GUIDELINE for
LOCAL ENVIRONMENTAL ACTION PROGRAMMES IN THE CAUCASUS
GUIDELINE
FOR LOCAL ENVIRONMENTAL ACTION PROGRAMMES IN THE CAUCASUS

2008

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Action Programs in Central and Eastern Europe for representatives of local governments

environmental action projects in Ukraine, Bulgaria, Poland, and other Central and Eastern countries, to build their capacity to work collaboratively to address local environmental issues. Over the last 15 years, he has worked in Central and Eastern Europe with local governments, independent organisations, businesses, media, international organisations and other environmental stakeholders. REC Caucasus plays an active role in interagency cooperation, too. The organisation together with active environmental NGOs and the ministries of environment promotes the idea of environmental protection and sustainable development in the countries of the South Caucasus.

For additional information about REC Caucasus, please, visit www.rec-caucasus.org

ABOUT REC CAUCASUS

The Regional Environmental Centre for the Caucasus (REC Caucasus) is a non-entrepreneurial (non-commercial) legal person established within the framework of the “Environment for Europe Process” in 1999 by the governments of Armenia, Azerbaijan, Georgia and the EU to assist in solving environmental problems as well as development of the civic society in the countries of the South Caucasus.

REC Caucasus successfully implements its mission through various programmes and projects throughout the Caucasus region. One of the tasks of REC Caucasus is to be a “bridge” between the public and governments. The Centre has proven to be a visible and independent organisation providing services to governments, local authorities, non-governmental organisations, businesses, media, international organisations and other environmental stakeholders. REC Caucasus plays an active role in interagency cooperation, too. The organisation together with active environmental NGOs and the ministries of environment promotes the idea of environmental protection and sustainable development in the countries of the South Caucasus.

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CONTENTS

Forward
Glossary.................................................................................................................. 6
Introduction ........................................................................................................... 10
Historical Perspective on LEAPs ........................................................................ 10
International Agreements Supporting LEAPs .................................................. 11

Chapter 1: What is a Local Environmental Action Programme?.................. 13
1.1 Overview ......................................................................................................... 14
1.2 Goals and objectives of LEAPs .................................................................... 14
1.3 Benefits of Conducting a LEAP ................................................................. 14
1.4 Stages of LEAP Development and Implementation ................................. 15
1.5 National Environmental Planning in the South Caucasus ....................... 16
1.6 LEAP Experiences in the South Caucasus ................................................. 17

Chapter 2: Legal bases for LEAPs ................................................................. 19
2.1. Agenda 21 ................................................................................................. 20
2.2. National Environmental Action Plans - NEAPs ....................................... 20
2.3. Local Environmental Action Programmes - LEAPs ............................... 20
2.3.1. Development, Implementation, Responsibilities ............................... 20
2.4. Self-government in Environmental Legislation ...................................... 21
2.5. Budgeting, Finances, Funds ........................................................................ 22

Chapter 3: LEAP Participants ........................................................................... 23
3.1. Initiative Group .......................................................................................... 24
3.2. Project Stakeholders Committee .............................................................. 25
3.3. Working Committee .................................................................................... 26
3.4. Local Coordinator ...................................................................................... 27
3.5. Project Coordination Unit .......................................................................... 28
3.6. Role of Consultants ................................................................................... 28
3.7. Decision-Making ....................................................................................... 28

Chapter 4: Get Started ...................................................................................... 31
4.1. Establish Initiative Group .......................................................................... 32
4.2. Secure Sponsors and Funds ...................................................................... 33
4.3. Conduct Community-Wide Informational Campaign ............................ 33
4.3.1. Organising Local Environmental Events ........................................... 35
4.3.2. Conduct Community Forum .............................................................. 36
4.4. Coordination of Project Implementation ............................................... 38
4.4.1. Local Coordinator ................................................................................ 38
4.4.2. Coordination body .............................................................................. 38

Chapter 5: Identify and Prioritize Environmental Problems ......................... 41
5.1. Assessment Tools ....................................................................................... 42
5.2. Prepare Assessment of Current Environmental Conditions ............... 44
5.2.1. Select Environmental Assessment Methodology ................................ 44
5.2.2. Determine Scope of Environmental Assessment .............................. 45
5.2.3. Define Environmental Problems .......................................................... 46
5.2.4. Collect Environmental Data .................................................................. 46
5.2.5. Prepare Environmental Assessment Report ....................................... 49
5.3. Select Priority Environmental Problems ............................................... 49
5.3.1. Criteria to Consider in Selecting Priority Problem ............................. 49
5.3.2. Prepare for the Priority Setting Meeting ............................................ 50
5.3.3. Proposed Process for Selecting Priority Environmental Problems .... 50

Get Started

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ISBN 978-9941-0-1235-8

CONTENTS
Chapter 6:  Establish Environmental Objectives .................. 54
6.2. Set Environmental Goals and Objectives, and Select Indicators ............................................. 54
6.2.2. Establish Environmental Objectives ..................................................................................... 55
6.2.3. Select indicators ................................................................................................................... 56
6.2.4. Identify Potential Actions ..................................................................................................... 57
6.2.5. Identify Evaluation Criteria .................................................................................................. 57
6.3. Gather Information, Analyse and Select Actions ....................................................................... 59
6.3.1. Gather Information ................................................................................................................ 59
6.3.2. Analysis action .................................................................................................................... 59
6.3.3. Select Actions ...................................................................................................................... 60
6.4. Prepare Environmental Action Plan ....................................................................................... 61
6.4.1. Adopt Action Plan ................................................................................................................ 64
Conclusion ................................................................................................................................... 64

Chapter 7:  Implement Actions ........................................ 67
7.1. Identify Potential Implementing Institutions and Organisations .............................................. 68
7.2. Working with Private Sector .................................................................................................... 69
7.2.1. What are the Advantages of Working with the Private Sector? ........................................ 69
7.2.2. What are the Disadvantages of Working with the Private Sector? ..................................... 70
7.3. Evaluate Opportunities for Working with the NGO Sector ..................................................... 71
7.3.1. How can the Public and Non-government Sectors Work Together? .................................. 71
7.3.2. What are the Advantages of Working with the NGO Sector? ............................................. 71
7.3.3. What are the Disadvantages of Working with the NGO Sector? ........................................ 72
7.4. Secure Participation of Implementing Institutions and Organisations .................................. 73
7.5. Prepare Project Implementation Plan ...................................................................................... 73
7.6. Prepare Implementation Budget and Establish Accounting Procedures ............................... 74
7.6.1. Prepare Implementation Budget .......................................................................................... 74
7.6.2. Establish Accounting Procedures ...................................................................................... 75
7.7. Secure Project Financing ......................................................................................................... 75
17.7.1. Evaluate Sources of Capital ............................................................................................... 75
17.7.2. Evaluate Potential Revenue Sources ................................................................................ 75
17.7.3. Prepare Project Financing Plan .......................................................................................... 77
7.8. Work with State Institutions and Local Authorities on Budgetary Issues and Other Statutory Requirements .................................................. 77
Conclusion ................................................................................................................................... 78

Chapter 8:  Monitor and Evaluate Results .......................... 83
8.1. Review Environmental Objectives and Indicators .................................................................. 84
8.2. Establish Reporting System ...................................................................................................... 84
8.3. Collect Data on Baseline Conditions and Project Results ...................................................... 85
8.4. Evaluate Results ..................................................................................................................... 85
8.5. Communicate Results to the Community ................................................................................ 87
Conclusion ................................................................................................................................... 87

Chapter 9:  Conduct a Public Outreach Campaign ............... 89
9.1. Clarify Purpose and Set Goals ................................................................................................. 90
9.2. Identify Target Audiences ....................................................................................................... 91
9.3. Develop Partnerships with Key Information Sources Connected to Target Audiences .......... 91
9.4. Create Effective Message ........................................................................................................ 92
9.4.1. Design the message ............................................................................................................ 92
9.4.2. Get feedback on your message ............................................................................................ 92
9.5. Identify, Evaluate, and Select Outreach Method ................................................................. 93
9.6. Identify Resource Needs and Opportunities .......................................................................... 94
9.7. Develop Workplan, Implement Outreach Actions, and Evaluate Results ............................ 94
Conclusion ................................................................................................................................... 95

FOREWORD

In the beginning of 2003 REC Caucasus initiated the process for applying LEAPs methodology to the South Caucasus countries. Since then the pilot projects: Local Environmental Action Plans (LEAPs) have been developed and implemented in the three selected cities of the South Caucasus - Ararat, Ganja and Kutaisi. The LEAPs documents have been developed in close cooperation with the local authorities and citizens. Final documents published in Russian and national languages were presented at the final city conferences and the memorandums of understanding between the city mayors and REC Caucasus were signed. According the memorandums the local governments took the responsibility to integrate LEAPs in city development plans and implement priority actions identified in LEAP.

Our experience has found that LEAPs are effective tools for addressing environmental problems, raising public awareness, expanding public access to information, and increasing public involvement in local environmental issues. Further, LEAPs have shown themselves to be effective approaches to improving local decision-making by involving key stakeholders at the local level. In addition, LEAPs improve accountability and transparency of local government by forming partnerships between local government and civil society and providing a mechanism for direct public input into governmental decisions. Further support is needed to broaden and deepen the impact of LEAPs by institutionalizing LEAPs at the national level, increasing the number of communities implementing LEAPs, and establishing a network of LEAP communities throughout the region.

This Guideline to Local Environmental Action Programmes (LEAPs) in the Caucasus has been prepared to assist municipal government officials, representatives from non-governmental organisations, and ordinary citizens to better manage environmental problems at the local level. It is presented here as a preliminary and introductory reference on basic planning methods and tools that have used by some local governments and citizen groups in the Caucasus.

This Guideline is designed to provide a step-by-step “how-to” approach to developing and implementing LEAPs. While we recommend that you consider each of the steps described here, this Guideline is not intended as a “strict cookbook” that must be adhered precisely. Rather, citizens in your community will need to design a LEAP to meet local circumstances, needs, and priorities.

This LEAP document is only a first step towards solving the environmental problems of the Caucasus cities, towards sustainable development and creating better human living conditions for present and future generations.

ACKNOWLEDGMENT

The Guideline is a result of common work by experts who transformed their knowledge, experiences, ideas and visions into concrete actions and in that way help their community to solve the problems that were created in the past century.

We would like to thank the national LEAPs experts for their technical help, for their guidance towards the key issues, for the experience and knowledge they shared allowing us to create the document which will be understandable for the citizens of the Caucasian region. We are extremely grateful to David Grgyliani, Kathuna Gogaladze, Ketik Tshkhakia, Tamuna Magradze, Laria Kharatova, Dishkhu Saakyan, Irishad Abbasov and Bagir Gidiatov for assistance in preparation of the Guideline.

Special thanks also go to the local authorities of the pilot cities for their support in development and implementation of the LEAPs process.

We would like to express our great gratitude to the citizens of the Ararat, Ganja and Kutaisi who were honest about their problems and who shared with us their ideas, visions and hopes - acting thereby as our guides in making this document.

Keti Samadashvili
Environmental Policy and LEAPs Programme Manager
### GLOSSARY

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment tool</td>
<td>a methodology for assessing environmental conditions</td>
</tr>
<tr>
<td>Baseline conditions</td>
<td>existing environmental conditions that are used as a basis for measuring environmental improvements</td>
</tr>
<tr>
<td>Brainstorming</td>
<td>a technique used by groups to develop as many ideas as possible without evaluating how feasible each idea might be</td>
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<tr>
<td>Capital</td>
<td>resources needed for the acquisition, construction or improvement of designated assets such as buildings and equipment</td>
</tr>
<tr>
<td>Collaboration</td>
<td>a process wherein citizens and local governments work together to address issues</td>
</tr>
<tr>
<td>Collaborative leadership</td>
<td>a style of leadership wherein leaders view their roles primarily as convening, catalyzing, and facilitating the work of others. Collaborative leadership focuses on bringing citizens together and helping them to build trust and the skills for collaboration</td>
</tr>
<tr>
<td>Community Environmental Initiative</td>
<td>any activity that involves residents in making their community a better place to live and results in visible environmental improvements, e.g. tree plantings and river clean-ups</td>
</tr>
<tr>
<td>Community Environmental Inventory</td>
<td>an environmental assessment tool for assembling large amounts of information on the status of a community’s environment, natural resources, economic activity and physical conditions</td>
</tr>
<tr>
<td>Comparative Risk Analysis</td>
<td>an environmental assessment tool for comparing environmental problems in a systematic way based upon the best available information about the relative risks these problems pose. Attempts to answer the question, given what we know at this time, which environmental problems pose the greatest risks to our health, the natural environment, and the quality of our lives?</td>
</tr>
<tr>
<td>Compliance monitoring</td>
<td>measures whether an implementing institution has fulfilled its obligations, e.g. installed 5,000 low-flow showerheads</td>
</tr>
<tr>
<td>Cost-effectiveness analysis</td>
<td>an evaluation tool that helps to determine the relative costs for achieving a measured improvement in environmental protection compared to other actions</td>
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<tr>
<td>Economic incentives (or instruments)</td>
<td>a broad set of environmental management tools that provide a direct financial incentive to polluters to reduce their pollution activities</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>a criterion used to evaluate how well a particular action reduces or prevents an associated public health or ecological threat</td>
</tr>
<tr>
<td>Effectiveness monitoring</td>
<td>a type of monitoring that measures whether specific actions are achieving their intended result, e.g. reducing water usage by 20% per household</td>
</tr>
<tr>
<td>Emission Fees</td>
<td>an economic incentive that charges polluters for pollution within admissible limits</td>
</tr>
<tr>
<td>Environmental Action Plan (EAP)</td>
<td>a multi-stakeholder plan of action on the best ways to solve environmental problems in the community. The EAP includes goals, targets, and actions for addressing the top environmental problems</td>
</tr>
<tr>
<td>Environmental goal</td>
<td>provides strategic direction for long-term efforts to solve environmental problems and an opportunity to build consensus among stakeholders on what they hope to accomplish over a period of time</td>
</tr>
<tr>
<td>Environmental issue assessment</td>
<td>a profile of environmental conditions in the community as it exists today. An Issue Assessment helps citizens to paint a portrait of the place where they live given the current environmental status of the air, water, and land</td>
</tr>
<tr>
<td>Environmental problem ranking</td>
<td>ranking of environmental problems based upon the relative seriousness they pose to human health, ecological health, and quality of life</td>
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<tr>
<td>Evaluation criteria</td>
<td>provide an objective and transparent basis for selecting among a broad number of possible actions</td>
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<tr>
<td>Fines and penalties</td>
<td>an economic incentive applied to those individuals or industries that pollute above allowable limits or violate other regulatory requirements</td>
</tr>
<tr>
<td>Impacts</td>
<td>the threat or risk of an environmental stressor on human health, ecological health or quality of life</td>
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<tr>
<td>Implementation agreement</td>
<td>an agreement among institutions with responsibilities for implementing specific actions identified in the Environmental Action Plan. The Implementation Agreement identifies specific tasks, roles, and resource commitments from each implementing institution</td>
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<tr>
<td>Implementation plan</td>
<td>a document that integrates the actions for each priority issue into one overall, comprehensive strategy. The Implementation Plan ideally includes goals and targets from the EAP, identifies specific tasks that need to be undertaken to implement each action, assigns a time schedule for completing each task, determines who will be responsible for completing each task, and identifies associated costs for each task</td>
</tr>
<tr>
<td>Indicator</td>
<td>a quantifiable measure of whether goals and targets are being achieved</td>
</tr>
<tr>
<td>Issue summary</td>
<td>a compilation of information on alternative actions for addressing environmental priorities</td>
</tr>
<tr>
<td>Loan</td>
<td>a borrowed source of capital from a financial institutional wherein the borrower agrees to repay the original borrowed amount plus interest over a period of years</td>
</tr>
<tr>
<td>Local Agenda 21 (LA21)</td>
<td>a community-wide, participatory process for addressing sustainable development issues. LA21 was first defined in the Sustainable Development Action Plan (Agenda 21) at the United Nations Conference on Environment and Development (Rio Conference) in 1992</td>
</tr>
<tr>
<td>Local Environmental Action Programme (LEAP)</td>
<td>a community-wide, participatory process for addressing environmental problems. A LEAP involves developing a community vision, assessing environmental issues, setting priorities, identifying the most appropriate strategies for addressing the top problems, and implementing actions that achieve real environmental and public health improvements</td>
</tr>
<tr>
<td>Memorandum of Agreement (MOA)</td>
<td>an agreement among stakeholders to conduct cooperative work that identifies specific activities, respective roles and responsibilities, and timeframe, among other items</td>
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<td><strong>Guideline for LEAPs in the Caucasus</strong></td>
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<tr>
<td><strong>Monitoring and Evaluation Team (MET)</strong></td>
<td>a group of individuals responsible for designing the evaluation approach and evaluating project results. The MET is composed of individuals with specific expertise in project evaluation, agencies responsible for providing environmental data, and implementing institutions, such as industries, with specific environmental requirements</td>
</tr>
<tr>
<td><strong>National Environmental Protection Funds</strong></td>
<td>a major source of capital financing for environmental protection investments in many Central and Eastern European countries. These funds are one of the basic instruments for implementing national environmental policies and are either directly managed or supervised by the Ministries of Environment in their respective countries</td>
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<td><strong>Pollution prevention</strong></td>
<td>involves minimizing the generation and release of all waste materials into environmental media (air, water, and soil). Pollution prevention activities focus on improved operations and maintenance, product reformulation to eliminate the need for toxic materials, substitution of less toxic alternatives, process redesign or modernization, and recycling and reuse of wastes</td>
</tr>
<tr>
<td><strong>Priorities for action</strong></td>
<td>a ranking of environmental issues that incorporates a wide range of criteria, such as their relative seriousness to human and ecological health, legal requirements, public preferences, and the municipality’s legal ability to control. The Environmental Action Plan focuses on these priorities for action</td>
</tr>
<tr>
<td><strong>Project Financing Plan</strong></td>
<td>a plan that addresses all aspects of raising the necessary capital for constructing a large environmental facility or system, including technical aspects of the project, how much the project is expected to cost, and how the borrower expects to repay borrowed funds to the lender</td>
</tr>
<tr>
<td><strong>Public information meeting</strong></td>
<td>a meeting for the public designed to both educate community members on a particular issue and seek their opinions and suggestions</td>
</tr>
<tr>
<td><strong>Rapid Urban Environmental Assessment</strong></td>
<td>an environmental assessment tool that enables local experts to rapidly assess the state of the urban environment</td>
</tr>
<tr>
<td><strong>Revenue sources</strong></td>
<td>funds raised on an annual basis to pay for capital and operating costs of environmental facilities</td>
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<tr>
<td><strong>Risk</strong></td>
<td>the probability of adverse effects on something of value</td>
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<tr>
<th><strong>Glossary</strong></th>
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<tbody>
<tr>
<td><strong>Risk assessment</strong></td>
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<tr>
<td><strong>Sources</strong></td>
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<td><strong>Stakeholder Committee (SC)</strong></td>
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<td><strong>Statutory planning process</strong></td>
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<td><strong>Stressors</strong></td>
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<td><strong>Sustainable community</strong></td>
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<td><strong>Sustainable development</strong></td>
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<tr>
<td><strong>SWOT Analysis (strengths, weaknesses, opportunities, and threats)</strong></td>
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<tr>
<td><strong>Target</strong></td>
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<td><strong>Team building</strong></td>
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INTRODUCTION

Purpose of these Guidelines
This Guideline to Local Environmental Action Programmes (LEAPs) in the Caucasus has been prepared to assist municipal government officials, representatives from non-governmental organisations, and ordinary citizens to better manage environmental problems at the local level. It is presented here as a preliminary and introductory reference on basic planning methods and tools that have been used by some local governments and citizen groups in the Caucasus.

This Guideline is designed to provide a step-by-step “how-to” approach to developing and implementing LEAPs. While we recommend that you consider each of the steps described here, this Guideline is not intended as a “strict cookbook” that must be adhered precisely. Rather, citizens in your community will need to design a LEAP to meet local circumstances, needs, and priorities. You will need to define your own process. This means adapting materials from this Guideline, as well as other relevant guidance documents, to create a process that works for your community.

This Guideline describes the step-by-step approach towards development and implementation of LEAPs.

Chapter one of the Guideline gives the general description of Local Environmental Action Programme, its goals, objectives and experience in environmental planning, particularly in Armenia, Azerbaijan and Georgia.

Chapter two is dedicated to analyses of national environmental legislations in the three South Caucasus countries, roles and responsibilities of local authorities in environmental management.

Chapter three lists the potential LEAPs participants, i.e. the Stakeholders.

Chapter four describes in detail the LEAPs development stages, including initiation, identification of priority environmental issues and elaboration of environmental action plan.

Chapter five is about action plan implementation. The issues related to organisation and implementation of LEAPs monitoring and assessment are considered in Chapter six.

Chapter seven describes the main principles of public involvement.

Historical Perspective on LEAPs

Implementation of LEAPs in the countries of Eastern Europe, Caucasus and Central Asia (EECCA)

Over the last several years, a litany of environmental problems has surfaced in the Caucasus countries that pose severe ecological, public health, and economic impacts to the region. Under recent laws, local governments in the Caucasus countries have been given broad new responsibilities to address environmental problems. Local governments in the Caucasus often have the following environmental responsibilities:

• Managing solid waste,
• Controlling the disposal of dangerous substances on their territory,
• Providing clean and adequate supplies of drinking water,
• Managing wastewater,
• Protecting and maintaining green areas,
• Planning for and controlling land-uses,
• Educating the public about environmental issues, and,
• Controlling air pollution emissions from transport and local heating sources.

The shift to decentralization is an important aspect of the transition to democracy. The new emphasis on local control of environmental problems recognizes that local governments and their citizens have the best understanding of local problems, issues, and needs. By decentralizing decision-making authority, environmental actions can be tailored to meet the specific needs of a community or region.

Some examples of successful LEAPs include:

• Bulgaria: Troyan, a community of 40,000 people in north-central Bulgaria, identified insufficient supplies of drinking water as its highest priority. More than 70 percent of the water supply was being lost from leaks in the old underground pipe network. The municipality implemented a low-cost leak detection and repair programme that resulted in water savings of 10 percent. The City's efforts have been recognized by the UN Commission on Sustainable Development.

• Macedonia: In Labunista, Macedonia (pop. 2,000) the link between high incidences of dysentery among children and the open sewer system was the obvious priority issue. Funded through a small grant and contributions from citizens through a voluntary tax, citizens joined together to install a sewerage pipeline to eliminate the direct threat to human health.

• Poland: In the Municipality of Elk, Poland, a community of 50,000 people identified pollution of Lake Elk as the most serious issue facing the community—in terms of both its adverse environmental and economic impacts on the community. The community has improved water quality in the lake through a multi-faceted plan of sewage and storm water improvements, mechanical aeration in the lake, economic sanctions against polluters, improved enforcement, and broad-scale public education.

• Russia: The formerly closed city of Nizhni Tagil, Russia, with a population of more than 400,000, has worked on several different environmental issues. First, the community improved air quality and community health by finding low cost ways to significantly reduce particulate emissions from the mining industry. Then the community improved solid waste management by reducing open dumping, restructuring city user fees to support new collection efforts, improving air quality by reducing uncontrolled burning of waste, and upgrading groundwater monitoring at the landfill. Finally, citizen-led efforts resulted in a greenway for the city to conserve open space and increase tourism and business development resulting from the recreation potential of the greenway.

• Ukraine: until recently, the city of Balaklava, served as a centre for the former Soviet Union's naval fleet and repairs and was considered a "closed city." With the break-up of the Soviet Union and the relocation of the fleet, citizens tired their revival of tourism. In order to stimulate tourism, the community saw that it had to deal with the myriad of environmental problems facing the city, including contamination of the bay, poor state of the green areas, illegal waste dumps, and lack of wastewater treatment facilities. Balaklava citizens and local government have removed illegal waste dumps, initiated a plastic bottle recycling collection programme, refurbished parks, removed solid waste from the bay, installed new sewage collection system, and renovated pedestrian areas.

International Agreements Supporting LEAPs

LEAPs are supported by international agreements. In April 1993, the Ministers of Environment from Western and Eastern Europe and the United States agreed upon a broad strategy for tackling environmental problems in the region known as the Environmental Action Programme for Central and Eastern Europe. The Action Programme outlines a multi-step process for national governments to set environmental priorities and take appropriate actions to improve environmental health. It emphasizes the importance of identifying priority actions based upon environmental threats to human health and the health of local ecosystems, and the need to identify a range of strategies for responding to these threats. Further, the Action Programme emphasizes pollution prevention and resource conservation strategies that require modest expenditures while achieving substantial environmental improvements.

Further, in June 1998, delegates from 36 European countries signed a convention on public participation, known as the Aarhus Convention, that strongly encourages governments to actively involve citizens in environmental decision-making. The Convention, pending approval by each country's respective parliaments, binds the signatory countries to follow a set of principles and practices pertaining to the public's rights to environmental information, decision-making, and justice. The Convention lays out procedures for public participation in decisions related to specific development activities, plans, programmes and policies, executive regulations, and other legally binding regulatory instruments. This Convention is significant because it establishes a uniform set of standards for involving citizens in environmental decision-making and emphasizes the importance of fully integrating environmental considerations in governmental decisions. It recognizes that each person has the right to live in an environment adequate to his or her health and well-being. It recognizes that, in order for citizens to be able to assert this right and observe this duty, citizens must have access to information, be entitled to participate in decision-making, and have access to justice in environmental matters. The Convention states that improved access to information and public participation in decision-making means better environmental decisions and greater public awareness.

Citizens from communities all around the world are starting to embrace a new way of thinking and acting about their future. These citizens are interested in pursuing a new approach to community development that simultaneously seeks to protect the environment, alleviate poverty and disease, improve the quality of life, and secure a strong and vibrant local economy. In response, the concept of "sustainable development" has emerged as a multi-faceted approach that aims to strengthen local economies, while respecting the limits of the natural environment to function and sustain human activities over time.

