

## ■ Project Design & Management ■



## Training Programme

for Professionals in the Water Sector in the Middle East

Egypt, Syria  
Jordan and Yemen



# Project Design and Management

**Manual for Professionals in the Water Sector  
in Egypt, Syria, Jordan and Yemen**

## **Training Programme Manual**

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IPTRID SECRETARIAT

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## Acronyms

BMZ -	Federal Ministry for Economic Cooperation and Development (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung), Germany
CARE -	Cooperative for Assistance and Relief Everywhere, Inc., USA
CIDA -	Canadian International Development Cooperation Agency, Canada
DFID -	Department for International Development, UK
EC -	European Commission
FAO -	United Nations Food and Agriculture Organization
GEF -	Global Environment Facility
GTZ -	German Agency for Technical Cooperation (Deutsche Gesellschaft für Technische Zusammenarbeit), Germany
IDRC -	International Development Research Centre, Canada
IPTRID -	International Programme for Technology and Research on Irrigation and Drainage, a special programme of FAO
LEAD -	Leadership for Environment and Development
SIDA -	Swedish International Development Cooperation Agency, Sweden
USAID -	US Agency for International Development, USA
UNDP -	United Nations Development Programme
UNEP -	United Nations Environmental Programme
UNESCO -	United Nations Educational, Scientific and Cultural Organization

## Acknowledgements

This manual has built on the resources of the following three training materials:

- 'Project Preparation and Proposal Writing' workshop for water researchers, IPTRID/FAO, LEAD International, Delta Barrages, Egypt
- 'Writing Project Proposals: A Distance Learning Module', LEAD International, prepared in collaboration with the Commonwealth of Learning, Vancouver, British Columbia, Canada
- 'Project Design and Management', US Peace Corps Training of Trainers Manuals developed for countries in Central and Eastern Europe and Central Asia

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Special thanks are due to the UK Department for International Development (DFID) and the German Agency for Technical Cooperation (GTZ) for the support to make this training programme possible.

Finally, the 'Project Design and Management' Training Programme team is indebted to the over 100 participants from Yemen (November 2006), Jordan (September 2006), Syria (June 2006) and Egypt (November 2005). Without them, it would not have been such a success.

## Preface

In November 2005, the International Programme for Technology and Research in Irrigation and Drainage (IPTRID) and the Ministry of Water Resources and Irrigation of Egypt organized a training workshop on “Project Preparation and Proposal Writing” for Professionals in the Water Sector of that country. LEAD International (Leadership for Environment and Development) a global capacity development network of over 1,500 professionals and organizations that promote and contribute to change towards sustainable development was selected to be the workshop’s implementing unit.

This activity turned out to be a real success as indicated not only by the post-workshop evaluation but also by the enquiries that were made by other IPTRID partners in the region. The Programme realized the potential for expanding the scope of this exercise through a regional initiative which was jointly funded by the German Agency for Technical Cooperation (GTZ) and directed towards enhancing the capacity of professionals in the water sector on Project Design and Management. Thus, working together with LEAD International further workshops were designed and prepared with participants drawn from institutions based in Yemen, Jordan and Syria. The revised workshops reflected the key lessons learned from the Cairo experience, expanded its content to include project delivery management skills, increased the number of training days, made available additional supporting online resources and contemplated a manual - including the four countries activities - to be published following completion of the training. That manual is what the reader has now in hands.

In addition to the capacity development exercise, IPTRID with the respective country’s participating ministries or agencies designed a mechanism to develop a cadre of “trainers of trainers” in parallel to the workshop’s activities. During the Egypt workshop, two participants were identified based on both skills and attitudes to act as trainers in the subsequent workshops. Thus, the Syria event had the original trainers involved supported with the two co-trainers. Subsequently, the Jordan workshop was supported by two Syrian professionals and the last activity in Yemen counted with the support of two Jordanian professionals selected similarly. At the end of the capacity development cycle, 8 Middle East water professionals had been trained “hands-on” to be able to tackle training courses on the subject matter. The “rotating” training support scheme can of course be extended to other countries in the Region, something that IPTRID is willing to support as the needs materialize.

With respect to the training itself, it is no secret that a weak link of water-related organization in the region is to be able to prepare suitable project proposal that can be submitted to potential donors. Those dealing with this aspect of development know well the frustrations of not being able to respond to calls for project proposals on time or see their proposals largely rejected for lack of quality. The end objective of this training cycle was to enhance not only on the preparation of just the proposals but to improve on the quality of the design and management of those projects once they materialize.

IPTRID, GTZ and their country partners are quite pleased with the results obtained. The reader can judge by itself the appropriateness of this initiative. The Programme will welcome your feedback and suggestions on how to improve further interventions.

**Carlos Garces**

IPTRID Programme Manager

## Introduction

Welcome to the Participant Manual of the 'Project Design and Management Training Programme for Professionals Working in the Water Sector'.

The training programme was designed and organised by IPTRID, the International Programme for Technology and Research in Irrigation and Drainage, a special programme of FAO.

Implementation was conducted with LEAD International, a worldwide network promoting Leadership for Environment and Development and co-financed by GTZ, the German Agency for Technical Cooperation

The content of this Participant Manual was tested and developed through a series of training workshops in Egypt, Syria, Jordan and Yemen between November 2005 and November 2006.

The Project Design and Management Training Programme (PDM) strengthens participants' capacities in developing more effective and efficient projects to address pressing water issues in the region.

Participants - nominated and invited by relevant ministries - deepen their understanding of and skills in project design and management during this programme through developing their own real life project plan, concept note and proposal through a five-day training workshop supported by on-line learning opportunities before and after the workshop.

This Manual along with the training programme are dedicated to facilitate regional communication, exchange of knowledge, know-how and technology transfer. **It is prepared as the way workshops were carried out and as a model of how the training can be organized.**

### Purpose

The purpose of this Manual is to provide you with information and hands-on experience on:

- How to design a project
- How to prepare a concept note
- How to prepare a project proposal
- How to manage a project

Although you learn about how to identify and approach donors, please remember this Manual is not about fundraising or giving you suggestions where you can apply for funding.

### Use your own project idea

Use your own project idea in order to make the most out of this Manual. In a step by step way, this Manual supports you to develop your idea into a manageable project plan. In case you do not have adequate resources to implement your project, the Manual also helps you to communicate your project in a concept note and in a full proposal to attract funding.

