

Investing in the Local Environment
*Assisting Municipalities in South Eastern Europe
to Access Environmental Financing*

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Acronyms and Abbreviations

CARDS Community Assistance for Reconstruction and Stabilisation

EIA Environmental impact assessment

EU European Union

IFI International financing institution

IRR Internal rate of return

ISPA Instrument for Structural Policies for Pre-Accession

LFA Logical framework approach or logframe approach

NPV Net present value

PEIP Priority Environmental Investment Programme (REReP 1.2)

PHARE Poland Hungary Aid for the Reconstruction of the Economy

PHARE CBC Cross-Border Cooperation

PSD Project summary document

REC The Regional Environmental Center for Central and Eastern Europe

REReP Regional Environmental Reconstruction Programme for South Eastern Europe

SAMTID Small and Medium Towns Infrastructure Development

SAPARD Special Accession Programme for Agriculture and Rural Development

SEE South Eastern Europe

SWOT Strengths, weaknesses, opportunities, and threats

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Foreword

This report is the final outcome of a two-year pilot project undertaken to support the capacity in South Eastern Europe (SEE) to prepare environmental investment projects. The project was a unique effort, as it targeted simultaneously local governments and local consulting firms, who must cooperate if environmental investments are to succeed. Although difficult to implement due to uncertainties in the financing market of South Eastern Europe and the massive needs in this area, the project developed significant capacity and experience. Most of the consultants selected in the pilot countries, Romania and Serbia and Montenegro, had never received formal training in investment preparation. Most were engineers who used their technical skills alone to develop designs for infrastructure. Most were aware that these skills alone no longer met the demand for consulting services in investment preparation, but lacked the means to get the necessary training. At the same time, most local governments in SEE are aware of their environmental needs but have little idea about how to identify and prepare investments for financing. This project, Development of Project Preparation Capacity for Environmental Investments, known by its REReP registration number 5.3, brought consultants and municipalities together for training and practical exercises. The project exposed participants, often for the first time, to international tools and methodologies for environmental investment preparation. It also led to the development of nine priority environmental investments in the two countries.

It is clear that environmental investment is a top priority for SEE countries. Delegates from both SEE and donor countries at the REReP Task Force meeting in Tirana in January 2003 stressed the importance of an investment programme for the region, in addition to the technical assistance already underway. At the same time, the region has a limited capacity to absorb investment funds, because this requires high-quality, well-justified, feasible environmental investment projects. REReP 5.3 aims to improve the process of investment in environment, which will reap benefits not only for the environment itself but also for human health, the economy and social standards.

This report documents the experience gained by pairing nine SEE consulting companies with nine local governments to prepare environmental investment projects in the water and solid waste sectors. A team of experienced international experts provided help and supervision. The report gives an overview of the project process and the rationale behind its design and implementation. A description of the results and benefits follows, focusing on capacity building and the environmental investments themselves. The next section describes what was learned during each stage of the project. Based on these lessons, the report outlines conclusions in the form of specific needs for each beneficiary group and, finally, recommendations for further assistance based upon the pilot project model.

It is hoped that this report, which will be presented to the REReP Task Force in Brussels in November 2003, will be useful for all stakeholders in the environmental investment preparation process, including national, regional, and local governments; consultants; investors; as well as donors considering technical assistance options to promote environmental investment in South Eastern Europe.

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Introduction

After more than a decade of political, administrative, and financial decentralisation of authority in the countries of South Eastern Europe, the primary responsibility for preparing, implementing, and maintaining environmental investment projects now belongs to local governments — mostly municipalities. The project Development of Project Preparation Capacity for Environmental Investment was developed as part of the initial Regional Environmental Reconstruction Programme for South Eastern Europe (REReP) “Quick Start” package. It addressed the problem that governments and other stakeholders in this region consistently cite as an obstacle to environmental improvement: the inability to attract and absorb environmental investment funds at the local level.

Small and medium-size municipalities (in most SEE countries all but the largest one to three cities) bear significant responsibility for environmental protection primarily through the management of local infrastructure — solid waste collection and disposal systems, water supply, wastewater treatment and other functions. Throughout the region, the municipalities that manage this infrastructure need expertise, training, and especially capital to upgrade, repair, and construct new systems. Some capital is available, but it often goes unused because local project proponents (a collective term for authorities, consultants, stakeholders, and others interested in promoting a particular investment project) lack the capacity to identify, formulate, and prepare sustainable, rational investment projects that meet the requirements of available financing sources. Moreover, even when financing is granted, poor project preparation can lead to the investment’s failure.

Most local and regional authorities need the ability to identify and manage skilled external consultants who can assist with the preparation of environmental investment projects. These consultants must be able to reliably prepare investment projects in cooperation with local and regional authorities. In many cases the consulting company takes responsibility for preparing investments on behalf of authorities, with limited assistance by the staff of the authority. The reality, therefore, is that the capacity of local and regional authorities to prepare environmental investment projects depends heavily upon their access to affordable and reliable expert consultants.

Past Practices

In the past, environmental investments in SEE were financed almost completely from budgetary allocations or other non-market-based financing. Authorities or public utilities hired engineers to do the “project preparation,” which involved primarily engineering designs and cost estimates. The goal was to provide guidelines for the contractor on what to buy, where to put it and how much it should cost. Today, cities, towns, and villages must secure financing from a wide range of sources, most of them market-based and competitive. Environmental investment projects must not only be technically sound, but they must be financially sustainable, politically acceptable in a democratic context and meet the requirements of ever-changing and more stringent regulations, environmental or otherwise. Most importantly, all project documentation at all stages of the project cycle must be prepared in such a way that it convinces the outside reader that all aspects of the proposed project are the best possible options for all involved.

This approach to project preparation is still quite new to most consultants, authorities, and other stakeholders in SEE. Yet, project documentation that *justifies* the entire proposed action, clearly explaining the context, rationale, and details behind every step, is exactly what is required to access most sources of financing available for local environmental investments in this region today. While many project proponents understand this in principle, they lack the experience and tools to put it into practice.

The Project Management Gap

Environmental investment preparation in South Eastern Europe suffers from a project management gap, namely a shortage of professional project managers who can take responsibility for the overall process. The responsibilities include not only the preparation of analyses, technical designs and other documentation, but also the facilitation of smooth teamwork, involvement with relevant outside stakeholders, and in general looking at the project situation from a “big picture” perspective. Because project managers in this region do not take on all these tasks, the projects identified, designed or prepared there typically lack cohesion. For example, information presented in technical and financial analyses lacks consistency, and technical design choices are not justified financially or economically. Often, the project design ignores the roles of outside stakeholders — citizens, NGOs, businesses and others — particularly from the financial and economic points of view. The design frequently glosses over or underestimates legal, institutional and policy considerations. Often, no one gives a strategic context or overall rationale explaining *why* the project should be implemented.

This project management gap, and the resulting inadequate project identification, development, and preparation, leads to lost opportunities for financial support from central governments, financing institutions and donors. Furthermore, even projects which are eventually approved for financing often run into serious problems during implementation and operation.

The project Development of Project Preparation Capacity for Environmental Investments, known as REReP 5.3, was therefore designed to provide SEE project proponents the things they lack most — experience, skills, and project management tools — through a combination of training and supervised preparation of actual municipal environmental investment projects. It was conceived as a pilot project, to be implemented in two SEE countries with the initial grant and then extended to other countries based upon lessons learned. The project began in April 2001 and ran for 2.5 years, finishing in October 2003. REReP 5.3 was funded with a grant of EUR 262,400 from the Netherlands Ministry of Foreign Affairs.

Project Overview

The overall objective of REReP 5.3 was to improve SEE local governments' access to sources of financing for small to medium-scale environmental projects that address typical environmental problems — primarily water supply and wastewater treatment, and solid waste management. Four specific objectives of the project can be identified:

- to improve the capacity of local governments to cooperate with local consulting firms to identify, prepare, and seek financing for their environmental investment needs;
- to improve the capacity of SEE consultants to prepare international-quality project documentation — targeted to the market for environmental financing in their country — for local environmental investment projects;
- to identify and prepare, using teams of trained local consultants, nine priority small to medium-size local environmental investments (EUR 500,000 to 5 million) in two pilot SEE countries; and
- to gather and document lessons learned from the nine projects in two pilot countries and make them available to a wider audience of local governments, public utilities, consultants, and donors in SEE.

The project had four main phases: 1) inception phase for investigation of the environmental financing market in SEE and the selection of pilot countries, projects and consultants; 2) training through interactive workshops and individual mentoring; 3) development of project preparation teams of local governments and consultants; and 4) preparation of the environmental investment projects by the project teams. More broadly, the project focused on building the capacity of the local governments and utilities through formal training and practical exercises, resulting in the preparation of actual environmental investments.

The project was organised and implemented by a diverse team of professionals comprised of REC staff and external experts, as detailed in Figure 1.

Team Member	Main Role
Project manager	Overall project design and management; workshop delivery; project preparation review
Project coordinators (one in each country)	Coordination of all in-country partners and stakeholders
Local technical experts	Provision of engineering and other technical advice during project selection; training and assistance for workshops
International experts	Specific expertise in all areas of environmental investment preparation including technical, financial, environmental, social and institutional aspects; coordination and delivery of workshop.
REC country office staff	Administrative and supervisory support to coordinators as needed; workshop facilitation; negotiation with and supervision of local consultants

The workshops, materials, tools and methodological approach for the project were developed by the project team as a whole, based mainly upon the specific experience of the project manager and international experts. They were designed to be instructive, but also practical and targeted towards the actual deliverable that consultants would be expected to produce for local governments at the end of the process. The workshop agenda and materials led participants in the preparation of a feasibility study for an environmental investment project, tailored to the strategic context and selected environmental sector in each country. Training on the feasibility study went hand in hand with tips and exercises on cooperation between local governments and consultants, discussions on critical aspects of project cycle management and standard project design tools. Given the financing context, the feasibility study methodology and case studies were primarily based upon standard European Union (EU) requirements for grant financing. The training also covered the evaluation processes of international financial institutions (IFIs) and infrastructure project preparation approaches used by the US Agency for International Development (USAID).

At the end of the formal training, the project team matched the local consulting companies with local governments for actual project preparation activities. The companies were compensated for their work according to a subcontract with the REC and were required to produce a project deliverable based upon the tools, templates and skills gained during the workshop. Reporting requirements and checkpoints with the project team were established to assist the process. The teams of local consultants and local governments worked together to prepare the projects according to very specific guidelines, which forced the consultants to focus on those elements of the process which are typically neglected: financial and economic analyses, stakeholder analyses, project rationale and risk assessment, among others. In the end, the teams created project documentation structured according to international standards that was prepared almost entirely by SEE consultants and local government project proponents.

Project Inception

One of the key strengths of REReP 5.3 as a technical assistance project was that it stood to simultaneously build capacity and achieve tangible outputs for local participants. At the same time, these dual objectives complicated the project process and the expectations of the beneficiaries. In order to determine what the participants could achieve with the available project resources, as well as to plan the details of project implementation, the team began the project with a lengthy and detailed inception phase. This phase, which began officially in September 2001, extended to May 2002 due to delays in identifying key project personnel and counterparts.

The first step was to specify the pilot countries and select project team members. After a survey of REC country offices and governments in South Eastern Europe, the REC selected one EU accession country, Romania, and one country which had not officially joined the accession process but had recently opened to the international community (Serbia and Montenegro, then called Yugoslavia.) Although both countries are considered SEE countries, this choice of countries provided sharply contrasting markets for environmental financing and consultants, so that a wider variety of experience could be generated from the pilot project. In addition, it was decided that the project would target small to medium-size environmental investment projects, from EUR 500,000 to 5 million, in priority sectors for each country. The project had neither the finances nor the timeline for larger investments. Moreover, the preparation of larger investments had already received significant donor attention.