According to the International Institute for Local Environmental Initiatives, Sustainable development can be defined as development that delivers basic environmental, social, and economic services to all residents of a community without threatening the viability of the natural, built, and social systems.

In 1992, sustainable development received a major boost when representatives from 140 countries joined...
together for the United Nations Conference on Environment Development and adopted “Agenda 21”— a sustainable development action plan for the 21st century. Among other features, Agenda 21 encourages local governments in each country to work closely with their citizens to develop a “Local Agenda 21 (LA21).” Under LA21, local governments are encouraged to:

- Learn from citizens and local, civic, community, business, and industrial organisations about their priorities, values, and proposed solutions;
- Acquire information needed for formulating the best implementation strategies, and to implement appropriate policies, laws, and regulations to move toward sustainable development in their communities; and,
- Develop local sustainable development action plans in cooperation with their citizens.

Thousands of communities worldwide are implementing LA21 – striving to become sustainable communities. Sustainable communities can be defined as those communities that value healthy ecosystems, use resources efficiently, and actively seek to retain and enhance a locally-based economy. They have a vision that is embraced and actively promoted by all of the key sectors of society, including businesses, disadvantaged groups, environmentalists, civic associations, government agencies, and religious organisations. Sustainable communities emphasize ecosystem protection, meaningful and broad-based citizen participation, and economic self-reliance. According to Concern, Inc.,

A sustainable community uses its resources to meet current needs while ensuring that adequate resources are available for future generations. It seeks improved public health and a better quality of life for all its residents by limiting waste, preventing pollution, maximizing conservation and promoting efficiency, and developing local resources to revitalize the local economy.

LEAPs provide an excellent starting point for developing a sustainable community. They help to ensure that your community has adequately examined and addressed major environmental issues that adversely affect both human health and the health of the ecosystem. LEAPs emphasize minimizing pollution and waste, efficiently using natural resources, promoting pollution prevention, and assuring sustainable resource use over the long-term. LEAPs stress the importance of meeting economic needs while respecting the limits of the natural environment to function and sustain human activities over time.

Both LEAPs and LA21s involve the participation of a broad spectrum of stakeholders to guide the planning processes, and both involve identifying key issues facing communities and developing plans of action to address these issues. However, as noted above, LA21s encompass all elements of sustainability, while LEAP is more narrowly focused on environmental issues. For communities that are just starting to think about becoming “sustainable,” the process of tackling all major issues may be somewhat daunting. Thus, LEAPs provide a manageable “entry point” for communities to start to address the broader issue of sustainability.

It is important to point out the concept of “sustainable communities” is still emerging and continually evolving. There is no one “right” path to sustainability, and communities worldwide are struggling to define “sustainability” and interpret what it means for their future development. These communities are constantly exploring innovative approaches that seek to meet human needs within the limits of the natural world.

2 CONCERN, Inc. Washington, DC.
1.1 Overview

Local Environmental Action Programme (LEAP) is one of the effective tools for environmental problem resolution at the local levels in the Caucasian countries. LEAP implicates solutions of the environmental problems, identification of the priority issues and the most acceptable ways for their resolution, as well as implementation of the activities effectively improving conditions of the environment and human health. LEAP is based on the deliberate public participation in local decision making process.

LEAP development is the process consolidating the people with different interests, values and outlooks. Often, LEAP process is managed by the Stakeholders’ Committee (SC) consisting of the representatives of all major local institutions, including enterprises, NGOs, scientific-research institutes, governmental agencies, state authorities, private sector. SC members jointly work during 12-24 months period and try to achieve the consensus on the recommended priorities and actions directed towards resolution of environmental problems of the local community. These recommended priorities and actions are then included into environmental action plans that represent the basis for the future environmental investments. Recommendations included into the action plans are reflected in the decisions of municipal councils and other executive bodies.

1.2 Goals and Objectives of LEAPs

LEAPs’ goals, among others are:

- To improve environmental conditions in the community by implementing concrete, cost-effective action strategies;
- To promote public awareness of and responsibility for environmental issues, and to increase public support for action strategies and investments;
- To strengthen the capacity of both local government and NGOs to manage and implement environmental programmes, including their ability to obtain financing from national and international institutions and sponsors;
- To promote partnerships between citizens, local government officials, NGO representatives, scientists, and business people, and to learn to work together in solving community problems;
- To identify, assess, and set environmental priorities for action based on community values and scientific data;
- To produce a local Environmental Action Plan (EAP) that identifies specific action strategies for solving problems and promoting the vision of the community.

1.3 Benefits of Conducting a LEAP

There are numerous benefits to conduct a LEAP. These include:

- Building consensus among diverse community interests: LEAPs help to build communication, partnerships, and common solutions among diverse sectors of the community. Led by a multi-stakeholder group, representative of a broad cross-section of the community, LEAPs emphasize team building and consensus decision-making.
- Fostering broad public support for environmental actions: By engaging citizens from the beginning, communities have ownership of difficult decisions and support actions to solve problems. Through openness and transparency, LEAPs lead to action plans that identify the most appropriate solutions for addressing the top environmental problems and build strong public trust for future actions.
- Targeting limited resources where they will do the most good: Every community is facing increasing problems with fewer resources. By assessing and ranking environmental problems based on the human and ecological risks they pose, as well as public viewpoints and the municipality’s ability to control or influence a particular problem, LEAPs generate practical, cost-effective actions that communities can handle.
- Applying national policy at the local level: LEAPs provide a framework for helping communities to incorporate national policies using practical approaches at the local level.
- Encouraging sustainable development: LEAPs help communities to examine and address major environmental issues that adversely affect both human health and the health of the ecosystem. They emphasize minimizing pollution and waste, efficiently using natural resources, promoting pollution prevention, and ensuring sustainable resource use over the long term.
- Strengthening communities’ ability to solve other problems together: Beyond the environmental and human health benefits that LEAPs bring to a community, the approach to citizen engagement and problem-solving becomes a strong thread in the fabric of the community. The approach can be equally relevant to addressing social and economic challenges.

1.4 Stages of LEAP Development and Implementation

A Local Environmental Action Programme involves several different phases, including:

Phase 1. Get Started
Phase 2. Assess Environmental Issues and Set Priorities
Phase 3. Develop an Environmental Action Plan
Phase 4. Implement Actions Strategies
Phase 5. Monitor and Evaluate Results

The planning phases of LEAPs (Phases 1-3) can vary in duration from 5-30 months, while the implementation and monitoring/evaluation phases are ongoing. Stakeholder committees (SC) in some communities have found that longer planning timelines can result in more comprehensive environmental action plans. On the other hand, citizen-based volunteer efforts may be difficult to sustain over a long period of time. In addition, your community may feel some urgency to move ahead with implementation efforts. Your SC will need to select a planning horizon that balances its desire to prepare a detailed environmental action plan with energy and time availability of your members.

Phase 1. Getting Started (3-6 months)

Starting a LEAP involves gaining the support of the local government and forming a stakeholder committee. First, LEAPs require a close working relationship between citizens and local officials. Local officials hold the key to implementing environmental programmes — from financing capital investments to adopting local ordinances. Overwhelmed with a wide range of environmental problems, local governments have taken the lead, while in others, non-governmental organizations (NGOs) have initiated various environmental improvements toward the most critical problems.

Phase 2. Assessing Environmental Issues and Setting Priorities (6-12 months)

Environmental issue assessments generally fall into two broad categories: participatory and expert assessments. Participatory assessments rely primarily on lay people to collect data and information on environmental problems in the community, while “expert” assessments are more formalized methodologies that scientifically and statistically evaluate and document environmental conditions in the community. Oftentimes, these two approaches are blended to develop issue assessments that are based upon both scientific data and broad public input.

Many communities use information gathered during the assessment stage as the foundation for setting environmental priorities. Priority setting helps to target environmental improvements toward the most critical problems and can help to ensure that your community achieves the greatest public health and environmental benefits for your community. A successful priority setting process will require the support and cooperation of representatives from government, businesses, and non-governmental organizations.

Phase 3. Developing an Environmental Action Plan (6-12 months)

The Environmental Action Plan (EAP) is the cornerstone of a LEAP. The EAP focuses on the most serious environmental problems identified during the priority setting phase. The preparation of the EAP begins with establishing environmental goals, targets and indicators. Environmental goals provide an opportunity to build consensus among the SC on what it hopes to accomplish over a set period of time, e.g., three-five years. Targets are measurable commitments to be realized within a specified time frame and are used in evaluating and measuring progress in implementing the Action Plan, while indicators measure whether environmental goals and targets have been achieved.

The next step in developing the EAP involves reviewing existing environmental practices. This process can include examining your community’s capabilities to address environmental problems, as well as external factors that may either assist or hinder your community. The SC then identifies a set of action strategies to help to achieve the goals and targets. These action strategies include educational activities, economic incentives, technological measures,
1.6 LEAP Experiences in the South Caucasus

The Regional Environmental Centre for the Caucasus (REC Caucasus) with the financial support of the US EPA and the Netherlands Ministry of Housing, Spatial Planning and the Environment (VROM) in the beginning of 2003 initiated process for applying LEAPs methodology to the South Caucasus countries. Since then the pilot projects Local Environmental Action Plans (LEAPs) were developed and implemented in the three selected cities of the South Caucasus – Ararat, Ganja and Kutaisi. The LEAPs documents have been developed in close cooperation with the local authorities and citizens. Stakeholders committee created for each city was working on the document during one and a half year. Action Plan was based on the status report developed by the local experts.

Final documents were issued on Russian and national languages and presented on the final conferences, where the memorandum of understanding between mayor and REC Caucasus was signed. According to the memorandum local government of cities took responsibility to integrate LEAPs in city plan and implement priority actions identified in LEAP.

An important component of the LEAPs process is provision of financial support to implement some of the LEAPs environmental solutions. For this purpose REC Caucasus initiated a small grants programme and provided funding for 15 projects ranging from environmental awareness and education initiatives to low-cost, pollution reduction and environmental improvements in each of the LEAP cities. This included small grants for local governments to encourage partnerships with businesses and/or NGOs, as well as small grants for NGOs. Projects addressed improving drinking water supplies and irrigation systems, improving waste management, planting of greenery and raising environmental awareness.

Training package for LEAPs development and implementation in the South Caucasus has been developed in Russian and national languages. National training for local authorities in Armenia, Azerbaijan and Georgia were organised to disseminate widely information about LEAPs. The representatives from different cities (14 cities in each country) received training in LEAPs methodology and learned about “best practice” of Local planning existing in the South Caucasus.

The pilot LEAPs projects have demonstrated that the South Caucasus cities are clearly ready to implement participatory approaches to community problem-solving. There is an urgent need to develop these activities further and to replicate its successes, in order to address the weaknesses in local decision making. Best practice as elaborated in the three first pilot towns is disseminating to new municipalities-in order to replicate experience on a broader scale throughout the South Caucasus countries.
Legal Bases for LEAPs
In the Caucasus, each country has adopted legislation to define a programme for addressing these problems. Local Environmental Action Programmes (LEAPs) provide an excellent starting point for developing a sustainable future. LEAPs must be in line with the national legislation, taking in consideration local peculiarities.

2.1. Agenda 21

In Armenia NEAP-2 was prepared by the Ministry of Environmental Protection in Armenian and English and approved by the Government’s protocol decision N33 dated 14th of August, 2008

2.3 Local Environmental Action Programmes - LEAPs

Local Environmental Action Programmes (LEAPs) are programmes from the legal point of view, are the initiative of the local authorities and their right granted by the legislation, to take environmental decisions within their competence and fulfill them at the local level. LEAPs incorporate meaningful public input in local government decision-making. They provide a forum for bringing together diverse individuals with different interests, values, and perspectives to guide the community through the planning process. Representatives from local and regional governments, businesses, NGOs, and academic others, work together over a 12- to 24-month period—in partnership with the local government—to forge a consensus on recommended priorities and actions for addressing environmental concerns in the community. These recommendations result from the planning process that serves as a blueprint for future environmental investments. Recommendations from the plan are then incorporated into the decisions of the municipal council and other implementing bodies.

LEAPs are in line with the national legislation, taking in consideration local peculiarities. Environmental Issues from Constitution

2.1 Development, Implementation, Responsibilities

Environmental Issues from Constitution

All three South Caucasus’ states constitute those so-called “green” articles that guarantee the right of citizens to live in a healthy environment and to have equal use of the natural surroundings. Citizens have the power not only to protect their rights, but also to demand respect and have their rights observed by others. Everyone is obliged to protect the natural and cultural surroundings. Overall, responsibility for environmental policy issues stays with the state structures. The state provides the essential means to enable the exercise of mentioned rights, while delegating some rights for environmental protection to local authorities.

The Georgian Constitution obliges the state to guarantee the protection of nature and the rational use of it in order to ensure a healthy environment, corresponding to the ecological and economic interests of society, and taking into account the interests of current and future generations. This corresponds with the sustainable development concept. The Constitution of the Republic of Armenia obliges state authorities to ensure the reproduction and efficiency of natural resources through the environmental protection activities. The Armenian Constitution provides the right for compensation for damage done to health of the citizen and property because of violation of ecological regulations.

In Armenia NEAP-2 was prepared by the Ministry of Environmental Protection in Armenian and English and approved by the Government’s decision N801 dated 14th of December, 1998.

• In Armenia NEAP-2 was prepared by the Ministry of Environmental Protection in Armenian and English and approved by the Government’s protocol decision N33 dated 14th of August, 2008

Local Sustainable Development Action Plans

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Local Sustainable Development Action Plans - NEAPs

National Environmental Action Plans (NEAPs) have been prepared for numerous countries in Central and Eastern Europe, Caucasus and Central Asia. NEAPs identify the most severe national environmental problems and provide a forum for bringing together diverse individuals with different interests, values, and perspectives to guide the community through the planning process. Representatives from local and regional governments, businesses, NGOs, and academic others, work together over a 12- to 24-month period—in partnership with the local government—to forge a consensus on recommended priorities and actions for addressing environmental concerns in the community. These recommendations result from the planning process that serves as a blueprint for future environmental investments. Recommendations from the plan are then incorporated into the decisions of the municipal council and other implementing bodies.

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All three Constitutions provide individuals with the freedom to have access to and obtain information about environmental quality. Everyone has the right to gain information about the true ecological situation and to possess environmental information. The right to possess environmental information is useful for execution of the right to participate in environmental decision-making processes. LEAPs can be considered as the result of execution of this right. At the same time, it can also be regarded as its main tool.

Local self-governance

The constitutions of the three South Caucasus states recognize the right of the people to exercise their power through local self-governing bodies. Constitutions of Armenia, Azerbaijan and Georgia contain special articles on local self-government. There are sets of laws that are specified not only on the general issues of the self-government, but also on the elections, supervision by the state, budgeting and economical activities of the self-governmental bodies.

All three states are parties of the European Charter of Local Self-government. Under the Article 3 of the European Charter, local self-government is the right and the ability of local authorities, within the limits of the law, to regulate and manage a substantial share of public affairs under their own responsibility and in the interest of the local population. Each of the three South Caucasus countries has adopted laws on local self-government, including:

• Georgia: New law on local self-government was adopted in Georgia on 16th of December 2006 (Law Number 2304 - RS);
• Azerbaijan: The Law No 698-IG on “Status of municipalities” has been in force in Azerbaijan since 2nd of July, 1999;
• Armenia: The Law of Republic of Armenia on Local self-governing bodies, law is admitted by RA National Assembly, on 07.05.2002 and the number is HO-337.

Above mentioned laws of all three states define the structures, authorities and competencies of local self-governmental bodies. These bodies are admitted as independent legal entities, with all requisites inherent to the legal entities.

Local self-government bodies are divided into representative and executive bodies. Executive body of the local self-government takes the decisions of the representative body, while legislatures grant local authorities with the exclusive delegated and voluntary authorities for execution of their activities. Exclusive authorities include not only obligatory activities, but also those ones that are performed within the delegated and voluntary (if there is enough resources for this) authorities.

Final decisions taken by the self-government bodies can not be directed to the violation of the rights and authorities of the physical persons and legal entities. At the same time, the same physical persons and legal entities, regardless of their organisational-legal formation, shall observe the decisions of the self-governmental bodies, taken within its competence. Only the bodies that have issued them or the decision taken by the court can cancel decisions of the self-governmental bodies. Not observing or violation of this decision involves appropriate responsibilities in accordance to the legislation.

Legislative and administrative supervision of the activities of local self-governmental authorities is also regulated by the national legislators and judicial requirements of the European Charter of Local Self-government.

2.4 Self-government in Environmental Legislation

Three countries of the South Caucasus have a lot in common. There are numerous environmental laws adopted by our states. The list of new laws continues to grow, while the old laws are renewed and improved.

Environmental laws consider provisions on the role of local self-government. Strategic environmental planning and environmental action plans are developed on regional, local and departmental levels.

Laws on protection of ambient air define the right of the executive bodies of the local authorities and self-governance to develop plans of measures for protection of ambient air at the local level.

According to national legislation on the issues related to water use, among other functions of local authorities and self-governance in the field related to the water, local authorities have the legal rights to execute state policies on water use at the local level, in line with participation in development of complex schemes and balances in sphere of use and protection of water. Measures for utilizations and protection of water bodies having state importance are financed from the state budget on basis of the respective programmes and in accordance with the procedures set out in respective laws. Damages caused to the water objects as a result of the natural hazards are
GUIDELINES FOR LEAPs IN THE CAUCASUS

22

Chapter 3

LEAP Participants

repaired from the local budget sources. Measures for avoiding negative impact of waters and implementation of activities for liquidation its consequences shall be implemented on the account of water users (if the damage was caused by them), local budgets and state budget in accordance with the legislation.

According to the laws on flora and fauna, development of the state programmes and their implementation is in the framework of competence of the territorial services of state authorities. Competences of bodies of local self-governance in sphere of protection, conservation, reproduction and utilisation of fauna are set out in laws on local self-governance.

Forest Codes also consider development of local programmes for protection, conservation and reproduction of forests and promotion of their implementation in cooperation with authorized state bodies, as one of the functions of local authorities and self-governance in sphere of management of state forest fund.

2.5 Budgeting, Finances, Funds

Development and implementation of LEAPs by the local authorities ensures the spending of local funds on the needs of the given community, through the participation of the stakeholders at the local level who are interested in the prosperity of their own region. Local budgets are the constituent part of the state budgeting systems. General laws concerning the budget system regulate the main state principles of budgeting, including the issues of the budget on the local level. At the same time, main laws concerning self-governance have special provisions on the property sources and the budgets of local self-governance bodies. Local authorities decide independently on the disposal of the local budgets. Revenues of Self-Government Unit Budget mainly consist from the local taxes, fees and other non-tax revenues envisaged by the legislation, including capital revenues, equalization transfers, loans, and grants. Other revenues can also be allowed under legislation. If there is no possibility to finance local programmes of social and economic development from the local budgets, donations and subventions can be allocated from the state budgets. National legislations envisage support of the local budgets through their financing from other budgets by providing them with the conditional transfers; conditional subventions and subsidies. Delegated authorities must be always financed from the state budgets. Municipalities, in the limits set by the legislations, define local taxes and duties.

There are some special requirements for the local budgets. According to the new Georgian law on Local Self Governance, self-governing units can take loans or grants only from the Government of Georgia or with its authorisation in compliance with the Georgian legislation. While in Armenia loan contracts can be concluded by municipalities on the ground of the Ministry of Finance's conclusion after the solicitation of the governor. It is worth to mention the Law of Republic of Armenia on Targeted Use of Environmental Fees Paid by Companies. According to it, environmental payments, paid by the companies listed in the law (JSC Armenian Caper Program, Zangezur Copper-molybdenum Complex, Agarak Copper-molybdenum Complex, Dino Gold Mining Company, Akhtala Ore Mining and Processing Enterprise, Ararat-Cement, Mika-Cement, Razdan-HPP, Yerevan-HPP, Gadjeorg, Gadj, LLC Armenian Molybdenum Production, OJSC Makur Erkat, Aske-Group and Charentsavan “Centrolit”), are assigned environmental fees to the budgets of the communities negatively affected by their activities.

The list of the communities and amounts to be assigned into their budgets from the environmental fees is approved by the Law on State Budget for the current year. Assignments from environmental fees to the community budgets are considered as the targeted funds and shall be used exclusively for environmental programmes of the particular community. These programmes consider the measures for protection of entrails, conservation and rehabilitation of forestry and water resources, flora and fauna and atmospheric air of the community.

Draft of the local budget in Azerbaijan is forming on the ground of the assessment of the activities of municipal agencies and other legal entities, physical persons that execute economic activities, social-economic prognosis and earmarked programmes existing on the territory of the municipality. In order and conditions defined by the Azerbaijan legislation municipalities are allowed to create earmarked non-budget funds.

In Georgia, there is special Municipality Foundation that is aimed on the support of the institutional and financial development of the local self-governing bodies and attraction of investments to the local infrastructures and services.

Conclusion

Legislation of the South Caucasus countries develops and needs farther feedback from the civil society and local communities. Local Environmental Action Plan is the tool for them to participate in this process. At the same time, the aim is to get the sufficient legal procedures for the LEAPs preparation and implementation itself. All these lead to, so called, “Environmental Democracy” – the process that started in Rio and is essential for the Sustainable Development.

1 Conditional transfers – Conditional transfer is financial provision for ensuring the performance of delegated functions by the self-governing unit. Conditional transfer shall only be used to perform the authorities delegated by the state. Special transfers to the budget of self-governing unit shall be used to fund the expenditures for the liquidation of the results of ecological and other kinds of disasters, specific capital and other necessary expenditures.
LEAPs rely on collaboration among all different stakeholders in a community. Successful LEAPs ensure that those individuals who are affected by environmental issues are actively involved in the decision-making process. This requires reaching out to the various interests within your community, and bringing them into the LEAP planning process. Collaboration is the key to an effective LEAP. Collaboration requires strong leaders, the support of the Municipality, and a credible and open process. It involves hard work, patience, and commitment. This collaboration process is usually facilitated through the formation of a Stakeholder Committee (SC) that guides the LEAP and involves the general public. An effective SC can play a significant role in charting a plan of action for future environmental investments that have broad-based support throughout the community. And while this collaboration process may not always be easy, the rewards of an involved and supportive citizenry are well worth the effort!

3.1 Initiative Group

LEAPs begin with a core group of committed individuals who are interested in bringing the community together to address environmental issues. In some communities, local governments have taken the lead in initiating LEAPs, while in others, non-governmental organisations (NGOs) have initiated the idea and encouraged their local governments to participate. Sometimes, several NGOs have joined together to initiate a LEAP. Still, in other communities, LEAPs have begun with a few interested individuals discussing the idea, developing a common purpose, and inviting others to participate. There is not one “right” way to initiate a LEAP.

Whoever initiates a LEAP, local government support and leadership is absolutely critical to success. Local governments have direct responsibilities for implementing most of the action strategies that evolve from the LEAP planning process, including adopting local ordinances, approving capital budgets and borrowing funds, and overseeing or managing such municipal public service companies as electric, district heating, and solid waste. The active participation and support of both the Mayor’s office and Municipal Council throughout the LEAP process is absolutely essential.

Most communities form an “Initiative Group” to get the LEAP process started. The Initiative Group’s primary responsibility is to bring key individuals in the community together to help organise the Stakeholder Committee. These individuals include representatives from the Mayor’s office and the Municipal Council, environmental non-governmental organisations, regional government institutions, media, large industries and businesses, academic institutions, and environmentally concerned individuals. It is important that representatives from each of these major institutions be included to help ensure that the SC is representative of the diversity of it represents.

3.2 Project Stakeholders Committee

The Project Stakeholder Committee (SC) guides the community through each step of the LEAP. It is responsible for soliciting the views of community residents on environmental priorities and solutions, educating them on the problems facing the community, and actively involving the public in helping to improve the local environment. It is important that the SC have adequate representation among various constituencies within the community. This diversity of views will help to provide the SC with both legitimacy and credibility in the eyes of the public.

In most communities, the SC serves in an advisory capacity and makes recommendations to the local government. Local governments have primary responsibility for managing a broad range of environmental problems—from drinking water to land-use issues to transportation planning. As the democratically elected body, the Municipal Council has the authority to make decisions on behalf of the community. Thus, the SC makes recommendations and passes these on to the Municipal Council. These recommendations will ideally form a roadmap for future environmental investments by the Council. Thus, it is essential that the SC have the clear support of the local government to help to ensure that its recommendations are fully considered by the Municipality in its planning and investment activities.

It is important to note that the SC is not a legal entity—at least initially (though it may decide to incorporate as a non-governmental organisation at some future point). Rather, the SC draws its effectiveness and influence from the diversity of it represents.

Potential Stakeholder Committee Members

Who are the key people to get involved in a LEAP? Who are the people, organisations, businesses, and public agencies that might have a direct interest in environmental protection? Who are the principal stakeholders or people/groups with a vested interest in your work? What individuals and institutions will be expected to make specific environmental investments?

For establishment of SC the initiative group may compile the list of stakeholders to be represented in SC and invite them for participation. Selection shall be open and fair to build confidence towards this process. The methods for involvement people in SC may be different, including round tables, consultations, working meetings, etc. When carrying out meetings it shall be kept in mind that participation of people in SC is of vital importance. It shall be emphasized that SC will be developing an Action Plan on the basis of which grants will be allocated. Prior to establishment of SC an optimal number of SC members shall be determined. The presence of mayors at certain SC meetings is also important to ensure full support of municipalities in implementation of LEAPs.