### Learning support

Your learning is supported by:

- Pre-workshop online learning
- 5-day face-to-face workshop activities



- 5 slide sets facilitators use during the workshop

The Manual contains the following elements:

- Introduction to each topic of all 24 Sessions
- Template for developing a concept note
- Template for writing a project proposal based on forms commonly used by major donors
- Resource materials that illustrate typical project situations, and give the perspectives of both the donor agency and of the applicant for funding
- 34 Handouts that support your project design and management and proposal development
- 39 Activities - marked with a  symbol - which deepen your learning through active and interactive learning

## Workshop Schedule

Project Design and Management Workshop for Professionals Working In the Water Sector  
(Total working hours per day is 5 hours and 30 min)

	Day 1	Day 2	Day 3	Day 4	Day 5
	<b>Project Design I.</b>	<b>Project Design II.</b>	<b>Concept Note</b>	<b>Full Proposal</b>	<b>Project Management</b>
1 hour & 30 min	<b>Session 1</b> Opening Session	<b>Session 6</b> Tasks & Timeline  <b>Session 7</b> Resources	<b>Session 12</b> Partners Donors Concept Note	<b>Session 16</b> From Concept Note to Full Proposal	<b>Session 21</b> Delivery Skills
1 hour & 45 min	<b>Session 2</b> Successful Projects  <b>Session 3</b> Seven Steps of Problem Solving	<b>Session 8</b> Feasibility  <b>Session 9</b> Roles and Responsibilities	<b>Session 13</b> Concept Note: Case Studies  <b>Session 14</b> Drafting Concept Note	<b>Session 17</b> Logical Frameworks  <b>Session 18</b> Budget Development	<b>Session 22</b> Monitoring and Measuring Impact
1 hour	<b>Session 4</b> From Problem Statement to Goal Setting	<b>Session 10</b> Monitoring and Evaluation	Drafting Concept Note (cont.)	<b>Session 19</b> Drafting Full Proposals	<b>Session 23</b> Reporting
1 hour	<b>Session 5</b> Setting Objectives	<b>Session 11</b> Monitoring and Evaluation Plan	<b>Session 15</b> Sharing Concept Notes	<b>Session 20</b> Sharing Draft Proposals	<b>Session 24</b> Next Steps Closing
15 min	Day end reflection	Day end reflection	Day end reflection	Day end reflection	Day end reflection

## Project Design and Management I.

Time	Event	Content
1 hour & 30 min	<b>Session 1 Opening Session</b>	<ul style="list-style-type: none"> <li>• Introductions and sharing expectations</li> <li>• Sharing experience in project design and management</li> <li>• Presentation of your project idea</li> <li>• Overview of training objectives and five day schedule</li> <li>• Terminology, vocabulary, language of workshop</li> <li>• Creating working teams</li> </ul>
1 hour	<i>Session 2</i> <b>Successful Projects</b>	<ul style="list-style-type: none"> <li>• What is a project?</li> <li>• Characteristics of successful projects (Group discussion)</li> <li>• The role of project designers</li> <li>• Analysis of the Case Study: What has made it successful? (Group discussion)</li> </ul>
45 min	<i>Session 3</i> <b>Seven Steps of Problem Solving</b>	<ul style="list-style-type: none"> <li>• How do we solve problems? (Problem solving activity)</li> <li>• Seven steps of problem solving</li> <li>• The problem solving cycle &amp; the project cycle</li> </ul>
1 hour	<i>Session 4</i> <b>Problem Statement, Goal Setting</b>	<ul style="list-style-type: none"> <li>• Articulating the problem you want to solve</li> <li>• Analysing the problem (Group discussion)</li> <li>• Developing alternative solutions (Group discussion)</li> <li>• Selecting the best solution</li> <li>• Defining your project goal</li> <li>• How does the project goal match your organization's priorities, strategy?</li> </ul>
1 hour	<i>Session 5</i> <b>Setting Objectives</b>	<ul style="list-style-type: none"> <li>• Characteristics of good project objectives (SMART)</li> <li>• Assessing objectives (Group discussion)</li> <li>• Defining your project objectives</li> <li>• Relationship between goal, objective, outcome, output</li> </ul>
15 min	<b>End of Day 1</b>	<ul style="list-style-type: none"> <li>• Reflection on Day 1</li> <li>• Overview of Day 2</li> </ul>

## Project Design I.

### Objectives

By the end of Day 1 you will be able to:

- define what you mean by a project
- characterise a successful project
- describe what makes a project successful
- list the key steps of project design
- explain what kind of cycle your project will go through
- develop the goal and objectives of your own project

### Activities

#### **Session 1 – Opening**

Activity 1: Share your expectations, project idea and PDM experience

#### **Session 2 – Successful project**

Activity 2: Brainstorm on elements of and obstacles to successful projects

#### **Session 3 – Seven steps of problem solving**

Activity 3: Explore how people solve problems

#### **Session 4 – From problem statement to goal setting**

Activity 4: Define your problem statement, possible causes, alternative solutions and project goal

#### **Session 5 – Setting objectives**

Activity 5: Assess and improve objectives: practice

Activity 6: Develop your own objectives

Activity 7: Apply your knowledge on goal and objective: case study

### Resources

Case study: Lake Manzala

Handouts:

- Charting Discussion Flow
- Charting Discussion Dynamics
- Determining Project Goals
- Writing Objectives
- Objectives - Examples

## ■ Session 1

### Opening Session

#### Objectives

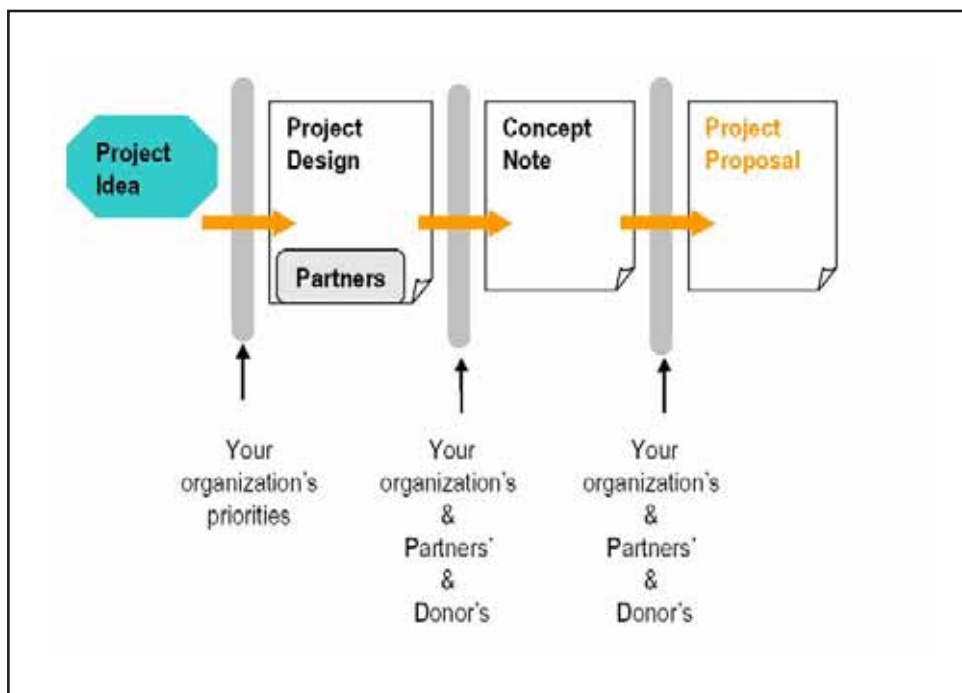
By the end of this session you will:

1. get to know all other participants
2. share your expectations of the workshop and learn about other participants' expectations
3. review the pre-workshop online session, the objectives, schedule and working style of the five day training workshop
4. introduce what project idea you want to work on during the workshop

The first session of the training workshop summarises the events and lessons learned from the online session, and also gives you the opportunity to meet all participants in person, 'put faces to names', establish a good relationship by sharing expectations, reviewing expertise, and discussing the way this workshop invites you to learn.

This workshop applies the 'learning by doing' principles. This means you are encouraged to use your project idea from the very first session, develop it to a project proposal during four days, and on the fifth day you will explore what management issues you might face in your project as shown in Figure 1.

