to contribute to the development and, if appropriate, implementation, of Community environment policy and legislation.”

European Court of Auditors (2003), in their report which focuses on LIFE II, find the global objective of LIFE very broad and not defined in sufficient detail. This statement seems correct when we compare the above general objective with that of LIFE I as stated in

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Article 1 of the previous Regulation. However, Article 2 of the current LIFE II Regulation, which spells out the areas of activity eligible for financial support, indicates the specific objectives of the programme in a more clear and detailed way, and seems precise in this respect. According to Article 2, the areas of activity eligible for financial support are:

1. in the Community:

(a) nature conservation actions: actions as defined in Article 1 (a) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora needed to implement Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds and Directive 92/43/EEC and, in particular, the Natura 2000 European Network⁴;

(b) other actions designed to implement Community environment policy and legislation:

(i) innovative and demonstration actions designed to promote sustainable development in industrial activities;

(ii) demonstration, promotion and technical assistance actions for local authorities in order to encourage the integration of environmental consideration in land use development and planning with a view to promoting a sustainable development;

(iii) preparatory actions designed to contribute to implementing Community environment policy and legislation, particularly:

- protection and rational management of coastal areas, of rivers which flow into coastal areas, their possible wetlands and the sustainable management of those areas and rivers,*
- reduction of waste, in particular toxic and hazardous waste,*
- protection of water resources and water management, including waste or contaminated water treatment,*
- air pollution, acidification, tropospheric ozone;*

2. in third countries bordering on the Mediterranean and the Baltic Sea other than the countries of central and eastern Europe which have signed Association Agreements with the European Community:

⁴ Natura 2000 network consists of the Special Protection Areas (SPAs) for birds – as required by the Birds Directive – and Special Areas for Conservation (SACs) for other species and habitats – as required by the Habitats Directive. All EU Member States contribute to the network of sites in a Europe-wide partnership. (EUROSITE, 2005)

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(a) technical assistance in the establishment of the administrative structures needed in the environmental sector and in the development of environmental policy and action programmes;

(b) conservation or restoration, from the point of view of nature protection, of significant habitats of threatened species of flora and fauna;

(c) demonstration actions to promote sustainable development;

Budget allocation for each of the strands, from a total of EUR 450 million, was 46% for LIFE Nature, another 46% for LIFE Environment, and an 8% for LIFE Third Countries.

LIFE II Regulation contained new Articles. Worth to mention here is Article 9a which lays down the criteria for the actions to be financed. Among the paragraphs in the article, paragraph (c) states the criteria for actions to be implemented in third countries. Except the two criteria, which concern feasibility, management and technical competence issues, four criteria underline strategic issues:

- *presenting an interest with regard to the Community, notably its contribution to implementing regional and international guidelines and agreements,*
- *contributing to the realization of an approach favoring sustainable development on the international, national, or regional level,*
- *providing solutions to environmental problems which are widespread in the region and the relevant sector,*
- *increasing cooperation on cross-border, transnational, or regional level.*

As understood from these criteria, the Commission encourages projects with regional and international approaches which would have transnational effects and/or replicable results. In other words, projects with interest to the Community seem to be more appreciable from the Commission's side. However, when we look at the projects realized under the Third Countries strand, it is possible to notice several projects which aim to solve specific local and national environmental problems.

According to the LIFE project database, 67 projects were realized under the Third Countries strand for the duration of LIFE II. Unlike the first phase of the programme, submission of projects by international organizations remains lower – at a number of 6 – during LIFE II, and

the rest of the projects are submitted by individual countries. This might be taken as an indicator for an increase in the project development and preparation capacity of third countries from the time when the programme was initiated in 1992. At least it would be possible to say that the environmental stakeholders have become aware of the funding opportunity that is available out there. In the same way, the number of projects submitted by Turkey during this phase amounts to 11, whereas it was only 1 during LIFE I. The total number of projects funded in the second phase of LIFE is 877, of which 312 is Nature, 498 is Environment, and 67 Third Countries projects.

EUROPA (2005d) identifies that, as LIFE II came to a close in 1999, participation was opened to former EU accession countries. Also in June 1999, "LIFE week" was held, to bring together those involved in LIFE projects, which later turned into the annual "Green Week⁵" organized in Brussels (EUROPA, 2005d).

4.2.3. LIFE III (2000 – 2004) and its extension to 2006

As LIFE III (and its extension) is the current phase of the LIFE programme in effect, this section will have a wider coverage compared with the previous two phases of the programme which are already completed. In addition, the Third Countries strand will receive the main focus owing to the focus of the overall report.

The third phase of the LIFE programme ran for a period of five years with an increased budget of EUR 640 million, funding a total of 870 projects. EUROPA (2005d) mentions that, under LIFE Nature, new accompanying measures were introduced to encourage more multinational projects, and networking amongst projects (through "starter" measures to support the preparation of projects involving several Member States, and "co-op" measures to support the exchange of experience). Consequently, the 870 projects realized between 2000 – 2004 included 318 Nature, 449 Environment, 81 Third Countries, 12 Nature Starter and 10 Nature Co-op projects. In September 2004, it was decided that LIFE III would be extended for a further two years (2005 and 2006), with an additional budget of EUR 317 million. EUROPA (2005d) states that, the intention of the extension was to avoid a legal gap

⁵ Green Week consists of a programme of conferences and an exhibition with stands featuring best practices, projects and partnerships. The event is an experience sharing, awareness raising and discussion platform for local, regional and national decision-makers, businesses, non-governmental organizations and the general public. (EUROPA, 2005e)

between the close of LIFE III at the end of 2004, and the adoption of the new Community financial perspectives in 2007.

LIFE III was adopted with the Regulation (EC) No 1655/2000 of the European Parliament and of the Council of 17 July 2000. The general and specific objectives of the programme seem to be better formulated in this third phase. As in the previous Regulations, Article 1 states the general objective of the financial instrument for the environment:

The general objective of LIFE shall be to contribute to the implementation, updating and development of Community environment policy and of environmental legislation, in particular as regards the integration of the environment into other policies, and to sustainable development in the Community.

In this definition, it is possible to identify the implications of the then-recent initiatives of the EU, namely the initiatives of the Amsterdam Treaty of 1999. As outlined in the second chapter, although the Single Act of 1987 establishes the way for the “integration” requirement, through the Amsterdam Treaty a new Article was formulated in the Treaty establishing the European Community, which called for environmental protection requirements to be integrated into the definition and implementation of other policies, and inserted the concept of “sustainable development”. The third LIFE Regulation, in this respect, has a general objective that is consistent with the Community environmental policy identified in Community treaties.

Article 3, 4 and 5 of the LIFE Regulation spell out the specific objectives of Nature, Environment and Third Countries strands respectively:

- LIFE Nature: *The specific objective of LIFE Nature shall be to contribute to the implementation of Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds, Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora and, in particular, the Natura 2000 European network established by the latter Directive.*
- LIFE Environment: *The specific objective of LIFE Environment shall be to contribute to the development of innovative and integrated techniques and methods and to the further development of Community environment policy.*

- LIFE Third Countries: *The specific objective of LIFE Third Countries shall be to contribute to the establishment of capacities and administrative structures needed in the environmental sector and in the development of environmental policy and action programmes in third countries bordering on the Mediterranean and the Baltic Sea other than the countries of central and eastern Europe which have concluded Association Agreements with the European Community and are referred to in Article 6(1).*

Focusing on LIFE III Third Countries

European Commission identifies comprehensively the eligibility requirements, some important considerations and technical and procedural issues for prospective project proposals. An overall view of these issues is presented below.

Eligibility requirements for project submission

Article 6(1) states that, *LIFE shall be open to the accession candidate central and east European countries in accordance with the conditions referred to in the Association Agreements concluded with those countries and on the basis of provisions of the decision of the Association Council competent for each country concerned.*

In short, the eligible countries for funding under LIFE Third Countries are: Albania, Algeria, Bosnia-Herzegovina, Croatia, Egypt, Israel, Jordan, Lebanon, Morocco, Syria, Tunisia, Turkey, the West Bank and Gaza, and the Baltic shoreline of Russia (Kaliningrad and St Petersburg regions). Until their accession to the EU in May 2004, Cyprus and Malta were also eligible for the Third Countries strand. Regarding institutional conditions for eligibility, European Commission (2005c) states that, LIFE Third Countries is open to persons or companies of whatever legal status provided that they reside or are established in an eligible country. Therefore, basically all types of institutions (governmental, non-governmental, research institution, university, SME, etc.) are eligible to apply for LIFE Third Countries with a project proposal. Nevertheless, European Commission (2005c) points out that, LIFE Third Countries is primarily intended to support the efforts of national administrations in implementing, updating and developing environmental policies and action programmes in the eligible countries, therefore, it is at first directed at these administrations to encourage them to apply.

Important considerations for project proposals

After the Sixth Environmental Action Programme was adopted in July 2002, LIFE guidelines and application forms started to articulate the importance of taking into account the principals of the 6th EAP when preparing project proposals. For instance, the 2005 Application Form for LIFE Third Countries state that,

Envisaged actions must be in line with EC environmental policy and with its general priorities, as defined in the Decision No 1600/2002 of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Environmental Action Programme of the European Community 2001 – 2010.

Therefore, according to European Commission (2005c), while the foremost consideration for project proposals is that the projects should be in line with the specific objective of LIFE Third Countries, the second consideration is that they are in line with EC environmental policy, in particular with the principles of the Sixth Environmental Action Programme.

European Commission (2005c) elaborates on the specific objective of LIFE Third Countries as follows:

The Commission supports technical assistance initiatives which, through the establishment of new administrative bodies and structures or through the reinforcement of existing ones, contribute to strengthening co-operation, deepen the exchange of experience and favor the transfer of expertise and knowledge with a view to assisting the country (or the region) concerned to develop environmental legislation and planning to manage better its environment and promote strategies for sustainable development.

The second consideration for projects (i.e. 6th EAP connection) goes together with another concern, that is the need to *correspond to the priorities decided on in the context of national environmental action plans and programmes* (European Commission, 2005c). This supplementary requirement, indeed, renders the programme more beneficial for third countries as it explicitly opens the way for projects to address country-specific environmental priorities.

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According to European Commission (2005c), instead of addressing the priorities decided on in the context of national environmental action plans and programmes, the projects also have the option to carry out actions of regional or international dimension. In other words, within the framework of 6th EAP, the projects can either focus on national priorities or address international priorities. Such projects of international level are expected to:

- be in line with the resolutions adopted during the United Nations Conference on Environment and Development (UNCED);
- be included among the environmental action programme initiatives for the Baltic, established in the context of the Helsinki Conference (HELCOM);
- correspond to the principles established in the context of the Mediterranean Action Plan (MAP) and the Barcelona Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean;
- correspond to the principles established in the context of the Bonn Convention on the Conservation of Migratory Species of Wild Animals, the Bern Convention on the Conservation of European Wildlife and Natural Habitats, and the Agreement on the Conservation of Cetaceans of the Black Sea, the Mediterranean and the Contiguous Atlantic Area (ACCOBAMS);
- be in line with the priorities agreed upon within the Short and Medium-Term Environment Priority Action Programme (SMAP) / Euro-Mediterranean Partnership.

The third consideration spelled out by European Commission (2005c) is that the projects should meet the following six LIFE Regulation criteria:

- to be of interest to the Community, notably through its contribution to implementing regional and international guidelines, orientations and agreements;
- to contribute to an approach promoting sustainable development at international, national or regional level;
- to provide solutions to major environmental problems in the region and the relevant sector;
- to promote co-operation at the trans-frontier, trans-national or regional level;
- to ensure that technical proposals are practicable in terms of technical feasibility, timetable, budget, management and value for money;
- to be carried out by technically and financially sound participants.

The fourth set of considerations includes issues related to time, finance, etc. It is mentioned that, the total costs of projects should be between **EUR 300 000 – 800 000**, where Community financial support is limited to **70%** of the eligible costs. Although there is no standard duration for projects, they usually range from **1 to 3 years**.

European Commission (2005c) also underlines the following considerations:

- Projects providing solutions which can be re-used in other countries and/or areas of the region.
- Cross-border and regional projects with the involvement of two or more countries.
- Technical quality and value for money.
- Projects which involve activities promoting the re-utilization and dissemination of results.

Technical and procedural issues

Although this report and the upcoming evaluation chapter do not look into the technical aspects and procedures of the LIFE programme, presenting an overview of such issues as the establishment of project consortiums and the basics of the application process would bring out a more concrete picture of the whole issue.

As mentioned previously, LIFE Third Countries is open to all natural and legal persons. However, as European Commission (2005c) defines, project participants can have different roles in the proposed projects:

- Proposer: Future beneficiary of the project. The only contact point for the Commission. Solely legally and financially responsible for the implementation of the project.
- Partner(s): Partnership is encouraged if it is to strengthen the project. Partners contribute in the implementation of the project and must bear a part of the costs.
- Co-financier(s) (other than Community funding): Contribute financially to the project. Unless they are partners to the project, they are not required to be involved in the implementation.
- Sub-contractor(s) (= external assistance): Provide external services (e.g. consultancy) to the beneficiary and/or partners who fully pay for their activity.

When the project team is established and the proposal prepared, it is obligatory to attach with the application a *documented declaration of interest and support from the competent environmental authorities⁶ of the relevant third country concerned showing explicitly that the project fits into the national environmental policy and priorities* (European Commission, 2005c). The project proposals are submitted to the national competent environmental authorities, who subsequently forward the applications to the European Commission.

Together with the announcement of "calls for project proposals", the Commission makes available online an "Application Guide". This application guide includes information about the programme, technical and procedural guidelines, proposal preparation forms and annexes. The guide also includes a "logical framework" tool, which help the proposers to formulate their ideas better and in a standardized and systematic way.

4.3. Mid-term Evaluation of the LIFE Programme

This section will introduce the main and notable findings of the "Mid-term evaluation on the implementation of the LIFE financial instrument" carried out by AEA Technology Environment Company contracted by the European Commission Directorate General Environment. The evaluation is meant to cover LIFE III, however, AEAT (2003) mentions that, as few LIFE III projects have been completed the evaluation has examined the outputs and impacts of LIFE II projects also. In addition, AEAT (2003) states that, the evaluation has been carried out at the programme level and has therefore not focused on individual projects. Consequently, this section is intended to give some background information on the implementation of the LIFE programme and specifically the implementation of the Third Countries strand.

From the point of view of theoretical considerations on evaluation research, this evaluation has mainly a *formative* character since AEAT (2003) aims to look at the *processes* that lead to various outputs and how these in turn lead to the achievement of the general and specific objectives of the programme. In addition, the ultimate objective of AEAT (2003) as

⁶ Competent authority of the third country means the national authority in that country which is responsible for the environment: in the majority of countries this will be the Ministry of Environment. (European Commission, 2005c)

“to put forward recommendations for continuing improvement” is indeed the purpose of formative evaluations (see pg. 2, Frechtling and Westat (1997)).

AEAT (2003) firstly underlines that, the three thematic components of LIFE Nature, LIFE Environment and LIFE Third Countries have very different characteristics. Therefore, the evaluation treats each component independently and has specific findings for each theme. In view of that, below is some limited amount of general conclusions regarding the overall status of the programme and more comprehensively the specific findings of the Third Countries strand.

General Conclusions

AEAT (2003) underlines that, the LIFE programme remains the only instrument dedicated to supporting Community environmental policy. The report identifies that, there is abundant evidence that the programme contributes to the *implementation* of policy, whereas, it is less clear as to whether LIFE contributes to stimulating debate and *developing* policy or legislation. Nevertheless, AEAT (2003) adds that, it is only the objective of the LIFE Environment strand to develop Community policy, while LIFE Nature and LIFE Third Countries components are concerned with implementing current policies and/or developing capacity for their implementation.

As emphasized in the LIFE III Regulation, dissemination of the results and experiences of LIFE projects is a principal objective so that these can be exploited by relevant stakeholders for further projects. On this basis, insufficient communication activities have been replaced in 2002 by the launch of a new **LIFE Communication Strategy**, which seeks to enhance the communication towards both the direct participants (institutions, beneficiaries, etc.) and the indirect recipients (potential re-users of the results, potential beneficiaries, environmental organizations, informed sections of the public) as well as the European citizen/taxpayer (European Commission, 2003b). Some of the major actions introduced under the Communication Strategy are:

- The LIFE website (<http://europa.eu.int/comm/environment/life/home.htm>), which contains a detailed presentation of the programme with legislative and important documents published to date, news about funded projects and organized events,

project database with extensive search options, publications about the programme, project compilations, guidelines, contacts, etc.

- Seminars, conferences, exhibitions, fairs and especially the LIFE Days, during which large national meetings where national authorities, beneficiaries and other stakeholders meet to discuss LIFE outputs and priorities.
- An electronic monthly Newsletter, which reaches more than 3000 contacts (mostly beneficiaries, institutions, and specialized public) and contains information on successful LIFE projects, events and publications.

(European Commission, 2003b)

LIFE Third Countries

As regards the usefulness of the programme, AEAT (2003) mentions that, all the stakeholders⁷ they have contacted believe that LIFE Third Countries has played an extremely valuable role in helping to build environmental capacity in EU neighboring countries. AEAT (2003) highlights the importance of the **bottom-up** approach of the programme, which gives the recipients a flexibility to design a project so that it helps to ensure that the urgent local environmental needs are met. In addition, as the programme is open to all natural and legal persons, the programme is accessible to Non-governmental Organizations (NGOs), who may not be able to access funding from their National Authorities (AEAT, 2003).

Another question is the place of the programme in the big picture of environmental funding schemes. According to AEAT (2003), LIFE Third Countries gives funding to projects which are too small to be considered under programmes such as SMAP, PHARE, TACIS, CARDS, MEDA, etc.; and consequently, it can respond much more quickly and flexibly than these bigger instruments to urgent needs. A tangible example AEAT (2003) gives, is the capacity building projects in Bosnia-Herzegovina and Croatia which were implemented after the war in the region and responded quickly to the needs of the region. In addition to the ability of the programme to respond quickly to urgent needs through medium-sized projects, AEAT (2003) states that the programme is well coordinated with the larger aid programmes through close liaison with the EU Delegation in the target countries. However, European Court of Auditors (ECA) (2003) has a contradictory identification that, the financial instruments are

⁷ The stakeholders consulted by AEAT includes National Authorities, European Commission, past and then-current LIFE beneficiaries, and the LIFE Unit management and staff.

scattered between various Directorates-General (DGs) with no horizontal coordination, therefore, their implementation becomes difficult at operational level. Subsequently, European Court of Auditors (2003) adds that, with regard to LIFE in particular, no complementarities can be found in practice between the aid measures financed in the form of projects and other forms of aid measure, especially the Structural Funds. There exists quite a significant conflict among these two findings. AEAT's identification, indeed, refers only to LIFE Third Countries strand and looks at the complementarity between this strand and the bigger Community funds of the same regional coverage. ECA's statement, on the other hand, refers to the whole LIFE programme and discusses the complementarity between the whole programme and all relevant Community financial schemes including Structural Funds, Cohesion Fund, etc. Despite this conflict, ECA's general statement on the lack of horizontal coordination among DGs and the resulting implementation constraints is worth to underline. Yet again, as it is the main mission and specialization of the European Court of Auditors to do the financial management of the European Union, it would be rationalistic to consider their statements as noteworthy. This is, indeed, an important issue – especially as regards the Third Countries strand – since a synergy could be achieved between the bottom-up LIFE projects and bigger sized projects. For instance, a successful waste management project implemented on a local level could be taken as a model for a nation-wide implementation through larger funds. Or, with a different approach, a LIFE project with environmental management or policy focus could be complemented with a relevant infrastructure project through appropriate funds. This harmony should be achieved by the coordination of relevant national authorities (Ministries of Environment, EU Delegations, etc.).