Identification of Financing

Once the countries were selected and the core team was in place, the project inception phase began in earnest. As mentioned, the project was complex and the expectations of the national authorities in each pilot country were quite high, as the project under its original terms of reference promised to simultaneously build capacity of local participants and deliver tangible benefits in terms of projects prepared and financed. The designers of REReP 5.3 (REC staff in cooperation with SEE REReP delegates) assumed that in order to prepare projects, there should be a targeted source of financing, both to determine the exact parameters of the preparation process as well as to motivate the project proponents to commit to the effort. During the inception phase, therefore, the project team set out to simultaneously identify sources of financing and the investments themselves in both pilot countries.

To identify sources of financing, the project team performed a systematic analysis of the market for financing for small to medium-size municipal environmental investments in both countries. The focus was on grant financing, since it was established that the local governments promoting these investments would be unlikely to demonstrate the financial credibility necessary to access large loans. Moreover, the investments would not be large enough to attract major IFIs. Although the analysis of the financing market proved very interesting, it did not yield any concrete opportunities for REReP 5.3 to match selected environmental investments with financing sources in advance. The primary reason for this was that donors — funding agencies and governments' embassies — were not willing to consider a project until the project documentation — or at least the feasibility study — was completed. Furthermore, it was discovered that bi-lateral donors had their own processes and mechanisms for identifying investment projects they choose to support, and they were wary of accepting projects identified and prepared by another donor-funded effort. In Serbia and Montenegro, it was discovered that all international financing was coordinated by a special ministry set up for that purpose. Requests for financing for environmental projects had to go to that body via the Ministry of Health and Environment, rather than through direct negotiation with the source.

A more promising source of grant co-financing proved to be the European Union pre-accession aid for Romania — ISPA, PHARE and SAPARD. Although ISPA would co-finance only larger investments (above EUR 5 million), both PHARE and SAPARD had quite large grant co-financing facilities open for small and medium-size environmental investments. The project team had several meetings with the Romanian government authorities who administered these programmes. Although these authorities agreed that project preparation assistance was desperately needed at the local government level, they were unable to provide the team with the timing of funding cycles or clear information about the application processes.

The project team realised that it could not guarantee funding for any of the projects, nor could it even prepare all of the projects for pre-identified financing sources. At this point the team made a key decision to focus on the primary goal of building the capacity of local governments and local consultants to prepare high-quality environmental investment projects, regardless of the eventual financing source. In cases where the funding cycles matched the project efforts, the teams would prepare financing applications. In cases where no funding could be pre-determined, the process would be oriented towards communicating the feasibility and desirability of the project to an outside evaluator, to be identified at the appropriate time.

The decision about sources of financing was communicated as clearly as possible to all project stakeholders. The Netherlands Ministry of Foreign Affairs approved an amendment to the terms of reference which modified expected project outcomes accordingly. At this point the team focused on identifying environmental investments, local governments and local consultants for participation in the project. In this, team members worked closely with the environment ministries and other national authorities in both countries, according to a transparent methodology devised by the team for each country.

Project Identification in Romania

In Romania, the team's local coordinator collected a comprehensive list of municipal environmental investments from the Ministry of Waters and Environmental Protection, and the Ministry of Public Administration. REC Country Office Romania contacted the local authorities whose projects were submitted as national priorities by the ministries, and those that sent project documentation were included on the evaluation list. A total of 47 environmental investment projects were evaluated, based upon a standard project information form prepared by local technical advisors. All the candidates were water sector investments, as this was the stated priority of the Ministry of Waters and Environment for small to medium-size municipal projects.

The full project team met in Bucharest in March 2002 to develop project selection criteria, evaluate the projects, and select a shortlist of projects. A representative of the Romanian Ministry of Environment and Water also attended the meeting. In order to select the projects submitted by Romanian authorities in an effective and transparent manner, the project team developed and implemented a four-stage selection process. The process consisted of a two-day team meeting and review, a follow-up on short-listed candidate projects, and a final selection. The selection was based upon the availability of information about the projects; the capacity of REReP 5.3 to prepare the project; the projects' suitability as a capacity-building exercise; options for other technical assistance for the project; and the estimated economic efficiency of the proposed project. For these reasons, the team developed the following set of "yes/no" criteria for the first evaluation stage:

- **A well-prepared feasibility study has already been designed, providing an up-to-date technical solution, detailed technical presentation, and consistent breakdown and estimate of costs.** Because consultants in SEE are typically skilled engineers, and capable of creating preliminary technical designs without external assistance, it was decided to focus on projects that already had conceptual technical designs. This would also significantly reduce the time and cost required for project preparation.
- **The project is not eligible or potentially eligible for ISPA funding.** It was made clear by the Romanian authorities that other project preparation facilities would be made available for the ISPA pipeline, so non-ISPA projects were prioritised.
- **The project is in the development phase, and no implementing activities have been conducted so far.** Projects which required further preparation activities in order to be considered for implementation were given priority.
- **The project corresponds to the national environmental priorities, as defined by the national environmental strategies.** Projects which represented priority environmental and health concerns, as recommended by the environment ministry, were to be selected.

A total of 17 projects met all of the stage-one criteria and were taken on for further consideration. At the second stage of the evaluation, the group looked more closely into the documentation supplied by the project proponents. They reviewed capital costs in present-value euros and data on the population to be affected by the project. Some of the selected projects that were submitted by the same locality or nearby villages were combined into single projects. Other projects were rejected at this stage because they lacked reliable preliminary documentation, which would have resulted in a very high cost of project preparation. The group then calculated the cost per capita for each of the remaining projects. All the projects were acceptable on this count, costing from EUR 4.88 to EUR 420 per capita.

For the third stage of the evaluation, the team's two water/wastewater engineers further investigated the feasibility studies and other project documentation to ensure that the proposed technical solutions were sound, or could be easily revised into sound proposals. Projects which did not have a sound technical solution were stricken. At the same time, the

two engineers estimated the cost of technical assistance that would be required from Romanian consultants to prepare the projects, based on Romanian market prices. Projects for which technical assistance was estimated at EUR 10,000 or more were rejected.

A total of nine projects were short-listed for the fourth stage of project selection, which consisted of the following detailed investigations by the local coordinator and technical experts:

- Questionnaire developed and sent to the local authorities to be filled in;
- Site visits to seven projects and interviews with local authorities, the design engineers that carried out the feasibility studies, representatives of the relevant utility providers, representatives of the local environmental protection inspectorate, etc;
- An analysis of the documentation provided by the project proponents (feasibility studies, environmental impact assessments, technical drawings, bills of quantities etc.);
- An estimate of the scope, time and cost for local consultants to prepare each project for financing;
- A final report for each project containing a narrative and quantitative project description, project objectives and benefits, evidence of public support, examination of possible investment financing, a determination of the project's strengths, weaknesses, opportunities and threats (SWOT analysis), and final recommendations.

Based on the information presented by the local project team, the full project team agreed upon five projects for Romania. These showed the most serious commitment of local governments, and had reasonable estimated technical assistance costs that fit within the project budget. The final selected projects are contained in Figure 2.

Project Identification in Serbia and Montenegro

The project selection process in Serbia and Montenegro was more difficult than in Romania, primarily due to the lack of available information about municipal environmental investment projects. This is partly due to the fact that Serbia and Montenegro had only recently become open to international cooperation in the environmental sector, and very little work had been done in environmental investment preparation over the past decade. Most environmental authority is at the republican level in Serbia and Montenegro. During the project inception phase, the environmental authority in the Republic of Serbia was under reorganisation, and the environmental authority was a directorate within the Ministry for Environment and Health. The Serbian Ministry for Protection of Natural Resources and Environment was re-established in May 2002. Due to the limited time and budget of the project, and the fact that the REC country office was located in Belgrade, it was decided to focus this pilot stage of the project on local environmental investments in the Republic of Serbia only.

In early 2002, the Serbian Directorate for Environment identified 29 municipal environmental investment projects as priorities for preparation. However, the documentation available for the majority of the projects was limited to one-page summaries compiled for donors. The project team met in Belgrade in March 2002 to evaluate and short-list projects. Representatives from the Serbian Directorate for Environment scheduled to attend but cancelled their participation due to other urgent business. The team devised a set of very broad "yes/no" questions in order to decide which projects deserved further follow-up:

- Will the project provide any direct environmental benefit?
- Does the project appear to have a clearly defined purpose and set of outputs?
- What indication does the available documentation give that further documentation (pre-feasibility study, technical design, etc.) exists but was not submitted to the REC?

This left 18 projects — 10 municipal solid waste management projects and eight water/wastewater treatment projects. The team consulted the *Report on the State of the Environment for 2000, Republic of Serbia with Priority Tasks for 2001+*, which named the management of solid waste a national environmental priority. Therefore, the team decided, for the third stage, to focus on all 10 of the selected projects dealing with solid waste management. This decision was later endorsed by the Serbian environmental authorities.

Serbian waste management experts led a project follow-up process similar to that in Romania, and four projects made the cut for preparation. The four selected projects, shown in Figure 2, were chosen according to the same criteria used for Romania.

Figure 2: Environmental Investment Projects Selected		
Local Government	Project Description	EUR Investment**
Romania		
Alexandria	Rehabilitation of water supply network linkages and pump stations; partial extension of water supply network in city of 60,000	2,225,000
Lipova	Rehabilitation of wastewater treatment plant, rehabilitation of wastewater pumping stations and extension of sewer network for municipality of 12,000	3,175,000
Baia de Arama	Construction of new wastewater treatment plant and extension of sewer and storm network for municipality of 6,000	690,000
Soveja	Rehabilitation of wastewater treatment plant and extension of sewer network for municipality of 3,000, with tourist population of 15,000 annually	671,000
Stefanesti	Rehabilitation of wastewater treatment plant and extension of sewer network for municipality of 3,700	1,693,555
Vidra*	Construction of new wastewater treatment plant and extension of sewer and storm network for small municipality with several large commercial installations	n/a
Republic of Serbia		
Kragujevac	Upgrade of existing unsanitary landfill and construction of new landfill for city of 175,000	6,093,752
Krusevac	Upgrade of existing unsanitary landfill and municipal solid waste management for city of 80,000	5,331,600
Nis	Upgrade of existing unsanitary landfill for city of 300,000	1,314,800
Svilajnac	Upgrade and extension of existing unsanitary landfill and municipal solid waste collection service for city of 38,000	828,111

*Municipality of Vidra dropped out of the programme in July 2002 and was replaced with the runner-up project in Stefanesti.

**As determined after project preparation

Identification of Consultants

During the project evaluation period, the local coordinators placed national advertisements soliciting expressions of interest from local consulting companies in Romania and Serbia and Montenegro. The request sought consulting companies which could provide a team of experts for project preparation, rather than independent experts. Along with a

company profile, reference lists and key CVs, consultants were asked to send letters indicating their desire and commitment to receive training in environmental investment preparation and an explanation of how their companies might benefit from such training. In Romania, the REC received 16 expressions of interest, and in Serbia and Montenegro 10. The project team evaluated the applications and invited all companies that appeared capable of preparing environmental investment projects to the training. This resulted in 10 companies for Romania, but only four in Serbia and Montenegro, reflecting the differences in the local consulting markets. Consulting firms were requested to send two or three personnel to the workshop, including an overall project manager or management representative, and two technical staff (if possible one engineering and one economist/financial expert). Figure 3 describes the consulting companies that attended the workshop and participated in project preparation.