**Figure 1. From Project Idea to Project Proposal**



This workshop adopts a cyclical - versus linear - approach to project development and management. According to the cyclical approach your project, shown in Figure 2 does not end up with the final evaluation. Although you conclude your project with the final evaluation but you take your learning forward to develop a better project plan and better proposal for your next project ideas. You can improve your future projects by lessons learned in your past and current projects. The cyclical approach facilitates a continuous improvement.

## ☑ Activity 1

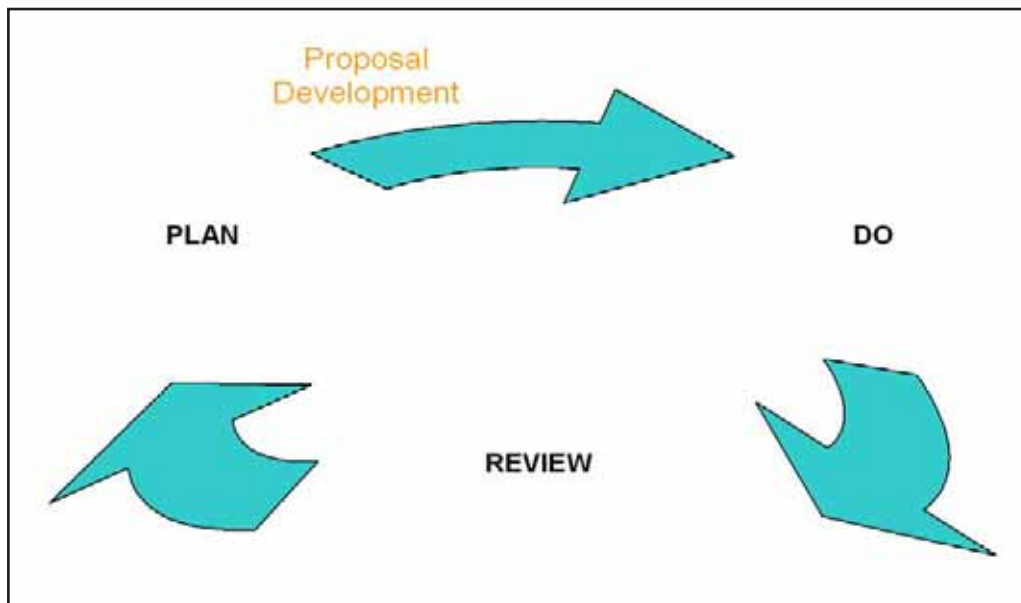
1. You will receive yellow and blue papers, and a marker.
2. Write only one idea per paper as follows:
  - Yellow: Your expectations of the workshop (knowledge, skills & issues)
  - Blue: Your project idea
3. The facilitator will ask you, as well as all members of the group to introduce yourself; where you work, and read out your expectations and project idea

Expectations and project ideas will be posted on the wall throughout the whole workshop. A transcript of all expectations and project ideas will be also copied for all participants.

Resources needed:

- Papers (3-5 yellow, 1 blue per participant)
- Thick pen for every participant

Figure 2. Cyclical project development and management: Plan – Do - Review



## ■ Session 2

### Successful Projects

#### Objectives

By the end of this session you will:

1. be able to define what a 'project' is
2. develop a shared understanding of a 'successful project'
3. develop a shared understanding of what elements make a project successful
4. identify possible common obstacles to making a project successful
5. discuss what made the Lake Manzala project in Egypt successful

Session 2 gives you a definition of 'project', and takes you to a tour to explore the alchemy of successful projects.

#### You can make a difference!

We tend to associate 'projects' with something new, something technical. However, all of us have been involved in project design and management from the early years of our life. Just think of your experience of a wedding party. The design and the management of this traditional 'project' have been passed on from one generation to the other through cultural norms, processes. You have not even noticed when you learned how to plan or 'implement' a wedding. You just know who should do what, by when and where, and what resources are needed to make things happen on time and to make everyone happy.

You are also very familiar with projects that address water scarcity, e.g. by building dams or irrigation systems. The design of these well tested projects has been passed on from earlier generations of experienced engineers, and you learned the planning and implementation process at university. Unlike at a wedding, in these projects you have more opportunities to suggest alternative solutions. And this is where learning about the steps of project design and management comes into play: you can create new solutions to long-known needs. You can make a difference.

#### What is a project?

The word 'project' comes from Latin: *projectum* 'something thrown forth', from *pro-* 'forward' combined with *iacere* (pp. *iactus*) 'to throw'.

So, as the roots of the word show, a project is an active, purposeful thinking process that 'pro-jects' - throws forth - a goal in a specific time in the future and aligns resources as well as monitoring mechanisms to ensure that the goal is achieved.

**A project can be defined as an initiative to achieve specific goals in order to meet an *identified need*.**

Project goals are related to but often go beyond the mandate of an organization. Projects require additional resources to the usual capacity of the organization.

A project usually also has:

- a fixed **time span** with a clear beginning and end
- specific **activities** designed to achieve certain objectives
- provision for **evaluation** to ensure the project meets its goals

For an example of a good project, read the Case Study about Lake Manzala (p.115). Don't worry if your area of expertise isn't in wastewater treatment or surface water quality. The example is designed to demonstrate the process of identifying a need, acknowledging resources, selecting a strategy to meet the need, forging partnership(s), developing a project concept, and preparing a funding proposal.

### What is a successful project?

What can be considered as a successful project from the point of view of donors, project implementers/ participants and project beneficiaries?

Ideally it would be a project that is:

- **Delivered as promised.** Project produced all the deliverables stated in the project proposal
- **Completed on-time.** Project completed within the agreed schedule
- **Completed within budget.** Project completed according to the agreed budget
- **Delivered quality.** Project deliverables meet all the functional, performance, and quality specifications
- **Achieved original purpose.** Project achieves its original goals, objectives, and purposes
- **Met all stakeholders' expectations.** Expectations of each key stakeholder were met, including donor acceptance criteria, and each key stakeholder accepts the project results without reservation
- **Maintains "win-win" relationships.** Needs of the project are met with a "people focus" and do not require sacrificing the needs of individual team members. Participants on successful projects should be enthusiastic when the project is complete and eager to start a new project together<sup>1</sup>.

### What makes a project successful?

The key elements which make a project successful are the same for all projects, no matter whether the project is small or large, well-funded or under-funded. The processes which contribute to the success of a project include the following:

- Involving the stakeholders in all phases: project planning, implementation and evaluation
- Making sure the problem identification is based on thorough needs analysis (the analysis must include opinions of various stakeholders such as representatives of government, non-governmental organizations, the public, business, academia)
- Selecting a project leader who is respected by partners and followed by all participants
- Creating a logical and effective structure of project design and management
- Identifying realistic project goals and 'SMART' (Specific, Measurable, Achievable, Realistic and Time-bound) objectives
- Identifying clearly defined project tasks and responsibilities for all project team members involved
- Planning for early sense of achievements to motivate participants, i.e. making sure that some tangible results are achieved and celebrated during the early phase of the project

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<sup>1</sup> Horine, Greg. 2005. Absolute Beginner's Guide to Project Management. Que Publishing. USA  
<http://www.quepublishing.com/articles/article.asp?p=389717&rl=1> (Accessed September 2007)



- Developing the timeline and the budget realistically so the objectives are met within time and resource limits
- Developing an effective monitoring system that measures progress, identifies problems and provides a mechanism for necessary changes in the project
- Evaluating each phase of the project and the entire project after it is finished, based on indicators set during project planning