Although LIFE Third Countries is a focused programme in terms of regional coverage and specific objectives, it gives the project proposers the opportunity to deal with a broad variety of environmental problems. In this respect AEAT (2003) mentions that, LIFE Third Countries projects address a very wide range of environmental aspects but many cover environmental issues such as biodiversity, water resources, waste management and air quality. Other projects cover issues that are particularly important to the third country at their current stage of development. AEAT (2003) further identifies that, in the more developed countries, such as Cyprus, projects focus more towards Integrated Industrial Pollution Control, transport and special areas of conservation. European Commission

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(2003b) states that all LIFE III Third Countries projects address one or more of the following types of measures:

- development or adaptation of **legislation**;
- training of staff;
- creation or reinforcement of environmental **management structures**;
- creation or reinforcement of **structures for data collection**, inventory, storage, monitoring or dissemination;
- definition of **planning processes** including policies, strategies or action plans;
- drawing up of standards or regulations;
- awareness raising; and/or
- development of **technical tools**, including technical guidelines, the transfer of know-how and the identification of best practice.

European Commission (2003b) gives statistics on the coverage of environmental issues in the Third Countries strand, which fall largely into three groups: pollution (23%), biodiversity (20%) and waste (11%). The diagram below shows the categories of projects of 2001 and 2002. European Commission (2003b) states that, the joint largest category of projects is that covering general environmental management structures (23%), while a closely related category of projects focuses on specific environmental tools, such as eco-management and EMAS. "Other" category includes projects covering issues as environmental education, land survey and soil resources.

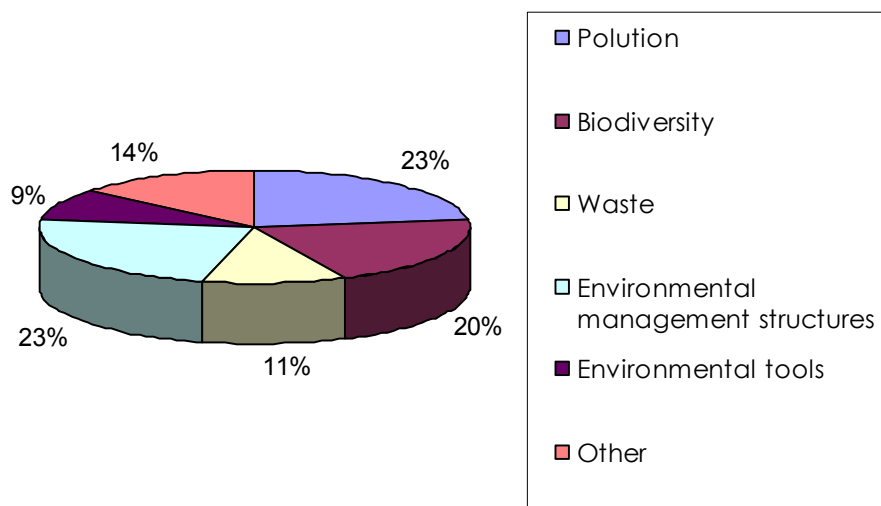


Figure 2: LIFE Third Countries funding by theme (European Commission, 2003b)

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Another issue is the **project proposal writing capacities** of third countries. AEAT (2003) identifies that, while less developed countries that most require capacity building support tend to submit fewer and poorer proposals, more developed countries tend to be more successful in winning projects as they generally submit better quality proposals. AEAT (2003) explains that, this is because proposals are evaluated on their quality and more developed countries, which already have some institutional capacity, have the capability to put together better proposals, partly as a result of that capacity. Accordingly, AEAT (2003) recommends that consideration should be given to developing a list of priority countries and bringing this priority into the proposal selection process, or to providing proposal development support to the neediest countries. The table below shows the number of projects submitted per third countries between 2000 – 2003.

	2000/2001		2002		2003		Total	
	Number of projects	EC contribution (EURO)	Number of projects	EC contribution (EURO)	Number of projects	EC contribution (EURO)	Number of projects	EC contribution (EURO)
Albania	1	405 700	0	0	2	556 413	3	962 113
Algeria	1	182 869	0	0	1	454 420	2	637 289
Bosnia and Herzegovina	4	1 340 162	2	738 067	0	0	6	2 078 229
Croatia	3	1 067 613	3	1 292 774	1	479 541	7	2 839 928
Cyprus	1	357 700	2	698 080	3	1 089 706	6	2 145 486
Egypt	0	0	0	0	0	0	0	0
Gaza	1	299 100	1	319 095	0	0	2	618 195
International	4	1 307 160	2	778 998	1	638 135	7	2 724 293
Israel	0	0	0	0	1	433 048	1	433 048
Jordan	1	274 050	1	327 425	0	0	2	601 475
Lebanon	2	632 080	1	450 500	1	299 686	4	1 382 266
Malta	1	378 000	0	0	1	211 630	2	589 630
Morocco	0	0	1	169 423	1	412 882	2	582 305
Russia	2	352 400	1	379 290	2	928 683	5	1 660 373
Syria	1	380 030	0	0	0	0	1	380 030
Tunisia	2	692 177	1	394 755	1	403 032	4	1 489 964
Turkey	4	1 344 800	1	224 972	2	660 056	7	2 229 828
TOTAL	28	9 013 841	16	5 773 379	17	6 567 232	61	21 354 452
Average size		321 923		360 836		386 308		350 073

Table 6. LIFE Third Countries projects per country (European Commission, 2003b)

According to the table above, between the years 2000 and 2003, the countries with the highest number of projects are Croatia (7), Turkey (7), Bosnia and Herzegovina (6) and

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Cyprus (6). A simple correlation can be developed by looking at the populations and geographic areas of these countries. With a simple and straightforward approach, the number of projects funded would be expected to be proportional to the size of the country, because, in most cases the frequency of the existence of environmental problems would be expected to be higher as the area gets larger. In this respect, the number of projects to respond to these problems should be proportional. The table below presents data on the four countries investigated.

	Area (km ²)	Population (million people)	Funded projects
Cyprus	9 000	0.8	6
Bosnia and Herzegovina	51 066	4.2	6
Croatia	56 594	4.4	7
Turkey	769 604	70	7

Table 7. Country size vs. Number of projects

When we look at this picture, Croatia and Bosnia and Herzegovina seem equivalent in size and it is a natural situation that the number of funded projects in both countries is comparable. On the other hand, Turkey and Cyprus are two extremities. The relatively high number of projects in Cyprus (despite its considerably small size) may indeed be an indicator of the high capacity of the country in submitting competitive project proposals. On the contrary, Turkey is at least fifteen times bigger in size when compared to Croatia and Bosnia and Herzegovina. Therefore, in line with this simple correlation, the number of projects funded in Turkey would be expected to be much higher, if not fifteen times. In addition, among all these third countries, Turkey could be considered as a relatively more developed country from an institutional and industrial perspective. Accordingly, AEAT (2003)'s finding as mentioned above, which links the project proposal writing capacity of a country to its state of institutional development, would be valid for Turkey as well. But, when we take into account the size of the countries in addition to looking merely at the number of funded projects, we could draw out a completely opposite conclusion, as in the case of Turkey now. Through this analysis, it would be logical to conclude that Turkey's capacity for preparing competitive proposals has been way below than it could have been when compared with other countries. Even some other countries in the list, with less number of funded projects, can be considered to have a better capacity than Turkey when we take into account the "size of the country/number of project" criterion. On top of all, it should be born in mind that unlike most of these countries, Turkey is a candidate to the EU, holds EU

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representative institutions in the country, has been participating in other financial schemes of the Union and consequently, already possesses some capacity for getting involved in EU programmes and projects.

A notable figure in the table is the significant number of projects submitted by international organizations. European Commission (2003b) states that, the 7 projects presented by international organizations are implemented in the Middle East (particularly in the Lebanon) and the Maghreb⁸. Egypt, Israel and Syria are the countries with the least number of projects; Egypt none, and Israel and Syria with only one project each. However, in the last two years, 2004 and 2005, Syria had 1, Israel 3, and Egypt had 2 funded projects.

European Commission (2003b) presents another statistical table regarding **projects selection** during all the three phases of the programme. This table also includes the number of project proposals received at the Commission, therefore, gives the opportunity to draw out the ratio of what is submitted and what is funded. This could also be an indicator of the capacities of countries in submitting competitive project proposals. However, the figures are not on a country basis, but in total numbers, therefore comments that refer to average numbers can be made.

	LIFE I				LIFE II				LIFE III		
	92	93	94	95	96	97	98	99	00/01	02	03
Number of projects Received	45	55	65	103	82	121	181	142	92	74	70
Number of projects Financed	9	12	14	16	13	16	16	21	28	16	17
Financial contribution granted (million EUR)	5.3	3.5	4.8	5.7	6.0	4.2	4.7	5.3	9.0	5.7	6.5
Average budget (thousand EUR)	589	292	343	356	462	262	294	252	321	356	382

Table 8. LIFE Third Countries – Projects selection (European Commission, 2003b)

⁸ The Maghreb, meaning "western" in Arabic, is the region of the continent of Africa north of the Sahara desert and west of the Nile – specifically, the modern countries of Morocco, Western Sahara (annexed and occupied by Morocco) Algeria, Tunisia, Libya – and to a much lesser extent Mauritania.

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According to these figures, about 15 – 20% of the projects received are funded by the Commission. This ratio falls down to 8% in 1998, and reaches up to 30% in 2000/2001. The amount of funding granted for projects are more or less the same during the years. On the other hand, the number of projects funded varies between 9 and 21 (excluding 28 in 2000/2001 period as it covers a 2-year time), which may indicate that the Commission can indeed allocate funds to a higher number of projects with less budgets instead of funding less number of projects with higher budgets as long as there exists projects that qualify for funding. It can be noted that the 9 projects funded in 1992 and the 21 projects funded in 1999 are both granted a total of EUR 5.3 million and accordingly their average budgets, EUR 589 000 and EUR 252 000 respectively, differ considerably. Consequently, it could be the case that, by receiving a higher number of nicely worked out project proposals, the Commission could fund many projects (e.g. local action projects) with small-medium budgets.

In connection with the table above, it would be appropriate to put down here the number of projects submitted from Turkey for funding under LIFE Third Countries. MoEF (2005a) provides only the number of projects forwarded to the Commission in the years 2003, 2004 and 2005.

2003 → 17 projects submitted, 2 projects funded

2004 → 12 projects submitted, 2 projects funded

2005 → 13 projects submitted, 1 project funded

As mentioned above, the ratio of submitted and funded third country projects varies between 8-30% with an average of **17%**. With the data we have in hand for Turkey, this ratio is approximately 11% in 2003, 17% in 2004 and 8% in 2005. The average of these three years equals **12%**. Only these three years may not be taken as a representative figure, and therefore, it might not be very healthy to draw out a conclusion by looking simply at these figures. However, it could be predicted that this ratio must have been around 10 – 15% during the earlier years, for which, Turkey seems to be below the global average of 17%.

In order to bring out a solution to avoid this discrepancy among third countries in submitting quality proposals, AEAT (2003) proposes 2 mechanisms:

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- Guarantee a level of funding to each country so that the less developed countries still have proposals supported even though they may be of a lower quality than some submitted by more advanced countries. This could be achieved through a quota system. However, such a system may be difficult to implement given the limited resources of the programme and therefore a distribution target over the life of the programme may be more realistic.
- Provide some external support to help the countries with less developed infrastructure develop good quality proposals. This could take the form of training workshop or the use of experts to help develop proposals.

If we move forward with the findings of the Mid-term Evaluation report, two other issues are regarding the **dissemination** activities and the **impacts** of projects. AEAT (2003) identifies that, there was a general feeling amongst stakeholders that as LIFE Third Countries is predominantly aimed at capacity building and the dissemination of project results is not quite as critical as it is for LIFE Environment and LIFE Nature. However, AEAT (2003) adds that, dissemination is still important that capacity building lessons learned from LIFE projects should be replicated in other third countries. As mentioned previously under the general conclusions for the LIFE programme, the LIFE Communication Strategy provides quite a number of means for dissemination activities. However, it should also be the responsibility of project beneficiaries to disseminate the individual project results.

As regards the impacts of the projects, AEAT (2003) states that, the scope of their evaluation was not a thorough review of individual LIFE Third Countries projects, and therefore, it has not been possible to quantify the impact of the programme in building capacity. Yet again, AEAT (2003) identifies that, examples include the way in which LIFE was able to respond quickly and develop capacity in Balkans after the war in Kosovo, and underlines that it would be unlikely that other instruments could have responded as quickly. On the other hand, European Court of Auditors (2003) emphasizes that, the definition of clear and measurable objectives is an essential element for ensuring effective evaluation of the implementation of the LIFE programme. According to European Court of Auditors (2003), these objectives have not been set down, owing, on the one hand, to difficulties in setting targets for the innovative aspect of projects, and on the other, to the absence of harmonized ecological parameters. Finally, ECA recommends that the role of LIFE should be

made clearer, in particular in the environmental action programmes to be adopted in future. Precise objectives, quantifies where possible, should be defined so that the instrument's effectiveness can be evaluated.

4.4. The Future of LIFE: LIFE+

When the current LIFE programme will come to an end in 2006, a new financial instrument, namely LIFE+, will replace it from 2007 till 2013, which is the new period for the Union's upcoming financial perspective. However, LIFE+ is not just a simple successor of the current LIFE programme, but has a more complicated character and more extensive coverage. As LIFE Unit (2005) mentions, the talks over LIFE+ are still not concluded and it is an ongoing process, whose outcome is unclear at the moment. This section, therefore, will introduce and discuss LIFE+ within the framework of all the available information so far.

The Context

European Parliament (2005a) identifies that the structure of the Community expenditure headings is reorganized in the new financial perspective for 2007 – 2013. As explained in Section 3.2. (see pg.23), there are six headings established for managing the allocation of funding to policy areas. European Commission (2004b) states that, environment will be integrated into these priority policy areas and will be funded primarily through the **Heading 1: Sustainable Growth** (Heading 1a, including Competitiveness and Innovation Framework Programme; research and development programmes and Heading 1b, cohesion for growth and employment), **Heading 2: Preservation and Management of Natural Resources**, including, agriculture and rural development programmes, and **Heading 4: Europe as a Global Partner**, including the pre-accession and development and external assistance programmes. Nevertheless, according to European Parliament (2005a), while the Commission proposal relies heavily on mainstreaming environmental action into other policy areas, it maintains a separate instrument for actions of a uniquely environmental nature, which is LIFE+ and which will be funded under expenditure Heading 2.

European Parliament (2005a) declares that, the LIFE+ Programme is to replace all the present programmes except the Civil Protection programme, which would continue to be funded separately under Heading 3 ("Citizenship, freedom, security and justice"), under a special solidarity and rapid reaction instrument. Consequently, the LIFE+ Programme

replaces the current **LIFE** Programme, the **Urban** Programme, the **NGO** Programme, and the **Forest Focus** Programme (European Commission, 2004b). According to European Commission (2004b), the choice of a single instrument (i.e. LIFE+) is predicated on simplification grounds as well as on lessons learned and the recommendations of past evaluations. The Commission foresees that the procedural burden and resource demand of several different programmes will be reduced when they are merged into this single instrument. Yet again, this new approach is not totally problem-free. Indeed, the European Economic and Social Committee (EESC) identifies some concerns regarding the new arrangement of environmental funds as explained below.

One concern, according to EESC (2005), is regarding the **shift of responsibility** from the Commission to Member States. EESC (2005) underlines that, the existing LIFE programmes can clearly be deemed to be very effective steering instruments on the part of the Commission as the projects were subjected to critical analysis before being either approved, or rejected because of poor quality. However, referring to the draft LIFE+ Regulation, EESC (2005) identifies that, the Commission envisages largely moving away from this procedure and surrendering its means of control. According to EESC (2005), the Commission is to be directly responsible for the allocation of only a small part of funding (relating, for instance, to forests, the Urban programme and support for NGOs), and with regard to issues arising out of the Sixth Environmental Action Programme in particular, it is envisaged that funding will be divided among Member States, which will then bear most of the responsibility for selecting projects and running the LIFE+ programme.

Another concern emphasized by EESC (2005) is that there is no guarantee whatsoever that, funding will actually be available for **environmental interests** under the other headings. As it will be elaborated below, the Commission shifts some current LIFE actions to be realized under other headings instead of including them under LIFE+. And, as EESC (2005) reasonably puts forward, the responsibility for decisions on the nature and extent of support will now be in different hands, and it is quite possible that, from a political point of view, the decisions could be prompted by quite different concerns. Supporting this presumption, EESC (2005) gives the example that there have been articulations by very influential people and organizations that action has to be taken to get the economy growing again before we can devote more attention to protecting the environment. This identification, unfortunately,

brings to mind our analysis in the second chapter, in which it is possible to observe a similar discourse of the DG Environment which does not advocate the environment in the way that it should, but considers it like a challenge on the way to sustainable growth.

The Scope and Objectives

The general objective of LIFE+ is similar to that of the current LIFE III programme:

The general objective of LIFE+ shall be to contribute to the development, implementation, monitoring, evaluation and communication of Community environment policy and legislation as a contribution to promoting sustainable development in the EU. (European Commission, 2004b)

Again, in line with LIFE III, LIFE+ will support in particular the implementation of the 6th Environmental Action Programme which aims at combating climate change, halting the decline in nature and biodiversity, improving environment, health and the quality of life, promoting the sustainable use and management of natural resources and wastes and developing strategic approaches to policy development, implementation and information/awareness raising (European Commission, 2004b).

The fundamental difference of LIFE+ from its predecessor – the current LIFE programme – is that it will fund “soft” themes and actions. It is possible to observe this in the new strands of the programme. The draft LIFE+ Regulation foresees two strands: **LIFE+ Implementation and Governance**, and **LIFE+ Information and Communication**. However, the European Parliament, in its recently published legislative resolution on the draft LIFE+ regulation, amends the strands with a third component, namely **LIFE+ Nature and Biodiversity**. LIFE Unit (2005) states that the process until the final Regulation is prepared is complex, and there will be a second reading of the Parliament, which will be followed by the Council's opinion, etc. Therefore, only some significant amendments of the European Parliament on the draft LIFE+ Regulation will be stated below in order to portray the discussions on the future of the LIFE programme. Before going into this, below are the specific objectives of the proposed two strands of LIFE+ and of the third strand added as an amendment by the European Parliament.

- **LIFE+ Implementation and Governance will:**
 - contribute to the development of policy approaches and instruments
 - contribute to evaluation of environmental policy and legislation
 - support monitoring and evaluation studies of the state of the environment
 - assist in the implementation of environmental policy through capacity building activities, exchange of best practices, etc.
 - support stakeholder involvement in policy consultation and implementation

- **LIFE Information and Communication will:**
 - disseminate information and raise awareness on environmental issues;
 - support accompanying measures (such as publications, events, campaigns, conferences, etc).

- **LIFE Nature and Biodiversity will:** *(added as an amendment by the European Parliament)*
 - contribute to the creation of Natura 2000 sites and to the networking and exchange of related techniques and expertise,
 - contribute to the management of Natura 2000 sites, pursuant to the "Habitats" and "Wild Birds" Directives,
 - help to protect and to assist overall management of the rivers and seabed areas covered by the Natura 2000 network.

As it can be observed from the description of these strands, the specific objectives of the new LIFE+ programme are quite different from the current LIFE programme. Therefore, as European Commission (2004b) also spells out, LIFE+ is not a simple extension of the existing LIFE programme. For instance, traditional, tangible environmental investment projects, which were realized under the environmental technology and eco-innovation component of the LIFE Programme, are no longer to be promoted (European Commission, 2004b; EESC, 2005). Such activities will be covered through the **Competitiveness and Innovation Framework Programme (CIP)** under Heading 1a. With respect to this new arrangement, DEFRA (2005) is concerned that, the integration of funding for environmental technologies into the Competitiveness programme could deter potential applicants, as they will have to research the new application procedures and possibly experience a reduced chance of obtaining funding within a larger programme. This is a realistic concern in the way that the

environmental component of CIP is only a sub-component of one of the main three components of the programme. On monetary terms, the total budget of the programme is EUR 4.213 billion for the period 2007-2013, and the share of its environmental component is EUR 520 million (EUROPA, 2005f).