Figure 3: Consultants Selected for Project Preparation	
Consulting Company	Description
Romania	
Quantum Leap SA	Small joint stock company working in the fields of project development, civil and environmental engineering and corporate and municipal finance. Established in 1999, based in Bucharest, with a permanent staff of 18.
Handor Management Consulting SRL	Small, private consulting company working independently and as a local partner for many international consultants in the fields of financing and economics, engineering, and environment. Established in 1994, based in Bucharest, with a permanent staff of four.
Edil Proiect SRL	Small private company working independently or in partnership with international consultants in the fields of water, wastewater and waste consulting and engineering. Founded in 1995, based in Bucharest, with a permanent staff of 11.
Rotaco SRL	Small, private company working in the fields of water and wastewater, and infrastructure consulting and engineering. Founded in 1995, based in Bucharest, with a permanent staff of six.
Aquaproiect SA	Medium-size joint stock company with extensive experience in the technical aspects of water and wastewater design and engineering. The consultant, based in Iasi with a permanent staff of eight, is a subsidiary of the same named company, founded in 1953 in Bucharest as the Hydrotechnical Design and Engineering Institute.
Republic of Serbia	
Fideco	Small, independent consulting company working in the fields of engineering, environment, development and economics. Founded in 1998, permanent staff of 12, based in Belgrade.
Institut Kirilo Savic	Large, state-owned consulting and engineering company specialising in scientific research and development work in technical sciences, especially environmental protection and process engineering. Founded in 1954, permanent staff of 200, including all departments/sections.
Studio Dva	Small, independent consulting company with focus on engineering, designing, project development and investment consulting. Founded in 1994, permanent staff of four, based in Belgrade.
TTI Group Ltd.	Private consulting company providing consulting services in the fields of environment, waste management and investments in municipal systems. Founded in 1995, permanent staff of two to three, based in Belgrade.

Lessons in Brief

The entire inception stage of the project could have been conducted in much less time if the project had been properly designed, using — ironically — one of the project design tools taught during the project workshops, such as logical framework approach. This tool would have helped the project designers ensure that the project objectives and purpose were realistic and consistent with each other. In this case, it took the REReP 5.3 project team some time before it realised that it could not simultaneously achieve significant capacity-building effects and solicit and secure financing for local environmental investments; nor could it guarantee financing for the selected investments from international sources.

The inception phase, although lengthy, achieved its purpose. Good environmental investment projects were identified through a transparent and very thorough evaluation process, and all project participants were on board. Although the analysis of financing sources in Romania and Serbia did not lead to any guaranteed financing targets for the projects, it gave the team a solid idea of the options for small to medium-size environmental investments and how to best structure the project preparation efforts.

Project Preparation Workshops

As a capacity-building project, REReP 5.3 put formal training above all else. The formal training consisted of one four-day, interactive workshop in each pilot country. One of the key strengths of REReP 5.3 was the combination of traditional, formal capacity-building activities — interactive workshops using case studies and small group activities — with the opportunity to immediately put the new skills to use by preparing actual environmental investment projects. This not only resulted in practical benefits for the participants, but also helped the project team hold the participants' attention in the workshops.

Workshop Objectives

Clearly, most environmental investment projects in SEE countries today are prepared by experienced consultants from western countries, usually hired by an IFI or donor country that has pre-identified the project for financing. One might argue then that assembling teams of local consultants and local investors to prepare international-standard environmental investment projects is not the primary need, as most serious sources of financing in the region (major IFIs, large EU grant programmes and, to some extent, bi-lateral donor grants) will usually pre-select projects and then bring in their own experts to prepare them and finalise financing arrangements. However, local project proponents — both project owners and preparers — must have skills in project design, preparation and implementation in this transitional period to ensure sustainable project results and operations in the future. Moreover, as the project team discovered, it is frequently the case that investment projects must at least have a feasibility study to attract the interest of major sources of financing.

Therefore, the objectives for the workshops were:

- to prepare selected Romanian and Serbian consultants to develop high-quality feasibility studies and financing applications for municipal water/wastewater and municipal solid waste investment projects, in cooperation with municipal and public utility managers, according to the terms of REReP 5.3 subcontracts;
- to lay the foundation for working relationships between local consultants and local governments during the preparation of projects under REReP 5.3;

- to introduce and stress the importance of standard, international, project cycle management techniques and provide an opportunity for their application through working exercises, with an emphasis on project preparation activities;
- to demonstrate, through instruction and exercises, the data, analyses, and documentation that must be gathered and presented in an application for financing from an international source; and
- to encourage enough interaction between local consultants and local governments to enable REReP 5.3 project teams to select local consultants and assign them to work on specific projects.

Each workshop was closely connected to the practical task of preparing the selected investments for financing. The team developed in advance a set of documentation to be filled out by the consultants and local governments for each of the projects. The documentation consisted of a project summary document (PSD), a comprehensive feasibility study and necessary attachments. (For more details on the project documentation, see the section on Environmental Investment Preparation.) A separate workshop session was devoted to each component of the documentation, combined with more general sessions on the principles of project cycle management, identification of key legislative, economic, and other strategic considerations, teamwork, and the importance of communicating a project to the outside reader or evaluator.

Although the project was originally designed to support local governments, the primary focus of the workshops was on the consultants, because in practice they do the bulk of project preparation. Local governments (both administration employees and public utility managers, depending upon the size of the town) were invited to attend the entire workshop, with costs covered, but were only required to attend the first two days in order to participate in the programme. The first two days of the workshop were devoted to topics especially relevant for local government officials and utility managers, and the second two days focused on more detailed technical issues typically handled by consultants.

The workshops were developed according to a logical sequence similar to that used in the actual project preparation process. The workshops opened with sessions on more theoretical aspects of project preparation, plus the logical framework approach design tool. Subsequent workshop sessions were devoted to the feasibility study — technical analysis, economic and financial analysis, environmental impact analysis, stakeholder and institutional analysis and project implementation planning. All sessions included interactive exercises in which small groups of participants collaborated to prepare actual analyses based on a single project case study. For each workshop, the case study was a four-page description of a real environmental investment project prepared in Poland for preparation by the PHARE small-scale infrastructure facility. In Serbia, the case study was “Inter-Communal Landfill of the Ecological Association of the Kopia River Basin, Poland,” and in Romania, “Sewerage System and Wastewater Treatment Plant of the Kolewskie Municipality, Poland.” Each small group gained experience by jointly preparing each of the components of the required feasibility study, with the exception of the technical design. Workshops were held outside city centres, so there was ample time for side discussion. The project team conducted private interviews with each of the consulting companies and local governments during the evenings, to determine qualifications and further specifications about the selected projects.

Workshop Sessions

Project cycle management — an overview

This session consisted of an introduction to the basic concepts of project life cycle phases and management, something relatively new in the SEE region. The purpose of the session was to get participants to think about the environmental investment project as a unique process

consisting of specific coordinated activities undertaken to achieve a specific objective. The session presented different project cycle versions, including those typically used for infrastructure projects and the EU.

Strategic considerations for municipal water/wastewater projects in Romania; strategic considerations for municipal solid waste projects in Serbia

An overview was given of the relevant legislative, political, institutional, and financial conditions in each country. Local technical experts in each country presented the sessions, stressing the importance of the strategic context in defending the reasons and rationale behind a municipal environment investment project.

Project team

This session focused on one of the most common but often overlooked problems in the project preparation process — cooperation between consultants and local governments. The session covered roles of the team members in the project cycle, project team efficiency, effective communication, and client-consultant cooperation. At the end of the session, work groups were given an exercise in which each participant played a role and negotiated the tasks, schedule, and price needed to complete project preparation for the case study projects.

Logical framework approach (LFA)

The session introduced LFA as a standard tool used around the world for project identification and preparation. The approach would serve as a basis for designing the projects to be prepared under REReP 5.3. The presentation took participants through the theory behind project design tools and LFA. It showed them how to design a project using “problem, objective, and alternative trees,” how to prepare the logframe summary matrix, and how to use the matrix to check the overall logic and quality of the project. Working groups were then given time to complete their own objective trees and logframe summary matrices for the case study projects.

Introduction to the feasibility study

During the project inception phase, the team realised that the term “feasibility study” has several different, commonly subscribed-to definitions in the region. Very few of them corresponded to the internationally understood meaning, which is a study that proves the feasibility of a proposed project as the best possible alternative for solving a problem. This session was added to the programme to introduce the idea of the feasibility study as more than a technical description of a single project alternative. In both workshops, it was followed with a lively discussion on the common uses of feasibility studies in each local context.

Feasibility study — technical analysis

Local technical experts in each country led this session, which focused on typical design considerations for projects dealing with water (Romania) and waste (Serbia). In Romania, an experienced local consultant presented the differences between the feasibility study according to Romanian regulations and the ones typically required by international donors and IFIs. Since most participants had an engineering background, the session did not aim to teach but rather to provoke discussion about methods of assessing the feasibility of proposed technical solutions.

Feasibility study — economic and financial analysis

This was the most complex of the feasibility study sessions, and the one for which participants were least prepared. Only one or two consultants in each of the workshops had backgrounds in finance or economics. The presentation covered the purpose of economics and financial analyses for investment projects as a means of justifying the investment and proving its overall feasibility. The presentation presented the different types of analyses and their uses: incremental versus integrated analysis, social benefit-cost analysis, and risk and sensitivity analysis. The session then demonstrated how to prepare the basic incremental project financial analysis as used in the feasibility study, with a step-by-step process: specifying

investment outlays, identifying the type of project financing, developing a project schedule, specifying project operating costs and revenues, and evaluating the investment's effectiveness. Trainers demonstrated how to calculate basic financial indicators using the discounting method, as well as the importance of cash flow in an investment project. After the presentation, participants performed an exercise in which costs were specified and they had to prepare a project cash flow projection, and calculate net present value (NPV) and internal rate of return (IRR) in both financial and economic terms for the project under several different financing scenarios. A cash-flow template spreadsheet eased the process. The exercise ended with a long question-and-answer session during which the presenter demonstrated the ways in which different financial parameters affect the overall project, and how designers can improve the financial and economic feasibility of the project.

Feasibility study — environmental impact assessment (EIA)

Most SEE consultants are familiar with EIA procedures and requirements in their countries, so the presentation skipped details about EIA as a concept. Instead, the session provided participants with specific tools for doing an effective environmental screening and preliminary assessment of the sort typically required by donors and IFIs for initial project evaluations. As with the other feasibility study sessions, this one focused on using EIA to demonstrate the feasibility and sustainability of an investment project. The session concluded with an exercise requiring participants to prepare environmental evaluation matrices for the case study projects.

Feasibility study — stakeholder and institutional analysis

This is one of the most frequently overlooked aspects of the feasibility study in the region, yet one of the most crucial indicators of project feasibility. The first part of the session discussed the rationale for identifying and analysing the roles and reactions of stakeholders in an environmental investment project. Session leaders presented both common-sense and legal requirements for public participation. The second part of the session answered the question: "Is the implementing organisation capable of carrying out the project?" The session emphasised the need to demonstrate that the implementing organisation has the necessary legal structure and authority, trained staff, and relationships with stakeholders and other authorities to carry out the project throughout its intended lifetime. At the end of the session, working groups identified and analysed the key stakeholders for the case study project and prepared a simple matrix to communicate the results.