Some potential LEAP stakeholders are identified below, including representatives of:

- Local governments are the most critical stakeholders in a LEAP. Local governments have direct responsibilities for implementing most of the action strategies that evolve from the LEAP planning process. If possible, it is valuable to include representatives from both the staff of the Municipality as well as the Municipal Council.
- Environmental and civic organisations that are concerned with the environment, such as: environmental non-governmental organisations, hiking and bicycling groups; boating organisations; fishing or hunting clubs; public health organisations; housing estate associations; church organisations; and student groups at local schools and universities.
- Businesses and industries that are major environmental polluters.
- Businesses and industries whose livelihoods depend on local natural resources, such as paper companies, fishing and hunting tour guides, resorts and local hotels, commercial fishing or other industries dependent on renewable resources, and businesses that require clean water for manufacturing.
- Public or private utility companies, that manage drinking water, solid waste, and wastewater systems that are knowledgeable about environmental issues and the conditions of existing facilities.
- Environmental professionals, including ecologists and other natural scientists, physicians, landscape architects, and land-use and natural resource planners.
- Regional government institutions, including regional environmental inspectors, regional health inspectors, and regional tourism offices.
- Local colleges, universities, and public schools especially departments in environmental studies, biology, ecology, geology, and other natural sciences as well as economics, urban planning, public policy, and other social sciences.

1 Adapted from Community-Based Environmental Protection: A Resource Book for Protecting Ecosystems and Communities, July 1997. Office of Sustainable Ecosystems and Communities, Office of Policy, Planning and Evaluation, USEPA, Washington, DC.
Private landowners whose properties may be directly affected by environmental problems, such as individuals living adjacent to a landfill.

Religious and ethnic groups.

Labor unions and other workers’ organisations.

Community residents who represent specific interests or the “general public.”

Media: representatives of local newspapers, radio, and television.

Stakeholders may exist outside the immediate geographic area. For example, a river restoration effort in your community may affect many communities downstream. Conversely, the economic activities of people and businesses outside of your community (e.g., air pollution) may cause your community environmental problems.

Engaging stakeholders early in the process is key to success – as this helps to ensure that these individuals feel ownership of the decision-making process. People are much more likely to work together successfully if they are involved at the onset of a decision-making process rather than after decisions have been made!

It is very important to duly elucidate the information on SC formation, to ensure possibility of participation in SC for each and every community member. It is necessary to send the personal invitations for the Start Up Conference.

People showing desire to participate in the LEAPs process will gather at the Start Up Conference and will create the SC. Following the Start Up Conference, the first SC Workshop shall be called. It can be dedicated to assessment of community capabilities, elaboration of action plan, etc.

3.3. Working Committees

Many LEAPs involve the formation of specific Working Committees – especially in larger communities where the workload may be significant. While the SC supervises the planning process and ensures that all viewpoints are heard, the Working Committees help to implement distinct elements of the planning process. Each Working Committee is composed of a small group of stakeholder representatives, usually appointed by the SC, who have a particular interest or expertise in a specific issue or problem. In order to ensure that all planning efforts are fully integrated, it is important that the Working Committees report and make recommendations to the SC.

Working Committees are often composed of individuals with specific expertise from outside of the Stakeholder Committee, although representatives from the Stakeholder Committee can also serve on the working committees if their skills or experience are appropriate. For some tasks, such as risk assessment, a SC may hire paid experts and these experts participate on one of the Working Committees. Working Committees can be involved in conducting research, preparing technical analyses, and implementing public outreach activities. They contribute information and conclusions, as well as action recommendations, to the SC for review and discussion. Based upon these recommendations, the SC negotiates and approves a final Action Plan and submits this to the Municipal Council for approval.

3.4 Local Coordinator

Many communities have found that a project coordinator can play a critical role in completing the numerous logistical tasks associated with a LEAP. Where financially feasible, the coordinator should be paid to help ensure that they devote sufficient time and energy to their job. As an alternative, the Municipality can appoint a staff person, such as the municipal environmental expert, to serve as a part-time coordinator. (Or the municipal staff person can work in conjunction with a paid coordinator.) A paid coordinator can be especially important because the SC is composed of volunteers who often have other full-time commitments, and thus are limited in the amount of time they can devote to the project.

The coordinator’s responsibilities can include:

- organisation of SC meetings (including taking minutes at meetings and mailing meeting agendas);
- arrangements for meetings with government agencies and other information sources;
- facilitation of data collection and other necessary research;
- performance of logistical tasks associated with public education and involvement activities; and,
- assistance in preparation of drafts of the problem descriptions, environmental action plan, and other key documents.

<table>
<thead>
<tr>
<th>Activity fields</th>
<th>Number of Representatives</th>
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<tbody>
<tr>
<td>City self-governance</td>
<td>2</td>
</tr>
<tr>
<td>State authorities and machinery</td>
<td>6</td>
</tr>
<tr>
<td>Educational system</td>
<td>5</td>
</tr>
<tr>
<td>Public organisations</td>
<td>4</td>
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<tr>
<td>Environmental organisations</td>
<td>3</td>
</tr>
<tr>
<td>Business sector</td>
<td>9</td>
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<tr>
<td>Citizens</td>
<td>3</td>
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<td>Mass media</td>
<td>1</td>
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<td>Health sector</td>
<td>3</td>
</tr>
</tbody>
</table>

When selecting a coordinator, the SC will want to use an open and transparent process to help ensure that the most qualified individual is hired and that the process is bias-free. An open process will send a message to the community that the selection process is fair and that the best person has been hired for the job. Considering the following information in the job description:

- background about the project
- coordinator's responsibilities
- qualifications (educational and experience)
- time commitment and salary
- application requirements (i.e., submit resume, cover letter, etc.)
- deadline for submitting applications

In preparing the job description, consider the following qualifications: experience in environmental field and understanding of environmental issues; familiarity with the community and local environmental problems; ability to work well with people; strong organizational abilities; and skills in writing, facilitation, and financial management. The same qualifications can also serve as the criteria to select your coordinator.

After adequately publicizing the availability of the position, the SC may want to establish a hiring committee to review the applications, interview the most qualified candidates, and recommend a candidate(s) to the full SC. The SC can then either approve the top candidate or decide to interview the top two or three candidates.

3.5 Project Coordination Unit

Some communities establish a Project Coordination Unit that helps to ensure that Stakeholder Group’s work is implemented efficiently and effectively and reports directly to the Stakeholder Committee. The Project Coordination Unit can be composed of one or more members of the Stakeholder Committee, a representative of the local authority, the local coordinator, and a paid consultant to help to guide the process, among other individuals. The Project Coordination Unit can include services:

- Writing progress reports and presenting them to the SC;
- Overseeing project’s budget and finances and sub-contracting with experts;
- Overseeing the LEAP information and outreach promotion efforts (e.g. Internet page, local bulletin, press releases, public meetings, and organising public events);
- Serving as media spokesperson; and,
- Preparing agendas of SC meetings.

3.6 Role of Consultants

Some communities hire consultants to undertake certain aspects of developing the local environmental action plan. Your community may want to hire a consultant in situations where there is a lack of expertise among SC members or to serve as an overall guide for the community on the LEAP process. Consultants may be valuable in undertaking the following aspects of the LEAP, among others: Analyzing environmental issues, facilitating the environmental priority setting process, conducting economic analysis of preferred environmental management actions; and evaluating project results.

In selecting a consultant, the SC should consider issuing a request-for-proposals that helps to ensure that you select a consultant that is most advantageous to your needs and offers the most responsive and responsible services for the quoted price. Be sure to check any relevant national laws or regulations pertaining to proper procedures for public sector purchases of supplies, equipment, and services.

3.7 Decision-Making

Communities in the Caucasus are faced with many different challenges. Whether it is providing clean drinking water, ensuring a strong local economy, or providing a range of social services, local government officials are being asked to address an increasingly complex set of issues. In addition, they are finding it more and more difficult to develop solutions that are satisfactory to all community members. Local officials are besieged with unresolved conflicts and plenty of headaches.

In recent years, local officials from communities worldwide have started to take a different approach to making decisions – they are inviting citizens to help them to address local concerns and issues. Local officials are finding that it is in their self-interest to engage citizens in addressing environmental problems and sustainable development issues. Municipal council members and other elected officials are often faced with immediate problems – and don’t have the luxury of undertaking long-term planning and addressing issues that require long-term solutions. They are finding that community members bring a wealth of energy and expertise to help to solve community problems.

Citizens can play an important role in providing information, monitoring compliance with governmental laws and regulations, and formulating innovative solutions. Further, local government officials are realizing that when citizens are involved in helping to make decisions – and thus have some ownership of the solutions – that they will be much more likely to support specific investment decisions by the local government.

Citizen involvement and collaboration are the cornerstones of a LEAP. Collaboration means getting people involved in creating their own solutions – rather than responding to and modifying someone else’s. LEAPs provide a collaborative process for ensuring that the views of those individuals who are directly affected by environmental issues are reflected in local decisions. LEAPs are designed to hear and respond to the needs of all participants.

Collaboration requires exploring mutual interests rather than taking positions. Once you take a position – you are usually prepared to defend that position. Taking positions immediately puts you in a defensive mode. Exploring mutual interests requires looking for common ground that can bring you and those with different views together. Usually the collaboration process involves working with individuals and groups that might normally be considered adversaries. For example, LEAPs bring environmental advocates and polluters together to work on mutually acceptable strategies for improving the environment. Working side-by-side, these individuals are provided with the opportunity to learn each other’s perspectives and chart a common future for the community. Thus, collaboration requires a very conscious effort to reach out to non-governmental groups, government agencies, business associations, and individuals who can provide a valuable contribution to your efforts.
Get Started
4.1 Establish Initiative Group

Usually, LEAP development process starts with creating Initiative Group, which is responsible for:

- Attracting the funds for financing the project initiation;
- Commencing preliminary activities on rising awareness of the population;
- Identifying the potential stakeholders;
- Promoting establishment of SC.

One of the first steps in the Initiative Group can take is develop draft LEAP scope and goals to tailor the LEAP to your community’s unique needs and provide a starting point for the Stakeholder Committee. The Initiative Group can help to define the scope of the LEAP by considering some of the following questions:

- Are environmental problems in the community clearly understood or is an environmental assessment needed?
- Are there already clear environmental priorities in the community that have broad public support or do you need to set priorities? How extensive and elaborate should the environmental priority-setting process be?

4.2 Secure Sponsors and Funds

Another primary responsibility of the Initiative Group is to raise enough funds to cover start-up costs, and if possible, some of the operational funds. LEAPs costs can be divided into two major categories: start-up costs and operational implementation costs. Start-up costs include those expenses for initially publicizing the LEAP concept in the community and helping to create the SC, including preparing publicity materials, conducting mailings, and organising a Community Forum or public meeting. There are also operational costs associated with the LEAP itself, including maintaining an office (telephone/fax, copying, mailings, and office supplies), conducting studies and research, and paying a coordinator. A paid project coordinator can play a critical role in managing the logistical matters associated with a LEAP.

4.3 Conduct Community-Wide Informational Campaign

Raising public awareness is a good first step toward getting the LEAP off the ground and forming the SC. The primary purpose of these public awareness efforts is to

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**Kutaisi faces the chance of becoming the first city in Georgia to develop LEAP**

For the first time in the South Caucasus countries the Regional Environmental Centre for the Caucasus launches the LEAPs Programme, which represents the long-term environmental planning and respective implementation process.

The main goal of the Programme is to promote public participation in environmental decision-making, reveal and analyse existing environmental issues, set the priorities and identify the ways for implementing the respective measures, mobilise the necessary resources involving the various financing sources.

For implementation of the Programme one city in Georgia (as well as in Armenia and Azerbaijan) proving to have the sufficient capacities will be selected.

Particularly the mentioned capacities shall include:

- readiness of local authorities to support the Project;
- proven achievements in the environmental field and level of NGO development;
- positive examples on cooperation between NGO and state sectors;
- existence of the qualified specialists;
- interest of media in environmental issues.

The Initiative Group aiming towards revealing the potential of Kutaisi for successful participation in pilot city contest has been created.

Initiative Group invites everybody, who is interested in the above mentioned Project to participate in its work.

**Protection of environment in Kutaisi is our common concern!**

Contact Details
City Sakrebulo – 43579
Mayor’s Office – 4 88 43
Regional Service for Protection of Environment – 42453
NGO Spectrum - 48057
NGO ASA - (993) 254718
NGO Habitat - 73439
Below are several useful hints for raising funds:

- **Seek a diversity of funds:** Seek funds from a variety of sources, including local and regional governments, industries, local businesses, and non-government organisations. This diversity will help to establish the fact that the LEAP is truly a community-wide effort. It will also help to avoid over-reliance on one funding source and potential problems associated with a particular funding source seeking to "control" the process.

- **Seek in-kind contributions or donations:** Not all expenses require cash expenditures. For example, your local government or a non-governmental organisation can provide office space and access to computers, phones, and other office equipment. Printing companies and copy centres can be asked to print posters and brochures free-of-charge or at reduced fees.

- **Pursue grants:** Grants provide one viable source of funds for LEAPs. For example, your Municipality might have money available in a local environmental fund. Private foundations or National Environmental Funds are other possible sources of grants.

To raise public awareness about your LEAP, the Initiative Group might consider the following options:

- **Hold a Community Forum:** This forum provides an opportunity for bringing together concerned residents to learn about a LEAP, to begin to identify environmental issues, and an opportunity to identify individuals who might be interested in serving on the SC. Successful public outreach efforts require two-way communication. It means both educating the citizens and seeking their ideas, concerns, and opinions. Understanding the process of "educating and opinion seeking" can help to ensure that the priorities and solutions developed by your SC reflect those of the broader community.

- **Work with the Media:** Local television, newspaper, and radio coverage of project events and results is absolutely critical. You might consider the following approaches to working with the media: 1) meeting with newspaper editors or reporters to inform them about the project; 2) conducting a newsworthy event, e.g., hold a press conference at a polluted site; and, 3) providing the media with regular news releases and information updates.

- **Survey community residents:** Consider surveying town residents either through the mail, phone, or directly in public places or at meetings. Be sure to solicit their views on the need for a LEAP, what environmental issues they believe are most serious, and who they think should be on a SC. You might consider offering incentives to survey respondents, such as a lottery drawing for products or services donated by local businesses.

- **Prepare publicity materials:** Consider publishing a brochure describing what a LEAP is, what the purpose and goals are, how long it will take, and what the benefits to the community will be of undertaking one. Be sure to distribute the brochure widely throughout the community. You might also consider preparing a poster publicizing the LEAP or specific events, such as the Community Forum, leading up to the formation of the SC.

- **Hold a community celebration:** People like to enjoy themselves. Raising environmental awareness and having fun can be mutually complementary. Consider sponsoring events such as fairs, outdoor activities, dances, and community actions or holding contests for school children, such as a recycled art competition or sponsoring a contest for all residents to develop a logo for your project. You might combine a celebration with an activity that gets citizens involved in improving the local environment, such as collecting trash along a stream bank, planting trees on the Earth Day, or even painting a mural on a prominent building.

Some of your public awareness efforts can be specifically targeted toward potential stakeholders. For example, you might consider attending a meeting of the local business association to explain the LEAP goals and solicit their participation on the SC. You may want to survey residents surrounding a polluted site to find out their views on the severity of environmental problems in the community.

4.3.1 Organising Local Environmental Events

Local environmental events directly involve community residents in making their community a better place to live. Local environmental events result in tangible and visible environmental improvements and can be completed within a relatively short time. People believe what they see. Not every environmental improvement requires large capital investments. Many problems can be addressed with a small amount of money and a large amount of volunteer help. As you begin to identify some of the more serious environmental problems facing the community, keep in mind which problems can be addressed by volunteer citizen action.

Local environmental events and public education go hand-in-hand. For example, a river clean-up or tree-planting project provides an excellent opportunity for distributing brochures to participants about the goals and scope of the LEAP. A public survey can include questions asking people whether they would be willing to participate in a workshop to improve the local environment. Doing something meaningful for your community does not necessarily involve sacrifice. In fact, the only sustainable community initiatives are those built on a foundation of self-interest. You can begin to take control of your life and your community by starting with small projects. Thinking big and starting small is the only recipe for success!

Simple and practical efforts that produce tangible results are essential to building momentum in local environmental event. You can strengthen your community and save tax dollars by using creativity, common sense, and taking direct initiative. Thus, it is important your SC take a positive approach and incorporate fun and personal benefit in a simple, straightforward manner to help tap significant citizen energies in undertaking innovative solutions. Building this positive spirit and common ground is a prerequisite to doing any meaningful environmental protection. To succeed, you need to have a strong sense of possibility, and this comes not just from talking, but from working together on constructive activities.

Not every environmental initiative has to be organised by your SC. Sometimes simply suggesting various ideas to different organisations can catalyze a number of activities. Alternatively, your SC can help a particular group in obtaining the necessary resources or providing logistical support.

Some examples of how other organisations might want to get involved in promoting community environmental

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1 Adapted from “Successful Community Building” 1994. Developed by Jeff Bercovitz, Community Innovations, Stafford, Vermont, USA.

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Figure

Experience of organising informational campaign in Kutaisi

At the first stage of LEAP implementation, the informational campaign has been organised in Kutaisi. It included meetings in schools, organisations, NGOs. The information on goals, objectives and targets of the LEAP were made publicly available through the publications in press.

One of the most important events at this stage was LEAP Presentation conducted in Kutaisi Technical University with participation of heads of local authorities, scientists, environmentalists, employees of the state environmental agencies, physicians, students, representatives of NGOs and media. The Presentation was attended by the honourable guests from the US Environmental Protection Agency and REC Caucus. The speeches were delivered by Chairman of Kutaisi Sakrebulo (City Council), Rector of KUTU, heads of environmental chairs from Kutaisi high schools, head of the Regional Department for Environmental Protection, chief allergist of the city, pedagogues of the secondary schools, etc.

It should be mentioned that Kutaisi newspapers operatively responded to the Presentation and printed several publications covering LEAPs issues.

Huge number of participants and wide resonance caused by the meeting, provided for big concernment in LEAPs both among the population and specialists’ circles.

Under the informational campaign, the meetings in the educational institutions (schools, chairs of the universities) and organisations were arranged. The purpose of the meetings, along with dissemination of the information on LEAPs, was collecting an information on environmental problems of the city, recording the proposals and wishes of the citizens related to the environmental issues. For exact registration of the information, the special form has been developed, and it has been filled out for each of the meetings
3.2.3 Conduct Community Forum

A Community Forum offers one useful approach for involving community members and potential stakeholders about the LEAP. Community Forums are open to the public, and involve community members and potential stakeholders to participate in the project. Consider inviting technical experts to speak about the severity of environmental problems in the community and/or individuals from other communities with LEAP experience.

You will also need individuals to help to facilitate the small group work sessions. Facilitators can help to assure that the objectives of the group work sessions are accomplished and that all participants have an opportunity to share their perspectives. A few days prior to the Forum, conduct a facilitator training to acquaint facilitators with the materials, brief them on their responsibilities, and provide them with practical experience in facilitating small group sessions.

4) Invite participants

To ensure that you reach out to as many people as possible, consider sending direct invitations to identified stakeholders and publicizing the Forum to the general public through the media, posters, and promotional materials. Send invitations to identified stakeholders that include a LEAP description, forum goals, and agenda. Be sure to ask the Mayor and/or Municipal Council Chairperson to serve as one of the Forum co-sponsors and even to review the invitation list.

Media announcements and general publicity are important in order to reach a broad range of community members. Consider asking your local radio stations and newspapers to publicize the Forum as a public service. This will help to reach a broad spectrum of participants. Also, ask reporters to publish articles describing the project, conduct radio interviews, and put up posters around town to spark community interest.

5) Form Stakeholder Committee

The SC guides the community through each step of the LEAP, including identifying and setting environmental priorities, identifying potential solutions, and helping to implement preferred actions. Perhaps most importantly, the SC is responsible for reaching out to the rest of the community and ensuring that the actions of the SC reflect those of the community as a whole.

To form a SC, the Municipality and/or organisers can prepare a list of potential stakeholders they believe should be represented on the SC and invite these individuals to participate. It is important that this selection process be open and fair to help to legitimize the SC in the eyes of the public. It is important to use a variety of methods to encourage, and in some cases persuade, individual stakeholders to participate on the SC. These methods can include sending personal letters, holding one-on-one discussions, and conducting small focus group meetings with certain groups of stakeholders, such as representatives from industries, environmental NGOs, or universities.

As you “sell” the LEAP concept, be sure to explain why you are seeking their participation and why it is important that they participate. For example, point out that the SC will develop a long-term environmental plan for the community that will guide future municipal investments. By joining the SC, they can ensure that their viewpoints are adequately reflected.

In addition to formal invitations, consider opening the SC to interested citizens from the community. Citizen participation can be fostered by holding a Community Forum, as described earlier, or through other public awareness activities. Community Forums can be an especially effective method for bringing citizens together in smaller communities.

Before you form the SC, consider whether you want to limit the total number of people on the stakeholder committee. A larger SC means that each individual has less time to contribute to the discussion, and may make it more challenging holding effective meetings and making decisions. On the other hand, the larger the number of people on the SC – the greater the number of stakeholders that can be represented and the more people available to share the workload. You will need to balance these considerations in forming your SC.

6) Define Project Goals and Establish Ground Rules for Group Work

At the first meeting, the SC can review the LEAP scope and goals prepared by the Initiative Group, and make any modifications that are necessary. In some communities, the SC members prepare and sign a Memorandum of Agreement (MOA) that serves as basis for cooperative work. The MOA is reviewed periodically to assure that it is being observed and is up-to-date. The MOA can include the following components:

- LEAP goals;
- Specific activities that are to be jointly undertaken;
- Respective roles and responsibilities of SC members;
- Responsibilities of chairperson(s) and other positions within the SC;
- Types of information to be shared and standards for sharing of information in the process, including agreements on confidentiality;
- Timeframe for completing each LEAP phase;
- Methods for group decision-making and conflict resolution;
- Resources to be provided by each member of the SC and;
- How recommendations of the Environmental Action Plan will be integrated into the statutory planning activities of the Municipality.

Soon after the formation of the SC, it will be important to consider a number of ground rules and logistical issues related to the efficient operation of the SC. You may want to include these ground rules in your Memorandum of Agreement.

First, the SC will need to decide how often it will meet, how long its meetings will be, where meetings will be held, and at what times. Consider choosing meeting dates in advance so that SC members can make their plans around these dates and so interested members of the public can attend. Also, consider establishing a specific day of the week for a meeting time – such as the second and fourth Tuesday of each month, and agreeing upon a set length of time for each meeting (such as two hours) and stick to it! Meetings that go beyond the agreed upon timeframe usually tend to frustrate participants.

It will be important for the SC to select a Chairperson or Co-Chairpersons to help to guide the SC in its work. He/she can facilitate meetings (although this role is not

Based on the experience, the Project Coordinator can have responsibility, usually, is posed on Coordinator and/or another individual. The role of the Coordinator in LEAPs will help to ensure that the changes in your SC’s composition will be done thoughtfully.

4.4.1 Local Coordinator

Based on the experience, the Project Coordinator can play a critical role in implementation of logistical tasks related to LEAPs. In case the necessary financial resources are available, it is desirable to remunerate the Coordinator, for it ensures him applying the sufficient efforts and time in fulfillment of the assigned tasks. Coordinator can be appointed member of municipality (environmental expert, for instance), who has only half time workload. Hiring a Coordinator is extremely significant, because most of the SC members are usually volunteers and are busy at their main jobs, therefore limited in possibility to dedicate their time to the Project.

The obligation of the Coordinator can include:
- Organising SC meetings (including keeping the minutes and dissemination of agenda);
- Organising meetings with state authorities; Promoting collection of information and other necessary researches;
- Organising logistical support to the activities related to awareness raising and public participation;
- Assisting in elaboration of ‘draft’ problem descriptions, environmental action plans and other key documents;
- The Coordinator selection process MUST be open and transparent. This will allow the public seeing objectivity of the process and ascertaining in professionalism of selected candidate.

The following factors shall be taken into consideration in the selection process:
- experience in environmental field and understanding of ecological problems;
- awareness on the local environmental problems; communicability;
- organisational skills;
- experience in working with documents and financial management.

Finally, it is important to note that the composition of the Stakeholder Committee can and will change over the course of the LEAP. Individuals will leave the SC as their time, availability, and interests change. Thus, you will probably want to establish a process for accepting new members to replace those that leave. For example, you may wish to establish a process of requesting nominations for new members and their approval by the SC. Be sure to consider the composition of SC as you evaluate potential new members, e.g. are you seeking new members with specific technical expertise or who represent specific constituencies? This review and approval process will help to ensure that the changes in your SC’s composition will be done thoughtfully.

4.4.2 Coordination body

The coordination body is usually created in order to facilitate the effective work of steering committee. Coordination body is directly reporting stakeholders’ committee. Few members of stakeholder committee, representatives of local authorities, local coordinator and contracted consultants are usually members of coordination body of the project. The responsibilities of coordination body can be listed as follows:
- Preparation of reports regarding the progress of project and presentation to stakeholders’ committee;
- The control of financing and budget of the project, preparation of contracts with subcontractors;
- Dissemination of information regarding LEAP (web site, local periodic press, official press releases, preparation of public meetings, etc.);
- Liaison with public information bodies;
- Facilitation of stakeholder committee meetings.

What is Collaborative Leadership?

Collaborative leaders operate under very different assumptions from those of traditional leaders. Instead of pushing groups or coalitions against one another, they look to the public for power and serve in a very different leadership role. Their role is to convene, catalyze, and facilitate the work of others. They know that the will to solve problems comes not from them or from elected leaders, but from citizens engaged in addressing public issues.

Collaborative leaders possess new and different skills. They know how to analyze and understand the challenges of leadership and how to develop strategies that will overcome resistance and inertia. They know how to bring citizens together and help them to build trust and the skills for collaboration. They help to design constructive processes to collaboratively solve problems and create shared visions.