## ☑ Activity 2

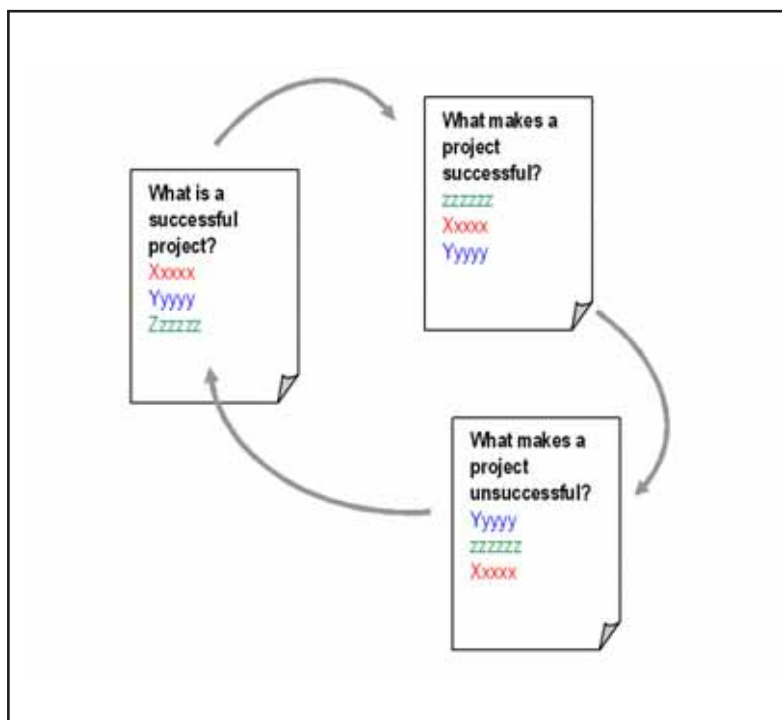
You will work in one of three small groups in this carousel exercise as in Figure 3. Each group has their own coloured pen.

1. Select someone who records what your group says
2. Start brainstorming - 10 minutes - on one of the following three questions:
  - What is a successful project?
  - What makes a project successful?
  - What makes a project unsuccessful?
3. At the end of the 10 minutes move on - like a carousel - to another question and read what the previous group listed. You can add to, delete or revise the previous group's list. Make sure to use the pen of your group's colour
4. After 10 minutes move on again and repeat the brainstorming and the editing process.
5. Whole group discussion is to be done at the end of the 30 minutes

Resources needed:

- 3 flipchart papers: each flipchart has one of the three questions above
- 3 thick felt tip pens (different colours)

Figure 3. Carousel exercise



## ■ Session 3

### Seven Steps of Problem Solving

#### Objectives

By the end of this session you will be able to:

- explain the steps from identifying a project need to designing a successful project
- describe the 'project cycle'

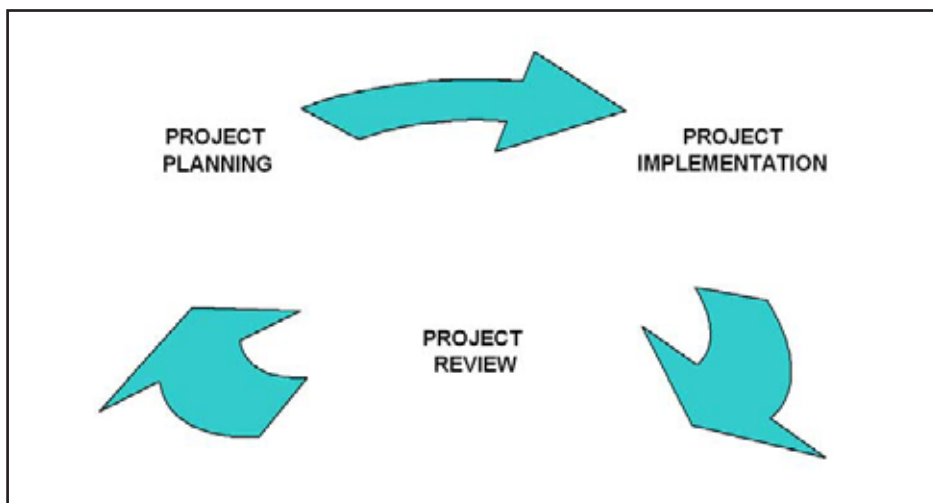
This session is based on a model referred as the 'Seven steps of problem solving':

- STEP 1: Identify, State and Clarify the Problem
- STEP 2: Analyse the Problem by Gathering Facts and Information
- STEP 3: Develop Alternative Solutions
- STEP 4: Select the Best Solution
- STEP 5: Design a Plan of Action: Define the goal, objectives and tasks, timeline and budget, roles and responsibilities, monitoring and evaluation
- STEP 6: Implement the Solution
- STEP 7: Evaluate the implemented solution

These steps are actually part of a cycle, the 'project cycle' where evaluation (lessons learned) is used to improve the next planning phase as presented in Figure 4.

In the previous session you agreed on the characteristics of successful projects. If any of those characteristics are missing, your project may solve a problem (which was not a priority) but might not accomplish the project goal (if it was too ambitious) or would waste financial or human resources or miss the deadlines. Therefore sufficient time must be devoted to gathering and analysing relevant information, organizing teamwork, and developing a clear problem statement. In the following activity you will explore a problem solving process.

**Figure 4. Project cycle**



### ☑ Activity 3

1. Depending on your group assignment, you will be given one of the following two handouts:  
(i) Charting a Problem Solving Discussion or (ii) Charting Discussion Dynamics
2. Follow the instruction of the handout and facilitator
3. Share your observation on the types of steps and the sequence of the steps people took in this problem solving activity. Photo 1 shows the problem solving activity in Syria workshop

Handouts needed:

- Charting Discussion Flow
- Charting Discussion Dynamics

**Photo 1. Seven steps of problem solving in Syria workshop**



## ■ Session 4

### From Problem Statement to Goal Setting

#### Objectives

By the end of this session you will develop:

- the problem statement and
- the goal of your own project through examining the possible causes and solutions.

In this session you will apply the Seven Step model of the previous session to your own project idea. Below you will find some examples from the Lake Manzala case study.

#### **STEP 1: Identify, State and Clarify the Problem:**

This step involves clear definition of the problem, clarifying what seems to be involved, locating where the difficulty is, deciding on the main issues of the problem.

Example from the Lake Manzala case study in Egypt:

The water quality of Lake Manzala is poor. The polluted water threatens:

- (1) Health - causing diarrhoea, hepatitis, kidney failure and other water born diseases (e.g. malaria)
- (2) Economy - due to
  - (a) Absence of high value fish varieties with lake water sweetening
  - (b) Sedimentation which makes fishing difficult for large fishing boats
  - (c) Weakened livestock which is threatened by contaminated drinking water
- (3) Habitats - resulting in losing ecosystem services and the international status of being 'Important Bird Area'
- (4) Mediterranean Sea - as Lake Manzala communicates with the Mediterranean Sea

### **STEP 2: Analyze the Problem by Gathering Facts and Information:**

This step involves gathering data needed to work on the problem in order to get to know all the possible causes.

Example from the Lake Manzala case study in Egypt:

The pollution is directly related to the incoming drainage water discharging mixed industrial, communal and agricultural contaminants into the lake.

Five major drains carry irrigation return flows to the lake. The Bahr El Baqar Drain is the largest and most polluted one. It travels 150 kilometres from Cairo to Lake Manzala and drains approximately 270 000 hectares, including Cairo. The average flow is approximately three million cubic meters per day.