Project implementation planning

This session featured a discussion on tools to track the core elements of project implementation planning: work breakdown structures, resource cost planning, contracting and funds disbursement. The presenter explained the necessity of convincing the outside project evaluator that the project work can be completed according to cost and schedule. The working groups prepared project implementation plans for the case study projects.

The project team presented templates for the project deliverable that would be required for preparation of the selected environmental investments. After question-and-answer sessions concerning practical matters involving schedules and contracting procedures, the workshops came to a close.

Lessons in Brief

The project teams and participants in both countries considered the workshops highly successful overall. The consultants gave particularly high marks, stating that they rarely got direct benefits from donor-assistance projects and therefore had few opportunities to receive practical training of this type. Clearly, some participants attended the workshop only because they thought it would get them a contract for work, but they were the minority. Because the workshops had such a logical format, with each session serving as a building-block for a single final product — the feasibility analysis of the case study — participants followed the

complex programme extremely well. Some of the workshop sessions could have put more stress on tasks that the teams would find particularly difficult during project preparation. These lessons will be discussed in the following sections.

Environmental Investment Teams

One of the most difficult aspects of REReP 5.3 was determining which consultants should work on each project and what they should be paid. It was determined from the beginning that although consultants' expenses for the workshops would not be covered, the REC would have to hire them to do the project preparation work so they could cover their costs. In the case of Romania, which had 10 consulting firms and only five projects, consultants competed for the privilege; in Serbia the number of consultants equalled the number of projects, so only the matching was required.

To price the subcontracts for each project, the team took into account the travel distance from the capital, the standard of the existing project documentation, and the overall complexity of the project. The budget for the actual project preparation within the project was relatively small: EUR 60,000 for nine environmental investments. The team assigned values to each of the project criteria, and priced them relative to each other so that the total came to EUR 60,000.

To select the five top consulting companies for Romania, the team prepared a scoring matrix based on the interview results and workshop observations. Consultants were scored according to management capacity, engineering capacity, economic/financial capacity, and overall willingness to participate in the programme.

The team matched consultants with projects according to geographical considerations, which are especially important in Romania. The preferences of the local governments and the consultants themselves counted, as well, and the team was able to honour everyone's wishes.

Once everyone was paired off and subcontracted, the local teams had to negotiate the terms with each consulting firm. In Romania, one firm dropped out of the programme, claiming that the fees offered in return for the work were too low (management had not attended the workshop). A local government that had not attended the workshop dropped out for unclear reasons. Both the local government and the consultant were replaced with ones from the reserve list. Otherwise, the negotiations went smoothly, although all the consultants claimed that the money offered for the work was too low. This was difficult to justify, since in both Romania and Serbia there is no consistent market price for such services. The REC stressed the compensating benefits of training in a new methodology and the valuable credential that would top up their reference lists. After all, most of the consultants had never prepared environmental investments for external financing without an international partner.

In the end, nine pairings of local governments and consultants with detailed terms of reference had assembled and began work on the investment preparation stage of the project. The project teams are presented in Figure 4.

Environmental Investment Preparation

The environmental investment preparation constituted the final phase of the training. Because the project team lacked the wherewithal to provide in-depth mentoring during this phase, the required deliverables were carefully crafted to guide the teams through the process, consistent with the training provided in the workshops. Ideally, the consultant-local government teams would follow the project cycle management process presented during the workshop. The final result would be a set of "bankable documents" demonstrating the feasibility of the projects in a clear and concise format external evaluators could easily digest. The participating teams gave progress reports, received on-going support from the in-country teams, went through review sessions and read extensive written comments from the international team.

As mentioned, the project preparation process had two purposes. It gave the project teams, especially the consultants, a chance to apply lessons from the workshops in a real-world situation. It also served to ensure that the environmental investment projects were prepared to high standards, thus increasing their chances of being implemented and solving an environmental problem.

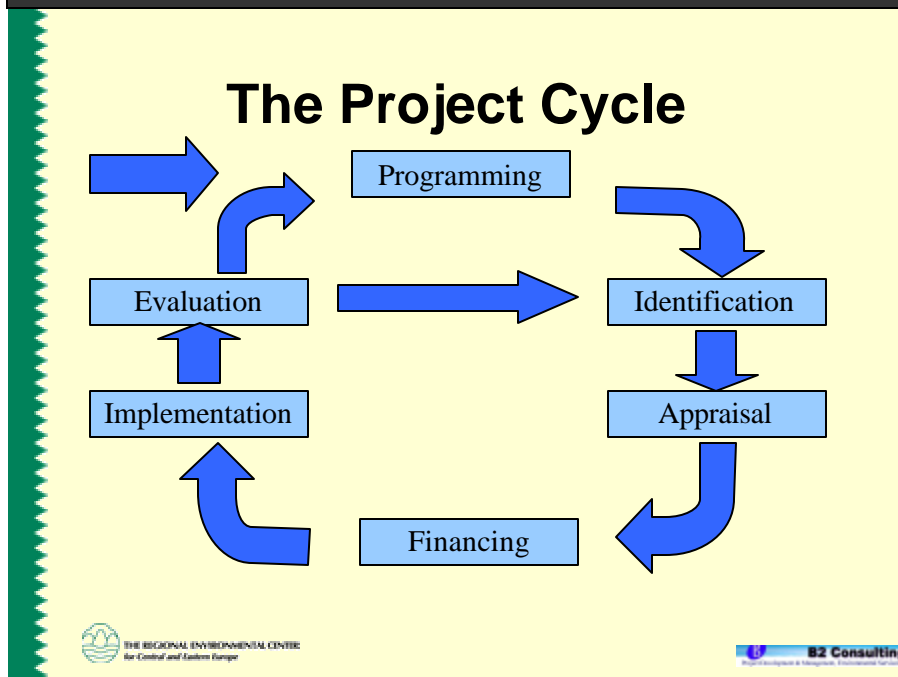
Figure 4: Environmental Investment Teams in Romania and Serbia		
Project	Consulting Company	Teaming Rationale
Romania		
Water supply in the City of Alexandria	Handor Management Consulting SRL	Experience with international financed projects; cooperated well during workshop
Wastewater treatment plant and sewer network in Baia de Arama	Rotaco SRL	Requested by municipality
Wastewater treatment plant and sewer network in Lipova	Edil Proiect SRL	One of the most experienced consultants in the field, selected because the project was technically complex
Wastewater treatment plant and sewer network in Soveja	Quantum Leap SA	Arrangement acceptable for both sides
Wastewater treatment plant and sewer network in Stefanesti	Aquaproiect SRL	Consultant located in nearby city
Serbia		
Sustainable solid waste disposal in Kragujevac	Fideco	Requested by regional authority
Sustainable solid waste disposal in Krusevac	TTI Group, Ltd	Requested by municipal public utility
Landfill upgrade in Nis	Institut Kirilo Savic	Requested by municipality based on previous good working relationship
Sustainable solid waste management in Svilajnac	Studio Dva	Cooperated well during workshop

Project Cycle Management Approach

Although several different versions of a standard project cycle were presented in the workshop, participants were asked to use the language and approach described in the *EU Project Cycle Management Manual*. This method follows logically linked steps:

- programming;
- identification;
- appraisal (formulation, preparation);
- financing;
- implementation; and
- evaluation.

Figure 5: The Project Cycle (from REReP 5.3 workshop slide)



This approach differs somewhat from typical practices in SEE countries, and caused problems for the project teams. The work by the project teams focused on the first three phases of the project cycle: programming, identification and appraisal (also referred to as formulation and/or preparation). To properly complete the project deliverables, the teams of consultants and local governments would need to address the first three project cycle phases with heavy reliance upon the logical framework approach as demonstrated during the workshops.

The first step, *programming*, required teams to analyse their projects' problems and objectives in the context of their country, sub-region and community. This encouraged them to think of broad and specific project goals that would take into account the specific socio-economic, environmental and political ramifications of the project. Although all the teams confirmed that the wider goal of environmental improvement would be used, the immediate goals and the process used to achieve those goals grew from the specific strategic context surrounding each project. The problem-and-objectives analyses, when done correctly, enabled the consultants to guide the local governments to design and verify specific, realistic, measurable and time-related immediate goals for the projects. This problem-driven approach supplanted the usual ad hoc selection of solutions to environmental problems.

The next step, *identification*, was undertaken to assure that the project would be both consistent with the goals and feasible. Again, using the logical framework approach and the logframe summary matrix as tools, the project teams identified the project scope, listing critical activities to be performed to achieve the goals, and identifying assumptions and risk factors. Having developed the project concept, the teams went on to the project *appraisal* stage (also known as project formulation or preparation). During the appraisal stage, participants conducted the feasibility analysis and filled out the set of deliverable documents required for the project, as described below.

Environmental Investment Deliverables

The environmental investment deliverables consisted of a package of documentation to be delivered by the consultants at the completion of the process. As mentioned, the REReP 5.3 team created the deliverables to guide the consultant/local government teams to prepare the investments according to the project cycle management approach and help them to work efficiently with minimal guidance. The deliverable documents centred around a project summary document, accompanied by four annexes: a logframe summary matrix, a project implementation plan, a feasibility study, and a preliminary environmental impact assessment. The documentation followed a “generic” approach to quality project preparation, given that at the time the process began, no specific sources of financing had been identified. Even in Romania, where participants were anticipating certain targeted EU funding programmes, the official application forms had yet to be issued. The project documentation relied heavily on the typical EU grant programme application, so that the information could be readily transferred once applications became available.

Project Summary Document

The framework for the deliverable was a project summary document. This paper was designed as a support document for financing requests addressed to public or private sources of funding. The document provides a summary of the most important information about the project, stressing compliance with national and local strategies and laws, policies of most funding institutions, and the consistency of the approach with the key environmental and other goals of the local government. The document, typically 20-30 pages, could be easily digested by an external project evaluator. The document template (included in Annex 1) required the consultants and local governments to stress not only the engineering aspects of the proposed project, but also the economic, financial, environmental, social and institutional aspects. It showed consultants how to summarise project proposals in a comprehensive and systematic way, and also allowed the international team to comment upon the work from the perspective of a financing source evaluator.

Logical Framework Matrix and Project Implementation Plan

The logical framework, or logframe, matrix is based upon the standard template used in the publication *Manual Project Cycle Management EC — EuropeAid Co-operation Office, 2001*. This was the outcome of the programming and identification processes described above, and also shows indicators of achievement of the project results, purpose, and goals, and how indicators are verified.

Another standard template, the project implementation plan, required the consultants to show the resource needs for further project preparation and project implementation. The plan provides information on human, financial and time resource requirements. The document demonstrates that the proposed project can be implemented in practice.

Templates for the logframe matrix and the project implementation plan can be found in Annex I.

Feasibility Study and Preliminary Environmental Impact Assessment

The scope of the feasibility study was developed by the international team, based on the experience of Polish local governments applying for EU PHARE grants for small to medium-size environmental infrastructure projects. A format was also created to guide the project teams in developing the preliminary environmental impact assessment. The assessment was intended not to satisfy local legal regulations (which, in the case of the Republic of Serbia, were unclear at the time) but to demonstrate to the evaluator that the proposed project was sound from an environmental perspective. Further environmental impact analysis, if required,

would be conducted during the detailed design preparation phase, after the project was reviewed for financing.

The feasibility study, which made up the bulk of the project documentation, analyses the project as a business problem, and determines whether and how it can be solved effectively. The feasibility study enables local government and utility management to determine at a very early stage whether to seek resources to support full-scale development and implementation, or to suspend activities due to a lack of clear benefits or unacceptable risks. It is an organised process for gathering and analysing the information required to help all stakeholders make crucial decisions.