Another change is as regards the funding of the **external dimension** of environmental policy, which will be done through the external assistance instruments; therefore, the current LIFE Third Countries strand will be funded accordingly (European Commission, 2004b). This brings up to mind Turkey's situation with respect to LIFE+, whether Turkey will be eligible for funding under LIFE+ or not. LIFE Unit (2005) responds to this question positively, and refers to the provision in the European Commission (2004b) text Article 7 on the participation of third countries:

The programmes financed through LIFE+ shall be open to the participation of the following countries, provided that supplementary appropriations are received:

- *the EFTA States which are members of the EEA, in accordance with the provisions of the EEA agreement*
- *the candidate countries which have applied to become Members of the European Union, as well as to the western Balkan countries included in the Stabilization and Association process.*

On this basis, it seems that, Turkey can participate in the LIFE+ programme if the national participation fee is paid as in other Community programmes (e.g. Sixth Framework Programme).

The financial framework for the implementation of LIFE+ is set at **EUR 2.190** billion for the period from 1 January 2007 to 31 December 2013, and the amounts allocated to the components are 75-80% for LIFE+ Implementation and Governance, and 20-25% for LIFE+ Information and Communication. However, these foreseen ratios may drastically change whether a third component, namely LIFE+ Nature and Biodiversity, is included in the programme or not.

As stated above, European Parliament (2005b) has made several – of which some fundamental – amendments to the draft LIFE+ Regulation of the Commission. The most

notable amendments are concerning the insertion of **nature conservation and biodiversity** into the programme. This is reflected in several provisions of the Commission text including the “overall objective” of the programme, the “specific objectives and strands”, the “financial framework”, and the “themes and actions eligible for funding”. This issue (i.e. inclusion of nature conservation and biodiversity) was strongly emphasized by the “Green 9”⁹ group of leading environmental NGOs in their proposed amendments to LIFE+ Regulation. Green 9 (2005) explains that, due to the overall role LIFE+ must play in continuing to finance activities related to the implementation of the Birds and Habitats Directives which are not covered by regional, rural development and fisheries funds, in particular activities related to the management of Natura 2000 sites, it is recommended that LIFE+ Nature should be retained as a specific thematic component of the LIFE+ instrument.

Most of the amendments of the Parliament take their point of departure from the inclusion of Nature components. Some of the other amendments are towards strengthening some provisions in support of better environmental protection. To give an example, the Parliament amends a provision which states the objective of “stabilizing greenhouse gas concentrations in the atmosphere (...)” to “drastically reducing greenhouse gas concentrations in the atmosphere in order to stabilize them (...)”. Other than such amendments of pro-environment character, there are amendments of technical and procedural nature, which will not be detailed here.

Concluding the section:

In this chapter, the LIFE programme has been explored and described in detail through scrutinizing its context and scope and objectives in the largest time frame starting from its predecessors in 1980s until today. As the specific focus of this report is to evaluate Turkey’s participation in the LIFE programme, the Third Countries strand, in which Turkey has been participating, received additional focus. The presentation of the findings of the Mid-term Evaluation of the LIFE programme, carried out by AEAT, has provided some background information on the implementation of the programme. These findings were mainly on the

⁹ The Green 9 group of environmental NGOs consist of BirdLife International, Climate Action Network Europe (CAN-Europe), European Environmental Bureau (EEB), EPHA Environment Network (EEN), European Federation for Transport and the Environment (T&E), Friends of the Earth Europe (FoEE), Greenpeace, International Friends of Nature (IFN), and WWF European Policy Office (WWF-EPO).

programme level, whereas the next chapter on Turkey's participation in the LIFE programme will also include project level evaluation to some extent.

5. TURKEY'S PARTICIPATION IN THE LIFE PROGRAMME

This chapter will evaluate Turkey's participation in the EU LIFE programme since the initiation of the programme in 1992 until today. The evaluation will be based on a set of criteria which were defined to some extent in Chapter 1, and which will further be defined below. In the light of the evaluation and the projects accomplished, also by taking into account the current environmental situation and dynamics, a strategy for Turkey's future involvement in the last phase of the current LIFE programme and in the future LIFE+ programme will be proposed.

5.1. Evaluation Methodology and Framework

Evaluation design

As mentioned previously, Turkey's participation in the LIFE programme will not be evaluated only on the programme level – as in AEAT's mid-term evaluation – but individual projects will also be covered. In this respect, interviews have been conducted with some LIFE beneficiaries (i.e. project implementers) in Turkey.

With respect to *temporal variants*, the evaluation will have 3 parts. Turkey's **previous participation** in the programme will cover the period from **1992 till 2003**. This part will have an *ex post evaluation* character as it will deal with the projects which have been completed until today. Turkey's **current participation** in the programme will cover the years **2004 and 2005**. This part will have an *interim evaluation* character as it will look at the ongoing projects and recently funded projects which have just begun or will soon begin to be implemented. The third part, which will discuss Turkey's **future participation** in the last phase of the LIFE programme and in the prospective LIFE+ programme, will take into consideration the year **2006** regarding the current LIFE programme and from **2007 onwards** as regards the LIFE+ programme. This part will anticipate and develop strategies in this respect, and therefore, will have an *ex ante evaluation* character. The figure below illustrates the evaluation design.

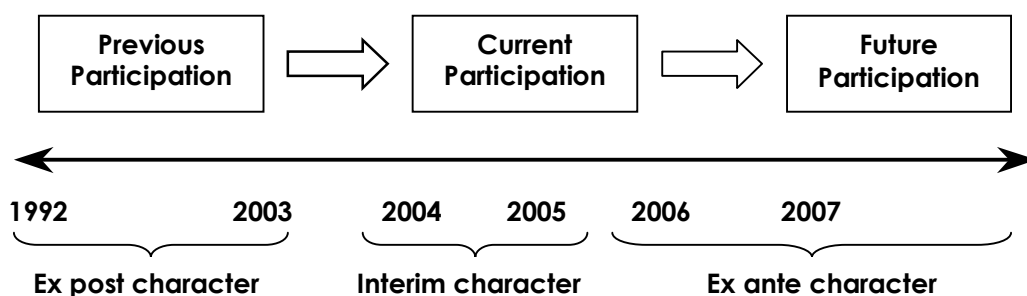


Figure 3. The Evaluation Design

Sources of information

Data and information sources for the evaluation comprise interviews and literature surveys. The interviews have been carried out mainly with some LIFE beneficiaries in Turkey in order to get an in-depth picture of the implemented projects and also to get their views on Turkey's future participation in the programme. Other consultations include e-mail correspondences with the LIFE Unit of DG Environment, an interview with Ms. Eva Röben responsible for monitoring LIFE projects in Turkey, and an interview with the Turkish Chamber of Environmental Engineers for their opinion on the matter. The interviewees have also expressed their opinions on the common problems in Turkey concerning project implementation. These have also been useful for identifying structural shortcomings, which should be improved for an effective future participation in the programme. The interview records are given in **Appendix II**.

Literature surveys in this study are primarily meant for identifying the state of the environment and the environmental priorities and strategies of Turkey. This identification will be carried out for each of the 3 parts of the evaluation in order to reveal the situation in each time segment. Nevertheless, as it is not possible to identify the state of the environment and the priorities for the third part (i.e. from 2007 onwards), only prospects will be discussed for this period. Consequently, relevant documents that correspond to relevant time segments will be investigated. The rationale for this method is to be able to carry out the evaluation in an accurate way by investigating the processes in their own contexts. In other words, for the evaluation of 1992 – 2003 period, for example, the status, priorities and strategies of that specific period will be investigated. Subsequently, the success of the

programme will mainly be identified by looking at the priorities and strategies, and how the initiatives of the LIFE programme address those. The success criteria are elaborated below.

Evaluation questions

This study considers the LIFE programme successful in the condition that the programme has helped to address and/or solve the environmental problems in Turkey as identified by national and international documents. In this respect, the evaluation is carried out principally from Turkey's perspective, rather than solely looking at the correspondence of the implemented projects with the programme criteria (i.e. objectives of the LIFE programme itself). Nevertheless, it will certainly be a positive aspect if the projects have also addressed regional and/or international priorities.

For each part of the evaluation (i.e. previous, current, and future participation), **evaluation questions** are established. These questions are based on the **evaluation criteria** listed in Chapter 1 (i.e. *relevance, effectiveness, sustainability, consistency*).

a) Previous participation (1992 – 2003)

The state of the environment, priority environmental issues and national strategies will be identified for the 1990 – 2003 period.

- Are the findings and/or recommendations identified in the documents addressed by the projects? (Relevance)
- Are the objectives set achieved? Can these be sustained? (Effectiveness, sustainability)
- Does the project have positive/negative spillovers onto other sectors? (Consistency)

b) Current participation (2004 – 2005)

Documents published at the end of 90s and beginning of 2000s will be taken into account, updated priorities will be identified.

- Are the findings and/or recommendations identified in the documents addressed by the projects? (Relevance)
- Are the objectives set achieved? (If applicable) (Effectiveness)
- Does the project have positive/negative spillovers onto other sectors? (Consistency)

c) Future participation (2006, 2007 onwards)

- What should Turkey's strategy be for participating in the last phase of the current LIFE programme and in the future LIFE+ programme? What kind of projects can be developed? (Relevance, effectiveness)

Limitations

Since it wasn't possible to evaluate each individual project due to constraints in time and resources, certain projects, for which higher amount of data and information were available, have received more focus. In addition, depending on the sort of information available, the focus on the evaluation criteria has differed at times. In other words, it has been the case that sometimes *relevance* was detailed whereas *effectiveness* could only be overviewed, or vice-versa. In spite of these limitations, a representative picture has been obtained by looking at a variety of projects of different topics and approaches.

5.2. Turkey in LIFE (1992 – 2003): Ex post evaluation

This section will evaluate Turkey's participation in the LIFE programme between the years 1992 – 2003. Although the main focus will be on the projects in which Turkey has been a direct beneficiary, other projects implemented by international organizations and which have regional coverage including Turkey will also be looked upon. As mentioned in Chapter 4, especially in the early years of the programme, there have been a number of projects implemented by international organizations covering several countries in the Mediterranean region, and Turkey has also been a beneficiary in this respect.

Appendix I presents an overview of the projects in which Turkey has been a beneficiary since 1992 until today. The total number of LIFE Third Countries projects that Turkey has benefited from is 27. It can be seen that only from 1995 on Turkey starts to implement projects, and the number of funded projects submitted by Turkey until today is 22.

5.2.1. State of the Environment

Identifying the state of the environment, priority environmental problems, and national environmental strategies from the beginning of 90s until 2003 will let us observe to what extent the LIFE projects realized during this period have been able to respond to Turkey's environmental needs. The main documents utilized in this respect have been national texts including Five-Year Development Plans prepared by the State Planning Organization (SPO) and the National Environmental Action Plan (NEAP) of 1998 prepared jointly by the State Planning Organization and the Ministry of Environment (MoE); and the Environment chapters of the European Union's annual Regular Reports on Turkey's Progress towards Accession. For this part of the evaluation the Regular Reports from 1998 until 2000 have been investigated.

Environmental problems

Turkey has been undergoing major economic changes in the 1990s, marked by rapid overall economic growth and structural changes such as privatization of state enterprises, price liberalization, integration in the European and global economy (OECD, 1999; REC, 2002). Particularly after 1992, both in the internal market and as the export strategy, the share of agricultural sector has declined while the focus has increasingly been towards services and industrial goods such as textiles, food, and electrical goods and appliances (UNDP, MoE, 2002). Inevitably, during the same period Turkey has experienced increasing environmental pressures, reflecting rapid sectoral growth in energy, industry, transport and tourism (OECD, 1999). According to the Seventh Five-Year Development Plan (1996 – 2000) of the SPO (1995), air and water pollution, municipal and industrial wastes, soil quality and erosion, as problem areas, have not been handled sufficiently. SPO (1995) acknowledges some progress regarding legislation for solid wastes, chemicals, medical wastes, and Environmental Impact Assessment (EIA). A more comprehensive assessment of the state of the environment is presented in the National Environmental Action Plan (NEAP) of 1998. The main findings of the NEAP are as follows:

- Environmental pressures resulting from rapid and intense urbanization.
- Increasing air pollution, lack of monitoring and data. Only SO₂ and particulates emissions are measured regularly.
- The percentage of municipal and industrial wastewater treatment is very low. Only 6% of the total population is served by a municipal wastewater treatment system. 69% of industrial wastewater is discharged without any treatment. Therefore, pollution of surface and underground water resources is acknowledged as a major problem. Nine major lakes are under great pressure due to direct wastewater discharge.
- Marine pollution in all of the seas (Marmara, Black, Aegean, Mediterranean) through pressure from tourism, transport and coastal urbanization.
- Solid wastes is another major problem. Implementation of the relevant legislation is very poor. One third of the 2000 municipalities surveyed in 1994 are not aware of the existence of the Solid Wastes Directive.
- Noise pollution from traffic occurs in big cities, especially in Istanbul, where around 15 million people reside.
- Turkey is very rich in biodiversity, however, some mammal and bird species are under the threat of extinction due to human activities.

- Natural risks from disasters like floods and earthquakes are intensified by improper human behaviors and activities. Examples include construction of buildings in earthquake risk areas, lack of emergency response plans, etc.
(SPO, MoE, 1998)

In addition to these tangible environmental problems identified by NEAP, SPO (1995) lays down the problematic issues as regards the implementation of environmental policies and legislation. According to SPO (1995), although sustainable development, as a strategy, has been adopted, there are significant barriers to implementation including lack of coordination, cooperation, division of labor and overlaps in authority among environmental management authorities, failure to establish an environmental financing system, lack of environmental data and information infrastructure, lack of access to information, and insufficient legal arrangements for effective environmental management. Other findings of SPO (1995) are as follows:

- The provincial branches of the Ministry of Environment cannot utilize their authorities due to lack of technical capacity, management structures and principals.
- Internalization of environmental costs has not been initiated. Environmental funds have not been utilized for their purposes.
- Poor environmental standards due to insufficient studies and standardization processes prior to setting the standards. Should be updated in line with the international and EU standards.
- Lack of data, information and human resources to carry out EIA procedures.
- Lack of environmental education and public participation in environmental management and decision-making processes.

European Commission's Regular Reports¹⁰ on Turkey's progress towards EU accession also puts down noteworthy findings regarding both the priority environmental problems and institutional, administrative and legislative barriers hindering the functioning of national bodies and implementation of environmental laws. The Regular Reports for Turkey have been prepared since 1998 on an annual basis. Below are the findings for the Environment chapter of 1998, 1999 and 2000 Regular Reports:

¹⁰ The Regular Reports of the European Commission assess Turkey's progress in adopting the Copenhagen criteria and getting aligned with the Community *acquis* which cover a wide variety of topics including agriculture, competition, taxation, fisheries, science and research, environment, etc.

- According to European Commission (1998), the most significant environmental problems in Turkey are industrial and urban pollution and lacking sustainable management of the coastline and natural resources. Other shortcomings include dangerous substances, genetically modified organisms, nuclear safety and access to information about the environment (European Commission, 1998).
- European Commission (1999) states in its 1999 Regular Report that, since the last Regular report, no evidence of progress in adopting the acquis is apparent in areas such as water, nature protection, waste incineration, industrial pollution control and risk management, chemicals, ozone depleting substances, nuclear safety and radiation protection. Some progress has been made in aligning regulations on the protection of air quality and noise control with that of the EU.
- European Commission (2000a) underlines the same lack of progress in adopting the Community acquis as in the previous year. According to the report, Turkish air quality monitoring system needs further improvement to make it compatible with the EC acquis. Waste management is one of the most problematic areas in particular as regards implementation of related legislation. A large percentage of household waste (93%) is uncontrolled waste, being illegally dumped. Concerning the administrative capacity, European Commission (2000a) identifies that, there is a necessity of establishing monitoring networks and permitting procedures as well as environmental inspectorates with strong and well-determined powers. Penalties should apply in case of non-compliance.

Strategies and objectives

Following the identification of the problematic environmental issues in Turkey, these documents also put forward some strategies and objectives in order to respond to these problems. In this respect, the Seventh Five-Year Development Plan identifies the national objectives for the 1996 – 2000 period. According to SPO (1995);

- National strategies will be implemented on regional and ecological basin level; local authorities will have the say in decision-making, monitoring and control processes.
- Environmental monitoring and measuring infrastructure will be established; environmental inventories, statistics, standards, R&D and data access systems will be developed for environment friendly technologies; environment and development indicators will be prepared and included in decision-making processes.

- Obligations arising from international agreements will be assessed.
- Awareness raising activities will be carried out.

The National Environmental Action Plan employs a more comprehensive approach. According to SPO, MoE (1998), three components of action are identified:

- Developing a more effective environmental management system
- Raising environmental information and awareness
- Environmental investments for effective environmental management in critical areas

The targets identified are pollution prevention and remediation, access to environmental infrastructure, sustainable use of resources, supporting sustainable methods, and minimizing environmental risks, all of which should be realized through employing democratic and participatory mechanisms, consensus and volunteerism, efficiency and economic rationality, integration of environmental considerations into local, regional and national plans, localization of problems, eco-basin activities (SPO, MoE, 1998).

Within the framework of the findings and analyses of these national documents and the Commission's Regular Reports, it is possible to state that Turkey, as a matter of fact, has diverse environmental problems to deal with. Nevertheless, air pollution, solid wastes, lack of environmental data and information (especially air quality monitoring), and deficiencies in institutional and administrative capacity are the commonly emphasized problems. The objectives and strategies identified by these documents correspond to the needs mentioned by the same documents. In particular, increasing institutional and informational capacity is underlined as an objective.

5.2.2. Evaluation Findings

In the light of the above summarized environmental problem areas, and strategies and objectives of Turkey, this section will evaluate the implementation of the LIFE programme and projects in Turkey for the period 1992 – 2003. As mentioned at the beginning of the chapter, Turkey starts to implement projects from 1995 on, however, between 1992 – 1995 Turkey does benefit from regional projects implemented in the Mediterranean region by international organizations. Therefore, these projects will also be explained briefly.

Looking at the previous section, it is possible to see that Turkey possesses basically all sorts of environmental problems to deal with. Therefore, any project addressing one or more of these problems could be considered as "relevant". In addition, as underlined at the end of the previous section, the main deficiency of Turkey is as regards the functioning of institutions, implementation of legislation, and informational capacity. In this respect, in terms of relevance, the specific objective of LIFE Third Countries strand corresponds nicely to such needs of Turkey. Therefore, it is already possible to state that, on the "programme level", LIFE is a relevant and necessary instrument for Turkey.

International Projects

During the first 4 years of the LIFE programme (i.e. 1992-1996), Turkey gets involved as a beneficiary in five international projects. All of these projects are implemented in the Mediterranean region and address regional environmental problems. The projects are conducted by international consortiums the members of which include the World Bank, UN or other international and European environmental organizations. The number of beneficiary countries in the projects varies between 4 and 14. Other beneficiary countries in addition to Turkey typically include Algeria, Egypt, Lebanon, Morocco, Syria, Tunisia.