The water carries particulates, nutrients, metals, organics and toxic compounds from used irrigation waters, municipal and industrial discharge, and non-point sources of pollution. In addition, the local communities living on the five big and several smaller islands in the lake generate further pollution.

### **STEP 3: Develop Alternative Solutions:**

This step involves listing and examining all the various ways of solving the problem and an analysis of all the positive and negative impacts of each alternative solution.

Example from the Lake Manzala case study in Egypt:

Efforts to improve Lake Manzala's water quality included:

1. Improving the current wastewater treatment of municipal and industrial point sources, primarily in Cairo
2. Treating the polluted drain water directly before it enters the lake
3. Creating an engineered wetland with artificial transitional zones between terrestrial and aquatic systems which could trap sediments and pollutants, cycle nutrients, and reuse treated water in agriculture

### **1. Improving the current treatment process and installing new facilities**

To further improve wastewater treatment of municipal and industrial point sources, primarily in Cairo would require improving the current treatment process and installing new facilities which are resource intensive and very expensive large scale investments.

However, even if the improvement of current facilities and the installation of new ones had been implemented satisfactorily, the pollution of Lake Manzala would still persist because of the small villages disposing raw sewage directly to the drains connected with the Lake. Moreover, hundreds of scattered houses along the drain-banks would also continue contributing to non-point pollutions.

### **2. Direct treatment of the polluted drain water before it enters the lake**

For this solution, we need to consider that treating polluted water is much more effective and economic when the treatment takes place as close as possible to its source rather than being far away, a long distance down the drain.

In addition, this solution would also require finding appropriate treatment technologies that could cope with mixed (domestic, agriculture and industrial) pollutant loads. Separating different types of pollutant is the key of selecting treatment facility at a reduced cost. Mixing more than one pollution type also means increasing treatment cost.

### **3. Engineered wetland**

Having studied other engineered wetlands, it is anticipated that this solution could provide an economically and environmentally sound alternative to traditional wastewater treatment facilities (e.g. items 1 & 2).

Other similar engineered wetland projects studied for sewage treatment in Egypt are:

1. Abu Atwa, Ismailia Governorate - Constructed wetland
2. Samaha village (12 000 ) - Subsurface wetland with alum application and sand filtering

Benefits of engineered wetlands:

1. The treated water may be reused in agriculture production and aquaculture
2. Harvested vegetations from the wetland - e.g. reed, cattail - may be recycled through bio-gas production or as fodder when environmentally safe

## **STEP 4: Select the Best Solution:**

This step is a process for choosing the best solution from all the alternative solutions or their combinations. The ideal alternative may not be the best alternative at the moment. The best alternative is judged best based not only on the basis of highest effectiveness, or the fastest solution, but also considering factors such as budget, time, economic situation, etc. The best solution is most of the time comprises elements of several possible solutions.

In order to select the best solution, feasibility studies are also required for the short-listed options.

Example from the Lake Manzala case study in Egypt:

The Egyptian Environment Affairs Agency has selected the engineered wetland as the best solution based on the following:

- The reduced treatment cost compared with the high costs of conventional treatment options
- The availability of lands for wetland constructions (donated from government)
- Flexibility of wetlands for treating mixed wastewater which can not be achieved through conventional treatment techniques
- The model value of replacing high cost, difficult-to-operate sophisticated conventional treatment systems with more low or no maintenance natural systems, i.e. wetlands

### **STEP 5: Design a Plan of Action:**

This step involves defining the goal, outlining specific objectives and tasks, timeline and budget, roles and responsibilities, monitoring and evaluation system.

Example from the Lake Manzala case study in Egypt:

The Egyptian Environmental Affairs Agency (EEAA) has translated the engineered wetland idea into a project with the following goals:

- To improve the health conditions of communities living around Lake Manzala
- To provide a non-conventional water source for fishing, irrigation, and raising livestock
- To protect the Mediterranean Sea through improving the Lake Manzala water quality

EEAA has approached the Global Environmental Facility / United National Development Program (GEF/UNDP) for funding to construct a wetland that could treat 25 000 m<sup>3</sup> per day of polluted drainage water as a demonstration of low cost technique for wastewater treatment to protect Lake Manzala and the Mediterranean Sea.

### **STEP 6: Implement the Solution:**

This step involves putting the project plan into action and monitoring its progress.

Example from the Lake Manzala case study in Egypt:

GEF has provided funding to construct the engineered wetland. An Environmental Impact Assessment (EIA) study was conducted prior to the project implementation

The construction included the following infrastructures:

- Pump station with screw pumps.
- Two sedimentation ponds - 1.5 m depth
- Ten free water surface cells (250x50x0.5 m ) for secondary treatment.
- Two reciprocating gravel bed cells for tertiary treatment.
- Two fingerling ponds
- Four fish farms for fish production
- Two drying beds for pond dredging sediments

## STEP 7: Evaluate the implemented solution:

This step involves the evaluation of how the objective was reached, determining the effects or ramifications of the solution, positive and negative implications of the process as well as each phase of the process.

Example from the Lake Manzala case study in Egypt:

To evaluate LMEWP a follow-up performance evaluation project was initiated by NWRI with the same project partners and stakeholders as above.

The performance evaluation project had two major goals:

- (1) To assess the feasibility of wetland treatment systems for improving drain water quality, public health, and the aquatic ecology of Lake Manzala;
- (2) To assist the transfer of wetland treatment technology to other parts of Egypt.

A performance evaluation included a research project with the following objectives:

- To carry out a sensitivity analysis for a computer model - PREWet - to find out what major parameters affect the wetland's capacity of treating pollutants.
- To compare the computer model results with field results
- To study the applicability of the PREWet model to estimate pollutant removals for constructed wetland design purposes

Having gone through the example of Lake Manzala, now it is time for you to repeat the process for your own project idea in the next activity. First work alone, then exchange ideas with your colleagues.

Clarification of terminology, however, is necessary before you express your thoughts. Many languages do not differentiate between aim, purpose, goal, and objective. Often the same word is used for these concepts. Let's define the goal here and deal with objectives in the next session.

### What is a goal?

The goal describes what the project hopes to achieve *in broad terms*. The goal is generally associated with the 'outcome.' In other words, it describes how the situation will change as a result of your project being implemented.

A goal can be described as a

- broad statement of what is to be accomplished
- the solution to a problem you described earlier
- vision towards which everything is directed
- result(s) or changes that the project will bring about
- subjective statement (not necessarily measurable)
- statement which must be understandable to everybody
- statement which tells us 'where we want to go / what needs to be solved'

### Activity 4

1. Work individually to describe the need for your project and list three possible causes using the handout 'Determining Project Goals'

2. Swap your handouts with your neighbour. Read her/his need statement and possible causes and provide potential solutions
3. Swap back your handouts, discuss your inputs and select the best solution - jointly or alone.
4. Develop the goal of your project

Handout needed:

- Determining Project Goals

Examples of project goals:

- To provide safe drinking water by protecting the water wells from sewage pollution in Aden (Yemen)
- Increasing irrigation efficiency by introducing modern technologies in the Jordan valley (Jordan)
- Improving Aleppo's water supply by reducing water losses in the distribution system (Syria)

**Photo 2. Participants work on their project goal - Jordan workshop**



## ■ Session 5 Setting Objectives

### Objectives

By the end of this session you will:

- be able to explain why project objectives are important
- be able to list the characteristics of a good project objective
- develop objectives for your own projects based on your own organization's priorities
- develop a shared understanding of what the 'project cycle' is

Once the problem has been identified, causes analysed, alternative solutions selected, best solution selected and project goal defined, the next step is to set project objectives. Objectives state, in measurable terms, what the project will accomplish.