Many formats and approaches to the feasibility study for environmental infrastructure projects exist; they tend to vary in level of detail and complexity of analysis. For the purposes of REReP 5.3, the team recognised that most of the consultant/local government teams were not accustomed to using state-of-the-art feasibility studies, especially for economic, financial and risk analyses. Therefore the team selected an approach that focused on the transfer of simple but effective communication tools, with an emphasis on roles of different stakeholders, and basic concepts of overall feasibility analysis, as opposed to mere presentation of proposed technical design. The feasibility study itself was structured as a modular process; the general, technical, operational, economical, social, and institutional aspects all come into play.

The outline and specific tasks for the feasibility study, as provided to consultants and local governments, is in Annex II.

The feasibility study consists of the following:

Executive summary

This section summarises the main points of the study and its conclusions.

General aspects

This section presents information about the circumstances and operating environment surrounding the project. It includes basic information about the locality such as population, economic-growth data, environmental situation, future prospects, etc. It also describes the project objectives, assumptions and limitations.

Technical analysis

This analysis looks at whether the project is possible from a technical perspective. The output describes the scope of the planned construction and the required resources in a detailed cost estimate. This chapter also discusses the environmental effects of the proposed technical solution.

Economic and financial analysis

This section analyses the project in terms of costs and benefits. Based on the technical and environmental information and the financial estimates (investment costs, operation and maintenance costs, revenues from project operation, financing costs, etc.), a financial plan and assessment of the financial and economic viability of the project are developed. The section also discusses risk and sensitivity topics. Finally, it presents conclusions and a project option based upon both financial and economic net present value and internal rate of return (NPV and IRR).

Stakeholder and institutional analysis

This analysis takes account of the project stakeholders — authorities, citizens, NGOs and other citizens' groups, businesses, engineers, contractors and others — and anticipates their attitudes towards the project. A strategy for how to involve key stakeholders in the project and manage those who might have a negative approach is included in this section. The section also assesses the capacity of those who will implement and operate the project (usually local governments or utility companies).

Comparison of project alternatives from all perspectives

This section requires the consultant to discuss and analyse the outcome of the technical, economic/financial, stakeholder/institutional, environmental, and other relevant perspectives of each project alternative, and clearly demonstrate the rationale of the selected approach.

Conclusions and recommendations

This section presents the final project design and any other conclusions or recommendations for project implementation.

Performance of Environmental Investment Teams

Each of the consultant/local government teams received contracts from the REC to prepare the selected environmental investment project according to the process described above. Teams agreed to make bi-monthly progress reports and to participate in individual review sessions with the international team after the deadline for completion of the first draft.

The project preparation process adhered to international project development and management norms, and the training delivered at the workshops. However, these methods clearly differ from those commonly used by SEE consultants and local governments. The performance of the consultant/local government teams, especially during the first draft stage of the process, demonstrated that it is one thing to learn such methods in a workshop, but quite another to put them into practice. For this reason the project development process incorporated face-to-face review sessions with the international team.

One major weakness of the REReP 5.3 project, which will be discussed in more detail in the Conclusions and Next Steps section, was the underestimation of the time and energy required by the international team to help the consultant/local government teams to approach the projects according to the newly presented methodology. All of the teams had significant experience working with environmental infrastructure in their countries and were quite entrenched in the existing processes. Therefore, when left on their own to prepare the investment projects under a subcontract with a deadline, they reverted almost entirely to the “old way” of doing things.

The review sessions took place in Romania in November 2002 and in the Republic of Serbia in January 2003. At both sessions, issues concerning the draft deliverable document were discussed with each consultant (because the consultants were the primary preparers of the documents, they alone attended the review sessions in most cases). The international team members emphasised project issues that were key to the final quality of the deliverable. The reviews focused especially on the expected results and their use in selection of the preferred project alternative. In addition, the purpose and rationale behind each section of the project summary document was discussed in detail with each consulting team. After the review sessions, comments about each project were compiled and sent in writing to each contractor, as a basis for improvement of final drafts of the deliverables. Most of the consultants required a second round of comments and assistance in writing before the drafts could be considered final versions. Several of the projects in Romania were eligible for EU grant financing programmes; for these projects the consultants did not finalise the REReP 5.3 deliverables, but prepared actual financing applications, based on information and analyses required for REReP 5.3.

Lessons in Brief

The project preparation phase provided most of the lessons learned for the project. In general, the team underestimated the effort it would take to achieve solid, high-quality results from the environmental investment teams. Frequent communication problems between the teams resulted in project delays. Certainly, more supervision and mentoring from the REC team, especially the international experts, could have smoothed out the process. The results,

especially at the initial stages, were mixed. Many of the consultants appeared to grasp the concepts presented at the workshops and performed well during interactive sessions and case study presentations. However, they were not able to put this knowledge into practice. Many of the consultants immediately reverted to the “old way” of doing things, and first draft deliverables almost completely ignored the detailed instructions and deliverable requirements provided by the project team. At the same time, some of the consultants made quite an effort to cooperate with the local governments and approach the investments from the new perspective. These and other lessons will be discussed in more detail in the following sections.

REReP 5.3 concluded at the end of the project preparation phase. The project deliverables, once finalised by the teams, were all submitted to various authorities for financing consideration, both in Romania and the Republic of Serbia.

Results and Benefits

As mentioned, REReP 5.3 had dual benefits for the participating countries. The project presented a set of concepts, tools and practices for preparing environmental investment projects. These meet international norms and are required from most sources of financing, but are still foreign to SEE countries. The second benefit was the production of nine sets of project documentation and, in some cases, financing applications for priority small to medium-size environmental infrastructure projects in Romania and Serbia, projects that would doubtfully have garnered external technical assistance without REReP 5.3.

The comments of one participant illustrated how the approach taught in the training differed from common practice in South Eastern Europe:

Previously, the project “investor” was known from the beginning of the project preparation process. It was this investor who commissioned project designs and made all the crucial design decisions. The designers — consultants — simply followed the specific requests of the investor and did not think about project feasibility. Now, the situation is completely different. The designing consultant is hired to act as an advisor to the client and determine the feasibility of the proposed project, from all relevant aspects. The “investor” may be unknown at the time of project development, and the design prepared by the consultant must effectively sell the project to potential investors — whether the source of financing is a grant, loan or something else. To be successful at this, the consultant needs to learn to think as the investor thinks.

*Based on a comment from the consulting firm Studio Dva
at a workshop in Belgrade*

Capacity Building

Taking into account the REReP 5.3 project objectives, and all of the individuals and institutions involved in the activity, the following benefits were reaped by both participating countries:

- Project proponents (both local governments and consultants) participated in and received a unique type of training on a comprehensive approach to environmental infrastructure projects, based on internationally accepted standards. Practical work served to demonstrate the usefulness of the new approach to local governments and consultants. All training participants learned about the general requirements of major sources of project financing, and how to tailor the project preparation.
- Consultants in both countries, especially small firms, built their capacity as a result of working on project preparation directly as a prime contractor to an international client such as the REC, using a newly acquired approach and tools. Consequently, their corporate credentials and relevant project experience were enhanced.

- Local governments and consultants were introduced to the importance of project team building and good communication as a sound basis for successful project results. Local governments recognised the value of identifying and outsourcing a skilled local consultant in order to effectively prepare quality project documentation.
- Consultants in both countries realised that options for project financing are not given as an initial input, but must be determined and justified during the project cycle. The presented approach to the financial and economic context of the projects demonstrated that environmental problems require market-based solutions, similar to other business development activities. The analysis of environmental infrastructure from a business-management perspective was a real breakthrough in current project development philosophy for almost all consultants.

Environmental Investments in Romania

Romania is an EU accession country, and has already developed some market-based mechanisms for financing environmental investment projects. Several grant financing and co-financing programmes exist, most sponsored by the EU. This enabled the REReP 5.3 project to achieve some tangible outcomes for the water sector in Romania.

The project team, in cooperation with some of the consulting firms, identified the following grant co-financing programmes, for which the projects prepared through REReP 5.3 were eligible:

- SAPARD, Measure 2.1 — Development and improvement of rural infrastructure — for the projects in Stefanesti and Soveja;
- PHARE, Programme of Social and Economic Cohesion — for the project in Baia de Arama;
- PHARE CBC (Cross Border Cooperation Romania-Hungary), Sub-programme - Environmental Protection and Water Resource Management — for the project in Lipova; and
- SAMTID (Small and Medium Towns Infrastructure Development) programme — for the project in Alexandria.

Although financing applications were prepared by the REReP 5.3 local consultants under the supervision of the REC for each of the five selected projects, only one of the five was actually selected for financing. This was the Alexandria project, which was selected by the SAMTID programme, launched to support the Romanian government to invest in sustainable water services in small and medium-size towns. The project was integrated into a county-wide application which was approved for financing in 2003. Of the four remaining projects, the two targeted and prepared for the SAPARD project were not submitted on time. In one case (Soveja), communication problems between the local government and the consultant resulted in delays and a missed application deadline. For Stefanesti, the municipality chose to submit another application to the 2002 SAPARD call, which would accept only one application per round per municipality. The other two projects were eventually rejected for financing by the PHARE programmes, for unclear reasons.

Although four of the five projects did not receive financing during 2003, they still remain well-prepared projects, with financing applications that meet EU standards, and can be resubmitted for future financing calls.

Environmental Investments in Serbia

At the time of project implementation, Serbia and Montenegro had only recently become open to international cooperation in the environmental sector, and very little work had been done in environmental investment preparation over the past decade. Financing for small to medium-size environmental investment projects was basically limited to ad hoc bi-lateral donor grants. The EU CARDS programme had just begun to operate, and clear opportunities for environmental infrastructure were yet to be announced. According to their own reports, major international financial institutions are keen to finance environmental infrastructure projects in Serbia and Montenegro, but the process of identification and evaluation of opportunities is very slow. The REReP 5.3 team determined that the four selected solid waste management projects in Serbia would stand a better chance to access financing if they were properly presented to the Serbian Ministry for Protection of Natural Resources, which coordinates all external financing in the environment sector. The ministry was alerted to the fact that the projects were high priorities backed by high-quality feasibility studies and other documentation.

As part of another ongoing REReP project, the Priority Environmental Investment Programme for South Eastern Europe Development and Implementation (REReP 1.2), SEE environment ministries were given assistance to identify and develop environmental priorities and a list of priority environmental investment projects for the region as a whole. Since solid waste management rates as a priority sector in Serbia, the four REReP 5.3 investments were taken on by the ministry and submitted as part of the pipeline. In May 2003, the Ministry for Protection of Natural Resources published the *National Strategy for Waste Management*. At this point, three of the projects assisted by REReP 5.3 have been designated regional landfills in Serbia (Krusevac, Kragujevac and Nis). These landfills will receive financing attention in the near future and the feasibility studies prepared under REReP 5.3 will be able to support sustainable solid waste management in these regional centres. The remaining project, in the smaller town of Svilajnac, will ensure the safe upgrade and closure of the existing dumpsite and expand solid waste collection in the area.

As a final step in Serbia, three of the four consulting firms presented the final prepared projects to a group of stakeholders from each municipality. Stakeholders had the opportunity to ask questions about the projects and the documentation, and in one of the cases the municipal council officially endorsed the project documentation.

Lessons Learned

REReP 5.3 was designed as a pilot project in order to gain and document experience on the process of environmental investment preparation at the local government level. Implementation of the project in Romania and the Republic of Serbia provides valuable lessons to those who prepare projects and those who provide technical assistance. These lessons are presented in this section by project phase.