The project topics mainly include environmental data collection, setting up management plans to prevent pollution in the region, raising environmental awareness and other capacity building activities. When compared with Turkey's needs and problem areas, these project topics can be considered as relevant and useful. Especially, as one of the significant problems in Turkey is lack of environmental data and information – as underlined in national texts – "Mediterranean observation function" and "Indicators for sustainable development in the Mediterranean Region" projects correspond properly to this specific problem. Furthermore, the ultimate goal of these projects is to protect the environment of the Mediterranean region and the Mediterranean Sea. It is possible to identify this, for example, in "METAP" and "ENVIMED" projects, which are actually larger scale programmes implemented for the protection of the Mediterranean environment. Therefore, bearing in mind the importance of the Mediterranean coast for Turkey in terms of tourism activities, which at the same time pose environmental pressures due to insufficient environmental management practices, these international projects are valuable for Turkey to contribute to coastal management and sustainable tourism. In this respect, it is possible to acknowledge

that also in terms of “consistency” such projects receive a high score as they have *positive spillovers* onto the tourism sector, which is one of the major income sources of the country.

Each of these 5 projects funded between 1992 and 1996 are supporting international strategies and initiatives, which is also a positive aspect:

- **METAP** project is realized under the strategy decided on by the Ministerial Conference on Euro-Mediterranean Cooperation in consultation with the Mediterranean Action Plan (MAP), and is led by the World Bank, the European Investment Bank, the European Commission and the United Nations Development Programme (UNDP) consortium.
- **Mediterranean environment observation function** project is carried out under the Mediterranean regional initiative Blue Plan of the United Nations.
- **ENVIMED** project is implemented under the initiative of Medcities of the METAP programme.
- **Development of port state control capability in Southern/Eastern Mediterranean Countries** project is implemented for the Mediterranean countries to adopt IMO's (International Maritime Organization) resolution.
- **Indicators for sustainable development in the Mediterranean region** project is carried out under the Blue Plan of the UN.

In the final analysis, these five projects funded in the first years of the LIFE programme seem to have addressed both regional priorities and specific problem areas in Turkey. Since this study is focused on the LIFE projects submitted and implemented by Turkey, only an overview of the international projects has been given here. Nevertheless, as the Mediterranean coast and the Mediterranean Sea comprise a vital environment for Turkey, a further study could be carried out to evaluate specifically such projects implemented in the region.

Projects of Turkey (1995 – 2003)

Turkey has 19 funded projects during this period. The figure below identifies the number of projects with respect to their different topic areas. The figure includes also the 3 projects funded in 2004 and 2005 in order not to break up the overall data. Appendix I also indicates which project is classified under which of these topic areas.

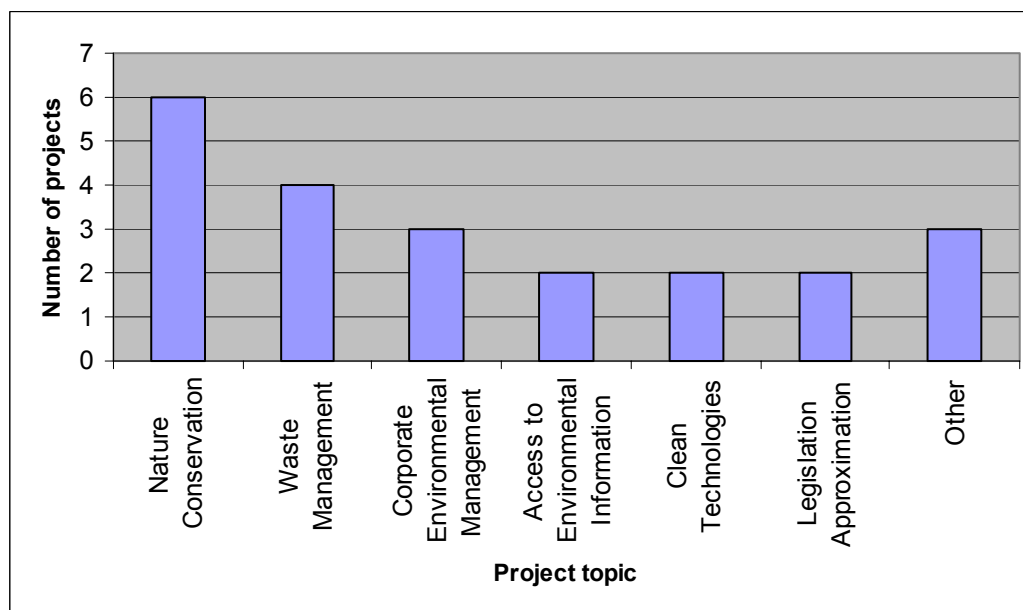


Figure 4. Topic areas of LIFE projects funded in Turkey

Overall relevance

According to the figure above, nature conservation and waste management projects are predominant, comprising almost 50% of the total number of funded projects in Turkey. When we look at the priority environmental issues in Turkey identified by various documents as presented in the previous section, it is possible to note that many severe problems exist as regards solid waste management, protection of natural resources and biodiversity. Furthermore, especially in the field of nature conservation, Turkey has obligations arising from international agreements since the country is very rich in biodiversity and possesses endemic species and sensitive sites. In this respect, it is a positive aspect that the focus of LIFE projects has been on nature conservation.

Following nature conservation and waste management projects, there are 3 projects funded to support the industry for better environmental management. Industrial pollution is one of the most significant environmental problems in Turkey as also underlined in the Seventh Five-Year Development Plan, NEAP and EU Regular Reports. Accordingly, projects for building capacities in corporate environmental management are highly relevant in order to improve industrial pollution control. In addition, two of these projects

(Implementation of EMAS and Establishment of an Information System for Turkish SMEs) are at the same time assisting in the EU approximation process from the industries' side.

“Access to environmental information” and “Legislation approximation” projects are also very relevant to Turkey's needs. Lack of environmental data collection and monitoring are highlighted in national texts. And the projects on EU approximation are natural and essential in respect of Turkey's EU accession process. It is possible to observe that the number of projects with EU approximation aspects has risen after the year 2000 when Turkey's candidacy was approved in 1999 and the accession process became more dynamic. Projects specifically supporting EU approximation, including legislation approximation projects, will be focused on further below.

The two projects – Demirtas waste dump gas recovery and Exploitation of agricultural residues in Turkey – were hard to classify, but considered here as “clean technologies” projects as they strive to minimize the impacts of certain production activities and make use of the wastes produced. Such projects are rather specific and focused projects, which can serve as demonstration actions. In this respect, although such innovative type of projects may not be as urgent as, for instance, waste management, nature protection or environmental data collection projects for Turkey, it would certainly be useful to initiate such practices as part of long-term objectives.

Finally, the 3 projects under the “Other” category are very specific projects which cannot be grouped under the previous categories. The topics of these projects are “environmental education”, “climate change policies”, and “risk assessment for marine pollution”. These are all highly relevant topic areas given the needs of Turkey. Two of these projects are very recently funded (in 2004 and 2005); therefore, these will be investigated in the following section.

Consequently, when we look at the topic areas of the 22 funded LIFE projects in Turkey, it is possible to acknowledge that in terms of overall relevance, these projects are addressing the environmental needs and priorities of Turkey. In the same respect Oruc (2005), Kabatepe (2005) and Röben (2005) also have the opinion that the problems addressed by the LIFE projects are relevant to Turkey's needs in the field of environment.

Individual projects in the spotlight

Coastal Management and Tourism in Turkey

The first nature conservation project was funded in 1996. This project, entitled "Coastal Management and Tourism in Turkey", aimed to protect the biodiversity and natural resources in selected coastal areas of Turkey. Belek and Cirali, located in the Mediterranean coast, were the two demonstration sites.

According to Oruc (2005), the Belek component of the project did not reach the same level of success and outcomes as the Cirali component did. Nevertheless, a concrete achievement in Belek, as Oruc (2005) underlines, has been the prevention of a marina construction in the Kumkoy protected area. Oruc (2005) mentions that, the Cirali component of the project has been selected as a best practice at international level. It received the UNCHS-HABITAT (United Nations Center for Human Settlements) "Best Practice Award" for its contribution to the conservation of nature and improvement of human life quality in Cirali (EUROPA, 2005g). Another achievement in Cirali was the establishment of a cooperative through local public initiatives (Oruc, 2005). This cooperative has then been able to carry out another project by obtaining funds from the UNDP/GEF programme, which, according to Oruc (2005), is an important aspect as access to funding is necessary for the sustainability of both the cooperative and the project.

According to EUROPA (2005g), the project put great emphasis on informing the public and dissemination of results. In this respect, Oruc (2005) explains that the project has been publicized in the media several times and through WWF-International as a good practice. In addition, an action has been carried out for sea-turtles with the participation of people from England, and Cirali Sea-turtle Festival was organized in 2002, which attracted several visitors to the region (Oruc, 2005). Last but not least, Oruc (2005) mentions that, the project staff of the "LIFE – Cukurova Delta Biosphere Reserve" project visited Cirali and useful discussions and sharing of ideas have taken place among the two LIFE project beneficiaries.

It is possible to observe achievements as regards positive spillovers onto other sectors such as agriculture. Oruc (2005) identifies that, a communication network, namely Ulupinar Cooperative, has been established for organic farming, the marketing of which has unfortunately remained poor. As a matter of fact, the tourism sector has received a major

contribution as the sustainability of the sector depends on the sustainability of the natural environment. In the same respect, a further achievement has been practices of eco-tourism, for which maps of walking paths have been produced and guides have been trained (Oruc, 2005). According to Oruc (2005), the local public believed in the project and was enthusiastic to participate; they have attended the meetings and have developed a method for touring and introducing the village to the visitors. This should also be considered as a positive contribution to the social lives of the local public.

As regards the influence of structural conditions on the implementation of the project, Oruc (2005) states that, the support of local administrations was very significant for the success of the project. Oruc (2005) further stresses that, it is a determining element whether the people of the local authority are interested in the project or not. In this respect, Oruc (2005) explains that the head official of Kemer and Antalya Environment Protection Councils have supported the project very much. Last but not least, Oruc (2005) points out the importance of participation of the locals. According to her, project implementation area should be comprehended through communication with the local public, and the problems should be learned from them in order to address the issues precisely and achieve full effectiveness.

Consequently, it is possible to summarize that, "Coastal management and tourism in Turkey" project has been very relevant given that the project has addressed a national priority issue – environmental pressure from the tourism sector. Although the outcomes of the Belek component of the project remained limited, the Cirali component has had concrete achievements. It is possible to observe that, the success of the project has been shaped by the support of local authorities, participation of the local public, dissemination activities and ensuring the project's sustainability. Other positive aspects of the project include its acknowledgement on the international level and positive spillovers onto the agriculture and tourism sector.

EMAS – Environmental Management for OIZs – Capacity building for SWM

MERKAT Inc., a Turkish environmental and energy consultancy company, has implemented 3 LIFE projects in Turkey. Two of these projects, namely "Implementation of EMAS in Turkey" and "Support for the environmental management of organized industrial zones in Turkey" projects, are corporate environmental management projects as classified in this study. The

third and the latest project of MERKAT is the "Capacity building for solid waste management in Turkey" project.

When we look at the project results of the **EMAS** project as listed by EUROPA (2005g), it is possible to note that the project outcomes include concrete products such as "EMAS Handbook" in order to raise awareness and provide precise information on EMAS, and an "Action Plan" containing recommendations for the future promotion of EMAS and creation of suitable structures for EMAS certification. In addition, training courses and workshops were held with participants from national authorities and industries (EUROPA, 2005g). Within this framework, the EMAS project is a typical "pump-priming" project – as AEAT (2003) calls it – which has an initiator role and demonstrative character, which can be followed by further implementations. Consequently, the sustainability of this and similar demonstration projects depends very much on follow-ups and replications.

The project on the **environmental management of organized industrial zones (OIZs)** is also similar to the EMAS project in respect of its demonstrative character. This project addresses an important aspect of industrial pollution in Turkey. As stated in EUROPA (2005g), Organized Industrial Zones in Turkey account for a significant share of Turkey's industrial activity, and OIZs have not implemented appropriate measures to reduce the environmental impacts of their activities. This project is demonstrated in the Organized Industrial Zone of Izmir. It analyzes that, barriers to environmental management come from existing legislation and the organization of the OIZs; and concludes that, implementing an environmental management system would be the most appropriate alternative for the Izmir Organized Industrial Zone (EUROPA, 2005g). From this perspective, it could be a long-term goal that the achievements of the EMAS project, as presented above, can be integrated to this project in order to achieve environmental management applications in OIZs. The EMAS handbooks, for instance, could be supplied to OIZs.

Other concrete achievements of the environmental management of OIZs project include a software tool called the Decision Support Tool which sets up procedures for collecting and analyzing information and for providing reports to the Izmir OIZ management to assist in environmental decision-making (EUROPA, 2005g). In addition, an Action Plan was prepared for alleviating existing organizational and technical barriers, and training and dissemination

activities have been carried out. It can be compared that, these outcomes have structurally the same character as the outcomes of the EMAS project; therefore, the sustainability of the current project, similarly, requires follow-up activities and replications.

To conclude for these two environmental management projects; both of the projects, which aim to improve industrial pollution control, are very relevant to Turkey's needs given the magnitude of industrial pollution in Turkey as underlined in the previous section. Nevertheless, it should also be considered that, in order to be able to practice environmental management applications in the industry – that is an advanced practice – first, enforcement of environmental legislation and ensuring industries' compliance with the legislation is fundamental.

Capacity building for solid waste management in Turkey project of MERKAT is rather different from the two previous corporate environmental management projects in terms of approach. This project has a national objective, as to prepare new solid waste management strategies for Turkey, whereas the two previous projects carried out demonstration applications by employing a bottom-up approach. On the other hand, the activities carried out during the implementation stages are similar as they include reviews, trainings and workshops. Also the outcomes of this project, like the previous two, are an Action Plan, technical guides and videos. The current project also has an EU approximation aspect as to bring the Turkish legislation on solid wastes closer to the EU legislation.

If we look at the concrete achievements of the capacity building for solid waste management project, Kabatepe (2005) brings up that the project initiated changes in the relevant legislation, training of trainers (ToT) activities have been conducted, and in this regard, the Ministry staff has been trained, who subsequently trained local authorities. As mentioned previously, the NEAP (1998) identified that one third of the 2000 municipalities surveyed in 1994 were not aware of the existence of the Solid Wastes Directive. In relation with this problem, Kabatepe (2005) states that, informative booklets and CDs on the Solid Wastes Directive have been sent to 3215 municipalities. This can be considered as a very significant achievement as it directly responds to such a specific problem identified by national documents. As regards dissemination activities, EUROPA (2005g) mentions that the project results were communicated to relevant stakeholders through workshops, and a

project website¹¹ was prepared. The project website provides quite useful information on solid waste management. It includes information on national and EU statistics, regulations and directives, authorities, plans and other links regarding solid waste management, and also the documents produced during the project such as the Action Plan, training presentations, etc. (ERKA Group, 2003).

Consequently, this project has addressed one of the most problematic issues in the field of environment in Turkey. Among the outcomes of the project, dissemination of related material to 3215 municipalities should be considered as the most useful activity as this can be a driving force to raise awareness of the local authorities on solid wastes and on the existence of the legal framework. Like the two previous projects, the sustainability of this project also depends to a great extent on follow-up activities, which should include initiatives of local authorities to adopt and implement the Action Plan, to replicate CDs and videos and distribute these to local stakeholders such as NGOs, enterprises, etc.

Projects supporting EU approximation

Since Turkey's status as a candidate country for the EU was recognized by the Helsinki European Council in December 1999, efforts for the adoption of the EU *acquis* and approximation with the EU legislation have gained an increased momentum. In this direction, there have been a number of projects funded under the LIFE programme, which had EU alignment aspects, or which had specific objectives as to approximate legislation. Below will be evaluated such LIFE projects funded in Turkey.

It is possible to identify that quite a number of Turkish LIFE projects, whose objectives do not particularly include EU alignment or approximation, take the EU standards and applications as a basis during their implementation. However, six projects, the two of which are "Implementation of EMAS in Turkey" and "Capacity building for solid waste management in Turkey" projects, are specifically aiming at EU alignment and/or approximation in their respective topic areas. As the above mentioned two projects have been evaluated in the previous pages, only the remaining four projects will be analyzed. Of these, "Establishment

¹¹ It is possible to note that almost all of the Turkish LIFE projects funded from 1999 on have project websites, which is a positive aspect concerning the communication of the project's implementation and dissemination of the results.

of an Information System for Turkish SMEs on EU Environmental Approximation" project will be investigated in the next section as it is a project of the year 2004.

Integrated Healthcare Waste Management in Istanbul: Although it is mentioned in Section 5.2.1 that there has been some progress regarding legislation for medical wastes, the project background identifies a significant lack as regards facilities for the collection, treatment, and safe disposal of healthcare waste in Istanbul (EUROPA, 2005g). This indicates that, although a legal framework of whatsoever quality exists for medical wastes, the implementation in Istanbul remains poor. The project aims to develop an action plan and guidelines for the management of healthcare waste, and align Turkish legislation with corresponding EU legislation and standards. Within this framework, since the project intends to overcome the lack of implementation problem through foreseen actions, it can be considered as a very relevant project. Although the project results are not published in the EUROPA server yet, it is possible to reach some concrete products of the project through the project website, which is well comprehensive. The tangible outcomes of the project include a paper presentation at an international symposium in Italy, a training course on health-care, leaflets, proposals for changes in the existing legislation and in the institutional structure, a management plan, a proposal for a classification system for healthcare waste in Turkey, and guidelines for hospitals (Akdeniz University, 2005). In July 2005, Control of Medical Wastes Directive has been published in the Official Journal and has gone into force. Although a comprehensive assessment of this new Directive and its correspondence to the project's proposed changes is not possible within this study, it is possible to identify that, the project's proposed classification system for healthcare waste has fully been adopted in the new Directive with only minor changes in format. This indicates an important achievement concerning the effectiveness of the project. Nevertheless, since the actual problem is as regards implementation, the value of this project will only be materialized when the project outcomes are exploited and practiced by the respective authorities.

Odorous emissions and immissions management policy in Turkey: Although there is no direct reference to odor problem in the documents investigated in Section 5.2.1, the project background justifies that odor control is not included in the Air Quality Control Regulations in Turkey, and adds that, there are odor problems in residential, industrial and tourist sites (EUROPA, 2005g). Furthermore, Turkey needs to approximate laws on odor control in the

course of EU accession process. Röben (2005) similarly mentions that, this project can be considered as less relevant to Turkey's needs. She further states that, even in Europe, activities with regard to odor control are quite new. Röben (2005), nevertheless, adds that, this project responds to a local need, since the Ministry of Environment had received complaints from locals due to odor from neighboring industries, and underlines that, it is actually a positive thing that Turkey, together with a number of other European countries, can be a pioneer in this field. Therefore, although not among the highest priority areas, since establishment of odor regulations will be a requirement, and as it addresses a local environmental problem, the project can be considered as relevant to some extent.

Regarding its activities and outcomes, this project is structurally similar to the previous project on healthcare waste management. The project results are not yet published, however, it is possible to access the project outcomes through the project website. These outcomes include guidelines on odor management and control, draft regulation on odor control, and workshops (METU, 2005). METU (2005) states that, the draft regulation is expected to be approved by the Ministry of Environment and Forestry and enter into force as a Regulation. Therefore, the project's actual effectiveness will be determined by the entry into force of the Regulation and its implementation in the light of the guidelines prepared during the project.

Approximation of SEVESO II Directive in Turkey: The SEVESO II Directive aims the prevention of major accidents involving dangerous substances and the limitation of the effects on human and environment so as to ensure a high level of protection in a consistent and efficient way (MoEF, 2005b). Dangerous substances and associated risks are touched on as insufficient areas in Turkey's EC Regular Reports and in the National Environmental Action Plan (NEAP). In addition, MoEF (2005b) identifies that, the National Plan for the Adoption of the Acquis (NPAA) and the Analysis of Environmental Legislation in Turkey project state that a new regulation that will transpose all the requirements of the SEVESO II Directive should be prepared.