Collaborative leaders:
- Inspire commitment and action: Energize others to create visions and solve problems. Create new alliances, partnerships, and forums. Bring people together, help them to work together constructively, and keep them at the table.
- Lead as peer problem solver: Promote commitment and involvement by the participants – creating a credible, open process in which participants have confidence. Facilitate ownership of the process among all participants. De-emphasize power and status among participants and help peers to solve problems.
- Build broad-based involvement: Make a conscious and disciplined effort to identify and bring together stakeholders who are necessary to define problems, create solutions, and get results. Take great pains to be inclusive, recognizing that many collaborative initiatives fail because the right people were not included.
- Sustain hope and enthusiasm: Sustain confidence by promoting and protecting a process in which participants believe. Help to set incremental and obtainable goals and encourage celebrations of achievement along the way. Help people to do hard work when it would be easier to just quit.

Identify and Prioritize Environmental Problems
5.1 Assessment tools

An Environmental Assessment is a profile of environmental conditions in your community – as it exists today. It helps citizens to paint a portrait of the place where they live given the current environmental status of the air, water, and land. Assessment methodologies range in their level of sophistication, data needs, cost, and time requirements. Some communities undertake Environmental Assessments primarily as a means of inventorying environmental conditions, while other communities use assessments as a critical step toward setting environmental priorities. An Environmental Assessment:

- Provides a clear and shared analysis of the key environmental issues facing the community;
- Provides insight about the environmental impacts from the activities of public and private institutions, and individuals, and what these institutions and individuals are doing (or not doing) to improve and protect the environment;
- Establishes a “baseline” of environmental conditions from which to measure the effectiveness of actions taken to improve environmental conditions;
- Raises public awareness of environmental issues, and potentially leads toward engaging citizens in improving the environment; and,
- Helps to build relationships and partnerships among stakeholders that can lead to new opportunities for action.

Environmental Assessments generally fall under two broad categories: participatory and expert assessments. Participatory assessments rely primarily on lay people to collect data and information about environmental problems in the community. Participatory assessment tools, such as a “Community Environmental Inventory,” involve gathering information from a variety of sources to determine the state of environmental conditions in the community. This often involves soliciting community knowledge, expert knowledge, and insights into history and root causes of environmental problems. (See Figure 5.1.1: Assessment Tool #1 – “Community Environmental Inventory,” and Figure 5.1.2: Assessment Tool #2 – “Rapid Urban Environmental Assessment” below).

Expert assessments are more formalized methodologies that scientifically and statistically evaluate and document environmental conditions in the community. Expert assessments, such as “Risk Assessment,” require trained and experienced scientists or “risk assessors.” (See Figure 5.1.3: Assessment Tool #3 – “Risk Assessment,” and Figure 5.1.4: Assessment Tool #4 – “Comparative Risk Analysis” below.) Expert assessment methodologies generally require greater amounts of scientific knowledge, analytic expertise, access to valid data, and funding. It is important to note that many communities use a hybrid of these two approaches. For example, some communities may run their assessment process by conducting public opinion surveys to determine what environmental problems to focus upon, and then use this information as the foundation for a more expert-based assessment.


Risk assessment is a tool that is used to measure the probability of an adverse impact (risk) on human health, ecosystems, or quality of life. Risk is the probability of adverse effects. Health risk assessment is a tool for determining the probability of contracting illness, usually cancer, from exposure to a particular chemical, substance or activity. Adverse health effects are caused by exposure to harmful substances and can vary widely, ranging from short-term effects to more subtle biochemical, pathological, or physiological effects. Researchers employ sophisticated models based on human and laboratory animal exposures to chemicals to determine the chances from contracting cancer and non-cancer illnesses.

The traditional human health risk assessment process is comprised of four interrelated phases:

1) Hazard Identification – Evaluates available evidence on the presence and hazards of substances likely to cause adverse effects.
2) Dose-Response Assessment – Determines the likelihood that a substance will produce a given effect at different dose levels;
3) Exposure Assessment – Estimates the magnitude, duration, and frequency of human exposure to pollutants of concern and the number of people; and
4) Risk Characterization – Combines the information obtained from the hazard identification, dose-response assessment, and exposure assessment to estimate the risk associated with each exposure scenario considered. Effects are often characterized as “acute” - short-term and immediate effects - and “chronic” or long-term effects.

Risk assessment can also be applied to natural ecological systems to assess the risks to natural systems from human activity. Ecological risk assessment is similar to the human health methodology, but differs in two distinct ways. First, ecological risk assessment evaluates negative impacts on a myriad of species’ interactions and ecological processes, instead of assessing impacts on only a single species (i.e., human beings). Second, whereas human health assessments focus on chemical stressors, physical stressors often adversely affect ecological systems. Thus, ecological risk analyses assess physical impacts, such as rivers that are dammed, wetlands that are drained, forests that are cut, and wildlife habitats that are eliminated.

Risk Assessments require individuals with adequate training, sufficient data, and funds. Further, some risk assessment critics argue that risk assessment is a flawed methodology because it is based upon numerous assumptions and uncertainties.
5.2 Prepare Assessment of Current Environmental Conditions

5.2.1 Select Environmental Assessment Methodology

Assessment tools range in the level of technical expertise required. Historically, experts in the United States and Western Europe have prepared assessments that provided detailed scientific analyses in technical language with minimal or no public involvement. As citizens became more interested in local environmental conditions, planners developed new tools to engage citizen opinion and help conduct these assessments. These participatory assessment tools engaged citizens in defining and describing issues of importance to the community using non-scientific language and approaches.

There are several key questions to consider in choosing an assessment methodology. These questions include:

- How will the information generated from the assessment be used and by whom?
- Who is available to help to conduct the assessment?
- What is the availability of data, funds, and time?
- Do you intend to set environmental priorities for action?

These questions are discussed in more detail below.

- How will the information generated from the assessment be used and by whom? For example, will the information be used in a community dialogue on environmental priorities or will the Municipality use the information to help it make environmental investment decisions? If the results are intended to change government policies, then the assessment will need to stand up to the scrutiny of government decision-makers. In such cases, the final results may be viewed more seriously if they are conducted or supported by recognized technical experts. On the other hand, if the assessment is intended primarily as a public information tool, then a less technical and more participatory assessment tool may be more appropriate.

- Who is available to help to conduct the assessment? Larger communities usually have a greater number of individuals to choose from whom you can conduct assessments or technical experts within the community who can help to conduct the assessment? Larger communities usually have a greater number of individuals to choose from whom you can conduct assessments or technical experts within the community who can help to conduct the assessment? Larger communities usually have a greater number of individuals to choose from whom you can conduct assessments or technical experts within the community who can help to conduct the assessment? Larger communities usually have a greater number of individuals to choose from whom you can conduct assessments or technical experts within the community who can help to conduct the assessment? Larger communities usually have a greater number of individuals to choose from whom you can conduct assessments or technical experts within the community who can help to conduct the assessment? Larger communities usually have a greater number of individuals to choose from whom you can conduct assessments or technical experts within the community who can help to conduct the assessment?

- What is the availability of data, funds, and time? These factors will affect your ability to conduct a thorough assessment. Issues related to costs, data availability, and time will also determine your choice of an assessment tool. Generally, more expert-oriented assessments involve greater amounts of data, and longer time-frames to complete. However, expert assessments generally provide a greater understanding of the underlying causes associated with environmental problems and their impacts on human and ecological health compared to participatory assessment tools.

- Do you intend to set environmental priorities for action? Another important factor to consider in choosing an assessment tool is whether or not your SC intends to rank environmental problems and set priorities. Most environmental assessment tools do not describe current environmental conditions without drawing conclusions about their relative impacts on human beings and the natural environment. In order to effectively compare and rank environmental problems, you will need a common “denominator” that enables your SC to compare and rank problems. Comparative Risk Analysis is one of the few assessment tools that allows for this comparison by using “risk” as a common denominator for ranking environmental problems. (See Figure 5.3.4: “Assessment Tool #4 – Comparative Risk Analysis” below.)

Therefore, it is important for the SC to choose a model that you trust and that involve you trust in the assessment tool, it is important that SC members have sufficient knowledge about various approaches and their relative advantages and disadvantages. You may want to contact participants from other projects to help you inform your choice about which assessment tool to use.

5.2.2 Determine Scope of Environmental Assessment

Your SC can save itself time and money by addressing issues related to scope at the outset of the assessment process, as described below.

- What types of problems will be addressed in the assessment? There are usually a number of factors to consider in determining which types of problems will be analyzed and which ones will not, including:
  - Will the assessment address environmental issues that you are aware of but that aren’t regulated by public health agencies? For example, participants in the Troyan Environmental Action Project included cigarette smoking and asbestos in their environmental assessment.
  - Will the assessment address issues beyond purely environmental issues? For example, the City of Elk, Poland used a process that placed environmental concerns into the broader economic context of sustainable development.
  - Will the analysis examine current global issues, such as ozone depletion, even though they may not involve the community’s ability to control or influence these problems? Many communities have focused on efforts to include all environmental problems of concern in their assessment, while addressing the issue of the community’s ability to control and influence the problem during the priority setting process.

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stratospheric ozone depletion. Alternatively, if your SC has limited capacity to examine future threats, but feels uncomfortable ignoring them altogether, a simpliﬁed approach might be to ask the question, ‘is the problem likely to get better, worse, or stay the same over time?’

By systematically deﬁning these scoping issues at the beginning of the Environmental Assessment, you can help to ensure that your data collection efforts will be well-tailored; that you will have the resources to complete the necessary steps, and that you will involve all key information agencies and organisations in the process.

5.2.3 Deﬁne Environmental Problems
Community residents offer a good starting point for deﬁning environmental problems. Using a variety of outreach methods – such as surveys, focus groups, and public information meetings (e.g. Community Kick-Off Conference) – the SC can effectively solicit the views and concerns of community members. During this outreach effort, you might consider asking community residents to answer the question, ‘what are the environmental problems facing the community and why do they cause us concern?’ In this initial phase, it is important that the process be open-ended to encourage creative thinking.

In deﬁning environmental problems, it is critical that your SC is clear about why speciﬁc environmental problems pose concerns. In other words, why are you concerned about a speciﬁc problem? What is being threatened that you value? For example, are you concerned about increased lung cancer rates from low-emission air pollution? Are you concerned about destruction of wildlife habitat from unsound logging practices? Are you concerned about reduced learning capabilities in young children from lead poisoning? By answering the question of why, you can help to target and focus your data collection efforts on these particular areas of concern. See Figure 5: Useful Terminology for Deﬁning Environmental Problems.

Using the preliminary list of environmental problems generated by community members, the SC can begin to develop a ﬁnite list of and “deﬁne” environmental problems in the community. There are several approaches to helping to deﬁne environmental problems. One of the most useful is “Problem Tree Analysis” which involves identifying the main problems and establishing the cause-effect relationships among these problems. The key purpose of this analysis is to try and ensure that ‘root causes’ are identiﬁed and subsequently addressed in the project design, not just the symptoms of the problem(s).

A medical analogy can be used to explain the philosphy behind this method: if you have a chronic joint pain and take a pain-killer to treat it, you are treating the symptom, not the cause of the problem. The pain killer merely masks the indication (pain) of what could be a serious underlying health problem, which left untreated may become worse. When pain-killer wears off, the problem returns. In addition, your body will slowly develop a resistance to the pain-killer. Over the time larger doses of a pain killer will be required to treat the same pain. Projects which only address the symptoms of problems, and not underlying causes, are therefore unlikely to bring about sustainable beneﬁts.

A comprehensive and clear problem tree analysis provides a sound foundation for developing a set of relevant and focused project objectives during the next stages of the LEAP. An example of a problem tree is shown in Figure below. The simpliﬁed example shows only some selected causes and effects related to the core problem in order to illustrate the use of this tool. In practice, the problem trees are much more complex and include more complicated relationships among the problems. Therefore, it is often recommended to break problems into smaller components and develop individual problem trees for narrower problems.

It should be remembered that the Problem Tree Analysis is not a scientiﬁc method. It is based on reaching a consensus, a common understanding of problems, within a group of people. It should be remembered that people can collectively be wrong and therefore, it is advised to cross-check the problem tree with other sources of information about environmental problems (see Figure 5.2.3.1: Illustration of Problem Tree and Figure 5.2.3.2: Environmental Problem Lists from Caucasus Communities).
you collect, your assessment will always be a blend of data and judgment. Your TAC should be sure to allocate sufficient time for collecting data. How much time you need depends largely on the geographic size of the assessment area, the number of issues being assessed, the technical nature of the assessment, and the degree of coordination among organisations managing different types of information. Data collection can be very time-consuming, particularly if multiple organisations have overlapping responsibilities. Thus, the SC will need to establish a time frame for collecting data activities, and then make sure the TAC adheres to the schedule to greatest degree possible.

In some cases, government agencies and private organisations may charge a fee for copying and other related costs. Caucasus countries have laws governing how government agencies should provide environmental information to the public and what information they must provide. These laws often expressly state that environmental information belongs to the public and should be provided free-of-charge. Your TAC will want to review environmental information laws to be clear on its rights.

The following questions will help to guide your information gathering efforts:

a) What steps can be taken when there is a lack of data?

b) How reliable and accurate is the information?

c) What are some key information sources?

These questions are addressed in further detail below.

What steps can be taken when there is a lack of data?

Most environmental assessments are based upon existing data. However, sometimes your TAC may identify data gaps that are so significant that your ability to assess a particular issue may be severely impeded. There are a variety of steps you can take to try to fill these information gaps, including:

- **Collect data from other communities**: Consider obtaining data from other communities with comparable environmental conditions or health problems, and then interpolate this data for your own community. For example, you might obtain information on human health-related impacts from air pollution from communities with the same climate conditions and similar industries. You can then try to draw conclusions about the health impacts to your own community. As a cautionary note, this process of “interpolation” is based upon numerous assumptions and has a large degree of uncertainty – but it may be better than no data at all. These limitations need to be expressly stated in your Environmental Assessment.

- **On-site tours**: Pertinent information may be relevant through site tours and community surveys. TAC members can design their own methods for gathering and organising relevant information. For example, group members may visit a landfill and interview the staff and surrounding residents to learn more about the facility and its impacts.

- **Monitoring**: Your TAC might consider initiating new monitoring activities. In the context of an Environmental Assessment, it is important to conduct new monitoring efforts only after careful consideration. Monitoring data is usually only valid if samples are taken over a period of time, and this time requirement might conflict with the schedule for the overall LEAP. Further, you will need to determine how much the monitoring will cost and how these costs will be paid for. Whether or not you choose to initiate new monitoring activities during the assessment, be sure to carefully document any data gaps you find and prepare recommendations for future data collection efforts.

- **Public**: While technical experts can describe many aspects of the environment, citizens remain one of the most valuable sources of information. Asking citizens about their concerns and what they know about particular issues will help your TAC to learn information that may not be recorded elsewhere. Previous LEAP participants have conducted surveys, held public meetings, and conducted focus groups to learn what community residents knew about environmental issues.

- **Reliability and accuracy**: How reliable and accurate is the information? The TAC will need to take special care in checking the reliability and accuracy of the data it uses. First, you will want to thoroughly understand the origins of any data. If there was data collected, and how frequently samples were taken. Second, it will be important to understand the sources, collection methods, and original purpose of the data to help determine whether the data is reliable and representative of the population. It may also be helpful to identify key information sources to use.

- **Key information sources**: Sources of data for an Environmental Assessment depend greatly on the study area. You can assemble relatively basic, but sufficient information from a variety of sources. In Central and Eastern Europe, key information sources include the regional environmental and health inspectors; national Ministries of Environment, Health, Agriculture, and Regional Planning, universities and academic institutions, and your municipality. Other information sources include:
  - Hospitals and health clinics
  - Libraries
  - International organisations and non-governmental organisations (World Health Organisation, United Nations Environment Programme, US EPA, World Bank, etc.)
  - Private enterprises and companies
  - Individual citizens
  - Community groups (environmental NGOs, historical societies, etc.)
  - Experts (health risk assessors, ecologists, economists, planners, etc.)
  - Individuals from similar projects in your country or region

The organisations possessing environmental information for the Caucasus countries – Armenia, Azerbaijan, Georgia – can be sought in the Directory ‘Environment and State Agencies’ published by REC Caucasus. Your TAC might consider initiating a dialogue with key information providers by sending them information request letters. These letters can include a description of the LEAP, what information you need, and an explanation of how you will use the information. You might then meet with these sources to more fully explain your request, solicit their cooperation, and collect the information using the “Sample Information Request Letter” below. This type of cooperative approach can help to facilitate data collection and analysis, improve the completeness and accuracy of the assessment, and lay the groundwork for future cooperative activities with these agencies and organisations.

5.2.4 How reliable and accurate is the information? The TAC will need to take special care in checking the reliability and accuracy of the data it uses. First, you will want to thoroughly understand the origins of any data. If there was data collected, and how frequently samples were taken. Second, it will be important to understand the sources, collection methods, and original purpose of the data to help determine whether the data is reliable and representative of the population. It may also be helpful to identify key information sources to use.

5.2.5 Prepare Environmental Assessment Report

The Environmental Assessment Report includes a summary of the findings and conclusions, baseline data about relevant conditions, and a description of the quality and sources of data used. Furthermore, it is important to prepare a summarized version of the report in non-technical jargon that can be easily understood by the Stakeholder Committee and the general public.

5.3 Select Priority Environmental Problems

5.3.1 Priority setting will enable your Municipality to focus its limited financial and human resources on the most critical issues, and thus allow you to achieve the greatest benefits to environmental and public health.

- **Should an environmental problem that results in cancer that kills a few people each year outweigh gastro-intestinal illnesses that create short-term discomfort for a large percentage of a given population?**

- **Should the SC focus on issues that its members recognize as a major environmental threat, but which few community members care about?**

- **Should depletion of groundwater supplies that will affect everyone’s drinking water in the future take precedence over extinction of local fauna from un-managed industrial practices occurring today?**

- **How should the community address serious human and environmental health threats that are linked directly to the major source of employment for the community?**

Setting priorities forces the SC to grapple with the hard choices facing the community. When SC members and
the public agree on the relative degree of harm from environmental problems, they have a solid foundation for deciding the top priority issues for taking corrective action.

5.3.1 Criteria to Consider in Selecting Priority Problem
Communities consider a number of criteria in setting environmental priorities. These include:

- **Impact on human and ecological health:** Based upon the environmental assessment report, how severe is a particularly environmental problem in terms of its impact on human and ecological health?
- **Public preferences:** What do community members consider to be the most serious issues facing the community?
- **Municipal authority to control:** Does the local government have the authority or legal jurisdiction over the issue or problem?
- **Community ability to influence:** Does the community have the ability to significantly address or influence the problem, such as global environmental issues?
- **Legal requirements:** Do national laws or regulations require the local government to achieve specific national standards by a certain date? Where does the problem stand in relationship to national environmental policy directions, such as the National Environmental Action Programme?

Many communities have first ranked environmental problems based upon their relative severity, and then used this information as the foundation for selecting overall environmental priorities by incorporating the factors described above.

5.3.2 Prepare for the Priority Setting Meeting
The Stakeholder Committee will want to consider a number of factors in preparing for the meeting where it selects priority environmental problems:

- **Decide on decision-making processes:** The SC will need to decide what decision-making process it will use, such as consensus or majority voting. Most SCs strive toward achieving consensus during the ranking session, and if consensus can’t be achieved, they resort to a large majority (80% or more) vote. If you decide to vote, be clear whether the ballot will be secret or open.
- **Determine role of the public:** Carefully consider what role the public will play during the ranking session. For example, will the session be open to the public? Will the public be allowed to speak at certain points? Most communities open their ranking sessions to the public in order to legitimize the process. Some SCs provide designated times for community members to share their views.
- **Familiarize Stakeholder Committee with ranking approach:** SC members will be asked to consider large amounts of information and make judgments about environmental priorities. Thus, it is critical that they fully understand and feel comfortable with the ranking methodology. At a minimum, it is important for each SC member to receive copies of the Environmental Assessment before the priority setting session begins. Your TAC might also consider holding a briefing session for SC members to explain information in the reports and answer questions.
- **Consider hiring a professional facilitator:** A facilitator can help to assure that the ranking session is open and unbiased, and that all SC members are given ample opportunity to express their views.
- **Prepare an agenda and document results:** You will want to establish an agenda with a set time schedule. Then, try your best to adhere to the schedule! Be sure to allocate ample time to ensure a meaningful ranking process. Also, consider asking individuals to serve as recorders during the priority setting sessions to ensure that careful written record has been maintained that explains what took place during the ranking.

The following group process suggestions are provided to help to guide the priority setting session:

- One person speaks at a time. Everyone has a turn to speak. Facilitator will recognize participants in order.
- Respect everyone’s opinion and integrity. Focus discussion on content, not person.
- Listen with an open mind. Be willing to change your mind.
- Speak and listen as individuals, not as representatives of a group or institution.
- Keep comments brief and on topic.
- Strive for consensus. If you cannot reach consensus, set the proposal aside for later consideration.
- Be prepared to substantiate your views.
- Notify facilitator if something is not working for you.

5.3.3 Proposed Process for Selecting Priority Environmental Problems
Rank environmental problems based upon their relative severity and magnitude:

1. Present oral summaries: TAC members summarize the basic information and conclusions of the Environmental Assessments.
2. Fill in matrices: Prepare flipcharts in advance that include a matrix for visually seeing how different problems compare to each other. Each individual marks a spot (using a marker or round sticker) for each environmental issue on selected matrices to identify the relative threats. These charts can be prepared for threats to ecosystems and quality of life. (See Figure 5.3.3.1: “Sample Matrix for Examining Relative Health Threats” above)
3. Conduct relative problem rankings: Each Stakeholder Committee member individually develops a relative ranking based upon the matrices. Your SC can assign numerical values to each problem (e.g. 1-5) to determine relative rankings or use categories such as high, medium, and low.
4. Identify easy highs and lows: The Stakeholder Committee collectively identifies which problems are easily considered to pose relatively high threats and which ones are easily considered to pose relatively low threats.
5. Discuss rationale for relative rankings: Stakeholder Committee members discuss relative ranking for easy highs and lows.
6. Present proposals for rankings: For environmental issues that have not been ranked, one Stakeholder Committee member makes a proposal about whether a particular problem should receive a high, medium or low ranking.
7. Discuss and decide on ranking: SC members discuss and decide how the problem should be ranked. This process continues until all the problems have been ranked.
8. Review and finalize problem-ranking list: After all the problems have been ranked, the Stakeholder Committee reviews the relative rankings and makes any necessary changes.

Incorporate Other Criteria in Selecting Priority Problems
a) **Review additional criteria:** The SC reviews additional criteria, such as public preferences, national legal requirements, and municipal authority to control.

b) **Discuss problems in light of criteria:** SC members discuss each problem in light of the criteria.

c) **Select priority environmental problems:** The SC incorporates the results of the problem ranking and other selected criteria by assigning relative scorings to set priorities for action. These scorings can have numerical values (e.g. 1-5) or “high-medium-low” values assigned for each problem according to the selected criteria. (See Figure 5.3.3.2: “Sample Table for Setting Environmental Priorities” below).

Conclusion
Undertaking Environmental Assessments and establishing environmental priorities is a powerful means for engaging citizens and government officials in discussions about the future of your community. LEAPs have demonstrated the ability of the Caucasus communities to engage in democratic evaluation and decision-making. The environment priorities identified during this phase of the LEAP provide a solid foundation for developing a plan of action for the priority environmental issues facing your community.

<table>
<thead>
<tr>
<th>Environmental Issues</th>
<th>Criteria</th>
<th>National Legal Requirements</th>
<th>Public Preferences</th>
<th>Priorities for Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Ranking Results</td>
<td>Municipality’s Ability to Control</td>
<td>% of population affected</td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>1%</td>
<td>10%</td>
<td>50%</td>
<td>90%</td>
<td></td>
</tr>
</tbody>
</table>
Preparation of LEAP
INTRODUCTION
The Environmental Action Plan (EAP) is the heart of a Local Environmental Action Programme. The core of the EAP is the goals, objectives, and actions for addressing the top environmental problems. Preparing the EAP involves examining your community’s existing environmental management practices, identifying evaluation criteria, and conducting specific economic, engineering, and other types of analyses to provide a solid foundation for selecting preferred actions. The EAP builds upon the previous work of the Stakeholder Committee (SC), in preparing Environmental Assessments and selecting priority environmental problems.

Essentially, the EAP can be seen as a multi-stakeholder agreement on the best ways to solve environmental problems in the community. Thus, a successful process to develop an EAP will ensure that the views of all individuals either directly or indirectly affected by proposed actions are solicited and given serious consideration. Further, it is important that the general public is kept informed throughout the development of the EAP to ensure that proposed actions reflect their priorities. An effective public outreach effort can help to educate community members about the costs and benefits of proposed actions and solicit their views of the most appropriate solutions.

Ideally, the Municipal Council approves the EAP to emphasize its support for the EAP. To maximize the effectiveness of the EAP, it is critical that recommendations from the EAP be linked with statutory planning processes of the Municipality, such as the development or land-use plan, capital infrastructure plan, and annual budgets. The EAP then serves as a long-term guide for environmental actions in the community.

6.1 Develop Community Vision
One of the most important actions you can undertake as a SC is to create a Community Vision. A Community Vision is a shared concept or picture of what residents want the community to be like in ten or twenty years. The Community Vision provides an opportunity for the SC and residents to step outside their immediate and most pressing problems and to look toward the future. A Community Vision:
- Provides a common framework and an agreed upon direction for your work
- Promotes bold, creative, and imaginative thinking that can lead to fundamental change
- Provides continuity and consistency as people come and go from the LEAP planning process, and
- Offers an excellent opportunity for engaging people in the community.

Vision serves as guiding principle in setting goals and objectives for resolution of priority environmental problems. In LEAPs development process, SC shall always refer to such Vision.