Project Inception

- **Identifying a pipeline of priority, serious environmental investment projects in SEE countries is difficult and time-consuming.** National institutions (ministries of environment, local government, international cooperation, etc.) generally lack organised databases of priority investments. Responsibility for coordinating local environmental investment at the national level is split across competencies and contested, and priority-setting mechanisms are unclear.
- **Identifying financing sources for small-to-medium environmental investment projects in SEE is very difficult without a feasibility study.** The project team found that only established, grant co-financing programmes with set criteria and financing cycles can actually be directly targeted at the project identification stage. Other sources – bi-lateral donors, IFIs, banks, etc. – require detailed information about the project costs

and benefits before they consider it for financing. Local governments are often unwilling to invest in project preparation until they know exactly how the project will be financed. Established grant co-financing programmes like the EU pre-accession ones are a catalyst for investment preparation activities.

- **Project objectives and goals must be clear and realistic from the beginning.** Projects such as REReP 5.3 should focus on technical assistance and capacity-building priorities. Goals such as meeting national environmental priorities or securing financing deals are beyond the control of a typical technical assistance provider, and can detract from the capacity-building effects.

Project Preparation Workshops

- **Interactive workshops pairing local governments and consultants were very productive.** Poor working relationships between consultants and local governments are a major problem in SEE, and workshop-style friendly cooperation is important to building trust and common understanding.
- **More attention needs to be paid to the participation of local governments at workshops.** It is important that the right people (decision-making, technical, administrative, etc.) attend at the right time.
- **Future workshops should focus more on the typical weaknesses of consultants identified below, as well as teaming relationships between consultants and local governments.**

Environmental Investment Teams

- **Local governments and consultants in SEE countries lack experience and know-how in creating productive working relationships in market economy conditions.** Although this was an assumption made by the project team at the start of the work, it became clear during implementation that there is a great deal of mistrust between local governments and consultants. This was exacerbated by the fact that the consultants in this project were identified and hired by the REC, an outside organisation. Special focus needs to be placed on team building in future efforts.
- **Local governments must be encouraged to take ownership of the project preparation process, rather than passively wait for a “service” to be provided to them.** Typical practice is for local governments to hire consultants to do work for them without their direct participation. Local government staff are usually overburdened at their jobs, and cannot easily make time for activities that are not top priority. In future assistance projects, local governments must be made to see the benefits of their participation from the start. A memorandum of understanding detailing the commitments of all parties should be signed with a mayor or local utility director. If possible, local governments can be requested to co-finance the consultants’ work.
- **Contractual and financial relationships between all project personnel (implementer/beneficiaries) need to be optimised for project ownership, as well as transparent and well-communicated.** It was difficult to achieve capacity-building effects with the consultants once they were hired by the REC. As subcontractors, the consultants often became more interested in getting the work approved and paid for than getting it done correctly. This resulted in a sometimes antagonistic relationship between the REC and the consultants, and local governments were sometimes disappointed with the results

Project Preparation

The project preparation process generated the most important findings about the overall project preparation process in SEE countries, as well as for future technical assistance to be provided in that region.

Many consulting companies in SEE countries have energetic management, and access to highly skilled technical, financial, environmental and other experts.

Experts working for most SEE consulting companies are well educated and extremely knowledgeable about local environmental and political conditions. Company managers are anxious to widen their client base for environmental investment preparation. Although in most cases they still require guidance to prepare international standard investments, a solid base of expertise is available to be developed for the future.

Difficulties in communication between consultants and local governments were to blame for almost all the problems in the project preparation process.

This is partially due to the set-up of the project, since the consultants were hired by an intermediary, the REC, to provide a service to the local governments without enough direct consultation with the local government. As a result, the local governments did not take enough responsibility for the process, despite efforts made during the workshops to emphasise the need for this. Most local governments are not adequately prepared to cooperate with and support consultants during the process; they expect the job to be done with their minimal input, and do not recognise the benefits of a cooperative effort. Poor communication between team members resulted in the failure to submit two projects for 2002 financing calls in Romania.

The project cycle management approach to project preparation, especially the programming and identification phases and the use of the logframe approach, proved quite difficult for the consultants to apply.

Very few of the draft deliverables identified a project purpose and goals which were consistent with the scope of proposed activities. For example, a project claiming to deal with sustainable solid waste collection and management featured only activities for landfill upgrade in the documentation. Collection was not addressed because the consultant assumed the local government would take care of this. The logic was therefore missing in the project, since the activities would not achieve the goal. The logframe approach proved a very useful tool to demonstrate these types weaknesses to the consultants.

Identification, analysis and justification of project alternatives — from all feasibility aspects — was a problem for most consultants.

SEE consultants failed to grasp the concept of multiple solutions to a single environmental problem. Typically, the client determines and requests a specific technical solution in advance, and the consultants work out the specifications. In almost all cases, consultants offered different project components as alternatives rather than alternative solutions to the problem. Again, the use of the logframe approach and development of problem-and-alternative trees are good ways to develop project alternatives, but these require hands-on assistance during project preparation.

Experts in this region don't define infrastructure "project" as the best possible solution to an environmental, economic, social, or other problem.

Typically, these experts view a "project" as a conceptual or detailed engineering design, with a cost estimate and in some cases a rough estimate of operating costs and revenues. In most of the cases, consultants disregarded the requirement to develop and compare two or three alternative project solutions in the documentation, preferring to concentrate immediately upon a desired technical solution. The consultant teams struggled to grasp the reasoning behind justifying the selected solution as the best of several alternatives.

Consultants are well-versed in technologies for environmental infrastructure and environmental impacts, but lack expertise in preparing economic and financial analyses and assessing the human aspects of the projects in terms of stakeholders and institutions.

This stems partly to their lack of experience in applying the rules of a market economy to environmental infrastructure projects. International-standard financial and economic analysis tools are only just beginning to be taught in SEE countries.

The different project analyses lacked cohesion, especially at the drafting stage.

Different experts, often from different institutions, prepared different parts of the project and did not communicate with each other sufficiently. The project manager typically did little to coordinate the effort or oversee quality. When asked, most consultants would name the director of the company as the project manager, but only in very few cases would the director assume the tasks that a project manager would take on in an international company.

SEE local governments and consultants know little of the market for project financing.

In order to help target financing sources while the projects were being developed, consultants were asked to specify in their financing plan the type (grant, loan, etc.) and amount of financing required for the project. They were asked to justify this based upon the project cash-flow analysis and financial situation of the implementing body (local government or utility company). Consultants struggled with this concept because project financing is very tightly controlled by central government institutions, and the independent “market” for financing is not developed. In one of the nine cases (Alexandria), the consultants made some important contacts and managed to secure a place for the project on the priority list for a new financing programme targeting small and medium -size municipalities in Romania.

The face-to-face review sessions with the teams played a critical role in the consultants’ training despite the success of the workshops.

Most consultants and local governments have an ingrained, traditional approach to preparing environmental investment projects and, if left to their own devices, will revert to the “old” ways. Local governments should have been more involved, working in tandem with the consultants. Future projects need to ensure more time and money for hands-on technical assistance from international expert teams.

Conclusions and Next Steps

The results and experience of the pilot project REReP 5.3 clearly indicate a great demand for technical assistance with project management so that local governments and consultants can more effectively identify, develop, prepare and implement environmental infrastructure projects. To this end, the REReP 5.3 project team compiled several proposals to help future training exercises on this subject go more smoothly and achieve more, especially in terms of capacity building for local governments, consultants, and, to some extent, national-level authorities.

A quality capacity-building project must be based on the needs of the targeted beneficiaries, including knowledge gaps, weaknesses, the burden of outdated practices, and the constraints of the operating environment. Proposals for next steps or follow-up technical assistance are therefore based on a set of needs identified for each of the three target groups: local governments, consultants and national authorities.

Needs of Local Governments/Utilities

Box 1 lists the needs of local governments and public utility companies to be addressed in capacity-building projects on environmental investment preparation. Because no single technical assistance project, especially one with a focus on investment preparation, can address all the needs of these institutions, only those that can be directly or indirectly influenced by a project like REReP 5.3 have been listed. Those needs which would be indirectly addressed by the project are listed in italics.

As mentioned, local governments and even utility managers do not require the same technical and financial acumen required by consultants. Nevertheless, the ownership and management of local infrastructure are the responsibility of governments, therefore they require general understanding about the environmental investment market and the work done by consultants. Local governments must also improve their skills in cooperating with consultants. Most of the problems encountered during project preparation stemmed from poor communication and misunderstanding of the respective roles of local governments and consultants. This means local governments not only need to be able to contract and hire the consultants, they also have to give them clear terms of reference, and the information, assistance and feedback required to carry out their work.

REReP 5.3 also found a lack of strategic planning, prioritisation, and financial management skills among local governments. Investment preparation and implementation is typically done on an ad-hoc basis, with little transparency or dialogue with outside stakeholders. Technical assistance and training for local governments in investment preparation should stress the overall local development planning process as a means for project identification.

Box 1: Needs of Local Government/Utilities

- Constructive dialogue with local communities, especially about key issues involving the environment and infrastructure, including service needs, the willingness to pay for such services and the location of the proposed project
- Comprehensive knowledge of projects and programmes in the country dealing with investment development and management, financing sources available for environmental infrastructure, and how to access them
- Capacity to effectively contract, manage and cooperate with consultants
- Improved understanding of municipal utilities as socially responsible businesses which must plan for the long term
- Capacity to deal with the private sector for municipal infrastructure services through public-private partnerships (joint ventures, operational contracts, third party financing, etc.)
- The ability to apply lessons from local governments in EU accession countries on restructuring municipal services, municipal enterprise accounting, and bid and contract management for municipal services
- *Transparent and justified planning processes that incorporate strategic management thinking, priority setting mechanisms and constructive dialogue with local communities to deliver solid frameworks for (investment) programmes*
- *Transparent and modern financial management (capital improvement programmes, task-based budgeting, long-term financial planning and creditworthiness)*

Needs of Consultants

Box 2 lists the needs of consultants in SEE countries to improve the preparation of environmental infrastructure projects. It should be noted that the pool of consultants selected for REReP 5.3 varied from small, newly established companies focused on project development to larger, formerly state-owned “engineering designers.” Typically, the smaller newer companies were more open to taking new approaches. At the same time, the larger, more established companies tended to have the most experienced engineers, although they focused almost solely on technical work.

The pilot project identified several areas deserving special attention. First, an independent consulting market — the norm in most western countries — does not yet exist in SEE. Most consulting companies operate simultaneously as commission sales agents and dealers of specific technologies related to their field of expertise. These consultants are not actually independent, and often overlook alternative technical solutions in favour of those that promote their own sales. Although the SEE market will not change overnight, all parties, including local governments and other clients, would benefit from learning about internationally accepted standards in the consulting field.

A major problem is the lack of experience with infrastructure projects in a market economy. This touches on a number of issues observed during the implementation of REReP 5.3. Consultants often fail to prepare documentation aimed at the outside evaluator, usually a donor, financing institution or investor. They omit essential pieces of information, fail to back up or justify statements with factual evidence and forego conclusions. The projects lack logic, and often the problem to be solved is not clearly defined, making it impossible to determine the purpose of the project. Few consultants know how to deliver a proper analysis of strengths, weaknesses, opportunities and threats (SWOT), or fully comprehend the concept of feasibility analysis. Neither do they appreciate the concept of an infrastructure project as a business venture, with costs and revenues, risks and opportunities. The consultants tend to overlook the impact of environmental infrastructure on economic and social development. Those with a mainly technical background, which describes most SEE consultants, need practical experience using techniques, tools and strategic management in developing environmental investment projects. Although many consultants are familiar with standard tools like SWOT analysis and the logical framework approach, they do not apply them effectively. This is again due to the fact that these tools require the user to examine the complex relations and interactions between all aspects of a project which, in the case of environmental projects, almost always relate to issues such as economic development and the market for municipal services. Most SEE consultants fail to recognise these wider aims as project objectives, preferring to focus on the physical infrastructure as an end in itself.