Yöntem (2005) states that, the achievements of the SEVESO II project have been more than expected. She mentions that an inventory and a notification system have been developed, which help to identify the enterprises that are subject to the Directive (Yöntem, 2005; MoEF,

2005b). The project website also provides an instrument to assist industries in identifying their status with respect to SEVESO II through calculating the amount of chemicals involved in their activities (MoEF, 2005b). According to Yöntem (2005), the enterprises are communicated through the Ministry of Environment and Forestry and its provincial branches, and also through Chambers of Industries. The enterprises are notified of planned meetings, and have the opportunity to bring up their opinions at these meetings (Yöntem, 2005). The latest outcomes of the project are the Turkish translation of the SEVESO II Directive, and the Draft Regulation on the Control of Risks from Major Industrial Accidents reflecting the provisions of the SEVESO II Directive.

In view of these projects, it is possible to observe that, by the influence of the EU accession process, the number of LIFE projects in support of EU approximation has been significant from the year 2000 on. Some of these projects have aimed directly at approximating specific EU directives and regulations into Turkish legislation, while some others have tried to respond to environmental problems by taking the good practices, management structures, and standards of the EU as a basis. In respect of the EU accession process, it is possible to conclude that implementation of such projects have been highly relevant. Nevertheless, even among these projects, it is possible to indicate relatively more relevant ones as they address more urgent issues. As regards their effectiveness, it is clear that the projects have achieved end-products which correspond to the set objectives. However, with a broader perspective, it is certain that the benefits of these projects upon the "environment" will only come true when these end-products are exploited.

Overviewing other projects

Since it is not possible within this study to focus on each of the 19 projects funded during the period 1995-2003, only noteworthy aspects of four of the remaining projects will be presented below. The projects are selected from different topic areas so as to create diversity and be representative.

- **Turkish Environment and Development Observatory – Preparatory Phase** project addresses a very important problem in Turkey, namely lack of access to environmental data, and aims to establish a national observatory in this regard. However, TUBITAK (2003) identifies that, although the Ministry of Environment has prepared and contracted

the protocols concerning the implementation of this project, and the reports that were prepared through the studies of various people have been submitted to the Ministry, there has not been a progress as regards the project's implementation after this point. Counting on this limited information available, the project seems not to have achieved any results yet.

- **Rehabilitation of open dump sites: towards sustainable land use** project addresses the serious environmental problems and risks associated with open dump sites and aims to establish a rehabilitation approach. The project is demonstrated in 3 pilot municipalities. Among the project outputs indicated by EUROPA (2005g), "bidding documents that include all the necessary components to enable municipal decision makers to start or tender out the rehabilitation process" can be considered as an important achievement that will trigger the sustainability of the project.
- **Demirtas waste dump gas recovery project** is a pilot demonstration project implemented in the City of Bursa at Demirtas dump site. As indicated in the project background, there have been fatal explosions in similar dump sites in Istanbul and Ankara due to uncontrolled gas release (EUROPA, 2005g). The project designed the gas collection pipes and power plant with five engine generators, each capable of producing 250 kW (EUROPA, 2005g). Several newspapers have publicized the project underlining that the power plant can provide the electricity need of 10 thousand families (Milliyet, 2000; Referans, 2005; Radikal, 1998). Within this framework the project has positive spillovers onto the energy sector and hence the economy.
- **Ecological risk analysis and management planning for Lake Manyas (Lake Bird)** project addresses a certain problem emphasized in NEAP (1998) regarding the pollution of lakes from wastewater discharges. Moreover, the project area "Lake Manyas" is one of Turkey's most important wetlands (Ramsar site) because of its ecological features (EUROPA, 2005g). Project results include a management plan for the lake, and other quantitative achievements such as planting of willow trees (16.000 in 1998, 10.000 in 1999 and 5.000 in 2000) in order to restore habitats and create new habitats for waterfowl (EUROPA, 2005g). A concrete effect has been that between 150 and 250 pairs of birds (spoonbill, squacco heron, night heron, and pygmy cormorant) have begun to make their nests in the reforested area (EUROPA, 2005g).

Conclusion

Turkey has benefited from 5 international and 19 local LIFE projects during the 1992-2003 period. It has been observed that the focus of funded projects in Turkey has been on nature conservation and waste management in terms of their topic areas. However, from 2000 on, following the approval of Turkey's EU candidacy status in 1999, the trend in the topic areas of LIFE projects has been towards EU approximation. Given the existence of diverse environmental problems in Turkey – as identified by documents – the projects have mostly been relevant to Turkey's needs. Some interviewees have also commented in the same respect.

In order to be effective in the long term, projects which have outcomes as action plans, legislation, etc. must be adopted and practiced by relevant authorities and the intended receivers of the projects. In other words, the end-products must be exploited in order to achieve actual benefits on the environment. Likewise, demonstration projects such as corporate environmental management projects, and projects implemented solely on local level like the Ecological risk analysis and management planning for Lake Manyas project, should be replicated for nation-wide effectiveness.

5.3. Turkey in LIFE (2004 – 2005): Interim evaluation

This section will evaluate Turkey's participation in the LIFE programme covering the years 2004 and 2005. During these years 3 projects have been funded; two of them in 2004, which have recently begun, and one in 2005, which has recently been funded and supposed to begin shortly. As these projects are currently at their beginning phases, the focus will be on evaluating primarily the "relevance" of the projects and discussing their likely effects.

5.3.1. State of the Environment

The National Environmental Action Plan (NEAP) of 1998 is still the main official document laying down the environmental priorities and setting up national strategies for Turkey. However, more recent documents such as the 8th Five-Year Development Plan of 2000, and the regular reports of 2001, 2002, 2003 and 2004 will be looked upon in this section in order to identify the updates – if any – in the environmental priorities and strategies.

Environmental problems

The problems identified by the 8th Five-Year Development Plan are nearly the same as they were in the predecessor report. In addition to the findings of the previous report, the followings are underlined by SPO (2000):

- Some progress can be noted concerning environmental legislation and administrative structures.
- Shortcomings in education, participation and localization still persist as obstacles for sustainable management of natural resources.
- Environmental concerns are not integrated into social and economic policies.
- Implementation of EIA remains poor.

European Commission Regular Reports on Turkey's Progress towards Accession continue to make notable remarks on Turkey's alignment with the Community *acquis*. The findings of 2001, 2002, 2003 and 2004 Regular Reports on the Environment chapter are presented below:

- European Commission (2001) identifies that, since the last Regular Report, Turkey has made no substantial progress in transposing the *acquis* in the field of environment. Redefinition of the main departments of the Ministry of Environment is considered by the Commission as an important first step in ensuring proper enforcement of environmental legislation. In addition to the efforts to adopt the Community *acquis*, European Commission (2001) underlines the need to upgrade implementation and enforcement capacity substantially. Air quality legislation together with air quality monitoring system need alignment with the *acquis*. In order to preserve Turkey's rich assets in biodiversity, nature protection needs particular attention. Industrial pollution control and risk management, nuclear safety, radiation protection, genetically modified organisms (GMOs) are other issues that need to be aligned with the *acquis*. As regards administrative capacity, European Commission (2001) identifies that, there are conflicting interests due to overlaps among different bodies and institutions, which therefore, restricts enforcement of environmental rules.
- European Commission (2002) states that, steps have been taken in the field of horizontal legislation, nature protection and at the level of administrative capacity. However, Turkey needs to accelerate its efforts as regards water quality, industrial pollution and risk management, air quality, noise, genetically modified organisms, waste management,

and nuclear safety and radiation protection. Regulation on the Implementation of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES Convention) was adopted in December 2001. However, Turkey has not yet ratified the Kyoto Protocol.

- European Commission (2003) notes mostly the same findings as in the 2002 report. It is mentioned that, in the field of genetically modified organisms, the Cartagena Protocol on biosafety (Biodiversity Convention) was ratified, and in the field of chemicals, two laws on substances that deplete the ozone layer (Montreal Protocol) were adopted in June 2003. European Commission (2003) underlines that the creation of an integrated Ministry of Environment and Forestry is a valuable step to strengthen administrative capacity as the overlaps in their respective responsibilities and implementation are reduced.
- European Commission (2004) notes that the new EIA Regulation appears to be more in line with the *acquis*. Limited or some progress is reported in the fields of air quality, waste management, water quality and nature protection. Turkey ratified the United Nations Framework Convention on Climate Change. The Commission urges that, cross-border cooperation needs to be stepped up with the neighboring countries for water resources management, and further efforts are needed to prepare a national strategy and waste management plan. The continuing loss of habitats is a cause of concern.

Strategies and objectives

SPO (2000) puts forward the following objectives in the 8th Five-Year Development Plan:

- National Biological Diversity Strategy and Action Plan, which has been prepared to preserve biodiversity and promote its sustainable use, will start to function.
- In order to combat desertification and erosion, National Desertification Action Plan will be prepared that handles agriculture, forestry, stock-breeding and other relevant sectors in an integrated way.
- Emission factors will be identified for all sectors, and emission inventories will be prepared accordingly.
- Environment friendly technologies will be encouraged when identifying new industrial policies and in new industrial investments.
- Biosafety risks from biotechnological applications will be minimized.
- United Nations Framework Convention on Climate Change (UNFCCC) will be signed.

- Measures will be taken for energy efficiency and reduction in energy consumption.

Within the framework of the findings of the 8th Five-Year Development Plan and the four Regular Reports of the Commission, it is possible to note that, although there are gradual improvements in some areas, diverse environmental problems still persist in Turkey. It can also be observed that, biodiversity, climate change and GMOs are the problem areas that are more articulated among other problems.

5.3.2. Evaluation Findings

It was identified in Section 5.2.2. that, after the year 2000, LIFE projects in Turkey have employed such structures and objectives as to assist in the EU accession process. It is possible to note that the same trend continues in the current projects as well.

The project entitled **Establishment of an Information System for Turkish SMEs on EU Environmental Approximation** is among the projects that are specifically intended for assisting in the EU approximation and alignment process of Turkey (see also pg. 79). As underlined in the project background, Turkish legislation on the environment is rapidly changing due to EU approximation efforts; therefore, Small and Medium Enterprises (SMEs) experience difficulties in following up on and adapting to the resulting legislative changes (EUROPA, 2005g). Indeed, during the last two years, 76 new environmental regulations have gone into force (MoEF, 2005c). According to Röben (2005), this project is a very relevant project since the SMEs have complete lack of knowledge on environmental legislation. Yöntem (2005) states that, the project will establish a simple and understandable information system, through which the SMEs will be able to make either simple or advanced searches for the directives in the area they wish. Within this framework, the project grants the potential to raise awareness and cognition of SMEs on the existence of several environmental regulations, which is an initial step towards compliance with these regulations. "End of Life Vehicles Directive", concerning dismantling and recycling of dead vehicles, is taken as a model for preparing an approximation strategy. Yöntem (2005) explains that, this Directive is quite hard to implement, therefore, the SMEs will realize how complicated it is to practice the content of such a directive and will approach seriously to the other directives that they are required to comply with. According to Röben (2005), the effectiveness and sustainability of this project will depend on whether the industrialists are

involved in and accept the project. She further indicates that, in order to achieve this, the project team is constantly arranging meetings with SMEs and informing them.

Supporting Education for Sustainable Development in Turkey – Turkish Green Pack is a highly relevant project to Turkey's needs since lack of environmental education and awareness is the underlying reason for the persistence of many environmental problems (MoEF, 2004; Erten, 2005). As mentioned in the project background, it was underlined in NEAP as a priority issue to ensure the implementation of environmental education and training programmes, both through formal and informal channels (EUROPA. 2005g). Green Pack is an environmental education curriculum kit developed by the Regional Environmental Center (REC) and intended for primary school teachers and their students. The current project aims to translate and adapt the kit into the Turkish education system through training 1600 teachers and targeting 200.000 students (REC, 2005). A strong aspect of the project is that it has already been implemented in Poland, Hungary, Bulgaria, the Czech Republic and Slovakia in recent years. Nevertheless, Manska (2005) states that, each country is really different and they have done many things in a different way in Turkey.

If effectively implemented, this project can increase awareness on the environment in the short-term, and support environmental protection and sustainable development in the longer-term. In addition, the project can create positive spillovers on the classic educational system in Turkey through contributing with a new dimension in the curriculum (i.e. environmental perspective). This, consequently, may have a positive impact on the intellectual development of pupils. Manska (2005) underlines that, the effectiveness of the project will largely depend on coordination among the Ministry of Education, the Ministry of Environment and Forestry, and the project team. She further states that, it is necessary to get the Green Pack into the formal curriculum for effectiveness. As regards sustainability, Manska (2005) indicates that, there is considerable interest and potential for the project if the version they are preparing will be good and accepted in Turkey. She believes that, it could be possible to get support for further development of the Green Pack activities in Turkey if the project becomes successful.

Promoting Climate Change Policies in Turkey project has recently been funded in 2005. This project is also very relevant on the basis of its global significance, its place in the 6th EAP of

the EU, and its correspondence with Turkey's recent strategies and objectives, which include the ratification of the United Nations Framework Convention on Climate Change (UNFCCC) in May 2004. The project aims to build capacities related to climate change through awareness raising and directly supporting the development of climate change policies. Nevertheless, in order for the prospective results of this project to be exploitable and beneficial, the state must fully adopt these policies and develop and implement regulations of the same line. The new Law on the Use of Renewable Energy Sources for Electricity Production, which entered into force in May 2005, is an important achievement in this respect. Last but not least, as also underlined in the EC Regular Reports, Turkey has not yet ratified the Kyoto Protocol and this would soon be indispensable both for EU alignment and for the effective implementation of policies and strategies being adopted.

Conclusion

It is possible to observe that, the trends in environmental problems and priorities have somewhat changed in the recent years. Although conventional problems such as solid wastes, air pollution, industrial pollution, etc. still exist, issues like GMOs and climate change receive equal attention. This is also gradually reflected in the LIFE projects of Turkey.

All of the three on-going projects in this period are highly relevant to Turkey's needs. The recently funded climate change project not only addresses a globally significant issue, but also aims to help Turkey in meeting her international obligations. The effectiveness of this project will undoubtedly depend on the level of collaboration with national authorities and their willingness to adopt the structures produced by the project. The effectiveness of the Green Pack project on environmental education similarly necessitates cooperation with national authorities. In this respect, the capacities of Ministries must be enhanced, and their organizational structures should be arranged in such a way that resources can be allocated for such projects.

5.4. Turkey in LIFE (2006 – 2013): Ex ante evaluation

The current LIFE programme has come to an end. Projects will receive funding for the last time in 2006. As mentioned previously, the new programme LIFE+ will replace the current LIFE programme from 2007 on. With an aim to bring up a strategy for Turkey, this section will

discuss Turkey's involvement in the last phase of the current LIFE programme and the coming LIFE+ programme.

This section does not include a sub-section on the State of the Environment since it is not possible to identify what the priority environmental problems will be in the years ahead. Nevertheless, the most recent documents may still be referred to concerning the near future strategies (e.g. for the last phase of the current LIFE programme). The most recent document, in this respect, is the 2005 Progress Report for Turkey published by the European Commission. The findings of this report are listed below:

- Some progress has been made as regards waste management, noise, and nature protection.
- Turkey has not yet ratified the Kyoto Protocol and has not yet become a party to the Espoo and Aarhus Conventions.
- Further efforts are also needed as regards the establishment of a greenhouse gas emission allowance trade scheme as well as the adoption of legislation on Emission Trading.
- The Ministry of Environment and Forestry and the Ministry of Health have the responsibility of monitoring air quality parameters. There is a certain overlapping of monitoring tasks between these two institutions.
- As regards water quality, significant efforts are needed to approximate and implement legislation, and to improve institutional framework.
- No progress can be reported regarding industrial pollution control and risk management.
- Trans-boundary issues under the environmental acquis and international conventions, to which the Community is a party, require particular attention.

(European Commission, 2005)

5.4.1. Project Implementation Capacity in Turkey

During the interviews in this study, the interviewees have also been asked questions regarding project implementation capacity in Turkey. This is because, identifying the problems related to the implementation of projects is necessary to focus on in order to be successful in future LIFE and other projects. On this basis, this section presents the findings on this matter.

It was already discussed in Section 4.3. that project development capacity in Turkey seems comparatively weak when we analyze some figures involving other LIFE Third Countries beneficiary countries. The same concern also applies for the implementation of projects. A variety of structural shortcomings are indicated by the interviewees in this respect. Lack of capacity of state institutions, and especially of municipalities, is highlighted (Ugurlu, 2005; Kabatepe, 2005; Yöntem, 2005). The limitations are mainly as regards human resources, technical capacities and financial resources. Ugurlu (2005) underlines the lack of technical capacity, and gives a real-life example that in a project on the separate collection of solid wastes in Yalova, the segregated wastes were brought together at a central point, however, there was no available vehicle to transfer the wastes to recycling.

According to Kabatepe (2005) and Yöntem (2005), deficiencies in the capacity of public institutions have restricted the effectiveness of LIFE projects in Turkey. Kabatepe (2005) identifies that, participation of private enterprises in the LIFE projects has remained low, whereas the beneficiaries have mostly been state institutions and universities, whose efficiency in project implementation is rather low. Röben (2005) also indicates that, there are administrative problems within the Ministry of Environment and Forestry, which is an important issue since the Ministry is involved in most of the projects. In this regard, Yöntem (2005) believes that, the Ministries should be supported more to enhance their capacities. According to Ugurlu (2005), administrative complications such as border division problems among local authorities also bring out problems during project implementation. A specific example Ugurlu (2005) gives in this respect is regarding management of water basins in Turkey, for which sometimes more than one municipality is allocated authority.

It was identified in the evaluation of "Coastal Management and Tourism in Turkey" project (see pg. 79) that the support and interest of the local authorities was significant for the success of the project. With an equal opinion, Röben points out that, the effectiveness of a project strongly depends on the interest of the local stakeholders and especially the political decision-makers. In this respect, Yöntem (2005) underlines that, in order to achieve effective implementation of a project you need to know the tricks and have good relations with authorities. She explains that, if one cannot communicate the usefulness and prospective benefits of his project properly, then the public authorities would see the project as a burden. Yöntem (2005) gives the example that, the solid waste management

project in Bodrum could not be sustained since the new mayor did not make follow-ups of the project.

Consequently, it is possible to observe that, even after a successful project proposal receives funding, simple failures may obstruct the implementation of the project. These should be avoided through good planning and coordination. Furthermore, as regards shortcomings in capacities of institutions, public authorities should be given trainings for project management since the successful implementation of projects will in most cases depend on the level of collaboration with local authorities.

5.4.2. A Strategy for Turkey's Future Participation in LIFE

As indicated by various documents, Turkey has diverse environmental problems to deal with. In order to address and respond to these problems through developing and implementing projects, a strategy should be employed. For instance, Yöntem (2005) states that, there are many issues to produce project about, however, we cannot justify them. According to her, we should be able to clearly state our problems and needs, and show that we are ready to allocate certain amount of resources to respond to these needs.

Within the framework of the LIFE projects funded in Turkey until now and the most recent documents on the state of the environment, a number of potential project topics can be identified for future submission under the last phase of the LIFE or the future LIFE+ programmes. On this basis, a number of topic areas are identified below, constituting a strategy that could be followed in the short term. The interviewees have also been asked for their opinions in this respect.

Climate Change

After the ratification of the UN Framework Convention on Climate Change in May 2004, the most recent LIFE project, entitled "Promoting Climate Change Policies in Turkey", has been funded in 2005. In its latest Progress Report for Turkey, European Commission (2005) underlines that, Turkey needs to establish a greenhouse gas emission allowance trade scheme as well as adopt legislation on Emission Trading. Similarly, the latest five-year development plan indicates the need to prepare emission inventories. On this basis, clearly justifiable projects can be developed in the field of climate change and connected issues

as renewable energy and energy efficiency. Such a project could complement the current LIFE project on climate change, and be supportive of the EU approximation process. Should Turkey ratify the Kyoto Protocol soon, this area will possibly offer even a greater potential to develop and implement projects.