Vision can be formulated briefly and figuratively. For instance: ‘clean city’, ‘healthy environment’ or ‘green city’ etc. So, the Vision for pilot city of Kutaia was formulated by the SC the following way: “Clean Environment – Healthy City”.

6.2 Set Environmental Goals and Objectives, and Select Indicators
Prior to identification of environmental goals, SC members shall define what their vision is for the future of their city or settlement or, in other words, what do they want to achieve.

The EAP process begins with the development of environmental goals, objectives, and indicators. Environmental goals provide strategic direction for your long-term efforts to solve environmental problems and an opportunity to build consensus among stakeholders on what you hope to accomplish over a set period of time, e.g., three-five years. Objectives are measurable commitments to be realized within a specified time frame and are used in evaluating and measuring progress in implementing the EAP, while indicators measure whether environmental goals and objectives are being achieved and whether these outcomes are improving the lives of people in the community.

6.2.1 Establish Environmental Goals
Goal development begins with a review of the Environmental Assessments. Each Environmental Assessment ideally describes why a particular problem poses a concern and describes the negative impacts from human activities. Goals rephrase the problem in an affirmative, forward-looking manner that expresses the kinds of milestones you want to accomplish over a period of time. For example, consider the following description for solid waste: “Toxic and organic materials disposed in unlined and uncovered landfills from industry and households are causing groundwater pollution which pose health and ecological threats, while landfill space is rapidly diminishing because trash generation has increased significantly.”

Two goals articulated for this problem area might be:
- Goal #1: To reduce groundwater pollution associated with solid waste; and
- Goal #2: To reduce the amount of solid waste disposed in the landfill.

It is important to note that the problem description above actually identifies two distinct problems: 1) pollution to groundwater; and, 2) diminishing landfill space due to large quantities of trash being generated. These two problems have distinct but related goals. In turn, each goal will dictate different actions. For example, reducing groundwater pollution may involve building lined landfills and installing collection systems for rainwater that percolates through the waste. Reducing the amount of solid waste involve implementing programmes such as recycling collection and waste reduction initiatives. Thus, it is important to dissect each environmental problem to identify discrete components of the problem – especially since these discreet components may require different solutions. There is no set formula for determining how many goals you should establish for each problem. The key is to establish enough goals that sufficiently describe what you hope to accomplish over time, but not too many as to make each goal indistinguishable from another.

6.2.2 Establish Environmental Objectives
Once your SC has agreed upon a set of goals, it is vital that you develop concrete objectives for each goal. An objective is a measurable commitment to be realized within a specified time frame. Objectives focus resources and guide the selection of actions. They are used in evaluating and measuring progress in implementing the EAP. Objectives imply very concrete actions and behavior changes by different stakeholders; thus, they are usually the products of negotiation. One guiding role for developing objectives is the acronym, “SMART” — that is that objectives should be “Specific, Measurable, Achievable, Relevant, and Timed. This description may be used as a kind of a cross-check/cross-reference to ensure that LEAP’s specific objectives meet basic methodological requirements.

Some questions that a SC may wish to discuss in formulating objectives include:
- Are there specific environmental objectives or requirements mandated under national laws or regulations? For example, do national laws require that

### OBJECTIVE TREE

- **Reduction of gastrointestinal diseases and problems of immune system among the population**
- **Elimination of cases of infectious diseases caused by polluted water**
- **Eliminations of reactive potential of the territory**
- **Deterioration of standards of living of the city dwellers**

**EFFECTIVE WASTE MANAGEMENT**

- **Reduction of the level of pollution of potable, underground and surface waters caused by drains from dump sites and solid household waste polygons**
- **Elimination of aesthetic damage**

**OBJECTIVES**

- **Elimination of negative impact of existing dump sites**
- **Considerable reduction of the number of illegal dump sites in the city**
- **Elimination of the threat from inappropriate disposal**

**ECONOMIC ASSESSMENT**

- **Creation of large-sized household waste collection among the population**
- **Constitution of solid household waste treatment and hazardous medicinal waste neutralization facilities**

**INDICATORS**

- **Reclamation of existing dump sites**
- **Organisation of collection of large-sized household waste**
- **Organisation of waste collection among the population**

in a realistic timeframe? On the other hand, are the objectives sufficient to achieve the desired level of environmental improvement?

One method for setting strategic goals and specific objectives is the Objective Tree Analysis. In simple words, it is a continuation of the Problem Tree Analysis, following an assumption that when we find causes of problems and try to cure them, we will solve the problems themselves. Therefore we start from rephrasing problems, causes and effects into positive statements receiving in this way a positive tree. This provides the basis for defining goals and objectives according to the rules described above, and if the problem tree is well developed, also the basis for determination of some actions. (See Figure: Illustration of an Objective Tree).

6.2.3 Select Indicators

Indicators, help you to understand where you are and how far you are from where you want to be. They provide a mechanism for community members to identify what they value – drawn from the Community Vision. Indicators measure whether environmental goals and objectives are being achieved, and whether these outcomes are improving the lives of people in the community. Finally, indicators provide a means for holding implementing agencies accountable for achieving desired results. (See Figure: “Sample Environmental Indicators” below.)

Examples of Environmental Indicators for Pilot City of Ararat

Below you can find some simple indicators, along with the respective goals and objectives:

**Water supply**

| Goal: Improve water supply infrastructure |
| Objective: Water supply control |
| Indicators: 1) quality of water within MAC limits; 2) volumes of economized water (l). |

**Green zones of the city**

| Goal: Extension of vegetation cover |
| Objective: Creation of new vegetation areas |
| Indicators: 1) existence of project documentation; 2) number of planted trees; 3) total area of newly created green territories |

Good environmental indicators:

- **Results oriented**: measure actual results, i.e. reduction in lead levels in ambient air, rather than efforts to address a particular problem, i.e. amount of lead removed.
- **Reliable**: are based upon statistically valid and quantifiable data, and data that is available at the level of aggregation and frequency desired.
- **Measurable**: can be quantitatively measured.
- **Simple**: are easy to understand, but as precise as possible; and,
- **Establish a monitoring, reporting and evaluation system**: Once indicators have been selected, it is important to establish a system for standardizing data collection procedures and reporting results on a regular basis. This data can be used to evaluate what is working well and what is not and to identify recommended improvements that need to be made. Recommendations can then be incorporated into programme design.

6.2.4 Identify Potential Actions

The next step of the EAP process is to identify specific actions. While the Community Vision provides the overall framework, the environmental goals and objectives serve as guideposts in identifying actions, i.e. how can a particular action move us toward achieving our goals and objectives? Your SC might begin the process of identifying potential actions by conducting a brainstorming session. Consider convening a group of stakeholders associated with each specific environmental problem and brainstorming a list of possible actions. This approach will help to ensure that the broadest possible set of actions is identified during brainstorming sessions. Consider convening a group of stakeholders associated with each specific environmental problem and brainstorming a list of possible actions. This approach will help to ensure that the broadest possible set of actions is identified during brainstorming sessions.

Create action from indicators: Indicators should be tied directly to the implementation of specific actions and should be used to measure progress toward achieving stated planning goals. Implementing actions are activities that involve either collective or individual actions by community members to address environmental problems, such as curbside recycling collection programmes, community tree plantings, and community-wide distribution of low-flow showerheads. These programmes can be managed either by the Municipality, utility company, non-government organisation, or private contractor.

**Economic incentives**: Economic incentives alter policymakers’ behavior by increasing the costs of continuing to pollute or waste. Unlike regulatory approaches, these incentive-based policies influence rather than dictate the actions of individuals and firms, and allow them to find the most efficient means of reducing pollution in order to reduce their costs. Some of the most common economic incentives used by local governments are: user fees, emission fees, and fines. User fees provide a positive economic incentive to individuals and businesses by requiring them to pay for the cost of the environmental services based upon how much they use or how much waste they generate. Emission fees are financial charges for the release of pollutants to the environment within admissible limits, while fines are negative incentives applied to businesses or individuals that pollute above allowable limits or violate other regulatory requirements.

**Community Programmes**: Community programmes are activities that involve either collective or individual actions by community members to address environmental problems, such as curbside recycling collection programmes, community tree plantings, and community-wide distribution of low-flow showerheads. These programmes can be managed either by the Municipality, utility company, non-government organisation, or private contractor.

**Regulatory/Legal Action**: Regulatory actions require businesses and residents to comply with specific environmental regulations and to implement measures to reduce environmental pollution. For example, these actions include municipal ordinances to require industries to pre-treat their wastewater prior to discharging to the municipal treatment plant, or requiring residents to install water meters to reduce water consumption.

6.2.5 Identify Evaluation Criteria

During selection and application of the criteria, the following shall be considered:

- Apply criteria corresponding to the each type of activity; some criteria cannot be applied to all types of measures. While selecting the criteria, you should consider all types of the activities (i.e. raising public awareness, introducing economical incentives, etc.) and make the decision on appropriateness of the criteria.

- Criteria are not always equal: your SC might consider some criteria having bigger significance, then the others. For instance, most of the territorial communities pay more attention to “cost efficiency”, i.e. which activity will provide for better results for the cost unit. Therefore, you need to weigh the evaluation criteria based on their relevant importance.

Several criteria are identified below. Your SC will want to review this list, consider other potential criteria, and agree upon a set of criteria for evaluating actions. This list is intended to provide a starting point for your discussion. Evaluation criteria include, among others:

- **Cost-effectiveness**: what are the relative costs for achieving a measured improvement in environ-
Cost-effectiveness is one of the most important criteria for evaluating alternative actions. It answers the question, “how can we achieve the greatest level of environmental improvement for a given amount of money?” Cost-effectiveness involves standardizing or normalizing project costs by dividing costs by a common environmental indicator, such as tons of waste abated/reduced or reductions in ambient air concentrations of specific pollutants. Some care must be taken when using cost-effectiveness analysis to compare only control or reduction actions that provide environmental improvements that are sufficiently similar.

When conducting cost-effectiveness analysis, keep three key issues in mind. First, existing studies may supply the necessary information on pollution control effectiveness, thus, avoiding the need for original research. Second, the objective of the cost-effectiveness analysis is to arrive at a ranking of possible actions. Precise measurement of cost-effectiveness is often not necessary. In many cases, the pollution control achieved by different actions may be so great as to preclude the need for extensive engineering analysis or even research of secondary literature sources. Finally, it is important to focus on pollutant releases and other outcomes that can be easily measured and are relevant to your goals.

The basic steps in conducting cost-effectiveness analysis include:

1. Analyze project costs: estimate total capital (i.e. construction and equipment) and operating maintenance and replacement costs over the life of the facility or project.
2. Conduct life cycle cost analysis. Life-cycle costs are the sum total of all costs associated with a particular project over a particular period of time (typically considered to be the expected useful life of the capital asset). Since life-cycle costs are incurred over an extended period of time, the analysis usually includes consideration of how the value of money changes over time due to factors such as inflation and interest rates.
3. Spread out project costs on an annual basis: determine the amount of money needed each year to pay for the project.
4. Analyze cost-effectiveness by standardizing cost measures: determine the costs per unit of pollution control achieved by dividing the annual costs by the annual pollution reduction expected to be achieved.

Cost-effectiveness is the proposed action allowable to the public or Municipal Council?

The question “how can we achieve the greatest level of environmental improvement for a given amount of money?” requires that you also consider:

- **Implementation time:** how much time will it take for the action to be implemented?
- **Flexibility:** can the action be modified after a period of time to accommodate changes in demographic, economic, environmental, or legal circumstances?
- **Equity:** how evenly are the benefits and costs of the action distributed among affected individuals and the community? Are certain segments of the population disproportionately affected by the impacts of the proposed action, e.g. setting an environmental facility near a low-income residential neighborhood?
- **Effectiveness:** how well does the action achieve environmental goals and objectives? How effective is the action in reducing or preventing an associated public health or ecological threat?
- **Financial Impact:** what will the financial impact on community members be to pay for the total capital and operating costs associated with the project over its lifetime?
- **Statutory authority:** does the local government or do other implementing agencies have the statutory authority to implement the action?

Cost-effectiveness is the proposed action acceptable to the public or Municipal Council? Do stakeholders support the action?

**Cost-effectiveness** includes consideration of:

- **Flexibility:** can the action be modified after a period of time to accommodate changes in demographic, economic, environmental, or legal circumstances?
- **Implementation time:** how much time will it take for the action to be implemented?
- **Acceptability/supportability:** is the proposed action acceptable to the public or Municipal Council?

**Cost-effectiveness** is an important criterion for evaluating alternative actions. It answers the question, “how can we achieve the greatest level of environmental improvement for a given amount of money?” Cost-effectiveness involves standardizing or normalizing project costs by dividing costs by a common environmental indicator, such as tons of waste abated/reduced or reductions in ambient air concentrations of specific pollutants.
6.3.3. Select Actions

Once you have developed a relatively manageable list of actions, the next step is to conduct community-specific analyses that will provide you with the foundation for making the final list of priority actions. The types of analyses you will need will depend on which actions you are investigating. The types of analyses to consider include:

- **Economic:** identifies the most cost-effective option for achieving a desired goal or result. It examines total capital and operating costs, the life-cycle costs over the life of the project, the annualized costs, and then standardizes these costs based upon the amount of pollution control or reduction achieved, e.g. cost per ton or per liter.

- **Engineering:** helps to determine the technical feasibility and effectiveness of particular actions. This analysis can evaluate the effectiveness of different facilities or process designs in reducing pollution or a particular pollutant.

- **Legal:** examines municipal jurisdiction and authority pertaining to certain environmental provisions. This analysis is especially critical in light of the decentralization of environmental responsibilities in Central and Eastern Europe and jurisdictional issues that may arise among different governmental agencies.

These analyses require specific expertise that can often times be costly. Wherever possible, it is important that the SC find experts within the community who might be willing to donate their time or reduce their consulting fees for projects that benefit the community. University students and faculty might be able provide valuable assistance for little or no cost. You may need to hire consultants to conduct certain analyses that are beyond the abilities of the municipal staff or SC members. If your SC decides to hire consultants, consider preparing a “Request-for-Proposal” (RFP) to assure that you get the most qualified expert at the lowest possible cost.

After your analyses are complete, reexamine the preferred action list in light of your evaluation criteria. You might want to repeat the matrix approach described earlier to help to select the most appropriate action or mix of actions. Alternatively, information generated from the analyses might clearly point out the advantages of one particular option over another.

6.4 Prepare Environmental Action Plan

LEAP is the framework document identifying the responsibilities of various organisations and stakeholders in implementation of certain activities and represents the long-term guideline on resolution of the environmental problems faced by the community.

Public participation is especially important at this stage, since it allows identifying and thoroughly studying all the aspects causing concerns in relation to the recommended measures. Hence, your SC must ensure dissemination of LEAPs Project among the community representatives, members of municipality, Mayor’s Office and local authorities and NGOs. Various methods of public involvement shall be considered, including publication of the articles, placing interviews on radio, financing the activities of working groups and conducting public hearings. Besides this, it would be reasonable to publish

**FIGURE**

**LEAPs Format for City of Ararat**

- Letter of Support from Ararat Authorities
- Legal Provisions Promoting Programme Implementation
- Main Environmental Articles of Constitution of Republic of Armenia
- Environmental Provisions of Aarhus Convention
- Introduction
- Step-by-step
- Identification of Priority Environmental Problems
- Pollution of Air Basin
- Unsatisfactory Condition of Irrigation System and Limited Green Territories
- Unsatisfactory Conditions of Water Supply and Water Discharge Systems
- Improper Solid Waste Management
- Low Level of Environmental Education and Access to Information
- Setting Strategic Goals
- Setting Priority Measures
- Priority Environmental Measures for City of Ararat
- Annexes

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<table>
<thead>
<tr>
<th>Goal</th>
<th>Objective</th>
<th>Activities</th>
<th>Implementing organisation</th>
<th>Cost, GEL</th>
<th>Implementation period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ensure safety of water resources</td>
<td>1.1. Rehabilitating and improving water intake facilities</td>
<td>1.1.1. Carrying out inventory of headworks</td>
<td>Kutvodokanal</td>
<td>5000</td>
<td>2005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.1.2. Cleaning and processing territories of the headworks</td>
<td>Kutvodokanal</td>
<td>50 000</td>
<td>2005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.1.3. Fencing sanitary-protective zones</td>
<td>Mayor's Office, Kutvodokanal</td>
<td>1 mln.</td>
<td>2005-2006</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.1.4. Metering the water volumes, installing the meters</td>
<td>Mayor's Office, Kutvodokanal</td>
<td>100 000</td>
<td>2005-2006</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.1.5. Ensuring lighting of the territory</td>
<td>Mayor's Office, Kutvodokanal</td>
<td>100 000</td>
<td>2005-2006</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.1.6. Rehabilitating access roads</td>
<td>Mayor's Office, Kutvodokanal</td>
<td>200 000</td>
<td>2006-2007</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.1.7. Rehabilitating wells, installing pumps</td>
<td>Mayor's Office, Kutvodokanal</td>
<td>1 mln.</td>
<td>2005-2007</td>
</tr>
<tr>
<td></td>
<td>1.2. Ensuring safety of water sites</td>
<td>1.2.1. Ensuring armed guarding of the headworks, reservoirs, secondary pumping stations</td>
<td>Mayor's Office</td>
<td>200 000</td>
<td>2005-2007</td>
</tr>
<tr>
<td>2. Achieve rational water consumption</td>
<td>2.1. Rehabilitating and developing water network</td>
<td>2.1.1. Drawing up design for rehabilitation of city networks</td>
<td>Mayor’s Office</td>
<td>50 000</td>
<td>2006-2007</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.1.2. Replacing pipes at especially damaged segments (Solomon the 1-St, Tbilisi, Meskhi, Bukhaidze streets, Youth Avenue, Vazha-Pishaveli St., Lane 6 of Tetriteli St. from Chavchavadze Ave till bread-receiver and meat-packing plant, Palashvili St., Lanes 1 and 2 of Palashvili St., Lemontov, Kidashuri and Gelati Streets)</td>
<td>Kutvodokanal</td>
<td>500 000</td>
<td>2005-2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.1.3. Applying modern materials in replacement and laying pipelines</td>
<td>Mayor’s Office, Kutvodokanal</td>
<td>3 mln.</td>
<td>2006-2008</td>
</tr>
<tr>
<td></td>
<td>2.2. Reducing water losses</td>
<td>2.2.1. Installing water meters</td>
<td>Mayor’s Office, Kutvodokanal</td>
<td>1 mln.</td>
<td>2007-2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2.2. Promoting rational water use among population</td>
<td>Mayor’s Office, NGOs, media</td>
<td>380/annum</td>
<td>2005-2010</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2.3. Installing regulating control mechanisms at public use places, residential sector, enterprises</td>
<td>Mayor’s Office</td>
<td>200 000</td>
<td>2006-2007</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2.4. Strictly observing water supply schedule</td>
<td>Kutvodokanal</td>
<td>2005-2025</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2.5. Creating special groups for location and liquidation of damages in network</td>
<td>Kutvodokanal</td>
<td>100 000</td>
<td>2006</td>
</tr>
</tbody>
</table>

3. Observe water treatment conditions

<table>
<thead>
<tr>
<th>Goal</th>
<th>Objective</th>
<th>Activities</th>
<th>Implementing organisation</th>
<th>Cost, GEL</th>
<th>Implementation period</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1. Ensuring uninterrupted chlorination of drinking water</td>
<td>3.1.1. Repairing and procuring equipment, installing chlorinating plant</td>
<td>Kutvodokanal</td>
<td>50 000</td>
<td>2005</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.1.2. Procuring batchers</td>
<td>Kutvodokanal</td>
<td>4000</td>
<td>2006</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.1.3. Creating the long-term chlorine reserve stock</td>
<td>Kutvodokanal</td>
<td>30 000</td>
<td>2005-2008</td>
<td></td>
</tr>
<tr>
<td>3.2. Ensuring water quality monitoring</td>
<td>3.2.1. Renewing equipment in sanitary inspection and introducing express-methods of bacteriological analyses of the water</td>
<td>Mayor’s Office, Sanitary Inspection</td>
<td>100 000</td>
<td>2007-2008</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.2.2. Renewing equipment in Kutvodokanal laboratory</td>
<td>Mayor’s Office, Kutvodokanal</td>
<td>50 000</td>
<td>2006-2008</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.2.3. Ensuring permanent radiation control of water</td>
<td>Sanitary Inspection</td>
<td>40 000</td>
<td>2010</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.2.3. Equipping Kutvodokanal with mobile laboratory</td>
<td>Mayor’s Office, Kutvodokanal</td>
<td>50 000</td>
<td>2006</td>
<td></td>
</tr>
<tr>
<td>3.3. Introducing modern water safety systems</td>
<td>3.3.1. Introducing the water ozonation method</td>
<td>Mayor’s Office, Kutvodokanal</td>
<td>1 mln.</td>
<td>2008-2015</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.4. Applying individual methods for improving drinking water quality</td>
<td>3.4.1. Introducing the individual ozonating devices</td>
<td>Mayor’s Office, Kutvodokanal, NGOs, media</td>
<td>2 mln.</td>
<td>2008-2015</td>
</tr>
<tr>
<td></td>
<td>3.5. Protecting population against use of poor quality drinking water</td>
<td>3.5.1. Accomplishing construction of water collector reservoir and networks in Chakhata District</td>
<td>Mayor’s Office, Kutvodokanal</td>
<td>100 000</td>
<td>2006-2007</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.5.2. Creating water quality warning system, installing informational stand in the crowded places, issuing informational bulletins, Creating the corresponding rubrics in the newspapers, Posting information in Internet. Creating water quality early warning system for population.</td>
<td>Mayor’s Office, Kutvodokanal, NGOs, media</td>
<td>10000</td>
<td>2006</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.5.3. Stopping use of artesian water for drinking purposes. Informing population on hazards related to use of artesian waters for drinking purposes.</td>
<td>Sanitary Inspection, Kutvodokanal, NGOs, media</td>
<td>2005-2025</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>3.5.4. Conducting «Water Week»</td>
<td>Sakrebulo, Mayor’s Office</td>
<td>4000/ annum</td>
<td>2006-2025</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.5.5. Introducing population to the rules of care for special water collection reservoirs</td>
<td>Kutvodokanal, NGOs, media, higher schools</td>
<td>2500/ annum</td>
<td>2005-2007</td>
</tr>
</tbody>
</table>
4. Ensure uninterrupted drinking water supply

4.1. Seeking the alternative water supply sources

4.1.1. Extending Gumat headworks

Mayor’s Office
100 000
2005-2006

4.1.2. Studying river water resources forming at Aiskh Mountain, for the purposes of ensuring water supply in Kutaisi, with consequent project development.

Mayor’s Office
1 mln.
2006-2007

4.2. Ensuring uninterrupted energy supply

4.2.1. Taking measures for ensuring water sites with necessary energy resources

Mayor’s Office, Kutiodokanal
100 000
2006-2008

5. Improve system of water economy management

5.1. Introducing new management in JSC Kutiodokanal

5.1.1. Optimizing management structure

Kutiodokanal
5 000
2006

5.1.2. Capacity building among professionals

Kutiodokanal, higher schools
30 000
2006-2025

5.1.3. Creating automatic control system

Mayor’s Office, Kutiodokanal
1 mln.
2008-2010

5.2. Technical reequipping of Kutiodokanal

5.2.1. Equipping respective services with

Mayor’s Office, Kutiodokanal
1 mln.
2010-2015

LEAPs Project as a small brochure and disseminate it among the wide strata of population. SC shall also seriously consider issue of organising presentation for the municipal council (see example – Proposed LEAPs Format for City of Ararat).

6.4.1 Adopt Action Plan

It is important that the SC allow sufficient time to receive both written and oral comments on the draft EAP, and then review these comments to determine what changes need to be made. You may even consider meeting with individuals who have raised significant points. You might consider preparing a “Comment Response Summary” which summarizes all comments received on the EAP, how these comments are reflected or not reflected in the final EAP, and a rationale for those suggestions that are not included.

After these changes have been incorporated, the SC will want to approve the EAP and submit it to the Municipal Council for formal adoption. Because many of the recommended actions in the EAP will require approval by the Municipal Council, their formal endorsement will help to improve the chances that specific recommended actions will actually be implemented. Further, as noted earlier, it is critical the Municipality “institutionalize” the EAP recommendations into its formal planning processes, such as the preparation of its land-use plan and annual budget.

While the Municipality and other agencies will have primary responsibility for implementation, the SC can continue to play an active role in monitoring and overseeing EAP implementation. For example, the SC can provide a forum for all implementing agencies to report on their progress toward achieving the goals of the EAP. Further, the SC can continue to implement citizen-based initiatives, such as tree plantings and river clean-ups, and provide a sounding board for the municipal government on how to most effectively solve environmental problems.

The EAP provides a long-term roadmap for addressing environmental problems in your community. Technologies and priorities will change over time, and this will require periodic revisions to the EAP to assure that environmental priorities are still reflecting community concerns. The EAP will need to be revised periodically – ideally every 3-5 years – to reflect new information, technological advances, and new environmental requirements.

Conclusion

The EAP provides a framework for addressing the top environmental problems and a long-term blueprint for environmental investments and programmes in the community. Ideally, the EAP serves as a multi-stakeholder agreement on environmental priorities for the community. The process of developing the EAP provides a unique opportunity for incorporating public views and preferences, and thus, a forum for improving public support of environmental programmes. It provides a document by which to monitor and evaluate the effectiveness of implementation activities. Thus, an EAP can be an extremely useful document for furthering environmental protection in the community.