Another non-technical area in which most SEE consultants need assistance is understanding the day-to-day formal and legal functioning of local governments and public utility companies. With the recent democratisation of investment decisions in SEE countries, consultants need to be able to support local governments in a wider range of responsibilities. These include working within the applicable spatial and development planning procedures, and ensuring that public involvement and social dialogue is included in investment projects. Most consultants in SEE do not see the importance of these measures and are not properly equipped to provide their local government clients with the services they actually need, including transparent communication of objectives and socio-economic cost-benefit analysis of projects.

Another issue inseparable from the market approach is a thorough knowledge of the mechanisms of financial management. Most consultants, even those with an economics education, cannot provide international-standard investment project services that correspond to the basic rules of supply and demand. Consultant teams lack skills in preparing financial statements, expense and revenue records and financial and economic assessments of projects and entities involved in their implementation. They simply lack a practical understanding of project risks.

Box 2: Needs of Consultants

- An appreciation of the consultant's role as an independent, high-quality service-provider
- Ability to calculate and properly use financial and economic analyses for infrastructure projects according to international accounting standards and practices
- Ability to analyse "social" aspects of projects, including the impact on stakeholders
- Ability to gauge the capacity of implementing institutions to manage the project
- Capacity to size up risks and devise mitigation strategies
- An awareness of the strategic context and rationale for project implementation, including legal aspects, national environmental strategies, and local and regional development plans
- Improved communication with local governments and a better appreciation of their status as clients
- Knowledge of the obligations local governments have in the area of environmental infrastructure as set by local law and EU directives
- An awareness of local government budgeting procedures, including costs and price-setting for municipal services
- Knowledge of utility management and operations, both public and public-private models
- Knowledge of spatial planning and sustainable development on local level
- Willingness to build bridges between consulting associations (e.g. FIDIC) in the EU and EU accession countries

National Governments

REReP 5.3 was designed to provide assistance at the local government level; nevertheless, local-level issues are ultimately regulated at the national government level, especially in SEE countries where a strong tradition of centralisation persists. The pilot project would have done better with greater support and participation from national authorities. Ideally, national authorities provide a clear platform for investment projects. Under such arrangements, the central body sets the rules for priority (sectoral) investment programmes, including objectives, criteria and standards of communication. This enables the generation of investment initiatives at various level of public administration that are coherent with the national criteria and thus address the country's most important problems. National authorities in SEE countries often fail to set clear, internally consistent rules. This can severely restrict local initiatives, the potential project pipeline and, consequently, the quality and scale of the responses to key environmental problems. At the same time, most local-level investment projects in SEE do not get implemented — or even prepared — without support from higher level (regional and national) authorities. Such support is therefore an important motivating factor for both local governments and consultants. Future technical assistance should involve national authorities, even to the extent of directly assisting them with strategic management and prioritisation techniques, if appropriate.

The Future of REReP 5.3

Despite the differences between SEE countries, and the relatively small number of local governments and consultants directly considered in this pilot project, the project yielded some common conclusions. Many reaffirm lessons from EU accession countries to the north, which also have a history of centralisation and weak local government, a shortage of non-technical skills and a lack of experience in building infrastructure in a market economy. While the pilot project REReP 5.3 can be considered a success, it had certain weaknesses, due both to the project design and the fact that it was a new approach to technical assistance in SEE. Based on the lessons and needs identified above, the following improvements are suggested for further implementation of the project in SEE:

- **In the project design, use a design tool such as the logical framework approach to clarify objectives, purpose, indicators and activities.**
- **Get support from national authorities (environment ministry, local government ministry, investment/international cooperation ministry, etc.) to the extent possible.** This is necessary to motivate the participation of local governments, generate real financing interest, and secure a transparent and effective project/local government identification process. This could be linked to the follow-up stage of the Priority Environmental Investment Programme developed with SEE environmental authorities under REReP 1.2, using the priorities developed in each country to identify local-level investments.
- **Carefully screen local governments that apply for participation, and develop and sign a memorandum of understanding with each authority.** One of the weaknesses of the pilot project was the lack of interest on the part of some local governments to participate in the process and to cooperate with consultants they did not select themselves. These issues need to be worked out in advance by all project partners.
- **Devote more time and resources to ensure local governments take responsibility for the investment preparation process.** Often local governments are interested only in getting the project financed by any means possible. Based on a memorandum of understanding, local governments must dedicate relevant personnel to the project preparation. If appropriate, local governments may be asked to contribute a token sum for the consultants' work, especially when a financing source has not been identified prior to project preparation. In this case, local governments must take on this process alone. This is also crucial for eventual project implementation.
- **Identify a strong team of international consultants, comprising both experts from SEE, EU accession countries to the north and elsewhere to mentor the project preparation teams throughout the entire process.** Almost all the participants faulted the project for its lack of close consultation between international experts and the environmental investment preparation teams. It is clear that both local governments and consultants have many difficulties in preparing investments to international standards. Moreover, formal training alone does not enable the teams to put new concepts and tools immediately into practice. Such meetings will also prevent or mitigate delays and miscommunications in the preparation process. Distance learning and better use of electronic communication should be considered.

- **Develop a detailed work plan for each project to be prepared, with clear responsibilities for all team members, including the international experts.** In the pilot process, the local consultants were primarily responsible for the outcome of the project documentation, and to meet the terms of their subcontracts with the REC. In the future, all the team members should have a share of the responsibility. The work plan should be more extensive than the project documentation and tasks description provided in the pilot project. It should include support for on-site visits, stakeholder consultations, in-depth tutorials on financial and economic analyses, and the development of project alternatives and the logical framework.
- **Based on market conditions, determine at exactly which point during the project cycle to target a financing source and include local governments and consultants in the process.** REReP 5.3 showed that while it is difficult to target financing for undeveloped investment projects, project preparation runs more smoothly if the financing source is known. In many cases, including those in Serbia during the pilot, it is impossible to target financing in advance. Furthermore, if targeted financing is required, the selected projects may not serve well as capacity-building exercises. The training should demonstrate to local governments and consultants that if a project is properly identified and prepared — meaning it meets a social and financial demand for services — financing will be available.
- **Revise and expand training topics to focus on those critical needs identified during project preparation.** Training should address the different needs of local governments and consultants, and could be facilitated by a step-by-step manual.
- **The training should familiarise consultants with FIDIC concepts in the areas of designing, supplying and contracting, the role of the contract engineer, the formula of independent consulting and the concept of conflict of interest.**
- **Trainers should describe the relationship between infrastructure and finance, covering the various instruments available for project financing and the option of developing public-private partnerships.**
- **The curriculum must present more compelling arguments for the use of the presented tools and methodologies, relating them directly to the practical aspects of project preparation and accessing funds.** Trainings could use donor handbooks or manuals and invite speakers from funding sources.
- **Other topics identified by participants and national authorities could be included.**

Annex I: Project Summary Document

Adapted from documents used by the Regional Infrastructure Project for South Eastern Europe, funded by USAID.

Project Title

Country, Location

1. Project Summary Sheet

Proposal Date:		Proposing Entity:		
Implementing Entity: (Targeted) Financing Entities:		Beneficiary Groups:		
Summary Project Description:				
Financing Plan and Source	Type of Financing	Local	Foreign	Total
Government				
Other (specify)				
Other (specify)				
Other (specify)				
Other (specify)				
Project Financing Totals				
Other Summary Information:				

2. Strategic Context

1. Project background and context including regional and country policies and strategies

[Summarise assessments of key regional policies and the country's strategy to address them, referencing sector and other relevant studies of sponsor and targeted financing entities]

2. The broad national, programme or sector goals that the project supports

[Take from Attachment 1: Logical Framework "Goals" and "Goal Indicators"]

- Key project issues such as policy, legal, regulatory, financial, environmental and public-private, required permits, etc.

[Of the issues identified in 2.1, specify those that are most critical for the proposed project, indicating the strategic options, e.g., private vs. public techniques, etc., as assessed in the sector and policy work related to the project.]

3. Project Rationale

- Problem or needs that the project will address

[Provide a brief (25 words) description of the key target population needs or problem to be addressed by the project.]

- Project alternatives considered and proposed solution/approach including a justification

[Summarise the major project alternatives considered for resolving the project problem, and provide description of trade-offs. If appropriate, include alternative tree diagram which highlights selected project solution.]

- Expected Project Benefits

[List key benefits expected to result from the project by stakeholder group or geographical area.]

- Participatory approach and stakeholder commitment

[List key players for project design, implementation and sustainability, and how they have participated, along with their level of ownership and support for the project.]

<u>Key Stakeholders/Beneficiaries:</u>	<u>How Involved?</u>	<u>Commitment?</u>

- Major related projects or activities and how they are linked

<u>Related Projects (Planned or Ongoing):</u>	<u>Important Linkages:</u>

- Reflections in proposed project of lessons learned from relevant projects

<u>Previous Projects:</u>	<u>Lessons Learned:</u>	<u>Implications:</u>

4. Project Description Summary

1. Project purpose and indicators for monitoring and measuring impact

[Take from Attachment 1: Logical Framework "Purpose" and "Purpose Indicators"]

2. Quantified outputs/products the project will generate

[Take from Attachment 1: Logical Framework "Outputs" and "Output Indicators"]

3. Project components, activities and inputs with related costs

[Take from Attachment 1: Logical Framework "Activities/Components" and "Inputs/Resources"]

4. Implementation plan including schedule, monitoring milestones and responsibilities

[Summarise key features of project implementation plan. If appropriate, include bar chart diagram with responsibility listing.]

5. Summary of Results of Feasibility Assessment

[Based upon the outcome of the project feasibility assessment and the preliminary EIA, state why the project is likely to be sound from each of these perspectives.]

1. Technical

[Indicate reasons why project is likely to be sound from a technical perspective, e.g. appropriate technology and standards.]

2. Financial and Economic

[Indicate reasons why project is likely to be sound from financial and economic perspectives, e.g. cost recovery, cost controls, accountability, social costs and benefits.]

3. Stakeholder and Institutional

[Indicate reasons why project is likely to be sound from the perspective of stakeholders and the implementing organisation, e.g., support from citizens and citizens' groups, administrative regulations, permits, project management experience, contracting procedures, monitoring and evaluation capacity.]

4. Environmental

[Indicate results of initial environmental screening and the overall EIA process.]

6. Investment Criteria

[This section justifies the use of funds for the project purpose, based upon the criteria of the targeted investor. The sections in this template outline would apply to a public sector granting agency, such as the European Union. This section should be modified, if necessary, to meet the requirements of the targeted source of project financing.]

1. Catalytic Effect

[List the effect the project will have on the beneficiary vs. the situation without project implementation]

2. Co-financing

[What co-financing will be provided by the project beneficiary or national government? Does this meet the requirements of the external funder?]

3. Additionality

[Will the external financing replace financing from other sources, particularly from the private sector or national sources?]

4. Project Readiness and Size

[Describe the project preparation steps that have been completed and any that would still need to be completed before the start of project implementation. Does the size of the project meet the requirements of the financing source?]