In this session you will develop objectives for your own project and analyse what types of objectives are necessary for successful project.

### What is an objective?

The objectives follow logically from the goal. They describe the benefits of the project in specific, measurable terms. Project objectives should be able to be assessed, even if not all of them lend themselves easily to quantitative analysis.

Objectives are generally associated with 'outputs'. In other words, they describe exactly what you and your partners will do if funded. It is important to invest some time and discussion in developing project objectives that will work over the long term.

In addition, project objectives serve as an important reference for all the project proponents for the duration of the project, especially if the project is complex. By questioning which course of action is most likely to support the project objectives, you can facilitate decision making throughout project implementation.

A good objective has to answer the following five questions:

- **Who** will benefit from the change? For whom is the change targeted?
- **What** needs to change?
- **How much** change is needed?
- **Where** will the change occur?
- **When** will the change occur?

Good objectives are also characterised as 'SMART':

- **Specific** – Is your project objective clear and easy to conceptualise in operational terms?
- **Measurable** - Can you evaluate, measure your project outputs against your objective?
- **Achievable** - Can you achieve your stated objective within the project's timeframe, and available budget and resources?
- **Realistic** - Can your objective be realistically tackled?
- **Timely** (time bound) - Have you stated clearly by when you want to complete your activities?

In other words, an objective can be described as:

- concrete and measurable
- a statement which tells us 'what has to be done to solve a problem'
- an accomplishment which solves part of the overall goal
- an endpoint not a process (a description of what will exist at the end of a project)
- a status which has to be reached by the end of the project (or before)
- a statement which provides a detailed picture of what is to be accomplished within a specific time frame

There are two major types of objectives: production oriented and capacity development objectives.

Production-oriented Objective:

- Rings about tangible products (database system, library, water treatment plant, irrigation system, e-Learning module, information centre, etc.)
- Is easy to measure (crop yield per hectare, number of houses connected to sewage treatment

system, water consumption in litres, etc.)

Capacity Development Objective:

- Brings about capacities which are less tangible, e.g. increased knowledge (enhanced skills, acquired new skills, new information, acquired certification, etc.)
- Measures change in quality, measurable through observation, individual interviews, questionnaire, demonstrated behaviour change

Capacity development objectives can result in quantifiable outputs (e.g. number of trained people on project design and management, number of trained local people who monitor water quality, etc.). However, quantifying results of capacity building objectives can not be restricted only to the number of people trained. When you want to measure whether you achieved your capacity building objectives you must look into how many of the people who participated in your training are really able to use their new knowledge and skills. In other words, you need to demonstrate behaviour change which could be much more difficult than demonstrating the achievement of production oriented goals.

### ☑ Activity 5

This is a very quick, whole group activity that you can follow up with individual consultation.

1. You - as part of the whole group - will be asked to assess and improve project's objectives: Are the objectives clearly identified, SMART? If not, how can you improve them?
2. For your practice a set of objectives are listed on the Objectives - Examples handout

Handouts needed:

- Objectives - Examples

### ☑ Activity 6

Work individually.

1. Create 2-3 objectives for your own project by using the Setting Objectives handout
2. Trainers and resource persons will provide you individual feedback on a one on one basis
3. Make sure your objectives are clearly identified: SMART

Handouts needed:

Writing Objectives

### ☑ Activity 7

For this activity you work in groups of five and apply your knowledge on the goal and objective of the case study.

Briefly discuss the following three questions with your colleague:

1. What is the goal of the project in the case study example?
2. What are the objectives of the case study project?
3. Are the objectives clearly identified, 'SMART'? If not, how can you improve them?

Resources needed:

- Lake Manzala case study

## Project Design and Management II.

Time	Event	Content
45 min	<i>Session 6</i> <b>Tasks &amp; Timeline</b>	<ul style="list-style-type: none"> <li>• Overview of Day 1</li> <li>• Objectives of Day 2</li> <li>• Linking Project Objectives - Tasks - Timeline - Resources: preparation for Logical Framework</li> <li>• Identifying tasks and timeline for your own project (Computer)</li> </ul>
45 min	<i>Session 7</i> <b>Resources</b>	<ul style="list-style-type: none"> <li>• Types of project resources (Group discussion)</li> <li>• Characteristics of appropriate resources</li> <li>• Listing appropriate resources for your own project (Computer)</li> </ul>
1 hour	<i>Session 8</i> <b>Feasibility</b>	<ul style="list-style-type: none"> <li>• What are project assumptions?</li> <li>• Analysis of assumptions (Group discussion)</li> <li>• Testing assumptions (Group discussion)</li> </ul>
45 min	<i>Session 9</i> <b>Roles and Responsibilities</b>	<ul style="list-style-type: none"> <li>• Stakeholder analysis</li> <li>• Types of roles and responsibilities (Group discussion)</li> <li>• Roles &amp; responsibilities chart for your own project</li> <li>• Drafting a stakeholder Table (Group discussion)</li> <li>• Identifying the key actors and stakeholders for your project (Computer)</li> </ul>
1 hour	<i>Session 10</i> <b>Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>• Definition of 'monitoring' and 'evaluation'</li> <li>• Difference between monitoring and evaluation (Group discussion)</li> <li>• Essential components of effective monitoring and evaluation (Group discussion)</li> <li>• Introduction to monitoring and evaluation tools</li> </ul>
1 hour	<i>Session 11</i> <b>Monitoring and Evaluation Plan</b>	<ul style="list-style-type: none"> <li>• Assessing monitoring and evaluation plans</li> <li>• Developing the monitoring and evaluation plan for your own project (Computer)</li> </ul>
15 min	<b>End of Day 2</b>	<ul style="list-style-type: none"> <li>• Reflection on Day 2</li> <li>• Overview of Day 3</li> </ul>

## Project Design II.

### Objectives

By the end of Day 2 you will:

- be able to describe the following key elements of project design: tasks, timeline, resources, roles and responsibility, feasibility, monitoring and evaluation
- develop examples of tasks, timeline, resources, roles and responsibility, feasibility, monitoring and evaluation key project design elements of your own project

### Activities

#### **Session 6 - Tasks & Timeline**

Activity 8: Create a Gantt chart for your own project

Activity 9: Problem solving activity: Too many tasks

#### **Session 7 - Resources**

Activity 10: Formulate categories of resources

Activity 11: Name inappropriate resources

Activity 12: Identify resources for your own project

#### **Session 8 - Feasibility**

Activity 13: List factors that could cause failure of a project

Activity 14: Test the assumptions of your project design

#### **Session 9 - Roles and Responsibilities**

Activity 15: Suggest ways to make the stakeholders active in the case study

Activity 16: Identify the project proponents, partners and stakeholders of your own project

Activity 17: Assign responsibilities to the partners and stakeholders of your own project

Activity 18: Importance & Influence Matrix

Activity 19: Stakeholder Table

#### **Session 10 - Monitoring & Evaluation**

Activity 20: Define monitoring and evaluation

#### **Session 11 - Monitoring & Evaluation Plan**

Activity 21: Identify monitoring and evaluation tools in the case study

### Resources

Handouts:

- Task, Timeline (Gantt Chart)
- Testing Assumptions
- Stakeholders Importance & Influence Matrix
- Stakeholder Table
- Monitoring Checklist
- Monitoring Chart
- Evaluation Checklist
- Evaluation Chart

## ■ Session 6

### Tasks & Timeline

#### Objectives

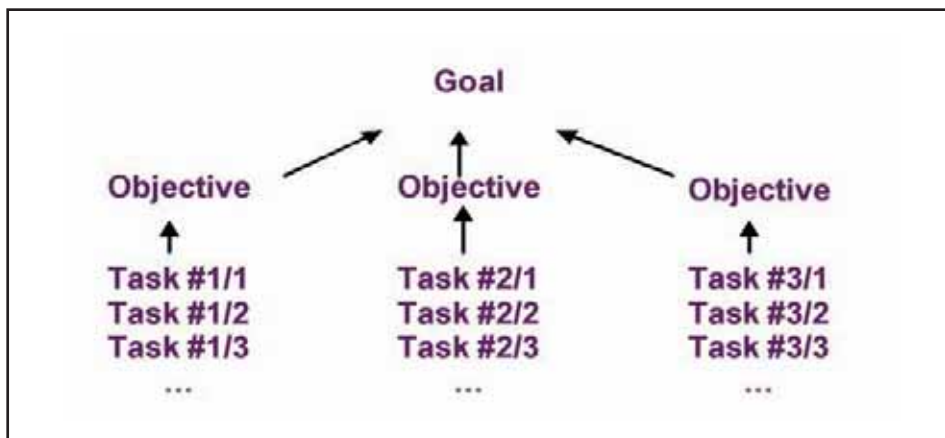
By the end of this session you will:

- Be able to describe what is needed to support project objectives in terms of tasks and scheduling
- Be able to clarify the position of tasks in the overall project hierarchy
- Be able to describe the difference between sequential and parallel tasks
- Design a draft Gantt chart with tasks and timelines for your own project
- Be able to describe how Gantt charts help to design Logical Frameworks

#### What is a task?

Tasks are specific actions that need to be undertaken to achieve the objectives, and ultimately the project goal. In other words: tasks describe who will do what and when. Tasks are mini-objectives in terms of their specificity, measurability and achievable, realistic and time-bound character as shown in Figure 5.

**Figure 5. Tasks - Objectives - Goal**



Tasks (activities) should be performed in logical order and within a set timeline so that by finishing them all, your project objectives are achieved. As you can see this logic follows a thinking which regards the 'whole as the sum of its parts'.

Deficient or incorrect definition of tasks or inaccurately designed task timelines during the project design phase may lead to mistakes or failures during the project implementation phase. Tasks and their timelines (and, as will be mentioned later, resources and allocation of responsibilities) create the core of a successful project implementation.

There are two types of tasks: sequential tasks and parallel tasks. A sequential task depends on the completion of another task. For example, you can not start proof-reading a document before you complete the narrative. A parallel task does not depend on the completion of other tasks within a certain period of the project, e.g. you can create a website to communicate results while you are working on the next tasks. The distinction between the two types of tasks is important when you schedule activities.

The time requirement of your sequential tasks will determine the minimum length of your project.

The sequence of tasks can be visualised along a timeline (Gantt chart) or according to their importance to complete the project on time or within the minimum possible timeframe (Critical Path Analysis).

### What is a timeline?

A timeline is a schedule of activities, often illustrated visually. Timelines should indicate your best estimate of how long it will take to complete the major activities of the project. Although there is a tendency to be optimistic when developing timelines for a project, it is important to be realistic and allow enough flexibility for unforeseen problems. Creating a realistic project timeframe demonstrates to the donor that project proponents have relevant project experience.

### Gantt chart

The Gantt chart is the simplest and most popular visual tool to list and schedule project tasks and their relationship to time. Designing a Gantt chart helps you to analyse, schedule and monitor tasks, and allocate resources on time and efficiently. Figure 6 presents the Gantt chart as used in Yemen workshop.

**Figure 6. Gantt chart from Yemen workshop**

Goal: To reduce groundwater pollution in Sana'a basin  
 Objective: To survey pollution resources in Sana'a basin by the 3<sup>rd</sup> year of the project

Years	1				2				3			
Quarters	1	2	3	4	1	2	3	4	1	2	3	4
Task # 1 Overview of old studies on the problem.												
Task # 2: Training course for survey stuff												
Task # 3: Field survey of all pollution points												
Task # 4: Analysis the result of the survey												

**☑ Activity 8**

This is an individual activity:

1. List all necessary tasks for two of your project objectives: one objective should be production oriented, while the other should be capacity development oriented
2. Mark tasks that are sequential and those that are parallel
3. Create timeline for tasks: Mark the earliest possible start of a task and highlight the time requirement for its completion
4. Create Gantt chart for tasks: When finished the timing requirement for all tasks, schedule the tasks according to their sequence
5. Mark milestones

Handouts needed:

- Task, Timeline (Gantt Chart) or Excel sheet and computer

**☑ Activity 9**

This is quick problem solving activity addressed to the whole group:

1. 'What do you do when you realise during your planning process that you do not have enough time to complete a project given the time requirement of the necessary tasks?'
2. Suggest alternative solutions

## ■ Session 7

### Resources

**Objectives**

By the end of this session you will:

- be able to explain what types of resources are available for a project
- develop a shared understanding of what resources are appropriate for projects promoting sustainable development
- identify resource needs for your own project objectives and tasks

Every project, large or small, utilises a variety of resources to reach its objectives. During the design phase of the project, it is important for the project team to identify the resources they will need, decide which ones are available locally and which ones need outside assistance. It is important to do resource analysis to ensure that necessary resources are really available and appropriate to the proposed solution. Proceeding with a project before this activity is completed could lead to later frustration and disappointment.

For the purpose of this training programme, we define 'resource' as anything that is needed to reach the project objectives. Resources are also referred to as 'inputs'.

**Types of resources**

Types of resources include:

1. Human: community members, technical advisors, consultants, trainers etc.
2. Material: tools, technical equipment, computers, monitoring station, textbooks, paper etc.
3. Financial: cash gifts, bank loans, foundation grants, internal financial resources etc.
4. Technological: appropriate level of technical skills to implement
5. Informational: books, articles, research papers, records, archive, video, etc.

### **1. Human resources**

Human resources are people who contribute to, or participate in, design, management and implementation of projects. This category includes staff members of an organization that develops or implements a project, community members, and beneficiaries of the project; external personnel, technical advisors, consultants, trainers and all the other project workers. In planning for human resources, it is necessary to consider what attitudes, both personal and cultural, skills and services are necessary for the project. It is not sufficient to consider only the number of people that the project requires.

The role of people in projects is very important. They are both the subjects and objects of project development that attempt to improve the standard of living of the people not only through project results but by involving them directly in project activities. Project staff is a resource in many ways. Everybody has certain technical skills, contacts, knowledge and experience, and networks.

### **2. Material resources**

Material resources are not difficult to identify: natural resources (water, soil, etc.), construction materials, books, computers, scientific instruments, etc. Think about your own projects. What material resources do you need to employ which are the most important? Would more material resources help you to reach your goals? Could some resources be used differently, and thus be saved?