STRATEGIC GOAL: EFFECTIVE WASTE MANAGEMENT

<table>
<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
<th>Measures</th>
<th>Responsible organisations</th>
<th>Terms</th>
<th>Cost, $</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1. Strengthen the performance of communal services involved in collection and disposal of SHW</td>
<td>1.1.1. Conducting inventory of all dumps existing at the city territory</td>
<td>Department of municipal service, Department Chistota</td>
<td>2005</td>
<td>1000</td>
<td>Number of penalised persons</td>
<td>1.1.2. Identification of specific places for SHW accumulation, in accordance with the sanitary norms.</td>
</tr>
<tr>
<td>1.1.3. Taking measures for separate collection of SHW from collection points to the city polygon</td>
<td>1.1.3. Organise timely disposal of SHW throughout entire city. Increase the number of employees in the department.</td>
<td>Department Chistota</td>
<td>Regularly</td>
<td>1000</td>
<td>Volume of disposed SHW</td>
<td></td>
</tr>
<tr>
<td>1.1.4. Taking into consideration the size of the city and lack of special equipment, procure new, modern mechanisms for disposal of the SHW to city polygon. Involve the stakeholders into procurement process (applying the allowances, etc.)</td>
<td>1.1.4. Carrying out inventory and repairing existing machinery for disposing SHW to the city polygon.</td>
<td>Department of municipal service, Department Chistota</td>
<td>2005</td>
<td>10000</td>
<td>Number of repaired vehicles</td>
<td></td>
</tr>
<tr>
<td>1.2. Installation of various colour bunkers for various waste types (food wastes, synthetic materials, paper waste, glass, medical wastes, construction wastes, etc.)</td>
<td>1.2.1. Installation of various colour bunkers for various waste types (food wastes, synthetic materials, paper waste, glass, medical wastes, construction wastes, etc.)</td>
<td>Department of municipal service, Department Chistota</td>
<td>2005</td>
<td>30000</td>
<td>1000 of installed bunkers</td>
<td>1.2.2. Informing population on advantages and effectiveness of separated waste disposal.</td>
</tr>
<tr>
<td>1.3. Improving centralised disposal of SHW from collection points to the city polygon</td>
<td>1.3.1. Carrying out inventory and repairing existing machinery for disposing SHW to the city polygon.</td>
<td>Informational department of EIA, Department of municipal service</td>
<td>Regularly</td>
<td>1500</td>
<td>Number of informed persons (based on the poll results)</td>
<td></td>
</tr>
</tbody>
</table>

| 1. Organisation of effective collection and disposal of SHW | | | | | | |
| 2. Ensuring uninterrupted energy supply | | | | | | |
| 3. Ensuring uninterrupted drinking water supply | | | | | | |
| 4. Improving system of water economy management | | | | | | |
### 2. Improving condition of city polygon

<table>
<thead>
<tr>
<th>2.1. Ensuring more effective performance of city polygon</th>
<th>Department Chistota</th>
<th>Regularly</th>
<th>Number of identified SHW types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement Actions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1.1. Implement sorting SHW delivered to the polygon.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1.2. Arrange the places for separated receiving and storage of SHW.</td>
<td></td>
<td></td>
<td>Number of identified places</td>
</tr>
<tr>
<td>2.1.3. Arrange burial of the SHW into the concrete burial grounds.</td>
<td>Department of municipal service, Department Chistota</td>
<td>Regularly</td>
<td>Volume of buried SHW</td>
</tr>
<tr>
<td>2.1.4. Organise regular sanitary processing of the respective parts of the polygon.</td>
<td>Centre of hygiene and epidemiology</td>
<td>Regularly</td>
<td>Number of processed sites</td>
</tr>
<tr>
<td>2.1.5. Install water protecting sheds over the SHW storage places.</td>
<td>Department Chistota</td>
<td>Regularly</td>
<td>Number of installed sheds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.2. Creating sanitary-protection zone around the city SHW polygon</th>
<th>Department Chistota</th>
<th>Regularly</th>
<th>Existence of fencing around the polygon</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.1. Arrange fencing around the city polygon</td>
<td>Department of municipal service, Department Chistota</td>
<td>2005-2006</td>
<td>Existence of fencing around the polygon</td>
</tr>
<tr>
<td>2.2.2. Protect the sanitary-protection zone (SPZ) around the polygon.</td>
<td>Centre of hygiene and epidemiology, Department Chistota</td>
<td>2005-2006</td>
<td>Existence of sanitary-protection zone</td>
</tr>
<tr>
<td>2.2.3. Plant vegetation on the territory of SPZ.</td>
<td>Department Chistota, Department Ozelenenie</td>
<td>2005-2006</td>
<td>Number of planted trees</td>
</tr>
<tr>
<td>2.2.4. Liquidate sites keeping the domestic animals around the polygon.</td>
<td>Centre of hygiene and epidemiology, Department Chistota</td>
<td>2005-2006</td>
<td>Number of liquidated sites</td>
</tr>
</tbody>
</table>

### 3. Secondary utilisation of SHW

<table>
<thead>
<tr>
<th>3.1. Reducing volumes of SHW subject to burial, through their utilisation</th>
<th>Executive Authorities, Ministry of Municipal Economy,</th>
<th>2006-2007</th>
<th>Reduced SHW volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.1. Build the plant for utilisation and processing SHW</td>
<td>Executive Authorities</td>
<td>2006-2007</td>
<td>50000000 Reduced SHW volume</td>
</tr>
<tr>
<td>3.1.2. Involve all the interested enterprises, organisations and private sector for financing utilisation and processing plant</td>
<td></td>
<td>2006</td>
<td>-</td>
</tr>
</tbody>
</table>

### Implementing Actions

- **2. Improving condition of city polygon**
  - **2.1. Ensuring more effective performance of city polygon**
    - **2.1.1. Implement sorting SHW delivered to the polygon.**
    - **2.1.2. Arrange the places for separated receiving and storage of SHW.**
    - **2.1.3. Arrange burial of the SHW into the concrete burial grounds.**
    - **2.1.4. Organise regular sanitary processing of the respective parts of the polygon.**
    - **2.1.5. Install water protecting sheds over the SHW storage places.**

- **2.2. Creating sanitary-protection zone around the city SHW polygon**
  - **2.2.1. Arrange fencing around the city polygon**
  - **2.2.2. Protect the sanitary-protection zone (SPZ) around the polygon.**
  - **2.2.3. Plant vegetation on the territory of SPZ.**
  - **2.2.4. Liquidate sites keeping the domestic animals around the polygon.**

- **3. Secondary utilisation of SHW**
  - **3.1.1. Build the plant for utilisation and processing SHW**
  - **3.1.2. Involve all the interested enterprises, organisations and private sector for financing utilisation and processing plant**
  - **3.1.3. Through the local radio and TV stations inform everybody on necessity of constructing the abovementioned plant.**
  - **3.1.4. In the future, apply allowances for the enterprises participating in the construction of plant, through releasing from payment for SHW utilisation.**
  - **3.1.5. Interest organisations and enterprises in secondary use of the SHW. Applying allowances to such organisations and enterprises through releasing from or discounting for utility payments.**
  - **3.1.6. Organising processing SHW into forms acceptable for the enterprises and organisations for their secondary utilisation. Involve farmers in utilising SHW after processing in the form of fertilisers, etc.**
INTRODUCTION

Now that you have completed your Environmental Action Plan (EAP), the next step is to put your plan into action. All the planning efforts of your Stakeholder Committee (SC) to this point – developing a vision, assessing issues, establishing priorities, and developing an EAP – lead to implementation. The environmental planning process helps to ensure that your community is targeting its scarce financial and human resources toward the most pressing problems and that you are receiving the greatest environmental benefits for your money.

While successful completion of the EAP may be a laudable achievement, the real measure of your success will be how well the recommendations in the EAP are converted into action. The SC does not have primary responsibility for implementing actions; most of these responsibilities reside with various institutions, such as the municipality, regional government, utility companies, and individual industries. However, the SC – or a reconfigured form of the SC – can play a vital role in helping to ensure that the recommendations in the EAP are fully integrated into municipal statutory planning processes and implemented by other institutions.

The EAP provides a menu of recommended actions for addressing the top priority problems facing the community. It will not be possible to pursue all actions identified in the EAP immediately; thus, the municipality and other implementing institutions will need to focus their efforts on a finite number of actions. In determining which actions to focus upon, implementing institutions will want to take into account the following considerations:

• Pursue a mixture of actions that achieve both short-term and long-term results;
• Select actions that are complementary, and if pursued concurrently, will help to improve your chances of successfully achieving your goals; and,
• Start with small, achievable projects that have a strong chance of success. This will give you experience in project implementation, and these successes can then provide momentum for pursuing more complex and longer-term actions.

One of the major questions you will need to address is “who” will be responsible for overseeing and monitoring implementation. It is important to note that the implementation phase of the LEAP is very distinct from the planning phases. While planning involves the SC jointly preparing an EAP to address a range of issues, implementation requires that various institutions take individual responsibility to implement these actions. Thus, implementation requires developing agreements among implementing institutions and developing some type of oversight and monitoring body to ensure that the goals and targets of the EAP are being achieved. This will require establishing a new organisational structure and new agreements – distinct from the SC – to ensure that your efforts are successful.

7.1 Identify Potential Implementing Institutions and Organisations

Implementers will require the active participation and involvement of numerous institutions. (Ideally, the SC will have involved these institutions early in the preparation of the EAP to build support for action implementation.) Your SC can play a critical role in identifying and bringing together key partners to assure that the actions are involved at the outset of the implementation phase. These institutions include:

• Municipalities: Your municipality will have primary responsibility for implementing the vast majority of recommendations in the EAP. In the Caucasus countries, Municipalities are responsible for managing and overseeing a wide range of environmental problems, including: managing wastewater, collecting and disposing of solid waste, providing safe and adequate drinking water supplies, and maintaining green areas. Your Municipal Council will have a crucial role to play in approving budgets, adopting ordinances, and seeking funding. If your Municipal Council has an Environmental Committee, you will want to work closely with its members, seek their input on the project design, and keep them apprised of your implementation efforts.

• Municipal enterprises: Municipal enterprises play a pivotal role in project implementation. Municipal enterprises are directly responsible for offering specific services such as providing drinking water, managing wastewater, and collecting and treating solid waste. Depending upon the community, these companies may be owned by the municipality, may be a quasi-independent municipal company with some type of joint private-public ownership structure, or may be an independent private company.

• Regional Government: Some Caucasus countries have regional governments composed of representatives from surrounding municipalities. Regional governments can potentially provide forums for solving problems that extend beyond the jurisdiction of one municipality. For example, your regional government might be able to help to facilitate an agreement among several municipalities for managing a regional environmental service or facility, such as a solid waste landfill. Depending on the legal framework, regional governments may also have certain regulatory responsibilities.

• National Government: The national government establishes environmental policies that provide the legal framework for managing environmental problems. For example, the Ministries of Environment in the Caucasus countries are usually responsible for establishing regulatory standards that set specific pollution abatement levels. Environmental Ministries are also sources of technical and financial assistance. Depending on your country’s regulatory framework, other ministries may share some environmental responsibilities. For example, in many CEE countries, the Ministry of Health oversees and enforces numerous health standards, such as drinking water quality and indoor air quality in the workplace. Many CEE countries have regional inspectorates that serve as the regional representatives for national ministries, such as Regional Environmental Inspectors and Health Inspectors. These inspectors will probably have direct responsibility for implementing specific components of the EAP, such as enforcing enforcement actions against environmental violators.

• Private Sector: Municipalities can hire private companies to fulfil public services, such as the collection and management of solid waste. Municipalities can enter into agreements to contract and oversee private sector activities, while the private sector can design, construct, and operate environmental facilities. (See Section B “Evaluate Opportunities for Working with the Private Sector” below.)

• Non-Governmental Organisations: Non-governmental organisations (NGOs) can play an important role in implementing a diverse range of activities related to environmental protection. NGOs are involved in conducting environmental education programmes, implementing citizen-based environmental monitoring programs, conducting energy and environmental audits, overseeing wildlife protection areas, and installing environmental equipment and devices. NGOs can be valuable partners in your implementation efforts. (See Section C “Evaluate Opportunities for Working with NGO Sector” below.)

• Industries: Your EAP will probably identify several industries – both private and government-owned – that will have specific responsibilities for reducing pollution levels. Your municipality and regional inspectorates will need to work closely with these industries to bring them into compliance with any new environmental standards and programs.

Your community’s implementation efforts will probably involve a network of government, non-government, and private institutions. The SC, in cooperation with the municipality, can play an important role in identifying appropriate institutions, agencies, organisations, and individuals to seek their participation in the implementation phase.

7.2 Working with Private Sector

There are five types of public-private relationships that are generally recognized. These relationships can be characterized by the roles played by both public and private sectors:

• Contract services. The municipality contracts with the private sector to provide a specific municipal service, such as solid waste collection, or to maintain and operate a facility, such as a wastewater treatment plant. The facility is owned by the public sector.

• “Turnkey” facility. A turnkey facility involves the private sector designing, constructing, and operating an environmental facility that is owned by the public sector (i.e. the public sector is presented with the keys to turn the facility). While the public sector generally assumes the financial risk, the private partner usually assumes the performance risk for minimum levels of service and/or compliance.

• Developer financing. In this type of arrangement, the private sector finances the construction or expansion of an environmental facility in return for the right to build residences, stores, or industrial facilities.

• Privatization. In privatization, the private sector owns, builds, and operates a facility. They also partially or totally finance the facility.

• Merchant facility. In this type of arrangement, not only does the private sector own and operate the facility, as with privatization, but also they decide to provide an environmental service to a community on their own initiative.

7.2.1 What are the Advantages of Working with the Private Sector?

There are five basic reasons to consider working with private sector:

• Potential access to more sophisticated technology. Private companies often have greater technical and design expertise that enables them to assess opportunities for using more advanced technologies and making knowledgeable predictions of cost and performance benefits. For this reason, they may be more willing to undertake the risk of using new technologies.

• Cost-effective design, construction, and/or operation. Working with the private sector can lead to cost savings in several ways. First, since a private partner

often operates similar facilities within the same geographical area, costs for operation and maintenance can be reduced because the private company can buy supplies in bulk and centralize administration. In many cases, the private company has a larger number of employees. This allows the private company to perform a greater number of repairs and maintenance procedures by moving highly trained staff from site-to-site. This can result in cost savings through reduced labor and repair costs.

- **Turnkey arrangements provide communities with a second option for saving money.** By consolidating responsibility for designing, constructing, and operating a facility into one contractual agreement rather than two or three, many of the delays associated with the procurement process can be avoided. As a result, you can reduce interest costs and achieve compliance goals more quickly. The costs to your community can be more predictable when one private company is responsible for all phases of construction and operation.

- **Flexible financing.** Sometimes private companies can bring private funding to help to finance public facilities. For example, a private developer may contribute the initial capital and operate the leased facility under the public entity's overview. The developer contributes funds in exchange for the rights to use the new facility and/or receive future income from user fees. Thus, the developer finances the new capacity, thus shifting the burden away from individuals who are already using the environmental facility or system. The weakness in developer financing, as well as other types of private investment financing, is that the public sector takes the risk of the private developer possibly withdrawing or altering development decisions. Further, the developer is seeking to make a profit on the construction and financing of the public facilities.

- **Delegation of responsibility and risk.** Your municipality may not want the day-to-day burden of managing technologically complex facilities, and/or may lack the experience of raising large amounts of capital. If so, working with the private sector offers a way for your municipality to carry out its responsibilities without them of managing the service or facility. The risks involved in providing environmental services can be significant. Risks include design and construction delays, plant performance and environmental compliance, financial and tax liabilities, and labor instability. In working with the private sector, you can transfer certain risks to, and elicit guarantees from, the private sector. However, the private sector, if willing to assume these risks, will increase its prices accordingly.

- **Guaranteed cost.** A partnership between your municipality and a private company can provide certain benefits to a community through guaranteed costs. Guaranteed costs allow your community to accurately budget for an environmental service over a set period of time. This simplifies the budget process since the community no longer needs to make adjustments to provide for contingencies during the budget year.

7.2.2 What Are the Disadvantages of Working with the Private Sector?

There are two potential major disadvantages of working with the private sector: loss of control and financial risks.

- **Loss of local control.** The argument most often heard against privatizing environmental services is that the municipality loses control over the financing, construction, and operation and maintenance of the facilities. By relinquishing ownership, the municipality also loses “hands on” control of the operation and maintenance of the system. That is, even though the municipality can hold the private partner accountable for performance, on a daily basis the private partner controls the methods of service, compliance with treatment standards, payment levels, etc. However, the municipality can specify performance standards and hold the private owner/operator accountable for meeting these standards.

While loss of local control may raise some concerns, a partnership between the public and private sectors can be structured to provide the municipality with oversight and control of a privately financed and owned facility. With a privately-operated facility, the municipality can still retain control in the following ways:

- developing and implementing a user fee system,
- maintaining primary contact and interaction with users of the facilities,
- controlling growth within the service area,
- maintaining responsibility for determining whether the facility will be expanded and under what conditions it can occur,
- keeping responsibility for connections and disconnections,
- preserving the right to inspect the facilities and to perform fiscal, management, and/or operational audits, and,
- sharing any operational savings with the private sector through incentive programmes.

- **Financial risk:** Another potential disadvantage of privatizing environmental services is the financial risk associated with a long-term contract. This is especially true if the private company faces financial problems or decides to withdraw from the project. In this case, the municipality could potentially assume unexpected financial risks and potentially face costly litigation. Proper allocation of risks is of great importance, and it is essential that the community protect itself by hiring qualified legal, financial, and technical advisors to assist in the structuring of the service agreement and overall implementation of the privatization transaction.

Working with the private sector can offer real benefits, but your municipality must weigh the benefits with the risks. If you decide to use a private company to implement part of your EAP, choose that company carefully. You will want to identify companies that have experience working with similar problems and technologies. Ask the company for references and then ask these municipal officials about their experiences with the company to make sure the company has a good record.

Hiring private companies to provide public services requires a carefully designed purchasing system to ensure that the selection process is fair and that your municipality uses taxpayer money in the most efficient and cost-effective way possible. (See Attachment 4A, “Process for Competitively Purchasing Equipment and Services.”) Some Caucasus countries have enacted public procurement laws that regulate how public entities such as municipalities must go about purchasing equipment and services. Your municipality will want to be sure to check on any legal requirements pertaining to preparing bids or request-for-proposals.

7.3 Evaluate Opportunities for Working with the NGO Sector

Traditionally, the relationship between government and non-government organisations (NGOs) has been characterized by mutual skepticism, adversity, and, at times, even acrimony. Increasingly, both national and local governments and NGOs are recognizing their mutual interests in working cooperatively. Prompted by the enormity of the common challenges they face and the obvious limitations on the resources available to meet those challenges, local and national government agencies and NGOs are increasingly viewing partnerships as appropriate, useful, and even necessary.

7.3.1 How Can the Public and Non-government Sectors Work Together?

There is a wide range of possible partnerships between government institutions and NGOs. Examples of some of the more common partnerships include:

- **Coalition-building:** Governments and NGOs can form powerful, effective coalitions that bolster each institution’s ability to solve problems or raise money. For example, a government institution seeking funding from an international organization for environmental improvement is more likely to be successful if it is in partnership with NGOs. This partnership can help to demonstrate the local government’s commitment to public participation and democratic decision-making.

- **Outreach assistance:** One of the main strengths and strategic advantages of NGOs is that they often have access to large networks of volunteers and citizens. Thus, NGOs can be well suited to help to government institutions “reach out” to the public during the development or implementation of specific policies or programmes, raising public awareness, and soliciting valuable public input.

- **Implementation assistance:** Government institutions sometimes do not have the experience or the resources necessary to implement programmes. Increasingly, NGOs are able to fulfill that role because they may have more specialized expertise, access to funding (e.g., grants specifically for NGOs), or because they have a greater ability to augment funding with volunteer time and energy. (See Figure 7.3.1.1.)

7.3.2. What are the Advantages of Working with the NGO Sector?

There are several reasons for considering government-NGO partnerships, including the following:

- **Making more democratic decisions:** NGOs typically have expansive networks of members and volunteers. By forming partnerships with NGOs, government agencies can take advantage of these networks to increase public awareness of government policies and activities, and to more meaningfully involve larger numbers of citizens in decision-making, policy-making, and implementation.

- **Making better decisions:** By definition, decisions that involve NGOs incorporate a wider array of the community’s values and perspectives. Decisions that incorporate a broader range of perspectives are usually better, more durable decisions. In addition, NGOs often have members with experience and expertise that can complement or even exceed the experience or expertise that exists within government agencies. By forming partnerships with NGOs, government agencies can improve the overall quality of the decisions they make and the services they provide.

1 Memorandum from Steve Nicholas to Paul Markowitz on “Evaluating Opportunities for Working with NGO Sector,” 1999.
7.4 Secure Participation of Implementing Institutions and Organisations

The Stakeholder Committee can continue to play an important role to help to ensure that recommendations in the EAP are fully implemented. Ideally, the municipality will give the SC a new mandate or “official directive” to facilitate, oversee, and monitor implementation efforts. The SC can be responsible for the following tasks related to implementation:

• facilitating and securing the participating of institutions with implementation responsibilities,
• collecting data on appropriate indicators,
• monitoring and evaluating implementation efforts,
• conducting educational activities,
• facilitating citizen participation, and,
• advising the municipality or municipal council on environmental issues.

As the SC starts to take on new responsibilities related to implementation, it might be appropriate to consider reconfiguring its membership, as some institutions might be more interested in the LEAP planning phase versus implementation phase. The reconfigured SC could consider continuing to serve in an advisory capacity to the municipality or could even consider incorporating as a non-governmental organisation.

The SC can play a critical role in bringing together different institutions with implementation responsibilities associated with each priority problem. One approach ensuring coordination among these different institutions is to form separate Implementation Groups associated with each problem. Each Implementation Group would be composed of representatives from institutions with diverse implementation responsibilities, including investing in pollution control/reduction, enforcing against environmental polluters, undertaking educational programmes, and conducting research. You will find that many of the institutions represented on the SC will probably also be represented on each Implementation Group, including the municipality, regional inspectors, industries, research/academic institutions, and environmental non-governmental organisations. Further, it will be valuable to have a representative from each Implementation Group serve on the SC to ensure effective coordination.

Working with the NGO sector can offer real benefits, but your municipality must weigh the benefits with the risks. If you decide to use a NGO to implement part of your EAP, choose that NGO carefully. You will want to choose NGOs that have demonstrated their experience in implementing similar programmes. Ask the NGO for references and then ask these references about their experiences with the NGO to make sure it has a good record.

7.5 Prepare Project Implementation Plan

The Project Implementation Plan seeks to integrate the actions for each priority issue into one overall, comprehensive strategy – helping to ensure that all of the actions work synergistically toward achieving the goals and targets. It is important that the Implementation Plan include the goals and targets established in the EAP; these goals and targets serve as benchmarks to measure the effectiveness of your actions. The Implementation Plan helps to assure that all tasks necessary for implementing each action are clearly identified and responsibilities clearly defined. It identifies specific tasks that need to be undertaken to implement each action, assigns a time schedule for completing each task, determines who will be responsible for completing each task, and identifies associated costs for each task. The Implementation Plan also provides a starting point for identifying cost items that are used in preparing the budget. (See Figure 7.5.1.1. “Case Study of Municipality of Ararat, Armenia: Implementation Plan” above.)

Figure 7.5.1.1.: Case Study of Municipality of Ararat, Armenia: Implementation Plan

<table>
<thead>
<tr>
<th>2. Extension of green plantations</th>
<th>2.1. Creating new green lines</th>
<th>2.1.1. Specifying boundaries of green plantations according to the city’s plan</th>
<th>Municipality, JSC Ararat</th>
<th>January, 2006</th>
<th>Project Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2.1.2. Investigation of the local area by respective specialists</td>
<td>Municipality, independent specialists</td>
<td>October-November, 2005</td>
<td>120,000 drams</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.1.3. Development of planning-estimated documentations</td>
<td>Municipality, Planning Institution</td>
<td>September-October, 2005</td>
<td>Depending on the estimated percentage of the planned costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.1.4. Construction of new deep wells and installation of new deep pumps</td>
<td>Municipality, construction companies</td>
<td>March-June, 2006</td>
<td>3.5 mln. drams</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.1.5. Creation of new green lines/purchase of nurseries</td>
<td>Municipality, JSC Ararat housing and utilities</td>
<td>March-June, 2006</td>
<td>Extended green plantations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2. Preservation of existing green territories</td>
<td>Municipality, JSC Ararat housing and utilities</td>
<td>From April, 2006</td>
<td>250,000 drams</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2.1. Irrigation and control of green plantations</td>
<td>Municipality, JSC Ararat housing and utilities</td>
<td>From April, 2006</td>
<td>Area of green plantations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2.2. Enriching soil and providing with hygienical necessities</td>
<td>Municipality, JSC Ararat housing and utilities, JSC Ararat Hygienic-Epidemiological Inspection</td>
<td>From April, 2006</td>
<td>Fertile lands</td>
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<td></td>
<td></td>
<td>2.2.3. Environmental education of education</td>
<td>JSC Ararat Back to School, JSC Ararat Education, JSC Ararat Education and Training</td>
<td>Current</td>
<td>300,000 drams</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Educational Institutions, NGOs, media, JSC Ararat</td>
<td>Current</td>
<td>High level of environmental awareness among population</td>
</tr>
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</table>
The first step in developing an Implementation Plan is to bring together implementing institutions, SC members, and other interested individuals. With a focus on one priority issue, this group can first reviews the set of actions identified in the EAP and brainstorms a list of specific tasks that are necessary to implement each action. After completing the brainstorm, you can re-arrange the list of tasks according to their relative chronological order. Next, determine when you would like the action to be implemented, and then develop a time schedule for each task that helps you to meet that deadline. After developing time schedule, clarify and assign responsibilities for undertaking each task and then identify any associated costs. You can complete a similar process for each action until you develop a comprehensive Implementation Plan for each priority issue. (See Figures: “Proposed Formats for Project Implementation Plan.”)

7.6 Prepare Implementation Budget and Establish Accounting Procedures
A critical component of implementation is the creation of a system for accurately keeping track of project costs and revenues. This involves the creation of a budget and reliable accounting procedure.