Public Participation

Similar to climate change, public participation in environmental decision making is also an issue of international recognition. The Aarhus Convention, adopted as a legally binding mechanism for the UN/ECE (United Nations Economic Commission for Europe) Region in 1998, recognizes that sustainable and environmentally sound development depends on effective governmental considerations and input from members of the public. In Turkey, limited avenues for public participation and low level of participation in environmental decision-making is identified as major obstacles for the sustainable management of natural resources and solution of the environmental problems in the NEAP and the Eighth Five-Year Development Plan. Furthermore, for the first time in the EC Regular Reports for Turkey, Aarhus Convention is referred to in the 2005 Progress Report (see pg. 90). Within this framework, this is also an open area to develop and implement projects. A project on public participation could clearly have an EU approximation aspect and pave the way for becoming a party to the Aarhus Convention. Such a project would also have positive spillovers, for instance, on the functioning of democracy since participatory structures will be expanded.

Water Framework Directive

Several directive approximation efforts will be necessary during the EU accession process of Turkey. However, as WWF and EEB (2004) point out, the Water Framework Directive (WFD) is a very complex directive and poses many challenges for implementation. Given the significance of water resources for Turkey, and as addressed by national documents and EC Regular Reports, approximation of this directive and efforts for its implementation should be prioritized. Implementation of WFD requires various efforts at national and local level; and among these, for instance, integrated river basin management is an important element (Grontmij, 2003). Each river basin lying within the national territory must be identified and assigned to individual River Basin Districts (RBD), and a River Basin Management Plan (RBMP) must be produced for each district (WWF and EEB, 2004). Turkey comprises 26 river basins, and these are grouped under 6 River Basin Districts. Accordingly, different projects can be

developed and realized in this area. Considering the bottom-up approach of the LIFE programme, local demonstration projects could be developed for river basin management. Such projects could, for instance, focus on institutional capacity building for the management of the water basin, or carry out more scientific studies, monitoring and modeling activities, etc.

Biodiversity, GMOs and Transboundary Issues

Looking at the most recent national documents and the EU reports, it is possible to note that the emphasis on biodiversity, genetically modified organisms (GMOs) and transboundary issues have increased. In line with these developments, Turkey has signed the related international agreements which address these issues. Turkey's most recent initiatives in this respect include the ratification of the Cartagena Protocol on biosafety in the field of GMOs, and the ratification of the changes made to the Basel Convention on the control of transboundary movements of hazardous wastes and their disposal. In addition, European Commission (2005), in its 2005 Progress Report, refers for the first time to the need to ratify the "Espoo Convention on Environmental Impact Assessment (EIA) in a Transboundary Context". Having committed herself to these international agreements, to which the EU is a signatory, Turkey should take the necessary initiatives to accomplish the obligations arising from these agreements. Furthermore, the 8th Five-Year Development Plan puts down specific objectives as to implement the National Biological Diversity Strategy and Action Plan for the protection of biodiversity, and minimize the biosafety risks associated with biotechnological applications. Within this framework, Turkey should continue to implement projects on the protection of biodiversity as in the previous phases of the LIFE programme, and develop innovative projects in the field of GMOs and transboundary issues. Such project proposals could be strongly justified owing to their international relevance, EU approximation aspects and relevance with national strategies.

Other topics

The priority issues, on which potential projects can be developed, have been discussed above. Nevertheless, there could be several different projects to be developed addressing other problem areas in Turkey. The interviewees, for instance, have different opinions regarding possible topic areas for future projects:

- Wastewater treatment, solid wastes management (Ugurlu, 2005)

- Renewable energy, local applications of solid waste management (Kabatepe, 2005)
- Water use, energy, protection of species, marine protection zones, disaster management (Oruc, 2005)

In addition to these topic areas, Kabatepe (2005) points out that, many projects implemented in Europe – under LIFE Environment and LIFE Nature – can be replicated in Turkey. Obviously, not only the applicable projects of Europe, but also successful local and demonstrative projects implemented in Turkey should be replicated. This is reasonable also in the sense that Turkey is a large country, and in order to spread the effects of successful LIFE projects on a national scale, replications are fundamental.

From LIFE to LIFE+

As elaborated in Chapter 4, the new LIFE+ programme will have a different approach than the current LIFE programme. It is acknowledged that “softer” projects will be funded under this new programme, however, the exact structure and content is still unclear at the moment. On this basis, it may not be very reasonable to make concrete projections as regards future projects to be submitted from Turkey; nevertheless, the topic areas discussed in the previous pages would still be applicable as project topics under LIFE+. Much will certainly depend on whether a third component, namely Nature and Biodiversity, will be included or not in the LIFE+ programme. If this amendment of the Parliament is endorsed, then it would be an important opportunity for Turkey to bring out projects for the protection of biodiversity and natural resources.

Considering that LIFE+ will fund softer actions, the proposed potential topics should be discussed in this sense. Yöntem (2005) states that, Turkey does not believe much in “soft issues”; and adds that, the projects should be more towards concrete implementation. This is true in the way that, for instance, there is an urgent need to upgrade the infrastructural facilities (e.g. municipal wastewater treatment plans, solid waste disposal facilities, etc.) in order to limit pollution. On the other hand, Turkey still lacks monitoring and measuring infrastructure, environmental inventories, access to statistics and data, and needs appropriate institutional structures for environmental management together with raising awareness of the public. All of these shortcomings can be addressed through implementing projects under the two proposed components of the LIFE+ programme – namely

Implementation and Governance, and Information and Communication. For instance, Oruc (2005) considers that disaster management is an important issue for Turkey, and underlines that, the state structures and institutions should be strengthened on this matter. Likewise, Ugurlu (2005) states that, the projects should not be purely action or purely policy projects, but integrated projects that employ both approaches. In this respect, if Turkey decides to participate in the LIFE+ programme, such softer projects can be developed under priority topic areas. However, since there is also a great need for more practical projects, an accurate strategy should be drawn up so as to be able to exploit different financial instruments available for different needs.

Conclusion

This part of the evaluation has been carried out in the light of the most recent environmental problems and priorities. The trends may change in the coming years and especially in the longer term. Consequently, it has been proposed that, climate change, public participation, Water Framework Directive, biodiversity, GMOs, and transboundary issues may be the priority topic areas to develop projects on. Projects in these areas could complement certain on-going activities, support EU approximation process, and, in some cases, help to fulfill obligations arising from international agreements. In addition to these topic areas, it is a considerable option that previous projects, which have been beneficial on local or demonstrative level, can be replicated. These project topics could be proposed either under the last phase of the current LIFE programme, or under the future LIFE+ programme by formulating suitable approaches.

CONCLUSION

The EU LIFE programme has been running since 1992, and has co-financed more than 2500 environmental projects until today in the EU Member States, some EU candidate countries, and certain third countries bordering on the Mediterranean and the Baltic Sea. Turkey has been participating in the programme under third country assistance, and has been a beneficiary of 27 projects, 5 of which were submitted and implemented by international organizations covering several countries in the Mediterranean, and the remaining 22 by Turkey. This study has evaluated Turkey's participation in the LIFE programme through looking into the funded projects within an evaluation framework. The analysis has been carried out in 3 parts sorted in accordance with the temporal status of the funded projects:

1. Previous participation → completed projects (1992 – 2003)
2. Current participation → on-going and recently funded projects (2004 – 2006)
3. Future participation → strategies and possible future projects (2007 – 2013)

The overall conclusion is that, taking into consideration the capacity needs of Turkey in the field of environment, the global objective of the LIFE programme and the specific objective of its Third Countries strand correspond nicely to these needs of Turkey. That is to say, the LIFE has been a relevant instrument for building capacities in Turkey. It is hard to talk about a success on a national scale given that the LIFE programme employs a bottom-up approach, and the projects are meant to play a “pump-priming” role. In accordance with this, it is possible to observe that most of the funded projects in Turkey have been of demonstrative and local character. Nevertheless, in order to achieve the sustainability of such projects and extend their effects to a national scale, follow-ups and replications are essential.

It has been observed that the topic areas of Turkish LIFE projects are focused mostly on nature conservation and waste management. Given the scale of biodiversity and natural resources in Turkey, and considering the on-going waste management problems, it is relevant and favorable that the focus has been on these areas. A further positive indicator is that, with the approval of Turkey's EU candidacy status in 1999, there has been an increase in legislation approximation projects, and also in projects which employ EU

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approximation efforts alongside their specific objectives. Overall, it has been identified that the projects have addressed various topics that correspond to the needs of the country.

Some specific conclusions of the evaluation are as follows:

- Interest and cooperation of the local administrations (i.e. municipalities) and the local public is fundamental for the effectiveness and sustainability of projects. The local authorities should believe in, adopt and support the projects, and the public should be involved and consulted so as to achieve an accurate implementation.
- It has been observed that there were municipalities which lacked the knowledge on the existence of the Solid Wastes Directive. In view of this extreme example, and considering the size of Turkey, there is a need to identify accurately the local needs, and develop and implement site-specific projects, which can gradually bring about developments.
- Outputs of projects, such as draft legislation, management plans, action plans, guidelines, strategy papers, etc. must be utilized (i.e. practiced, implemented, applied, etc.) in order to observe actual effects on the environment.

In the final analysis; today, it is frequently articulated that Turkey will need an investment of EUR 30 – 50 billion to solve the existing environmental problems in the course of the EU accession process. Whereas there is a clear need for environmental infrastructure projects in this process, a unique instrument like the LIFE (and the new LIFE+) could support such projects from a policy and implementation point of view. To achieve this harmony, the need to establish good planning and coordination mechanisms among different project development and implementation institutions seems crucial.

REFERENCES

1. AEAT, 2003: *Mid-term evaluation on the implementation of the LIFE financial instrument – Final Report*
Available: [http://europa.eu.int/comm/environment/life/infoproducts/lifemidtermevaluati
onen.pdf](http://europa.eu.int/comm/environment/life/infoproducts/lifemidtermevaluati
onen.pdf) (Accessed 16.11.2005)
2. Akdeniz University, 2005: *Integrated Healthcare Waste Management in Istanbul project website*
Available: <http://www.akdeniz.edu.tr/muhfak/life/menu.html#> (Accessed 17.11.2005)
3. Barbagallo, V., 1996: *European Integration and Environment: Are we going Towards a Cleaner Federal State?*
Available: <http://aei.pitt.edu/archive/00000383/01/jmwp02.htm> (Accessed 04.12.2005)
4. Clinch, J.P., 1999: *Environmental Policy Reform in the EU*
Available: <http://www.ucd.ie/pepweb/publications/workingpapers/99-06.pdf>
(Accessed 05.12.2005)
5. DEFRA (Department for Environment Food and Rural Affairs), 2005: *Partial Regulatory Impact Assessment on a Proposal for a Regulation of the European Parliament and of the Council Concerning the Financial Instrument for the Environment (LIFE+)*
Available: <http://www.defra.gov.uk/corporate/consult/life-plus/partial-ria.pdf>
(Accessed 30.10.2005)
6. DEFRA, 2005, LIFE: *EU Financial Instrument for the Environment*
Available: <http://www.defra.gov.uk/environment/life/about.htm> (Accessed 10.09.2005)
7. DELTUR (Delegation of the European Commission to Turkey), 2003: *EU-Turkey Financial Cooperation*
Available: [http://www.deltur.cec.eu.int/default.asp?lang=1&pId=4&fId=7&prnId=3&hnd
=1&ord=2&docId=558&fop=0](http://www.deltur.cec.eu.int/default.asp?lang=1&pId=4&fId=7&prnId=3&hnd
=1&ord=2&docId=558&fop=0) (Accessed 05.09.2005)
8. Durmaz, B., 2004: *Avrupa Birliği'nde Çevre Politikası Alanında Muhtemel Muzakere Surecine Yonelik Gerekli Hazirliklarin Orneklerle Calisilmasi (Case Studies for the Necessary Preparations towards Possible EU Negotiation Process in the Field of Environment)*
Available: http://www.abgs.gov.tr/uzman/uzmanlik_tezleri_files/burcu_altinordu.pdf
(Accessed 20.11.2005)

REFERENCES

9. EDF (Economic Development Foundation of Turkey), 2005: *Avrupa Birliği'nin Çevre Politikası (European Union Environmental Policy)*
Available: <http://www.ikv.org.tr/pdfs/4f3a608d.pdf> (Accessed 05.12.2005)
10. EEA (European Environment Agency), 2005: *Environmental Policy Integration in Europe – State of play and an evaluation framework*
Available: http://reports.eea.eu.int/technical_report_2005_2/en/Tech_2_2005_web.pdf
(Accessed 20.09.2005)
11. EEB (European Environmental Bureau), 2005: *EU Environmental Policy Handbook – A Critical Analysis of EU Environmental Legislation*
Available: http://www.eeb.org/publication/policy_handbook.htm
(Accessed 04.12.2005)
12. EESC (European Economic and Social Committee), 2005: *Opinion of the European Economic and Social Committee on the Proposal for a Directive of the European Parliament and of the Council concerning the Financial Instrument for the Environment (LIFE +)* Available: <http://www.uni-mannheim.de/edz/doku/wsa/2005/ces-2005-0382-en.pdf> (Accessed 29.10.2005)
13. Erten, S., 2005: *Çevre Eğitimi (Environmental Education)*
Available: <http://www.fbo.hacettepe.edu.tr/cevreegitimi.html> (Accessed: 23.11.2005)
ERKA Group, 2003: *Capacity building for solid waste management in Turkey project website* Available: <http://www.katiatik.com> (Accessed 26.11.2005)
14. EUROPA, 2001: *Environment: Introduction*
Available: <http://www.europa.eu.int/scadplus/leg/en/lvb/l28066.htm>
(Accessed 17.10.2005)
15. EUROPA, 2003: *Regional policy: Introduction*
Available: <http://europa.eu.int/scadplus/leg/en/lvb/g24000.htm> (Accessed 01.09.2005)
16. EUROPA, 2004a: *The Structural Funds*
Available: http://europa.eu.int/comm/regional_policy/funds/prord/sf_en.htm
(Accessed 05.09.2005)
17. EUROPA, 2004b: *ISPA, PHARE and SAPARD*
Available: http://europa.eu.int/comm/regional_policy/funds/ispa/enlarge_en.htm
(Accessed 05.09.2005)

REFERENCES

18. EUROPA, 2004c: SMAP
Available: <http://europa.eu.int/comm/environment/smap/howto.htm>
(Accessed 05.09.2005)
19. EUROPA, 2004d: "Towards Sustainability" – The European Community Programme of policy and action in relation to the environment and sustainable development
Available: <http://europa.eu.int/comm/environment/actionpr.htm> (Accessed 05.12.2005)
20. EUROPA, 2005: IMPEL: *Introduction*
Available: <http://europa.eu.int/comm/environment/impel/about.htm#introduction>
(Accessed 01.12.2005)
21. EUROPA, 2005a: *The Financing of the Budget*
Available: http://europa.eu.int/comm/budget/financing/index_en.htm#point1
(Accessed 25.08.2005)
22. EUROPA, 2005b: *The European Union's Financial Framework*
Available: http://europa.eu.int/comm/budget/financialfrwk/index_en.htm#origine
(Accessed 01.09.2005)
23. EUROPA, 2005c, *The Cohesion Fund at a glance*
Available: http://europa.eu.int/comm/regional_policy/funds/procf/cf_en.htm
(Accessed 05.09.2005)
24. EUROPA, 2005d: *The LIFE Programme – a brief history of EU environmental financing*
Available: <http://europa.eu.int/comm/environment/life/life/historyoflife.htm>
(Accessed 15.09.2005)
25. EUROPA, 2005e: *Green Week*
Available: http://europa.eu.int/comm/environment/greenweek/index_en.htm
(Accessed 10.09.2005)
26. EUROPA, 2005f: *Press Releases - €4.2 billion "Competitiveness and Innovation Programme" to boost growth and jobs*
Available: <http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/05/391&format=HTML&aged=0&language=EN&guiLanguage=en> (Accessed: 30.10.2005)
27. EUROPA, 2005g: *Project summaries of Turkish LIFE projects*
Available: <http://europa.eu.int/comm/environment/life/project/Projects/index.cfm>
(Accessed 08.12.2005)

REFERENCES

28. EUROPA, 2005h: *Working for the Regions*
Available: http://europa.eu.int/comm/regional_policy/intro/working4_en.htm
(Accessed 06.12.2005)
29. EUROSITE, 2005: *What is Natura 2000?*
Available: http://www.eurosite-nature.org/article.php3?id_article=116#1
(Accessed 15.09.2005)
30. European Commission, 1998: *1998 Regular Report on Turkey's Progress towards Accession*
Available: http://europa.eu.int/comm/enlargement/report_11_98/pdf/en/turkey_en.pdf
(Accessed 11.11.2005)
31. European Commission, 1999: *1999 Regular Report on Turkey's Progress towards Accession*
Available: http://europa.eu.int/comm/enlargement/report_10_99/pdf/en/turkey_en.pdf
(Accessed 11.11.2005)
32. European Commission, 2000a: *2000 Regular Report on Turkey's Progress towards Accession*
Available: http://europa.eu.int/comm/enlargement/report_11_00/pdf/en/tu_en.pdf
(Accessed 11.11.2005)
33. European Commission, 2000b: *Global Assessment – Europe's environment: what directions for the future?*
Available: http://europa.eu.int/comm/environment/newprg/pdf/99543_en.pdf
(Accessed 05.12.2005)
34. European Commission, 2001: *2001 Regular Report on Turkey's Progress towards Accession*
Available: http://europa.eu.int/comm/enlargement/report2001/tu_en.pdf
(Accessed 21.11.2005)
35. European Commission, 2002: *2002 Regular Report on Turkey's Progress towards Accession*
Available: http://europa.eu.int/comm/enlargement/report2002/tu_en.pdf
(Accessed 21.11.2005)

REFERENCES

36. European Commission, 2003: *2003 Regular Report on Turkey's Progress towards Accession*
Available: http://europa.eu.int/comm/enlargement/report_2003/pdf/rr_tk_final.pdf
(Accessed 21.11.2005)
37. European Commission, 2003a: *2003 Environmental Policy Review, Belgium.*
38. European Commission, 2003b: *Report from the Commission to the European Parliament and the Council – Mid-term review of Regulation (EC) No 1655/2000 LIFE*
http://europa.eu.int/eur-lex/en/com/rpt/2003/com2003_0668en01.pdf
(Accessed 30.11.2005)
39. European Commission, 2004: *2004 Regular Report on Turkey's Progress towards Accession*
Available: http://europa.eu.int/comm/enlargement/report_2004/pdf/rr_tr_2004_en.pdf
(Accessed 21.11.2005)
40. European Commission, 2004a: *Evaluating EU Activities – A Practical Guide for the Commission Services*
Available: http://europa.eu.int/comm/budget/evaluation/pdf/pub_eval_activities_full_en.PDF (Accessed 30.11.2005)
41. European Commission, 2004b: *Proposal for a Regulation of the European Parliament and of the Council Concerning the Financial Instrument for the Environment (LIFE+)*
Available: http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/com/2004/com2004_0621en01.pdf (Accessed 20.09.2005)
42. European Commission, 2004c: *Fifth Annual Survey on the implementation and enforcement of Community environmental law 2003*
Available: http://europa.eu.int/comm/environment/law/pdf/5th_en.pdf
(Accessed 05.12.2005)
43. European Commission, 2004d: *Financing the European Union Commission report on the operation of the own resources system*
Available: http://europa.eu.int/comm/budget/pdf/financing/com_2004_OwnRes/Fin_own_res_Com_505_vol_201_EN.pdf (Accessed 06.12.2005)
44. European Commission, 2005: *Turkey 2005 Progress Report*
Available: http://europa.eu.int/comm/enlargement/report_2005/pdf/package/sec_142_6_final_en_progress_report_tr.pdf (Accessed 21.11.2005)