5. Compliance with state aids provisions

[If necessary, will the project be performed in accordance with EU principles on national assistance?]

7. Risks and Sustainability

1. Critical Risks

<u>Assumptions/Risks in the fourth column of Attachment 1</u>	<u>Risk Rating</u>	<u>Risk Minimisation Measure</u>
Attachment 1, cell "from Outputs to Purpose"		
Attachment 1, cell "from Activities to Outputs"		
Overall Risk Rating		

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N (Negligible or Low Risk)

2. Factors critical for sustainability of project benefits

[List the factors in the project that will contribute to the sustainability of project benefits.]

8. Project Implementation

1. Additional project preparation activities and schedule

[Summarise key features regarding preparation of additional project documentation required for issuing construction permit and project start-up (detailed engineering design, safety and occupational health statement, and other supplemental documentation according to the requirements of local authorities, as well as procurement documentation for competitive bidding procedure)]

2. Administrative and regulatory requirements for project approvals

[Summarise key licenses, construction permits and regulatory procedures required from the local authority/agency.]

3. Procurement and contracting requirements for project implementation

[Summarise key procurement and contracting procedures required by the country procurement law and regulations, as well as EU procurement guidelines relevant accession countries. Specify time and cost requirements associated with preparation of procurement (tender documentation).]

4. Project Implementation Plan

[Summarise key features of project implementation plan per Attachment 2]

List of Required Attachments:

1. Completed Logical Framework Summary *[Template attached]*
2. Feasibility Study *[Tasks and Outline attached]*
3. Environmental Impact Assessment *[Tasks and Outline attached]*
4. Project Implementation Plan *[Template attached]*

Attachment 1: Logical Framework Summary

Project Title: _____ Date: _____

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
<u>Goals:</u>			<u>Goals-to-Higher Objectives:</u>
<u>Purpose:</u>			<u>Purpose-to-Goals:</u>
<u>Outputs:</u>			<u>Outputs-to-Purpose:</u>
<u>Activities by Component (Inputs):</u>	<u>Inputs/Resources:</u>		<u>Inputs-to-Outputs:</u>

Attachment 2: Project Preparation and Implementation Plan

A. Project Preparation Team

Proposer Entity			Financial Entity		
Name	Unit	Role/Responsibility	Name	Unit	Role/Responsibility

B. Additional Project Preparation Activities

Key Outputs	Prepared by	Responsibility	Cost/Source of Financing	Appraisal Requirement	Target Date
<i>Detailed Engineering Design</i>	<i>[Consultants: direct hire/ competitively selected]</i>	<i>[Relevant agency]</i>		<i>draft report</i>	
<i>Procurement Documents</i>					
<i>Other:</i>					

B. Project Implementation Plan

Key Project Outputs – Summary Tasks	Task start date	Task finish date	Duration	Cost	Responsible Person
<i>Output 1</i>					
<i>Output 2</i>					
<i>Output 3</i>					

Annex II: Feasibility Study and EIA Tasks and Outline

A version of this document was prepared for each project and attached to the subcontracts between the REC and the consultants. This annex shows a typical set of tasks and an outline used for wastewater treatment (Lipova) and solid waste management projects (Krusevac). The environmental impact assessment was kept separate from the feasibility study as this is how these documents are typically presented in SEE.

Part 1: Feasibility Study

I. Executive Summary

Task: Summarise the entire feasibility study

II. General Aspects

Task: Present information about the locality, and the project applicable to all aspects of the feasibility study.

Outline

- Introduction, locality information (population, economic activities, environmental situation, future situation), project background and project history
- Wider and immediate project objectives
- Description of intended beneficiaries
- Overview of options examined and assumptions made

III. Technical Analysis

Tasks (Wastewater Treatment Projects)

- Review existing technical documentation, provided by REC Country Office Romania.
- Based on the project background, the current situation in Lipova, and the proposed solution contained in the existing technical documentation, design the best affordable technical solution for the rehabilitation and extension of the sewer network and wastewater treatment plant (WWTP).
- During the course of project design, examine other affordable technical solutions for the extension of the sewer pipe and consider different technologies as options for the WWTP.
- Provide the investment costs for all options for the rehabilitation and extension of the sewer network and WWTP.
- Provide the operational and maintenance costs for all options for the rehabilitation and extension of the sewer network and WWTP.

Outline

- Executive technical summary
- Hydro-technical calculations for all sewer network options
- Hydro-technical calculations for all WWTP options
- Technological calculations for all WWTP options
- Table for operational and maintenance costs for the sewer network and WWTP
- Bill of quantities for the extension of the sewer system and WWTP
- Drawings (for all options): Site plan of the locality showing the WWTP and sewer layout with the existing sewer line and extension of the sewer line (1:5,000), site plans for the WWTP (1:500), technological flow diagram for the WWTP, longitudinal cross section of the sewer pipes for the extension and rehabilitation (1:100/1:1,000)

Tasks (Solid Waste Management Projects)

- Review information contained in all existing documentation for:
 - landfill design and upgrade of the existing landfill (reclamation of the existing and used waste disposal space, and extension of the existing site into a sanitary landfill)
- Based upon the project background, the current situation in Krusevac, and the existing landfill design, provide the best affordable technical solution in terms of:
 - reclamation and environmental protection measures from the existing landfill, i.e. landfill gas extraction, protection from surface run-off water, landscaping and biological reclamation
 - development of new sanitary landfill according to the existing urban plan, more specifically, provide alternatives on the following issues:
 - technologies of land filling
 - water supply for landfill needs
 - power supply for landfill needs
 - disinfection and weighing equipment for solid waste collection trucks
 - technologies for reconstruction of existing leachate collection and treatment (settlement tanks)
 - option for treatment of biological waste generated within the municipality
 - completing the fence around the landfill site
- Provide an analysis of the municipal solid waste collection system. This shall include but is not limited to the following:
 - Assess the type of equipment currently used for solid waste collection (containers, trucks, etc.)
 - Identify potential demand for extending the service into neighbouring villages within the municipality, including the needs and specification of new equipment
 - Analyse the operational aspects of the collection system in terms of its coverage, hauling routes, frequency of collection
 - Provide the best affordable option for the municipal solid waste collection system
- Provide the breakdown of investment costs for all options considered for both reclamation of the existing landfill and development of new sanitary landfill
- Provide the breakdown of operational and maintenance (O&M) costs for all options considered for both reclamation of the existing landfill and development of a new, sanitary landfill

Outline

- Executive technical summary
- Technical calculations for all alternatives considered for upgrade of the existing landfill
- Analysis of municipal solid waste collection system
- Table for O&M costs for all options considered for both upgrade of existing landfill and municipal solid waste collection system
- Bill of quantities for:
 - upgrade of the landfill
 - equipment for collection system
- Drawings (for all options):
 - site plans for the landfill showing all structures (scale 1:1,000)
 - technological flow diagrams for landfill gas extraction and leachate collection and treatment systems
 - other drawings necessary to support certain technical solutions analysed

IV. Economic and Financial Analysis

Tasks

- Based on the technical and environmental review, collect data necessary to develop a financial plan and assess the financial and economic viability of the project. [The REC will support the consultants with data on macroeconomic assumptions, interest rates, discount rates, and depreciation rates]. Project-specific data will be obtained by the consultants.
- Develop a viable financial plan for the project.
- Review the financing sources and determine the least-cost financing for the project.
- Specify detailed amounts and schedule the investment outlays, and conduct incremental and financial cash flow for the construction and operation of the project.
- Conduct socio-economic analysis, and discuss socio-economic and financial viability of the all project options.
- Present conclusions and a project option recommendation based on the following indicators: NPV, IRR, ENPV, ERR and project risks and sensitivity.

Outline

- **Summary**
- **Background of the study**
- **Goal and scope**
- **Description of applicant**
 - Description of municipality
 - Current status of the infrastructure
 - Infrastructure reconstruction and development plan
- **Project financial and economic analysis**
 - Assumptions
 - Macroeconomic indicator forecasts
 - Interest and discount rates
 - Depreciation rates
 - Description of financial and economic indicators used in analysis
 - Definitions of indicators
 - How indicators will evaluate project viability
 - Investment outlays
 - Definition
 - Characteristics of project investment outlays
 - Sources of financing
 - Working capital
 - Revenues forecast
 - Demographic prognosis for municipality
 - Average household income forecast
 - Revenue plan for utility
 - Operational costs
 - Methodology for costs estimation
 - Depreciation
 - Financial costs
 - Methodology for cash flow forecast
 - Project cash-flow (incremental analysis)
 - Project financial viability
 - Financial reports simulation
- **Socio-economic costs and benefit analysis**
 - Socio-economic costs
 - Prices distortions
 - Labour costs distortions
 - Taxes
 - External costs
 - Book value of assets owned by public sector

- Socio-economic benefits
 - Price distortion for investment outlays
 - Job creation market benefits
- Summary of socio-economic cost-benefit analysis
- **Project risk and sensitivity**
 - Goal of analysis
 - Identification of critical variables
 - Investment outlays
 - Grant percentage
 - Results

V. Stakeholder and Institutional Analysis

Tasks

- Conduct a visit to the project locality, and interview the persons and groups that may have an interest or interests in the project.
- Identify the key project stakeholders using the stakeholders analysis matrix and indicate the feedback that different stakeholders have to the project (supportive or hostile).
- Develop a plan and strategy on how to deal with those stakeholders who have a negative approach to the project implementation.
- Visit and interview the project implementing and operating entities, in order to assess their ability to carry out the project implementation activities and operation and maintenance of the project.
- Identify key management and organisational gaps within the project implementing and operating entities, and indicate measures for their improvement (staff training needs, organisational restructuring needs), and assess whether they are critical to the project implementation and operation phase.
- Identify possible legal and regulatory constraints for implementing the project proposal.

Outline

- Conclusions and recommendations
- Summary of key project stakeholders
- Recommended actions on how to handle negative stakeholders
- Summary assessment of project implementation and operation entities
- List of training needs, and likely organisational improvements for the project implementing and operating entities
- Overview of legal and regulatory framework relevant for project implementation, and possible constraints

VI. Comparison of Project Alternatives from all Perspectives

Task: Based on the outcome of technical, economic/financial, stakeholder/institutional, and other factors relevant to the process (i.e. environmental impact assessment), discuss the ways in which project alternatives have been compared to result in the final selection.

VII. Conclusions and Recommendations

Task: Present conclusions, the final project design, and recommendations for project implementation.

Part 2: Environmental Impact Assessment

Tasks and Outline

Tasks

1. Gather necessary data for assessing the impacts on the physical, biological and social environment both from reviewing the existing documentation and conducting a site visit to the project location.
2. Using simple tools for preliminary assessment (interaction matrices and checklists), identify major impacts having adverse effect and describe the affected environmental components.

3. Determine the overall characteristics of the identified impacts such as: magnitude, significance, time (short vs. long), frequency and phase of their occurrence (construction, operation, and decommissioning).
4. Develop a mitigation plan comprising of different strategies and preliminary cost estimates for reducing, avoiding and/or rectifying the affect of the adversarial impacts.
5. Assess whether project complies with the Yugoslavian* laws and regulations regarding environmental protection.
6. Assess whether there are environmental NGOs that are likely to oppose and undermine support for the project.
7. Assess the existence of any sensitive environmental areas in the project.

Proposed outline of the EIA report:

1. Executive summary
2. Summary of identified impacts to different environmental components
3. Description of affected environments
4. Summary of characteristics of identified environmental impacts
5. Mitigation plan and conclusions

* Project conducted when Serbia and Montenegro was called Yugoslavia