7.6.1 Prepare Implementation Budget
Implementation budgets are financial plans that state how much money you will need and how much money you anticipate receiving. They provide a mechanism for overseeing the expenditure of project funds and help with monitoring implementation activities. A budget also identifies planned revenue sources necessary to cover both capital and operating costs. Budgets can be used to clarify the availability and timing of the receipt of funds. A sound project budget, in combination with effective accounting procedures:

- assigns a monetary value to specific activities;
- guides expenditures so that monies are spent only on activities that directly support stated goals and targets;
- identifies necessary resources and specifies when those resources need to be expended;
- enables examination of the actual costs of specific activities;
- clarifies the relationship between project costs and the administrative and operating expenses necessary to sustain the project; and,
- provides information on potential cash-flow problems before they arrive so that necessary actions can be undertaken.

Two major budget categories are expenses (costs) and revenues (income). Cost estimates flow directly from the cost items identified in the Implementation Plan. It is important that all expenditures necessary to implement a particular action are identified and included in the budget. Budget cost items include salaries, social insurance/salaries, consultants, travel, communications, office supplies, equipment, capital construction costs, operation and maintenance, rent, and, miscellaneous. The project budget also identifies various revenue sources (e.g. municipality, local/regional utility, national government, and international financial institutions) and the expected amount from each source. These revenues can come in the form of grants or loans, user fees and other charges.

7.6.2 Establish Accounting Procedures
In order to monitor project expenditures and revenues, it will be important to establish effective accounting procedures. These procedures include the preparation of a monthly transaction report (or expense log) that keeps an accurate accounting of all receipts and related internal financial records. Receipts are legal documents that are kept for all expenditures, including the date of transaction, name of firm or business, description of product or service, and the amount paid or payable. The monthly transaction reports go hand-in-hand with the monthly financial statement that summarizes the budgeted amount for each line item (e.g. office supplies, salaries), how much has been expended during the month, the total expenses to date (cumulative expenditures), and the balance for each budget line item. By comparing budgeted amounts with actual expenditures, financial statements provide valuable tools for helping to ensure that money is being spent in such a way that sufficient funds will be available for planned activities. (See Figure 7.6.2.1: “Sample Monthly Financial Statement” below.)

7.7 Secure Project Financing

Introduction
Your EAP will contain a mixture of actions that will have a range of costs associated with them. For example, adopting a municipal ordinance requires very little or no expenditures on behalf of the municipality, public education programmes require moderate expenditure levels, and building a wastewater treatment facility requires a large capital investment. Your municipality or other implementing institution will need to secure adequate financing for each action identified in the Implementation Plan. Raising capital for large environmental facilities will be one of your municipality’s most serious implementation challenges. Traditionally, in many Caucasus countries, money for large environmental facilities have been allocated on an annual basis from national budgets – usually in the form of grants to municipalities. Due to cyclical economic fluctuations, shifting political tides, or the short-term flow of funds – these projects have often taken 10-20 years to build. Oftentimes, many projects have been permanently halted before construction was completed.

In the United States, Western Europe, and now in some Central and Eastern European countries, financing for major environmental facilities is secured prior to starting the construction of these facilities. Funding is provided through a combination of national grants and loans, municipal bonds, and other sources. Municipalities usually cannot afford to pay their share of the capital costs in a single year because of the significant financial burden this would impose on its citizens. Thus, they borrow funds to pay for their share of the facilities, and then repay these borrowed funds over a period of years. Annual repayments, known as annual debt service, consist of both the principal, i.e. the original amount of the borrowed money, and the interest payments on this amount. By borrowing funds, municipalities can help to ensure that funds to cover all capital costs are secured before the first brick is laid.

7.7.1 Evaluate Sources of Capital
The following is a list two potential sources of capital: loans and grants. These are described in greater detail below:

- Loans: Long-term loans enable communities to pay for those capital costs that require a large one-time investment. Lending institutions – whether
they are commercial banks or national governments – require that borrowers provide adequate collateral for the loan, i.e. property of equivalent or greater value to the loan. This collateral provides the lender with the financial security they need in the unlikely event that the municipality is unable to repay the loan.

Some Caucasus countries have established National Environmental Protection Funds that provide loans (and grants) for environmental facilities. In addition, international financing institutions, such as the World Bank and the European Bank for Reconstruction and Development, often provide loans for local environmental projects – usually through financial arrangements with national governments.

• Grants: Grants are funds that are set aside by the national government or another organisation to pay for special projects. In the United States, federal and state governments have traditionally covered a large portion of the costs associated with major environmental facilities. In providing these funds, the federal and state governments establish a set of stringent requirements and standards that must be followed by municipalities in order to receive these funds.

7.7.2 Evaluate Potential Revenue Sources

Municipalities use a variety of mechanisms to raise revenues to annually pay for capital and operating costs of environmental facilities. Your municipality will need to carefully consider and evaluate these options to see which revenue sources are most appropriate given its legal authority and local political considerations.

Potential revenue sources include:

• User Fees: User fees require that individuals and businesses who receive the benefit of an environmental facility pay for the costs of the facility based upon how much they use (i.e. water or energy) or how much waste they generate. Municipalities in the United States and Western Europe have found that user fees provide the fairest and most equitable revenue source to pay for specific services, such as environmental improvements. User fees promote conservation of resources because people have a direct incentive to reduce their use or waste. User fees also provide a steady flow of funds to finance capital and operating costs. For example, many communities require water users to install meters that measure the amount of water consumed – monthly bills are then based directly on this amount. In some communities, user fees may be politically unacceptable as individuals and businesses that generate large quantities of waste will undoubtedly oppose them.

• Emission Fees: Emission fees are financial charges for the release of pollutants to the environment within admissible limits. Fees are based on the premise that certain human activities, such as manufacturing or driving a car, cause pollution regardless of emission control requirements, and thus they impose costs (i.e. pollution) that must be born by all of society. Emission fees provide a mechanism for internalizing these costs into the price of a product. Permit fees for construction of new buildings or industries can also be a valuable revenue source.

• Fines/Penalties: Fines or penalties are applied to those individuals or industries that pollute above allowable limits or violate other regulatory requirements. Fines are mostly designed to provide financial incentives to polluters to comply with environmental laws. Fine amounts need to be set high enough to encourage polluters to make the necessary investments in pollution prevention or control equipment. Fines can not be relied upon as a steady revenue source.

• Property Taxes: In general, property taxes are one of the primary revenue mechanisms for providing basic municipal government services, improvements, and administration. The salaries of the mayor and staff, and the general operating costs of various departments, such as police, fire, and sanitation, are usually funded out of general property taxes. In the United States, most municipalities have decided that large-scale environmental projects such as wastewater treatment facilities and drinking water systems should not be paid for out of general property taxes.

7.7.3 Prepare Project Financing Plan

A Project Financing Plan addresses all aspects of raising the necessary capital to construct a large environmental facility or system. (A “system” consists of all the components for adequately delivering an environmental service, such as the treatment facility and pipe collection network for wastewater.) It describes the technical aspects of the project, how much the project is expected to cost, and how the borrower expects to repay borrowed funds to the lender. Preparing a Project Financing Plan provides a systematic process for helping to answer a wide range of questions that financial institutions will need before they will be willing to loan your municipality money.

These questions include:

• Technical Aspects of the Project
  ➢ What environmental improvements will be achieved as a result of the project?
  ➢ What analysis was conducted to verify that the selected technology will achieve the desired level of environmental improvement?
  ➢ Is the project required to meet national laws or regulations?
  ➢ How does the project compare to alternative solutions? Does the project represent the most cost-effective solution?
  ➢ Does the project use a proven and demonstrable technology?

• Project Financing Needs
  ➢ What are the key cost assumptions and total financing requirements?
  ➢ What are the sources of revenue for the project?
  ➢ Are the revenue projections reasonable and sufficient to cover all capital, operating, and maintenance costs?
  ➢ What are the terms and conditions of all borrowed sources of financing?

It is important to note that preparing a Project Financing Plan is a highly specialized field, and will in all likelihood, require hiring qualified consultants. Your municipality will need to tailor its financing application to the specific requirements of each financial institution from which it seeks funds. Each of the questions identified above will require extensive analysis and documentation to provide assurances to lending institutions that your project is technically feasible and that your municipality or utility company can provide a reasonable assurance of repaying borrowed funds (see Attachment 7.A: Requirements for Financing Plan for Municipal Environmental Projects.)

7.8 Work with State Institutions and Local Authorities

The EAP can only provide effective direction to the municipality’s (and other implementing agencies) most fundamental decisions if it is linked with state and local “statutory” planning processes. These statutory processes include the annual budgeting processes, preparation of municipal development plans, capital infrastructure...
planning processes, and general land-use plan reviews. Ideally, your SC has established these linkages with these statutory planning processes at the early stages of the planning effort, thus increasing the chances that these recommendations will actually be incorporated. Some examples of how recommendations from the EAP might be incorporated into these statutory planning processes include:

1. If your EAP recommends the construction of a new wastewater treatment plant, SC members can work with the budget committee or infrastructure planning committee of the municipal council to help ensure that adequate funds are allocated for the treatment facility.

2. If your EAP recommends protecting undeveloped lands surrounding the urban core of the City, SC members can work with municipal staff in identifying and mapping areas of the community. This information can then be incorporated into the preparation of the next land-use or development plan.

3. If your EAP recommends a new local ordinance requiring residents to source separate recyclable materials from solid waste, SC members can work with the mayor’s office and municipal council to craft legal language and push for passage of the ordinance.

Your SC might also consider integrating EAP recommendations into various regulatory processes to provide adequate enforcement mechanisms. For example, your SC could work with the regional environmental inspectorate to ensure that pollution reduction agreements and resource commitments identified in the Implementation Agreement are reflected in their actions. Ideally, the enforcement agency would be represented on the SC to ensure consistency.

Integrating EAP recommendations into the existing statutory planning and regulatory processes at the local and regional levels is critical to successful implementation.

Conclusion
Successful project implementation may be the biggest challenge to your LEAP. Your community’s efforts will ultimately be evaluated by how well various institutions implement the recommended actions in the EAP and by the improvements in environmental quality. Your municipality and other implementing institutions will face numerous challenges as they implement environmental actions, including securing the participation of relevant institutions, raising sufficient funds to finance large environmental investments, and ensuring that each institution with implementation responsibilities follows through on its commitment.

Requirements for a Financing Plan for Municipal Environmental Projects

The questions below provide a framework to help your municipality to develop a Project Financing Plan. The questions address basic information requirements that financial lending institutions will need prior to loaning fund. The amount of information required will vary with the lending institution. You will want to seek the specific loan application requirements for each lender. (See Figure: “Worksheets for Developing a Project Financing Plan” below.)

A. PROJECT SUMMARY

1. Description of Environmental Project
   - A brief narrative description of the proposed project

2. Environmental Problem
   - What is the environmental problem being addressed?
   - What are the negative health and ecological impacts caused by the problem?
   - What percentage of the population and local or regional ecosystem is affected by the problem and how severe are the impacts?

3. Project Benefits
   - What environmental improvements will be achieved as a result of this project? Provide any quantitative information available that documents the anticipated level of environmental improvements.
   - What other benefits will accrue as a result of this project? For example, will the project result in the creation of new jobs or energy savings?

4. Basis for Project Selection
   - What process was used to set environmental priorities? Is the proposed project part of a long-term action to improve the physical infrastructure?
   - Have alternatives to the project been fully examined? Have opportunities for pollution prevention and resource conservation been fully explored? Describe what alternatives have been examined.
   - What criteria have been used to select the proposed project, e.g., cost–effectiveness analysis, implementation time, flexibility, public acceptability? What was the basis for selecting the proposed project?
   - Does the project represent the least-cost alternative? Has a life-cycle cost analysis been undertaken that examines both capital and operating/maintenance costs over the life of the project? Were the projected operational and maintenance costs discounted (i.e., taking into account the time value of money) to provide a summary of life-cycle costs analysis conducted?
   - What complementary actions are planned to ensure effective implementation of the proposed project, e.g., public education and training, economic incentives, and regulatory/legal actions?
   - What is the allocation of costs between engineering/design, construction, equipment, land, permanent working capital, and start-up expenses?

5. Project Sponsors
   - What primary organization or agency is sponsoring the project? What is the legal structure of the primary sponsor and its primary authority/responsibilities? Who are the primary management personnel and what are their positions?
   - What is the financial management system of the primary sponsor? Provide adequate documentation verifying that the primary sponsor has an adequate system for ensuring effective management of financial resources, including information on the process for planning and budgeting, revenue estimation, purchasing, accounting, debt management, and auditing and reporting. Provide biographical information on the financial management team.
   - What experience and capacity does the primary sponsor have to manage the construction and operation of the project from both a technical and financial point of view? If there is no experience, what arrangements have been made to provide this resource?


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1. The Local Agenda 21 Planning Guide, IBID.
6. Community Support
- Does the project have the support of the local community or region? Describe the basis for your assessment of community support.
- What types of activities have been undertaken to inform community members and solicit their views and support regarding the proposed project? Were efforts to secure community support undertaken throughout the project development? Describe efforts to involve the public and a schedule of activities undertaken.
- Have all necessary regulations and legal approvals been received by public entities, e.g., votes of municipal council, voter approval?

C. PROJECT FINANCING COMPONENTS

1. Structure of Project Financing
- What are the sources of financing for the proposed project? Describe all sources of financing, including loans, grants, and reserves.
- Is the combined financing from these sources sufficient to cover all capital costs, planning and design costs, and other fees?
- What are the terms and conditions of borrowed sources of financing? Describe the following:
  - What is the interest rate? Is it variable or fixed?
  - What is the payment term, i.e., the period over which the loan must be repaid?
  - Is there a project grace period (i.e., time period in which no payments are required)? How long is it?
  - Are interest costs capitalized?
  - What is the repayment plan? Is the principal portion of the payment level over the course of the loan or does it decline?
  - Are there any up-front fees?
  - What are the annual debt service (principal plus interest) and the total debt service over the life of the loan?
- What types of collateral (property, equipment) or other guarantees can the primary sponsor offer to secure the loan?

2. Financial Overview
- What are the key cost assumptions for the proposed project, i.e., operational and maintenance expenses, debt service, capital expenditures, and working capital? Provide documentation of cost estimates and projections.
- What revenue sources will be used to cover project costs? How reliable are these sources of revenue?
  - Are the revenue projections reasonable and sufficient to cover expected costs? Provide documentation.
- If user fees are anticipated as a source of revenue, what is the proposed rate structure? Does the rate structure encourage resource conservation, i.e., increasing rates for greater usage? Describe the proposed rate structure.
- If user fees are anticipated, have rate impacts been analyzed for both residential and industrial customers? What percentage of annual income of residential customers will proposed costs of the project comprise? Provide documentation.
- Has a cash flow projection analysis been conducted for the proposed project? Are the projected revenues or sources of cash flow over the term of the loan adequate to provide all the capital required to build, operate, and maintain the project; service the debt; and, make required replacements and renovations.
- Provide a description of how revenue calculations were developed, along with adequate documentation.
Monitor and Evaluate Results
INTRODUCTION

Monitoring and evaluation is perhaps one of the most often overlooked and under-emphasized elements of action implementation – despite its importance in tracking whether or not the EAP is achieving its intended goals. An effective monitoring and evaluation process provides ongoing, systematic information that strengthens project implementation. The monitoring and evaluation process provides an opportunity to:

A) compare your implementation efforts with your original goals and objectives,
B) determine whether you are making sufficient progress toward achieving expected results, and,
C) determine whether you are adhering to the project time schedule.

Monitoring and evaluation is not an ‘event’ that occurs at the end of a project, but is an ongoing process that helps decision-makers better understand the effectiveness of the action project. An effective monitoring and evaluation programme requires collecting and analyzing important data on a periodic basis throughout the life of a project. This process often involves collecting baseline data on existing conditions, reporting on progress toward environmental improvements, making connections between actions and intended outcomes, and making mid-course changes in program design. A good monitoring and evaluation process engages all stakeholders and is useful to those ultimately responsible for improving the project. Evaluation can be viewed as a learning tool for managers and project participants, as well as an important public awareness and educational tool.

To get the monitoring and evaluation efforts off the ground, the Stakeholder Committee (SC) can assemble a Monitoring and Evaluation Team (MET) to help to develop the evaluation approach and to evaluate project results. The MET can be composed of individuals with specific expertise in project evaluation, agencies responsible for providing environmental data, and implementing institutions, such as industries, with specific environmental requirements. For example, if your proposed implementation action involves undertaking a residential water conservation programme, the MET could consist of representatives from the water utility, municipality, housing association, environmental group, and local university.

Evaluations cost money, and your SC will need to address the issue of ‘who pays?’ Possible funding sources include the Municipal Environmental Fund, municipal budgets, or the National Environmental Protection Fund.

8.1 Review Environmental Objectives and Indicators

In preparing your EAP, your Stakeholder Committee has hopefully developed environmental goals, objectives, and indicators for environmental issues. (Environmental objectives are measurable commitments (e.g. 20% reduction in pollution levels) to be realized within a specified time frame (i.e. within 5 years). Thus, they provide a framework for measuring your progress in implementing actions. Indicators measure whether these environmental objectives are being achieved.

The first step in preparing your evaluation approach is to review environmental objectives and indicators established in the EAP and consider the following questions:

- Since the EAP was prepared have you received new information about the expected impacts from implementing selected actions?
- Are the objectives realistic and the proposed time-frames reasonable?
- Are the indicators valid measures of selected objectives?

For example, in preparing the Implementation Plan, you may have received new information that the planned reduction levels of a specific pollutant (i.e. target) were unrealistic given budgetary limitations. Such objectives were ideally reached through an agreement of the Stakeholder Committee, the MET will want to have any proposed changes in objectives reviewed and approved by the SC.

8.2 Establish Reporting System

An effective reporting system records the performance of all institutions with implementation responsibilities. This reporting system, in effect, provides a system of accountability for all responsible parties on how well they are achieving the goals and objectives established in the EAP. An effective reporting system ideally includes the following elements:

- Clearly articulated environmental objectives and a set of indicators to measure performance (as described above);
- A schedule and set of guidelines for all responsible parties to report to each other;
- An opportunity for responsible parties and stakeholders to periodically meet to coordinate actions and to review each others’ performance; and,
- A link between the evaluation reports and relevant statutory planning cycles of the municipality, such as annual budgeting and capital planning, so that the municipality can adjust its plans based on the actions taken by other sectors.

The MET may want to consider preparing a standardized report form to facilitate the collection and compilation of data. Each institution submits information to the MET, which in turn compiles this information into a status report. These status reports are ideally circulated to a variety of audiences, including the municipal council, mayor’s office and staff, community members, and SC members. The language and style of reports may change depending on the audience; however, the information conveyed needs to be consistent and accurate.

8.3 Collect Data on Baseline Conditions and Project Results

Ideally, most evaluations include collecting both quantitative and qualitative data. Quantitative data is information that can be counted and measured. Quantitative environmental data focuses on actual environmental improvements, such as the amount of waste reduced or energy saved. Mechanisms for collecting quantitative environmental data are usually programme-specific, such as using water meters to measure actual water consumption. On the other hand, qualitative data is a more difficult measure- ment of programme success. It includes assessments of problems encountered, consumer satisfaction, and unanticipated benefits. Qualitative data can give a real understanding of the actual impact your project is making on people’s lives. It is usually collected through instruments such as surveys and personal interviews.

You can provide your community with a better understanding of the project successes and challenges by collecting both types of data. For example, to address persistent water shortages, a town might decide to implement a pilot water conservation programme to install low-flow showerheads in residences. A quantitative data collection effort would focus on how much water has actually been saved, while qualitative data would reveal how satisfied consumers were with the performance of the new showerheads. Both types of information are imperative to determine whether the programme was successful.

As you collect data, considering the following questions:

- Which indicators are data currently being collected for?
- What are some key information sources? Are representatives from these information sources currently represented on the MET?
- How valid and accurate is the data?
- Is the data easily accessible and available?
- Are there any costs associated with acquiring the data?
- For those indicators where no data currently exists, what steps are involved in collecting new data? How expensive would a new data collection effort be?

Be sure to collect data on your environmental indicators prior to beginning implementation. This will provide you with baseline data on existing environmental conditions that will serve as the basis from which the impacts of implementing selected actions.

In collecting data, it is important to distinguish between compliance monitoring versus effectiveness monitoring – both types of monitoring are important. Compliance monitoring measures whether the implementing institution did what it said it was going to do (e.g. install 5,000 low-flow showerheads), while effectiveness monitoring measures whether the actions achieved their intended result (e.g. reducing water usage by 20% per household). Of course, the real measure of success is effectiveness, i.e. how well environmental conditions are improving. However, compliance monitoring is a critical piece of the evaluation process to help to determine whether implementing agencies have fulfilled their resource commitments.

8.4 Evaluate Results

Once you have agreed upon your objectives and indicators, established your reporting system, and collected your data, you are ready to conduct your project evaluation. The evaluation process involves comparing your actual results to the objectives identified in the EAP and Implementation Plan, including whether the results were achieved within the designated timeframe. It is important that the evaluation occur periodically throughout the life of the project and at project completion. The evaluation report includes a summary of major activities, results achieved, and the direct impact on project beneficiaries. It identifies lessons learned in order to improve existing and future projects and any needed modifications in project design.

As you prepare your evaluation, consider the following questions:


Figure 8.4.1.1: Sample project evaluation form

<table>
<thead>
<tr>
<th>Summary of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Description</strong></td>
</tr>
<tr>
<td><strong>Data Collection Information</strong></td>
</tr>
<tr>
<td><strong>Results</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Difficulties Encountered</strong></td>
</tr>
<tr>
<td><strong>Lessons Learned</strong></td>
</tr>
</tbody>
</table>

- Was the action effective in achieving its intended effect?
- Was the Implementation Plan sufficiently clear in specifying what was supposed to do what actions by whom? If not, what responsibilities and time-frames were not clear?
- Did each of the steps in the project occur as planned? If not, what mid-course corrections are warranted?
- Were the costs consistent with what had been budgeted?
- Did you accurately predict your ability to manage factors within your control and to address factors beyond your control? If not, why not?
- Has the experience of implementing the project taught you how to improve future projects? If so, what are suggestions for improvement?

One issue your MET will need to address is who will be responsible for undertaking the evaluation. In selecting an individual to conduct the project evaluation, consider people with the ability to listen, negotiate, bring together multiple perspectives, and solve problems. Beyond specific skills, you may want to consider whether this person should work within one of the implementing institutions or should be external to the entire project. External evaluators are contracted from an outside organisation. Oftentimes, they may have broader evaluation expertise than internal evaluators and can help to ensure that the evaluation is unbiased and independent. On the other hand, external evaluators may be relatively unfamiliar with the details of the project and may have limited knowledge of the project’s needs and goals. Alternatively, internal evaluations are assigned to an existing staff member. An internal evaluator may have more access to organisational resources and informal feedback from project stakeholders, but may lack the outside perspective and technical skills of an external evaluator.¹

The MET needs to think about how the evaluation results will be used at the outset of the evaluation process. Implementing institutions are more likely to use information generated from an evaluation if they understand, participate, and have ownership over the evaluation process. Therefore, the more people who have been actively consulted in the process – the easier it will be to use the results for project improvement.²

Some key questions to consider in utilizing evaluation results include:

1. What are the “triggers”? In other words, at what point do you make changes to policies or programmes based on evaluation results?
2. Who decides whether to make these changes?
3. Who holds implementing entities accountable for making those changes? Who “enforces” the situation?
4. When are changes made? On an on-going basis? Every five years? Every 10 years?

One of the most important aspects of an evaluation process is that it actually provides usable results to project implementers – information that can be utilized by project managers and staff to improve results. Useful evaluation results inform decisions and provide information on how to improve project performance. Thus, if you failed to meet a certain environmental target within a specified timeframe, evaluation results can provide critical information in helping to revise your actions. For example, suppose that your municipality established a target to reduce solid waste 10% annually for each of the next five years. At the end of the first year, the municipality discovered that waste disposal had been reduced by only 5%. Further, the evaluation revealed widespread confusion among residents on when and how to recycle. This information strongly indicates the need to significantly improve the educational component of the programme in order to achieve target levels. (See Figure 8.5.1.1: “Sample Project Evaluation Form” below.)

8.5 Communicate Results to the Community

It is important that the SC keep the community informed of its progress toward achieving the EAP and Implementation Plan goals and objectives. Community members need to be informed about the status of environmental conditions in the community, what improvements have made in these conditions, and what action individuals can undertake to help to achieve the community’s environmental goals. This will require an effective communication programme to provide regular information to community members and to report their reactions to implementing agencies.

When communicating with the public about your evaluation findings, be sure to use a variety of techniques such as visual displays, oral presentations, summary statements, interim reports, and informal conversations. Additional ideas include:¹

1. IBID
2. IBID

Conclusion

An effective monitoring and evaluation system can help to ensure that the actions you have selected are achieving your environmental goals and objectives. Indicators provide a basis for measuring results, and are ideally directly linked to your environmental goals and objectives. The Monitoring and Evaluation Team collects data from each implementing institution, and this information is used as the basis for evaluating the effectiveness of your implementation efforts. The monitoring and evaluation process provides an important process for determining whether environmental objectives are being achieved, why or why not, and what modifications are necessary to keep efforts on track. As a critical feedback loop, it is then important to share programme results with community members, municipal council, and other stakeholders.