REFERENCES

45. European Commission 2005a: *2004 Environmental Policy Review*, Belgium.
46. European Commission, 2005b: *Handbook for Environmental Project Funding*
Available: http://europa.eu.int/comm/environment/funding/pdf/handbook_funding.pdf
(Accessed 01.09.2005)
47. European Commission, 2005c: *APPLICATION GUIDE 2005 for Financial Support from the EC Financial Instrument for the Environment LIFE - THIRD COUNTRIES 2005*
Available: <http://europa.eu.int/comm/life/3countr/index.htm> (Accessed 10.09.2005)
48. European Court of Auditors, 2003, *SPECIAL REPORT No 11/2003 concerning the Financial Instrument for the Environment (LIFE), together with the Commission's replies*
Available: http://www.eca.eu.int/audit_reports/special_reports/docs/2003/rs11_03en.pdf
(Accessed 15.09.2005)
49. European Parliament, 2005a: *Report on Policy Challenges and Budgetary Means of the enlarged Union 2007-2013*
Available: <http://www.europarl.eu.int/comparl/tempcom/finp/report/552774en.doc>
(Accessed: 01.09.2005)
50. European Parliament, 2005b: *European Parliament legislative resolution on the proposal for a regulation of the European Parliament and of the Council concerning the Financial Instrument for the Environment (LIFE +)*
Available: <http://www.europarl.eu.int/omk/sipade3?PUBREF=-//EP//TEXT+TA+P6-TA-2005-0291+0+DOC+XML+V0//EN&LEVEL=3&NAV=X> (Accessed 30.10.2005)
51. Frechtling, J., Westat, L.S., 1997: *User-Friendly Handbook for Mixed Method Evaluations*
Available: <http://www.ehr.nsf.gov/EHR/REC/pubs/NSF97-153/start.htm>
(Accessed 29.11.2005)
52. Gervais, C., 2002: *An Overview of European Waste and Resource Management Policy*
Available: <http://www.forumforthefuture.org.uk/uploadstore/An%20Overview%20of%20European%20Waste%20and%20Resource%20Management%20Policy.pdf>
(Accessed 04.12.2005)
53. Gouldson, A., Murphy, J., 1996: *Ecological Modernization and the European Union*, Geoforum Vol. 27. No. 1. pp. 11-21, Elsevier Science Ltd., UK.
54. Green 9, 2005: *Green 9 proposed amendments to the LIFE+ Regulation*
Available: <http://www.eeb.org/activities/networking/Green9-amendments-to-LIFE+.pdf>
(Accessed 30.10.2005)

REFERENCES

55. Grontmij, 2003: *Uygulama El Kitabı – Su Çerçeve Direktifi'nin Türkiye'de Uygulanması (Implementation Handbook – Implementation of the Water Framework Directive in Turkey)*
Available: <http://www.artiproje.com.tr/downloads/R3%20Handbook%20WFD%20Turkey%20TR.pdf> (Accessed 25.11.2005)
56. IEEP (Institute for European Environmental Policy), 1991: *Manual of Environmental Policy – The EU and Britain*
Available: <http://www.mep-online.com/> (Accessed 15.10.2005)
57. Jordan, A., 1998: *EU environmental policy at 25: the politics of multinational governance - European Union – includes related article on EU's struggle to revise water quality standards*
Available: http://www.findarticles.com/p/articles/mi_m1076/is_n1_v40/ai_20330012
(Accessed 30.11.2005)
58. Jordan, A., Wurzel, R., Zito, A. R., Bruckner, L. 2003: *European Governance and the Transfer of 'New' Environmental Policy Instruments (NEPIs) in the European Union*, PA, Vol. 81, Iss. 3, pp. 555-574, Blackwell Publishing Ltd., UK.
59. Kabatepe, B., Kabatepe E., 2005: *Interview with Mr. Erdal and Burce Kabatepe (MERKAT Inc.)*
60. LIFE Unit, 2005: *Mr. Juan Perez Lorenzo's response to the enquiry, submitted as regards the LIFE+ programme, and Turkey's involvement in it*
61. Little, P., 2002: *Selected Evaluation Terms – Harvard Family Research Project*
Available: http://www.gse.harvard.edu/hfrp/content/projects/afterschool/resources/ost_terms.pdf (Accessed 30.11.2005)
62. Manska, J., (2005): *Interview with Ms. Jolanta Manska (The Regional Environmental Center (REC) Head Office)*
63. McCormick, J., 2001: *Environmental Policy in the European Union*
Available: <http://www.palgrave.com/pdfs/0333772032.pdf> (Accessed 03.12.2005)
64. McNamara, C., 1999: *Basic Guide to Program Evaluation*
Available: http://www.mapnp.org/library/evaluatn/fnl_eval.htm (Accessed 30.11.2005)
65. METU (Middle East Technical University), 2005: *Odorous emissions and immissions management policy in Turkey project website*
Available: <http://www.odor-life.metu.edu.tr/> (Accessed 17.11.2005)

REFERENCES

66. Milliyet Newspaper, 2000: *10 bin alilenin enerjisi copten (Energy from wastes for 10 thousand families)*
Available: <http://www.milliyet.com.tr/2000/11/01/haber/hab26.html>
(Accessed 19.11.2005)
67. MoEF (Turkish Ministry of Environment and Forestry), 2004: *Turkiye Cevre Atlasi (Environment Atlas of Turkey)*
Available: <http://www.cedgm.gov.tr/cevreatlasi/cevreeditimi.pdf>
(Accessed: 23.11.2005)
68. MoEF (Turkish Ministry of Environment and Forestry), 2005: *Regulations published in the Official Journal*
Available: <http://www.cevreorman.gov.tr/yasa/yonetmelik.asp> (Accessed 22.11.2005)
69. MoEF (Turkish Ministry of Environment and Forestry), 2005a, *Ministry of Environment and Forestry's response to the enquiry, submitted in accordance with the Right to Know Act, regarding Turkey's participation in the LIFE Third Countries programme*
70. MoEF (Turkish Ministry of Environment and Forestry), 2005b: *Approximation of SEVESO II Directive in Turkey project website*
Available: http://seveso.cevreorman.gov.tr/e_index.htm (Accessed 18.11.2005)
71. OECD (Organization for Economic Co-operation and Development), 1999: *OECD Environmental Performance Reviews Turkey*
Available: <http://www.oecd.org/dataoecd/8/30/2452088.pdf> (Accessed 11.11.2005)
72. Oruc, A., 2005: *Interview with Mrs. Ayse Oruc (WWF Turkey)*
73. Petheram, R.J., 1998: *Review of Evaluation in Agricultural Extension*
Available: http://www.aiatsis.gov.au/rsrch/ntru/ifamp/research/pdfs/Petheram_1998.pdf
(Accessed 29.11.2005)
74. Radikal Newspaper, 1998: *Bursali cople aydinlanacak (Wastes to illuminate Bursa)*
Available: <http://www.radikal.com.tr/1998/09/15/ekonomi/03bur.html>
(Accessed: 19.11.2005)
75. REC (The Regional Environmental Center), 2002: *Turkey's Environment: A Review and Evaluation of Turkey's Environment and its Stakeholders*
Available: <http://www.rec.org/REC/Programs/ExtensionToTurkey/TurkeysEnvironment.pdf>
(Accessed 11.11.2005)
76. REC, 2005: *Turkish Green Pack Project Leaflet*

REFERENCES

77. Referans, 2005: *Coplerden 5 yilda 50 milyon kilovat/saat elektrik uretildi (50 million kW/h electric produced from wastes in 5 years)*
Available: http://www.finansforum.com.tr/haber.aspx?HBR_KOD=10707
(Accessed 19.11.2005)
78. Robson, C., 2002: *Real World Research – A Resource for Social Scientists and Practitioner-Researchers*, Second Edition, UK.
79. Röben, E., (2005): *Interview with Ms. Eva Röben (LIFE External Team)*
80. Sahin, R., 1998: *Avrupa Birliği butcesi – fonlari ve Turkiye'nin tam uyeligi (The European Union budget – funds and Turkey's full membership)*
Available: <http://ekutup.dpt.gov.tr/ab/sahinr/butcefon.html> (Accessed 25.08.2005)
81. Skjærseth, J. B., Wettestad, J., 2002: *Understanding the Effectiveness of EU Environmental Policy: How Can Regime Analysis Contribute?*, *Environmental Politics*, Vol.11, No.3, Autumn 2002, pp.99–120, London.
82. SPO (State Planning Organization), 1995: *Seventh Five Year Development Plan 1996 – 2000*
Available: <http://ekutup.dpt.gov.tr/kutup/plan/vii/> (Accessed 15.09.2005)
83. SPO (State Planning Organization), MoE (Ministry of Environment), 1998: *UCEP Ulusal Cevre Stratejisi Eylem Planı, [NEAP National Environmental Action Plan]*
Available: http://www.cevreorman.gov.tr/co_04.htm (Accessed 11.11.2005)
84. SPO, 2000: *Long-Term Strategy and Eighth Five Year Development Plan 2001 – 2005*
Available: <http://ekutup.dpt.gov.tr/plan/viii/plan8i.pdf> (Accessed 15.09.2005)
85. Trochim, W.M., 2000: *Introduction to Evaluation*
Available: <http://www.socialresearchmethods.net/kb/intreval.htm> (Accessed 30.11.2005)
86. TUBITAK (The Scientific and Technical Research Council of Turkey), 2003: *Cevre ve Sürdürülebilir Kalkınma Tematik Paneli (Environment and Sustainable Development Thematic Panel)*
Available: http://vizyon2023.tubitak.gov.tr/teknolojiongorusu/paneller/cevresurdurulebilir/kalkinma/raporlar/son/CSK_son_surum.pdf (Accessed 19.11.2005)
87. Ugurlu, O., 2005: *Interview with Ms. Orgen Ugurlu (Chamber of Environmental Engineers, Istanbul Branch)*

REFERENCES

88. UNDP (United Nations Development Programme), MoE (Ministry of Environment), 2002: *World Summit on Sustainable Development - Johannesburg 2002 National Report Turkey*
Available: http://www.cevko.org.tr/surdur/rapor_ing/nrt1.pdf (Accessed 11.11.2005)
89. University of Bradford, 2003: *The Environment Directorate General of the European Commission*
Available: http://www.brad.ac.uk/acad/sbtwc/gateway/europe/environment/directorate_general.htm (Accessed 05.12.2005)
90. Waldmann, J., 2003: *Protecting the Environment in the European Union*
Available: http://egora.uni-muenster.de/pol/personen/waldmann/bindata/Waldmann_EU_Environmental_Policy.pdf (Accessed 04.12.2005)
91. Wilde, J., Sockey, S., 1995: *Evaluation Handbook*
Available: <http://www.ncela.gwu.edu/pubs/eacwest/evalhbk.htm> (Accessed 30.11.2005)
92. WWF (World Wide Fund for Nature) and EEB (European Environmental Bureau), 2004: *'Tips and Tricks' for Water Framework Directive Implementation*
Available: http://www.eeb.org/activities/water/200403_EEB_WWF_Tips&Tricks.pdf
(Accessed 25.11.2005)
93. WWF, 2005: *EU Funding for Environment – A handbook for the 2007-2013 programming period*
Available: <http://www.panda.org/downloads/europe/eufundingforenvironmentweb.pdf>
(Accessed 01.09.2005)
94. Yontem, Z., 2005: *Interview with Mrs. Zeynep Yontem (EKODENGE Ltd.)*

APPENDIX I: PROJECTS

The LIFE Third Countries projects in which Turkey has been a beneficiary (1992 – 2005)

1) METAP Albania (Water supply and sewerage management), Turkey (Istanbul environment project) (Patara cultural heritage), Tunisia, Algeria (Meps)

[Beneficiary: International Ref: LIFE92 TCY/INT/016 Year: 1992]

This project funded 4 actions of a long-term strategy decided on by the Ministerial Conference on Euro-Mediterranean Cooperation. 2 of these actions cover Turkey: (1) Istanbul Environmental Project: design of municipal sewage treatment plant at Tuzla province; assessment of optimum outfall siting and design of the Riva disposal scheme. (2) Patara Cultural Heritage: preparation of a multi-use management plan for the cultural and natural resources at Patara.

2) Mediterranean environment observation function

[Beneficiary: International Ref: LIFE92 TCY/INT/005 Year: 1992]

The project aims to contribute to rational management of the environment in the Mediterranean by: the collection and analysis of environmental data, the elaboration of environmental Mediterranean indicators, the analysis of environmental and socio-economic factors to identify interactions the coordination of statistical data, the creation of an environmental Mediterranean database.

3) ENVIMED (Medcities I)

[Beneficiary: International Ref: LIFE94 TCY/INT/0962 Year: 1994]

ENVIMED is a long-term project for the amelioration and protection of the environment in coastal cities of the Mediterranean basin, which is carried out within the framework of Medcities that brings together 26 Mediterranean cities in a decentralized cooperative network. The current project aims at implementation of environmental audits, institutional reinforcement and training, raising public awareness on the environment, pre-feasibility studies. Environmental audits will be carried out in 3 cities, one of which is the Silifke province of Turkey.

4) Turkish Environment and Development Observatory – Preparatory Phase (Access to environmental information)

[Beneficiary: Ministry of Environment Ref: LIFE95 TCY/TR/1166 Year: 1995]

The project aims to assist Turkey in building up national access to integrated environment and development data, geo-referenced information and indicators as a contribution to the decision making process. Such improved access will enhance sustainable development in the country and will serve as a monitoring and evaluation tool for the National Environmental Action Plan.

5) Development of port state control capability in Southern/Eastern Mediterranean countries

[Beneficiary: International Ref: LIFE95 TCY/INT/0848 Year: 1995]

The aim of the project is to enhance the safety and protection of the marine environment in the Mediterranean region by helping the region's countries to adopt and enforce the resolution of the International Maritime Organization (IMO) on regional cooperation for the control of ships and discharges. Activities include development and signature of a Memorandum of Agreement on Port State Control and a comprehensive training.

6) Rehabilitation of open dump sites: towards sustainable land use (*Waste management*)

[Beneficiary: IULA-EMME Turkey Ref: LIFE96 TCY/TR/38 Year: 1996]

The overall goal of the project is to assist the local authorities in their efforts to cope with the multifaceted problems of open sites via developing a well-defined rehabilitation approach. The primary objective of the project was to develop a rehabilitation approach for open dump sites, leading to financially and technically sustainable urban land management. 3 pilot cities with different characteristics have been used in this respect: Adana, Canakkale and Van.

7) Coastal Management and tourism in Turkey (*Nature conservation*)

[Beneficiary Turkish Association for the Conservation of Nature and Natural Resources Ref: LIFE96 TCY/TR/21 Year: 1996]

The principal objective of the Coastal Management and Tourism in Turkey Project is to secure sustainable development and the conservation of biodiversity and natural resources in selected coastal areas of Turkey. Two coastal sites in Antalya, southern Turkey, with different experiences of tourism – large scale and small scale – have been selected: Belek and Cirali.

8) Indicators for sustainable development in the Mediterranean region

[Beneficiary: International Ref: LIFE96 TCY/INT/14 Year: 1996]

The project aims to produce indicators, corresponding to the priority actions of Mediterranean policies for environment and sustainable development, developed and validated by the countries bordering the Mediterranean Sea.

9) Demirtas waste dump gas recovery project (*Clean technologies*)

[Beneficiary: AKSA Machinery Manufacturing Co. Ref: LIFE97 TCY/TR/037 Year: 1997]

The objective of the project is to design, build, and start-up a gas-capture system and power plant, and to carry out various dissemination activities.

10) Implementation of EMAS (Eco Management and Audit Scheme) in Turkey (*Corporate environmental management*)

[Beneficiaries: MERKAT Inc., Municipality of Cesme, DESA Engineering Investments Goods Industry Inc., Bozoglu Textile Industry and Trade Inc., UNIKOM Food Industry and Trade Inc. Ref: LIFE97 TCY/TR/016 Year: 1997]

This project aimed to assist the Turkish government in preparing suitable conditions, including legislative and administrative measures, for the creation of a public structure able to make the implementation of EMAS accessible to Turkish enterprises.

11) Ecological risk analysis and management planning for Lake Manyas (Lake Bird) (*Nature conservation*)

[Beneficiaries: Ministry of Environment, Ministry of Forestry, Ankara University Ref: LIFE97 TCY/TR/015 Year: 1997]

The objective of the project was to prepare a management plan for the lake and its surroundings, including the National Park. Such a plan would sustain the wildlife of the lake and the wise use of its resources.

12) Bodrum solid waste management project *(Waste management)*

[Beneficiaries: Academia Mediterranea Halicarnassensis Foundation (AMHF), Municipality of Bodrum Ref: LIFE98 TCY/TR/016 Year: 1998]

The overall objective of the project was to implement technically feasible and financially sustainable Solid Waste Management (SWM) for the Bodrum Peninsula that could be an example for similar Mediterranean tourist areas. To reach this objective, the project aimed to establish a Solid Waste Management Department within the Union of Bodrum Peninsula Municipalities (UoBM); such a department could provide services, revenues, and investment financing.

13) Support for the environmental management of organized industrial zones in Turkey *(Corporate environmental management)*

[Beneficiary: MERKAT Inc. Ref: LIFE98 TCY/TR/013 Year: 1998]

The overall objective of the project was to support the establishment of an appropriate technical and organizational infrastructure in the Izmir Ataturk Organized Industrial Zone (IAOIZ) in Turkey. Such an infrastructure should be able to mitigate the negative environmental impacts from IAOIZ's industries. The project also aimed to promote its results to other industrial zones and relevant authorities.

14) Risk assessment of the ports of Mersin and Iskenderun, Turkey and associated capacity building for state of readiness and for response to marine pollution *(Other – Risk assessment)*

[Beneficiaries: Ministry of Environment, Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC) (Malta) Ref: LIFE98 TCY/TR/011 Year: 1998]

The general objectives of the project are to: (1) enhance the preparedness and response system of Turkish ports; (2) integrate the ports' preparedness and response system with the wider infrastructure of the national system for preparedness and response; and (3) be used as a benchmark project which can be reproduced in other Turkish ports as well as Mediterranean ports handling similar cargoes.

15) Cukurova Delta biosphere reserve: determination of biological diversity and initiation of a programme for sustainable development *(Nature conservation)*

[Beneficiaries: Cukurova University, GENCKAL Ref: LIFE99 TCY/TR/087 Year: 1999]

The project had three objectives:

1. Assessment of biodiversity. This was to focus on key plant and animal communities. Based on these surveys, key sites for establishing long-term monitoring were to be selected. These sites would form the core of the Biosphere Reserve. Turkish staff was to be trained in assessment techniques.

2. Establishment of a Biosphere Reserve. Based on the results of the first objective, zones and boundaries were to be drawn for the proposed Reserve, including ecological sensitivity, core zone, restoration zone and buffer zone including settlements and tourist sites. Socio-economic analyses would be carried out to assess impacts on local communities. A feasibility study would investigate the management of the Reserve. This planning process was to lead to a proposal for the Biosphere Reserve to be presented to the General Directorate of the National Parks. Following approval, an action plan would be drawn up.

3. Development of a long-term management plan. This was to include setting-up a unit to run the administration of the proposed Biosphere Reserve, and manage education and training. It was to be based on the results of the first two objectives including socio-economic factors. An educational programme was a key component of the management plan.

16) Establishing a sustainable network for Lake Management in Turkey *(Nature conservation)*

[Beneficiary: IULA-EMME, International Union of Local Authorities, Eastern Mediterranean and Middle East Office Ref: LIFE99 TCY/TR/086 Year: 1999]

The overall objective of the project was to establish the basis for a sustainable network of relevant organizations for the effective management and protection of lakes in Turkey. The project was implemented at two levels: networking at national level to coordinate among relevant government and non-governmental organizations, and providing guidance to local level initiatives, including five pilot projects (lakes Cildir, Egirdir, Iznik, Hazar, and Mogan).

17) Ecosystem Conservation and Management for Threatened Plant Species *(Nature conservation)*

[Beneficiaries: Ministry of Environment, Ministry of Agriculture and Rural Affairs, Turkish Association for the Conservation of Nature and Natural Resources Ref: LIFE99 TCY/TR/065 Year: 1999]

The project's overall objective was the conservation and management of steppe ecosystems that are important plant areas for endangered herbaceous plant species listed in Appendix I of the Bern Convention.

The project's specific objectives were:

- 1) Designation of important plant areas (IPAs);
- 2) Setting up a data management system;
- 3) Raising awareness and public participation;
- 4) Managing the designated IPAs for sustainable use; and
- 5) Monitoring the area.

18) Integrated Healthcare Waste Management in Istanbul *(Waste management)*

[Beneficiary: Turkish National Committee on Solid Wastes Ref: LIFE00 TCY/TR/054 Year: 2000]

The overall objective of the project is to design an integrated plan for the management of healthcare waste in Istanbul. Such a plan will minimize the risks to human health and the environment and will help bring Turkish legislation closer to compliance with corresponding EU legislation and standards.

19) Capacity building for solid waste management in Turkey *(Waste management)*

[Beneficiary: MERKAT Inc., Ministry of Environment and Forestry Ref: LIFE00 TCY/TR/011 Year: 2000]

Overall, this project aimed to prepare new solid waste management strategies for Turkey that are safe for both humans and the environment and that are consistent with those of the EU.

Specifically, the project aimed to:

- Assess the current solid waste management situation in Turkey;
- Propose changes in the Turkish legislation on solid waste in order to bring it closer to EU legislation;
- Establish a proper institutional structure for the management of solid waste;
- Train staff;
- Produce an action plan for strengthening solid waste management; and
- Encourage the participation and interest of the stakeholders.

20) Strengthening environmental control in Turkey, reinforcing the National Reference Laboratory of Gölbası (*Access to environmental information*)

[Beneficiaries: Ministry of Environment, International Water Centre – NAN.C.I.E. (France)
Ref: LIFE00 TCY/TR/010 Year: 2000]

The overall objective of the project is to contribute to sustainable development in Turkey. The project aims to promote a comprehensive national Air and Water Quality Control Programme to identify pollution sources and develop pollution prevention and control actions in Turkey. In particular, this should be achieved by strengthening the technical and operational functioning of the Gölbası National Reference Laboratory (NRL) so that it can fulfill its intended function of providing regular and frequent monitoring and control of water and air quality throughout Turkey.

21) Odorous emissions and immissions management policy in Turkey

(*Legislation approximation*)

[Beneficiaries: Middle East Technical University, Turkish Ministry of Environment and Forestry, The University of Stuttgart, Dokuz Eylul University Ref: LIFE00 TCY/TR/009 Year: 2000]

The project's overall objective is to develop an environmental policy and action programme for odorous emissions and immissions in Turkey. The project will cover the preparation of guidelines and regulations, the improvement of the administrative structure of Turkey's environmental sector, and capacity building in the Ministry of Environment to adapt the Turkish AQCR to EU environmental legislation.

22) Preserving the Marine Environment of Oludeniz Lagoon (*Nature conservation*)

[Beneficiary: Turkish Marine Research Foundation Ref: LIFE02 TCY/TR/061 Year: 2002]

The overall objective of the project is to contribute to the preservation of the marine environment of Oludeniz Lagoon, an area rich in biological diversity, for the benefit of future generations.

23) Approximation of SEVESO–II Directive in Turkey (*Legislation approximation*)

[Beneficiaries: Ministry of Environment and Forestry, Ekondege Ltd.
Ref: LIFE03 TCY/TR/000064 Year: 2003]

The overall objective of this project is to complete the transposition of the SEVESO Directive into Turkish legislation. The following activities are planned:

- Data collection and review of current practices;
- Strategy development;
- Implementation Plan preparation;
- Preparation of draft Regulation transposing the provisions of the SEVESO II Directive;
- Preparation of the main guidelines; and
- Establishment of an information system.

24) Exploitation of Agricultural Residues in Turkey (*Clean technologies*)

[Beneficiaries: Cukurova University, TUBITAK Marmara Research Centre, EXERGIA S.A. (Greece), EMC Environment Engineering (Great Britain) Ref: LIFE03 TCY/TR/000061 Year: 2003]

The project aims to strengthen the capacity of Turkey to sustainably exploit the potential of agricultural waste residues to produce environmental, economic and social benefits.

25) Supporting Education for Sustainable Development in Turkey – Turkish Green Pack

(Other – Environmental education)

[Beneficiaries: The Regional Environmental Center (REC), Bird Research Foundation, Nature Foundation Ref: LIFE04 TCY/TR/000012 Year: 2004]

The main objectives of the project are to build capacities, transfer know-how, and establish the basis for further developments in the field of education for sustainable development in Turkey. Specifically, the project will:

- Determine existing needs in the field of education for sustainable development;
- Raise the environmental awareness of teachers and pupils;
- Provide up-to-date materials on sustainable development issues in appropriate formats (the Turkish Green Pack multimedia educational kit);
- Train teachers, with particular emphasis on enhancing their capacity to develop new approaches to sustainable development issues; and
- Disseminate the project results at the local, national, and international levels.

26) Establishment of an Information System for Turkish SMEs on EU Environmental Approximation *(Corporate environmental management)*

[Beneficiaries: Hacettepe University, Ministry of Industry and Trade – Small and Medium Industry Development Organization, Middle East Industry and Commerce Center Organized Industrial Zone Directorate, Ekodenge Limited Ref: LIFE04 TCY/TR/000004 Year: 2004]

This project aims to enhance capacities in the environmental sector by preparing an interactive guidance service, which will enable SMEs to access information on EU environmental approximation. Specifically, the project will:

- Review the current Turkish and EU legislation;
- Develop an information system on EU environmental approximation;
- Prepare an approximation strategy for the “End of Life Vehicles” Directive; and
- Provide training to the users of the information system.

27) Promoting Climate Change Policies in Turkey *(Other – Climate change)*

[Beneficiaries: REC Turkey, EXERGIA Energy and Environment Consultants S.A. (Greece), Ministry of Environment and Forestry, TR Ref: LIFE05 TCY/TR/000164 Year: 2005]

The project's main objective is to assist Turkey in developing tools to reduce greenhouse gas emissions and fulfill its obligations towards the UNFCCC. To this effect, the project strives to build capacities related to climate change within national administration and civil society groups; promote intra-governmental cooperation; and increase the awareness of stakeholder groups and strengthen their role in climate change debate. The project will directly support the development of climate change policies for priority sectors and will enhance public participation and access to environmental information.

APPENDIX II: RECORDS OF INTERVIEWS

INTERVIEW WITH THE CHAMBER OF ENVIRONMENTAL ENGINEERS – Istanbul Branch

INTERVIEWEE: Ms. Orgen Ugulu, Branch Secretary

Date: 18/08/2005

- Q: If you look at the LIFE projects implemented in Turkey since the beginning of the programme until today, do you think that these projects helped Turkey to solve priority environmental problems?

A: As a matter of fact, we do not have information about most of these projects, but only few of them. Nevertheless, if national problems that have been addressed by nation-wide projects still persist, in this case this would mean that the projects have not been functional enough.

- Q: LIFE programme employs a bottom-up approach, in order to respond to local environmental problems. Do you believe that the projects in Turkey could be effective in this respect?

A: As environmental problems do not possess a local character, in order to be fully effective and sustain their outcomes, such projects should be replicated in neighboring regions. For instance, the Manyas Lake project should be continued right in the neighboring zone. A significant obstacle in Turkey in this respect is border division problems among local authorities. Such uncertainties and disagreements on this issue bring out problems during project implementation. For instance, it can be the case that one municipality is responsible for some part of a water basin, while another municipality is also allocated authority on the other part of the basin. Projects have to be sustained after the project implementation period is over.

- Q: What are the difficulties and challenges in the implementation of projects in Turkey?

A: Institutions in Turkey may still lack basic technical capacities and structures sometimes. For instance, in a project in Yalova on separate collection of solid wastes, the segregated wastes were brought together at a central point, however, it was not possible to provide a vehicle for transferring these wastes.

- Q: What should Turkey's future potential projects address? Should the projects be on policy level (e.g. establishing national climate change policies), or local action projects (e.g. management of solid waste in X municipality)?

A: The projects should not be either purely action projects or policy projects, but integrated projects with both approaches. Inter- and multi-disciplinary character of environmental engineering should be borne in mind, and the applications should be realized in this respect, through collection of hydrological, geological, social, etc. data. Public participation is another important factor.

- Q: What should be the priority problems to be addressed in future projects?
A: Wastewater treatment and solid waste management.

INTERVIEW WITH WWF TURKEY, Istanbul Office

INTERVIEWEE: Ms. Ayse Oruc, “Coastal Management and Tourism in Turkey” project

Date: 19/08/2005

- Q: What have been the concrete outcomes of the “Coastal Management and Tourism in Turkey” project? What is the end result when you compare the set objectives with the achieved outcomes? How do you sustain the implementation of the project?
- A: The anticipated outcome could not be achieved in Belek. Nevertheless, it was a significant success that the marina construction in Kumkoy has been prevented. The Cirali component of the project has been a good practice at international level. A cooperative has been established through local public initiatives. This cooperative has been able to implement another project by obtaining funds from UNDP/GEF programme. Funding is necessary for the sustainability of the cooperative and hence the project. The support of local administrations is very significant for the success of the project. It is a determining element whether the people of the local authority are interested in the project or not. For instance, head official of Kemer and Antalya Environment Protection Council have supported the project very much. The local people are also a very important aspect in the projects. Project implementation area should be comprehended through communication with the local public. The problems should be learned from locals.
- Q: Have there been dissemination activities to disseminate project results?
A: The project has been publicized in the media several times. The sea-turtles action has been carried out together with people from England. WWF International has publicized the project as a good practice. In 2002 Cirali Sea-turtle Festival was organized, which attracted several visitors to the region. Project staff of another LIFE project, namely the

Cukurova delta biosphere reserve project, visited Cirali and useful discussions and sharing of ideas have taken place.

- Q: Can the project be replicated?

A: The project can easily be replicated in undamaged small coastal areas.

- Q: Has the project caused any spillovers onto other sectors?

A: A communication network for organic farming has been established (Ulupinar Cooperative). However, marketing of organic farming has remained poor. There have been practices of ecotourism; maps have been prepared for walking paths, guides have been trained. There are positive effects as regards public participation. The public is enthusiastic to participate; people have attended meetings, believed in the project, have developed a method for touring and introducing the village to the visitors.

- Q: What do you think should be the priority projects to be implemented by Turkey?

A: Projects related with water use, energy, protection of species, marine protection zones.

- Q: If you look at the LIFE projects implemented in Turkey so far, do you think that problem areas have been addressed?

A: Yes.

- Q: What should be the future projects?

A: State – NGO partnership is necessary also for the future projects. “Disaster” is an important matter; state structure and institutions should be strengthened on this matter. Intensive industrial pollution should be investigated and an integrated identification of the situation should be made. Although Turkey is not yet included in the Natura 2000 network, there are organizations that know these criteria and use the formats of the relevant directives. A future project should be multi-faceted; for instance, a marine protection area should be handled together with social and economic aspects in order to provide its own circulating capital.

INTERVIEW WITH MERKAT Inc., Istanbul

INTERVIEWEES: Mr. Burce Kabatepe, Managing Director – Mr. Erdal Kabatepe, Chairman

Date: 19/08/2005

- Q: What have been the concrete outcomes of the Solid Waste Management project?
A: The project initiated the changes in the relevant legislation. Training of trainers has been conducted. Ministry staff has been trained, and they trained local authorities. Booklets and CDs on the legislation have been sent to 3215 municipalities.
- Q: What are the lacks in project implementation in Turkey?
A: Municipalities need capacity to carry out projects. LIFE procedures are complicated.
- Q: Are the projects realized under LIFE relevant? What are the barriers for getting involved in the LIFE programme?
A: The problems addressed by the LIFE programme are relevant. However, there are not many organizations aware of the programme. For instance, an imperfect proposal was accepted with some corrections. The number of proposals submitted is low. Participation of private enterprises is low. It has been particularly the state institutions and universities that have been LIFE beneficiaries; however, the efficiency of such organizations is rather low. The capacity of Ministries is poor. There are very frequent changes in the Ministry staff, which prevents sustainability.
- Q: What should be future projects to be submitted from Turkey?
A (Burce Kabatepe): Renewable energy is an important issue. Local applications of solid waste management are necessary (together with taking into account population, climate, culture and other aspects).
A (Erdal Kabatepe): Many projects implemented in Europe can be replicated in Turkey. However, we need to build capacities first to implement projects.

INTERVIEW WITH EKODENGE Ltd., Ankara

INTERVIEWEE: Mrs. Zeynep Yontem, Managing Director

Date: 22/08/2005

- Q: What have been the concrete outcomes of the SEVESO II project?
A: The achievements of the SEVESO project have been more than expected. An inventory study has been conducted for industries. Ministry of Environment and Forestry notifies provincial administrations, and the provincial administrations notify industries. Also through Chambers of Industries, the Ministry reaches the industries. The businesses

are notified of planned meetings, and they have the opportunity to bring up their opinions at the meeting.

- Q: What are the difficulties encountered during the implementation of the projects?
A: In order to achieve an effective implementation of a project, you need to know the tricks and have good relations with authorities. If you cannot communicate the usefulness and the future benefits of your project properly, then the public authorities see the project as a burden.
- Q: How do you see, within your knowledge, the effectiveness of the LIFE projects in Turkey?
A: The projects in Turkey, including LIFE, usually produce limited effects. The main reason for this is the lack of capacity of the Ministries. Therefore, they should be supported more to enhance their capacities. For instance, the solid wastes project in Bodrum could not be sustained since the new mayor did not make follow-ups.
- Q: What do you target with the SME Info project?
A: SME Info project will establish a simple and understandable information system. The SMEs will be able to make either simple or advanced searches for the directives in the area they wish. Consequently, access to data will be facilitated.
- Q: Do you think that the achievements of End of Life Vehicles Directive could be replicated for other directives in the future?
A: End of Life Vehicles Directive is selected as an example. The SMEs will realize how complicated it is to practice the content of such a directive; therefore, they will give equal importance to the other directives which they are required to comply with.
- Q: In your opinion, what are the shortcomings in Turkey regarding project development and management?
A: Project preparation capacity is low in Turkey, however, financial capacity is even lower. For instance, LIFE requires 30% contribution. There is certainly a technique for preparing LIFE project proposals. Nevertheless, being knowledgeable about EU laws and LIFE requirements is definitely necessary.
- Q: What do you think about LIFE+? What kind of projects should be developed in the future?
A: Turkey does not believe much in "soft issues". The projects should be more towards concrete implementation. Turkey's environmental approximation strategy is prepared, however, this should begin to be implemented. Projects which complement each other

should be selected in a strategic way. There are many issues to produce projects about, however, we cannot justify them. In other words, we cannot state that "this is our problem and needs, and we allocated this amount of resources to respond to these". Follow-ups are necessary, projects generate other projects.

INTERVIEW WITH LIFE External Team (Monitoring Third Countries projects)

INTERVIEWEE: Ms. Eva Röben, Coordinator

Date: 26/11/2005

- Q: How do you consider Turkey's participation in the LIFE programme? Do you think the projects have been addressing the priority environmental problems in Turkey?

A: All sorts of environmental problems exist in Turkey. The LIFE projects have addressed problem areas in this respect. Only the "Odorous emissions" project can be considered less relevant. Even in Europe, activities with regard to odor control are quite new. However, this project responds to a local need, because the Ministry of Environment had received complaints from locals due to odor from neighboring industries. It is actually a positive thing that Turkey, together with a number of other European countries, can be a pioneer in this field.

- Q: Which LIFE projects did you visit and monitor in Ankara? How do you see the achievements of these projects?

A: We're looking at the on-going LIFE projects in Turkey, therefore, the projects funded after 2000. The projects are in general successful. Especially during the last 5 years, the projects of Turkey are much better in both planning and implementation. Therefore, the on-going projects are also well-formulated and are achieving useful results. For instance, "Exploitation of Agricultural Residues", "SEVESO II" and "Establishment of an Information System for Turkish SMEs" projects are very good projects:

- Exploitation of Agricultural Residues → Responds to a specific problem. Has a strong technical background. Potentials for all cities are calculated. SMEs have been utilizing the agricultural residues to produce energy. Cotton residues, cherry seeds, peach seeds, etc. are used for burning.

- Information System for Turkish SMEs → The SMEs' have complete lack of knowledge on environmental legislation; therefore, the project is very relevant. The portal established is very useful. SMEs are directed to relevant legislation in accordance with their areas of

activities. Using the portal is simple. The SMEs can either access general information or very specific information through different search options.

- Q: What do you think are the main problems encountered during the implementation of projects and hindering effectiveness?

A: Report writing capacity is very low in Turkey. The project beneficiaries fail to communicate their projects effectively to the Commission. The Golbasi National Reference Laboratory project has failed mainly due to this problem. It can be the case that sometimes projects are having problems and these are limiting their implementation; however, the beneficiaries should be able to report these to the Commission. Administrative problems within the Ministry of Environment and Forestry is another issue. This is an important issue as the Ministry is involved in several projects. The effectiveness of a project strongly depends on the interest of the local stakeholders and especially the political decision-makers. For instance, the effectiveness of the Green Pack project for environmental education will depend on whether the Ministry of Environment will integrate it into the curriculum and the interest of the target group.

- Q: What are the important elements for the sustainability of projects?

A: Whether the stakeholders believe in the project and adopt it or not determines the sustainability of the project. For instance, the industrialists are the stakeholders in the Information of SMEs project. For this project to be effective and sustainable, the industrialists have to be involved in and accept the project. To achieve this, the project team is constantly arranging meetings with SMEs and informing them.

- Q: What do you think are the main shortcomings in Turkey as regards project development?

A: Project proposal writing and development capacity is very low in Turkey. The Ministry of Environment has not been able to develop its own projects in earlier. However, in the last couple of years their capacity has increased significantly.

INTERVIEW WITH REC (The Regional Environmental Center) – Turkish Green Pack Project

INTERVIEWEE: Ms. Jolanta Manska, Project Coordinator

Date: 30/11/2005

- Q: What do you think will be the main factors having positive/negative effects on the implementation of the Yesil Kutu project in Turkey? Do you see any obstacles that could hinder the effectiveness of the project?

A: The involvement of the Ministry of Education is very important for the effectiveness of the project and to get the Green PACK into the formal education system, even if not as compulsory materials. There seems to be competition for authority among the departments of the Ministry of Education.

- Q: We know that the project has been implemented in some other countries such as Bulgaria and Poland. What were the major difficulties you encountered in such previous implementations of the Green Pack project? Could these also happen during the implementation in Turkey, and how do you plan to prevent/overcome these problems?

A: Each country is really different; we have many things done completely different in Turkey. Changes might be necessary during the implementation of the project. It is hard for the European Commission to accept changes; everything has to be very clearly justified and explained.

- Q: How do you think the Yesil Kutu implementation in schools should be sustained after the project will be over in 2007?

A: This is a small project with not an extensive budget with respect to the size of Turkey. There is a lot of interest and potential for the project if the version we will prepare will be good and accepted in Turkey. It can be developed and further updated, making it better with every edition. It could be possible to get support for further development of the Green PACK activities in Turkey (updating, more sets, more teachers training) if the Green PACK will be a success. In addition, the project partners could use the Green PACK in their activities and projects they develop, if they will get support and rights to use the Green PACK and produce more.