- Write separate executive summaries and popular articles using evaluation findings, targeted at specific audiences or stakeholder groups.
- Write a carefully worded press release and have a prestigious office or public figure deliver it to the media.
- Hold a press conference in conjunction with the press release.
- Make verbal presentations to selected groups; include demonstration exercises that actively involve participants in analysis and interpretations.
- Construct professionally designed graphics, charts, and displays for use in reporting sessions.
- Make a short video presenting the results for use in analysis sessions and discussions.
- Stage a debate or advocate-adversary analysis of the findings in which opposing points of view can be fully aired.
Conduct a Public Outreach Campaign
INTRODUCTION
Public outreach involves both informing and seeking the views of community members. For a LEAP, public outreach means educating the public about the scope and goals of a LEAP, information on the severity of environmental problems, and the type of implementation actions your Stakeholder Committee (SC) is considering. It also involves providing residents with information on what they can do as individuals and collectively to improve environmental quality in the community – such as how to recycle or reduce water consumption.

Successful public outreach efforts require two-way communication. Thus, it is important that your SC seeks the ideas, concerns, and opinions of citizens to help to ensure that the priorities and solutions you have developed reflect the needs of the community as a whole. To effectively participate, citizens will need easily accessible opportunities to contribute. They will need to be kept informed about how their views are reflected in the final decisions. Effective public outreach efforts ultimately help to «build community» by informing people and getting them involved in issues that affect their lives. Educating the public is a not an ends in itself – but rather a means toward increasing citizens’ voices in the decision-making process.

Effective public outreach means providing people with consistent, clear, and accurate information. This message is delivered in partnership with numerous information sources connected to your target audiences and utilizes a variety of outreach methods to reach that audience. Effective public outreach campaigns require reaching individuals in the places where they live, work, and recreate through a decentralized and diverse communications outreach strategy.

Why is it important to inform and seek the views of the public? The benefits of conducting a public information outreach campaign include:

- Citizens are a diverse and knowledgeable source of information on the major issues facing the community and on appropriate solutions. Citizens can play an important role in providing information, monitoring compliance with laws and regulations, formulating innovative solutions, and even pressuring the government to act if rules are not being enforced.
- Many community improvements require citizens to modify their behavior, such as saving energy or disposing of litter properly. Public outreach campaigns can help to raise people’s awareness about the severity of specific environmental problems and expose them to new ideas about what they can do to improve the situation.
- Goals describe how you propose to achieve your purpose. They express what you hope to accomplish in terms of seeking public opinion, educating the public, and involving the public in addressing environmental problems. Goals can help to assure that a coherent and consistent set of public outreach activities is formulated and implemented.

For example, the purpose and goals of your public outreach effort for your LEAP might be:

- Purpose: Involve citizens in the decision-making process on how to best address environmental problems within the community.
- Goal #1: Inform the public about the activities and results of the SC.
- Goal #2: To engage citizens in actively improving the local environment.

Your public outreach efforts could be focused on a specific environmental problem. For example, if you choose to focus your outreach efforts on solid waste, your purpose and goals might be:

- Purpose: To reduce the negative environmental impacts of improper disposal of hazardous components of the waste stream.
- Goal #1: Educate residents on the hazardous components of the waste stream and proper methods for disposal of these waste products.
- Goal #2: Inform residents and encourage them to purchase, non-hazardous alternative products.

A clear and concise purpose and set of goals is critical to a well-designed public outreach campaign.

9.2 Identify Target Audiences

“Who are the people you are trying to reach?” The target audience is the people you are trying to reach with your public outreach efforts and is directly linked to the purpose and goals. The broadest definition of the public is everyone living or working within the community. However, you can enhance your public outreach efforts by identifying and engaging specific groups or organisations within your community. People participate in organisations because they share a common interest, and you can convey your message better by appealing directly to each organisation’s specific interests.

The following questions can help you more clearly to define who your target audience is for a LEAP:

- Who is affected by environmental problems? Depending on your LEAP and the types of environmental problems you are trying to address, the target audience could be as small as a group of landowners around a landfill whose drinking water supply is threatened or your audience may be as large as the whole community. Some groups of people will feel the impact more than others, e.g., parents with small children may be especially concerned about environmental problems related to children’s health.
- Who is affected by requirements to reduce pollution? People who own or manage industrial enterprises or entities that pollute the water, land, or air will be very important constituencies. By involving these individuals at the early stages of your efforts, you can help to avoid adversarial situations later on.
- How do community members group themselves and what are their interests? Your community can start to tell you once you start to think about how people organize themselves. Schools, labor unions, businesses, social clubs, religious organisations, and sporting groups are just a few of the types of organized groups that might be in your community. By understanding what each group values in terms of specific environmental concerns, such as clean air, places to swim, or wildlife habitat, you can target your message to each group in terms of how a particular environmental problem relates directly to them. The more you know about the interests and concerns of a particular group, the more easily you can convey your message about the need for environmental improvements.

Identifying areas of common concern is a good first step in this process. For example, a school organisation might be most interested in the health impact that pollution has on school children, while a hunting club might be most interested in how environmental problems adversely affect wildlife and habitat. Keep in mind that oftentimes the interests of various groups within the community are complementary to environmental protection – although this connection might not always be evident at first. And remember to always have a list of upcoming activities on hand and invite your audience to attend.

9.3 Develop Partnerships with Key Information Sources Connected to Target Audiences

“Who does your target audience look to for reliable information?” Information sources are those institutions, associations, government entities, organisations, and businesses that can influence your target audiences. (Many of these sources might already be members of your Stakeholder Committee.) They are those individuals and organisations that your target audiences look to for reliable information. For example, if you were trying to reach parents of school-age children, the public schools would be a “good source” for disseminating information. If you are trying to reach people who value natural areas, a local non-government environmental organisation would be a good information source.

Information sources can be instrumental in helping you define your message – since they are working with your target audiences on a regular basis. They can help to identify what outreach methods are most appropriate for reaching the target audiences. In addition, information sources will play a role in implementing specific outreach programmes. Thus, it is important to consider sources as partners in developing and implementing the campaign.

Using the solid waste example, if you are trying to encourage consumers to buy less packaging, supermarkets and retail storeowners would be a primary source. To encourage automobile owners and repair businesses to properly dispose of waste motor oil, a key source would be motor oil manufacturers and distributors. In addition, non-governmental organisations often have the public “ear” on environmental issues and can be helpful in getting your message out.

Once you have identified key information sources, consider developing cooperative alliances or partnerships.
with these sources. You may want to develop written agreements defining respective responsibilities and establishing a timeframe for implementing specific outreach programmes. Developing partnership with key information sources offers an effective, decentralized approach to deliver your message to your target audiences.

9.4 Create Effective Message

“What do you want to say?”

9.4.1 Design the message

Your public outreach campaign needs to have a clear, understandable, and consistent message. It is important that the primary message is derived directly from the purpose and secondary messages derived from the goals. The message needs to be easy to understand and appealing. You need to convince people that what you have to say is relevant to their lives. Remember, people will need to hear that same message numerous times before they will start to pay attention!

Your message will change over the course of the LEAP as you achieve various project milestones. At the start of the LEAP, you will want to inform the public about what the goals and phases of the LEAP and to seek their participation. Your message at the beginning of a LEAP might look something like the following:

We are a group of concerned citizens working in partnership with our local government to develop appropriate solutions to the most serious environmental problems facing the community. We want to hear from you about which environmental problems and other challenges facing the community you are most concerned about. We welcome your suggestions and participation over the next two years as we work together to develop an appropriate course of action to make our community more environmentally and economically sustainable.

As the LEAP progresses, your message will need to be modified to correspond to the specific phases of the LEAP. For example, after you have done a preliminary survey about environmental problems, you can reduce the amount of waste disposed in landfills by recycling and reducing waste. Citizens can reduce the negative impacts on groundwater pollution by buying safe alternatives, and where feasible, and properly disposing of hazardous waste materials.

9.4.2 Get feedback on your message

You can help to ensure that your work reflects the environmental priorities of the community by seeking public opinion at various steps throughout the LEAP. Community members can be instrumental in identifying concerns or information sources unknown to your SC, identifying risks associated with specific environmental problems, and developing alternative implementation actions.

Getting your message across and getting feedback to your message can often occur simultaneously. For example, if you are distributing an informational brochure describing the goals and scope of the LEAP, you can also include a public survey about environmental problems facing the community. Alternatively, a public information meeting provides a forum for both informing the public about your activities and seeking their views about environmental priorities.

Educating the public and seeking people’s opinions and information can be viewed as a cycle. It is important that your SC inform community members about how it has incorporated (or not incorporated) the public’s opinions and information. For example, suppose a public opinion survey revealed that community ranked solid waste as a very serious problem, while your SC determined that solid waste posed a low risk to the community. In this situation, it is imperative that the SC inform the public about this discrepancy and explain why. This «inform and comment» cycle can help to assure that the SC’s work reflects the public’s concerns (see Attachment B: Sample Public Information Survey).

9.5 Identify, Evaluate, and Select Outreach Method

“What is the best way to reach people?”

A method is a vehicle for delivering a message – it is how the message gets from the information source to the target audience. An effective public outreach campaign requires you to consider how you are going to adapt your message for each stage of the LEAP and the purposes of your message goals are derived from the specific phases of the LEAP. As the LEAP progresses, your message will need to be written in non-technical jargon and easy for the average citizen to understand. Using the solid waste example from before, a sample message might be:

Solid waste is a serious environmental problem in our community. Every year the amount of solid waste increases. Solid waste pollutes our groundwater. Our landfills are overflowing, and we are running out of safe places to build new landfills. People can reduce the amount of waste disposed in landfills by recycling and reducing waste. Citizens can reduce the negative impacts on groundwater pollution by buying safe alternatives, and where feasible, and properly disposing of hazardous waste materials.

A number of local governments and citizen groups offer citizens a number of approaches to working towards raising public awareness. For example, if you are distributing an informational brochure describing the goals and scope of the LEAP, you can also include a public survey about environmental problems facing the community. Alternatively, a public information meeting provides a forum for both informing the public about your activities and seeking their views about environmental priorities.

Getting your message across and getting feedback to your message can often occur simultaneously. For example, if you are distributing an informational brochure describing the goals and scope of the LEAP, you can also include a public survey about environmental problems facing the community. Alternatively, a public information meeting provides a forum for both informing the public about your activities and seeking their views about environmental priorities.

Educating the public and seeking people’s opinions and information can be viewed as a cycle. It is important that your SC inform community members about how it has incorporated (or not incorporated) the public’s opinions and information. For example, suppose a public opinion survey revealed that community ranked solid waste as a very serious problem, while your SC determined that solid waste posed a low risk to the community. In this situation, it is imperative that the SC inform the public about this discrepancy and explain why. This «inform and comment» cycle can help to assure that the SC’s work reflects the public’s concerns (see Attachment B: Sample Public Information Survey).

Newsletters, brochures, and publications: It is useful to prepare regular publications or newsletters on your goals, the LEAP scope, and your progress. Be sure to write up any results of your work and make it available to the public. Provide copies to your media contacts and post announcements of events and important meetings in public places.

Meetings and hearings: Public information meetings offer an excellent opportunity to both inform the public and seek their opinions on your activities. Your SC will also want to consider making all of your meetings open to the public and publishing notices in the local paper announcing the time and place of your meetings. (See Attachment A.1: “Holding Public Information Meetings.”)

Special phone number: A number of local government and citizen groups offer citizens a number of approaches to working towards raising public awareness. For example, if you are distributing an informational brochure describing the goals and scope of the LEAP, you can also include a public survey about environmental problems facing the community. Alternatively, a public information meeting provides a forum for both informing the public about your activities and seeking their views about environmental priorities.

Community Environmental Initiatives: A community environmental initiative is any activity that gets citizens involved in improving the quality of life in the community. This can include collecting trash along a stream bank, planting trees on Earth Day, or even painting a mural on a prominent building. Education and active citizen participation go hand-in-hand. (See Attachment A.2: “How to Organize a Community Environmental Initiative.”)

Special events: People like to enjoy themselves! Promoting environmental awareness and protection are complementary through events such as fairs, outdoor activities, dances, and community actions. You might consider holding contests for school children, such as a recycled art competition, or sponsoring a contest for all residents to develop a logo for your LEAP.
9.6 Identify Resource Needs and Opportunities

“Who do you need to help to implement the campaign? Many individuals may be willing to contribute their time in a campaign that benefits the entire community. Consider the following questions to help to identify potential resources:

- What expertise is available? Are there journalists who can write brochures? Are there local radio stations available to conduct on-the-street interviews? Can college students help in tabulating survey results?
- What financial resources or in-kind resources are available? Are radio or TV stations willing to offer public service announcements free-of-charge? Are newspapers willing to offer advertising space without charge? Will printing/publication companies prepare materials at reduced charges?
- Personnel requirements, number of people that can be reached, personnel requirements, time frame required to implement, flexibility, adaptability of method for other groups or sector of the community, and life time of usefulness (how long before it becomes dated).

Once you have identified a range of outreach methods suitable to various sources and particular target audiences, the next step is to evaluate and select the priority outreach methods. Consider using the following criteria, among others, to help in the selection process:

- Cost, ease of implementation, potential to utilize existing resources, number of people that can be reached, personnel requirements, time frame required to implement, flexibility, adaptability of method for other groups or sector of the community, and life time of usefulness (how long before it becomes dated).

9.7 Develop Workplan, Implement Outreach Actions, and Evaluate Results

“Have you answered the questions of ‘what,’ ‘when,’ ‘who,’ and ‘how much’?”

“How will you know whether your public outreach campaign is successful?”

Prior to implementing your public outreach activities, meet with your information sources to develop a public outreach work plan. The work plan identifies what specific steps need to be taken, who will be responsible for implementing these steps, when those steps will be implemented, and how much each step/outreach method will cost. The work plan can help you to monitor how well each task is being completed and whether these tasks are being completed on time. (See Figure 9.7.1: “Sample Work plan for Conducting a Public Information Survey” below.)

How will you know whether your outreach efforts are successful? One measure of success is – have you achieved the desired behavioral change or raised the awareness level of your target audiences? To evaluate this properly, you will need to have accurate baseline data prior to implementing your outreach efforts. You will need measurable indicators of success that are derived directly from the campaign purpose/goals and message.

For example, if one of the primary goals of your outreach campaign is to raise citizen awareness about environmental problems, then a measurable indicator might be “an increase in the number of people who know about a specific environmental problem (e.g. pollution from a local industrial facility).” This will require surveying people prior to and after your outreach campaign to measure your impact. If the primary purpose of your campaign is to increase recycling, then a measurable indicator might be “the increase in the amount of materials being recycled” and this will require collecting information on quantities of materials recycled before and after initiating your efforts.

Evaluations can help to ensure that campaign results are consistent with expectations. They can be used to refine, and when necessary, revise a campaign to better reflect reality and thus develop a more effective campaign. Monitoring and evaluation should be an ongoing process throughout the life of any public outreach campaign.

Conclusion

A well-formed citizenry has many benefits. Informed citizens are more likely to support environmental investments, better able to modify their behavior to improve the environment, and more likely to be active members of their communities. Citizens also are a wealth of information on environmental problems and solutions. Developing an effective public outreach effort requires a systematic and well-integrated approach. It requires a clear purpose and set of goals, defined target audiences, identified information sources, a well-defined message, and appropriate outreach actions suited to your information sources and target audiences. A well-designed public outreach campaign can be an effective means of getting your message across and learning from the people you are trying to reach.

Figure 9.7.1. Sample work plan for Conducting a Public Information Survey

<table>
<thead>
<tr>
<th>Goals</th>
<th>1. Seek public opinion on environmental priorities and solutions.</th>
<th>2. Incorporate public opinions into the decisions of the SC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Seek public opinion on environmental priorities and solutions.</td>
<td>2. Incorporate public opinions into the decisions of the SC.</td>
<td></td>
</tr>
<tr>
<td>Target Audience</td>
<td>General population</td>
<td></td>
</tr>
<tr>
<td>Message</td>
<td>We are a group of concerned citizens working in partnership with our local government to identify and develop appropriate solutions to the most serious environmental problems facing the community. We want to hear from the public about which environmental problems and other challenges facing the community you are most concerned about.</td>
<td></td>
</tr>
<tr>
<td>Source Partner</td>
<td>Student environmental group at local college</td>
<td></td>
</tr>
<tr>
<td>Selected Outreach Method</td>
<td>Develop and distribute a survey that assesses the public’s opinion of the most serious environmental problems facing the community.</td>
<td></td>
</tr>
</tbody>
</table>

HOT HOW TO CONDUCT A PUBLIC INFORMATION MEETING

1. Why Hold Public Information Meetings?

A public information meeting is both an information giving and information gathering process. It is designed to educate the community on a particular issue as well as to increase public awareness. Further, public meetings provide an opportunity to collect information through people’s opinions and suggestions about the problems and possible solutions. A public information meeting is like a discussion. The organisation or government agency conducting the meeting explains its activities and asks the public for information related to the issues. People ask questions about these activities and express their views on the information presented.

In the United States, there is a clear distinction between a public meeting and a public hearing. “A public meeting is a public meeting. All meetings of a public body are public meetings. The main reason for a public hearing is to formally hear and record the comments of the public on the proposal at hand. There is discussion only to clarify and understand the comments being given. There is less interactive discussion at a public hearing. This section focuses on how to conduct less formal public information meetings.

2. Setting Up and Holding a Public Meeting

The keys to holding an effective public information meeting are to:

- A. Define the purpose;
- B. Prepare adequately;
- C. Use proper procedures and good communication skills; and, D. Conduct follow-up activities

A. Define the Purpose

Being clear on the specific purpose of your public meeting can make your job much easier. Each meeting is usually focused on a specific subject. With regard to a LEAP, there are a variety of reasons to hold a public meeting, such as gathering information from the public on what environmental problems they perceive as most threatening, presenting a draft Environmental Action Plan, or explaining the cost implications of a specific action.
B. Prepare Adequately
The following steps will help you to prepare for a public information meeting:
1) Identify the audience for the meeting. Who will be affected by your efforts, who will be interested, who has information to offer that will be helpful in your efforts? Develop mailing lists of potentially interested individuals and organisations.

2) Develop informational materials for the public to be handed out at the meeting or distributed in advance. These materials may include a brief summary of the LEAP or a specific activity you are undertaking, a summary of the information collected to date on the resources and problems of the community, or a summary of the laws and regulations that govern environmental activities.

3) Locate and reserve a place for the meeting that is convenient and accessible for people in the community. Make sure that the room suits your purposes, including adequate size, lighting, and capacity for audio-visual or presentation equipment. Be sure to select a meeting time and day that will allow the greatest number of people to attend, for example during the week and at night are usually more convenient times for citizens to meet.

4) Notify the public. Public notification is usually done by either publishing a notice in a newspaper generally circulated in the area, posting notices, putting up posters, or using radio announcements. Notices are published several weeks in advance of the meeting, including the meeting agenda. You may also send an announcement to those on your mailing list of interested individuals and organisations.

5) Provide information before the meeting: It is important to make any information materials that are lengthy or large in volume available to the public to study and review before the meeting. These materials can be placed in libraries, community governmental offices, or other convenient places. Be sure to inform the public about the availability and location of these materials.

6) Prepare your agenda and materials for the meeting. Meeting agendas typically include the following items, with a time allocation indicated for each item:
- Welcome and introduction of yourself and colleagues;
- Explanation of purpose of the meeting;
- Items that will be discussed and who will lead the discussion;
- Questions from the public;
- Questions by the agency to the public (this can be a series of questions related to what information you want from the public);
- Thanking persons attending for their interest and help; and,
- Adjournment.

Consider providing time before and after the meeting for people to review maps and other materials, and to ask questions in an informal setting. This may help those who are less likely to speak up in front of a group. Materials for the meeting include those items that will be helpful in presenting the information, such as flipcharts, slides, and summary handout sheets.

7) Do a practice of the meeting. Consider rehearsing the meeting using colleagues as an audience to make sure that all the important items will be covered and that all the materials are available.

8) Arrive at the meeting place early to set up the room (chairs, materials, slide projector, etc.). Prepare a sign-up sheet for attendees so you have addresses and phone numbers for future mailings of information or notices.

C. Use Proper Procedures and Good Communication Skills
At the beginning of the meeting, lay out the ground rules, especially if there are many new participants. Describe how the meeting will proceed, introduce the person who will be acting as moderator (and any dignitaries or group members present), and explain the process for audience participation. This procedure may be as simple as raising hands and being recognized by the moderator, or in large public meetings, submitting written requests to speak at the beginning of the meeting. If the issue is controversial, explain that the moderator has the right to ask a participant to stop speaking if they make personal attacks or go beyond their allotted time.

It is important to follow the agenda to accomplish your purpose but also to be flexible and open to new information you did not anticipate. People will be more willing to attend meetings regularly if they feel that they can predict how long the meeting will take. Meetings that go on and on aimlessly will quickly discourage public participation. If necessary, be ready to schedule additional meetings to make sure everyone who has something to say is heard.

Be fair and neutral in selecting people to speak. The idea behind any public participation effort is to hear all sides of an issue. It is important to make sure that when you are calling on people to speak that you don’t overlook those with whom you know will disagree. Also, keep and circulate minutes of the meeting. Minutes serve as a public record and are often used to settle disputes about what was said or agreed upon.

If you are in charge of holding a public meeting, here are some practical things to do and not to do that will help you to make the meeting more effective:

To Do
- Convey to the audience that you are there to listen and learn, as well as to provide information.
- Encourage others to talk.
- Give everyone a chance to talk (let everyone speak once before the same person speaks again).
- Avoid using jargon and unnecessary technical language.
- Pause before responding to a question and repeat a summarized version of what was said to let the person know he or she has been understood.
- If the question is not clear, ask that it be repeated (a clear question gets a better response).
- If the information being given is not clear, ask the person to clarify it for you.
- Be clear, calm, and polite.
- Be willing to hear the emotional message of the public and acknowledge it.
- Answer questions on the same level as asked, neither too simple nor too technical.
- In the beginning of the meeting, let people know when the meeting will end, and honor that time.
- Follow up on promises made at meetings (for example, for data and information that you are unable to provide at the meeting).

Not to Do
- Don’t go to a meeting with a “script” of how things should go (but do have an agenda to accomplish your purpose and be flexible within that purpose).
- Don’t talk too much or too long (you only learn by listening).
- Don’t get into debates with individuals in the audience (if this occurs, remind the group of the original purpose of the meeting).
- Don’t allow individuals at the meeting to get into debates among themselves (if this happens, remind them of the purpose of the meeting).
- Don’t be selective in answering questions; deal with them as they come.
- Don’t answer a question if you don’t know; just say you don’t know and that you will find the information or answer later (be sure to get the person’s name and phone number so you can follow up).
- Don’t make excuses to the public if people criticize your work, such as telling them you are overworked, understaffed, or don’t have time to work on what they are interested in).
- Don’t try to impress the audience with how much you know.

D. Conduct Follow-up Activities
It is important to follow up a public meeting with the activities listed below:
- Evaluate with your colleagues how the meeting went and how to improve the next meeting.
- Write up a summary of the points made at the meeting, the follow-up actions needed, and who will be responsible for undertaking these actions.
- Respond to those persons who asked questions for which you couldn’t provide an answer or requested information that you didn’t have at the meeting. Do this by telephone or letter.
- Incorporate what you learned at the meeting into your planning activities to improve your project or proposal. At the next meeting many of the same people will be present and you can explain how the information they provided helped in the community effort.
Sample Public Information Survey

The (Community name) Environmental Action Project has been established to address environmental problems facing the community. The (Community name) Citizen Environmental Committee, in partnership with the Municipality, has been formed to develop a community vision, set environmental priorities, develop an environmental action plan that identifies specific actions to address the most serious problems; and implement, with the help of the municipal government, the top priority actions.

One of our goals is to determine what members of the public think are the most serious problems facing the community and how these problems are affecting them. We would appreciate a few moments of your time to complete the survey below. The survey results will provide us with invaluable input about where we should focus our efforts. Your individual response will be kept confidential. The survey results also will be published in the local paper. Please return your completed survey to: (name, address).

1. What aspects of the environment are most important to you?

2. What do you regard as some of the community's most important environmental assets (e.g., local river, wetlands, mountain, fresh air)?

3. Do you think that environmental problems in (community name) are: (please circle the most applicable answer)
   - Very Severe
   - Severe
   - Moderate
   - Insignificant
   - Don't Know

4. How have environmental problems adversely affected your life? (Please, check all that apply.)
   - Health of you and your family
   - Natural environment
   - Economically
   - Future generations
   - Sense of belonging to the community
   - Visually
   - Other? (please specify)

5. Which environmental problems do you think are the most serious: (please list your top 10 priorities by placing the number «1» next to the problem you think is most serious, a «2» next to the problem you think is the second most serious, etc.)
   - Solid waste from households
   - Drinking water quality
   - Solid waste from industries
   - Drinking water quantity
   - Sewage waters from households
   - Tobacco smoking
   - Sewage from industry
   - Loss of wildlife
   - Air pollution: automobiles, households and industry
   - Indoor air pollution for households (i.e. from radon, manufactured products, etc.)
   - Toxic hazards in the work place
   - Loss/degradation of forests and flora
   - Soil erosion and contamination
   - Noise pollution (all sources)
   - Food safety and poor nutrition
   - Depletion of ozone layer
   - Other (please identify)

6. Would you be willing to volunteer time to help the Citizen Environmental Committee to address environmental problems?
   - Yes
   - No
   - Unclear

6a) If yes, how would you be able to help? (please check all that apply)
   - Handing out information on how individuals can help the environment
   - Making phone calls to encourage people to attend specific events
   - Helping to organize a local environmental initiative, such as a river clean-up or citizen monitoring of water quality
   - Writing articles for the local paper on environmental problems or other topics facing the community
   - Speaking to groups about how they can become more involved in helping to improve the environment
   - Other? (please specify in the space below)

6b) Please provide your name, address, and telephone number in the space below if you are interested in helping.

Surname _____________________ Tel ______________________________
Address ______________________ Age _____________________________
                                                                                     Education ______________________
                                                                                     Sex ______________________________
                                                                                     Profession ______________________
GUIDELINE for LOCAL ENVIRONMENTAL ACTION PROGRAMMES IN THE CAUCASUS