### **3. Financial resources**

Financial resources refer to money that can be used for the project. Internal financial resources, cash, in-kind contributions, bank loans, and grants are all examples. Because it is both time consuming and difficult to raise money for projects, it may be better to consider other approaches first - if appropriate.

### **4. Technological resources**

Technology, in this context, is the application of knowledge, materials, and methods to practical and productive purposes. Every culture develops its own technology, based on its experience, tradition, resources and needs. Some organizations are trying to 'strengthen' their projects by importing the 'latest modern' technologies into a different environment, with only minimal efforts at adapting these technologies to local conditions and needs. This often leads to a project failure. Appropriate technology is compatible with the local climate, human, financial and material resources that are available in the circumstances of its application, increases work effectiveness, is low-cost, and culturally, socially and economically acceptable to the community. Appropriate technology must be ecologically sound.

### **5. Informational resources**

Informational resources are the ideas and data contained in books, research reports, the internet and other media, and the individuals and organizations that produce them. Informational resources help project workers to increase their knowledge and understanding, avoid unnecessary duplication of research and to improve the project quality. The key to getting the information you need is to know



specifically a) what do you want, and b) where to obtain it.

## **Appropriate resources**

What makes a resource appropriate?

The list should include:

1. local availability
2. environmentally sound
3. low cost
4. culturally acceptable
5. technologically appropriate

### ***1. Local availability***

This is a very important consideration. The use of local resources provides beneficiaries with the opportunity to develop local initiatives, to increase local participation in economic activities and to share the rewards of results within the community. Using local resources also increases community's commitment to the project, minimizes the problems concerning sustainability of project results and problems of operation and maintenance in the case of the use of technological and material resources.

It is important to make use of local resources whenever possible. The benefits of doing so, both direct and indirect, are clearly worth the extra time, effort and imagination that are required. If a needed resource is not locally available, find acceptable substitutes within the region. It is necessary to consider availability of these resources in a region, and in case they are not locally available, to search at a national level. Finally, if you have exhausted the local, regional, and national resource possibilities, your last resort is to seek them internationally. A decision to do so requires careful consideration because much time and effort may be spent without results.

### ***2. Environmentally sound***

When designing a project, it is necessary to consider effects of the project results, or project implementation, on the environment and on the society. The concerns include not only the environmentally sound use of different kinds of natural resources (both renewable or non-renewable) and direct negative impact on environment but also issues of meeting rules and regulations, or measures, to maintain balance between people and nature, e.g. legally required environmental impact assessment for risk assessment.

### ***3. Culturally and socially acceptable***

The resources which the project uses and introduces must be culturally acceptable. Culture - shared attitudes, knowledge and expectations - is firmly rooted in tradition and relatively resistant to major change. Avoid projects that neglect determining whether the results are culturally acceptable, otherwise you risk misunderstanding or failure.

### ***4. Low cost***

These costs refer mostly to getting material and human resources. It is obvious that price cannot be the only criterion for choosing material or human resources. It is necessary to find a balance between the price and quality, so that short term financial effect is not detrimental to overall project success.

### 5. Technologically appropriate

Make sure to use resources that are technologically appropriate to the region where project activities take place. It is necessary to take time to learn what the relevant technologies and techniques are, and how these technologies are related to other aspects of the culture.

Photo 3 shows part of the group discussion in Syria workshop about what makes the resources appropriate for a project.

**Photo 3. 'What makes resources appropriate?' – discussion in Syria workshop**



#### Activity 10

This activity starts out as an individual activity and continues in small and whole group:

1. Individually - List resources you have used in your past projects so far
2. Write each resource on separate post-it notes
3. Small group - Bring your post-it notes to your small group of five and create resource categories
4. Whole group - The categories your group identify will be compared with other group's categories, and finally one set of categories will be suggested for the consent of the whole group

Resources needed:

- Post-it notes
- Markers

#### Activity 11

This is a quick whole group activity

1. 'How would you characterise inappropriate resources?' - suggest ideas
2. The opposites of inappropriate resources will be suggested as guidelines for selecting project resources

**☑ Activity 12**

This is an individual activity.

1. List all necessary resources for two of your project tasks. Choose one task for a production oriented objective, and another for capacity development oriented
2. Using the criteria for appropriate resources check if your selected resources qualify

## ■ Session 8

### Feasibility

**Objectives**

By the end of this session you will:

- be able to describe how to test project feasibility
- identify some of your assumptions which could get in the way of the successful completion

Once a project has been identified and a decision made on the project goal, objectives and tasks, timelines have been set, resources identified, it then becomes necessary to determine the actual likelihood of success. Given that the project isn't yet in its implementation phase, no major resources have been used. The decision about implementing the project requires testing its likelihood of success and feasibility. This analysis can avoid the failure of the project, even though the project may have been designed with the best intentions, using the best ideas. In this way, the analysis can avoid unnecessary material and human resource waste.

There are several ways to test project feasibility. You can do a simple SWOT analysis by gauging the project design's internal strengths, weaknesses and carefully screening the external opportunities and threats that can influence the course of the project beyond your control.

**Assumptions are external factors beyond your control.**

In this session we are giving you a very simple technique which could also support your decision whether you want to proceed or postpone the next steps until the risks are more manageable. You need to consult with more rigorous techniques for in-depth technical feasibility studies.

**Assumptions**

Every project has uncertainties. The nature of uncertainties can be described as assumptions which must be valid, but which cannot be directly controlled. Assumptions can be the most critical factors in a project. Many projects fail because planners make unrealistic assumptions, or forget to define and examine the implicit assumptions they are making.

It is impossible for a project manager to control all the factors which can affect a project. There are always social, political, technical, economic and ecological factors beyond the project manager's control that are necessary for successful achievement of project objectives.

To have confidence in the design of a project, it is essential to define all the conditions necessary to reach the goal or objectives. These conditions include hypotheses (predictions) which are internal to the project, and assumptions (conditions) which are external to the project. After identifying the

assumptions affecting the project, they can be dealt with in a way that increases the probability of success.

Projects involve important objectives and scarce resources, so you must examine whether your assumptions are valid. Before you begin the project, you want to be confident that you can achieve your objectives. You must, therefore, carefully examine what you are assuming about factors outside our control that could be detrimental to achieving project objectives.

If your assumptions are likely to be invalid, you have several options to consider. First, you could continue with the project 'as it is' and accept the lower probability of success. Second, you could examine ways of alternative implementations, in case your assumptions prove to be invalid. Finally, you can stop the project in its design stage.

### **A Management Approach to Testing Feasibility**

In recent years, project feasibility study has become an increasingly detailed and technical set of procedures practiced by highly trained economists and engineers. And yet very often these procedures seem irrelevant to the practical people designing and managing projects. Why? Perhaps it is because these procedures ignore some of the most basic and most important questions.

What do practical project designers need to know in order to have confidence in potential projects?

Essentially they need to know:

- If the proposed project will really achieve its objectives
- How they can improve the likelihood and level of its impact
- Whether there is a less expensive way to achieve the same results
- Whether, all things considered, the benefits justify the costs

A feasibility study, by itself, cannot increase a project's likelihood of success. What it can do is substitute risk (known probability of failure) for uncertainty (lack of information), and suggest practical measures for reducing the risk by altering the project design. A feasibility study can provide you with information on how likely the project is to succeed and how you can increase that likelihood.

### **Analysis of Assumptions**

How do we go about analysing assumptions?

First, and most importantly, make sure all the important assumptions are identified. Ask yourself and other people involved in the project to realistically describe the factors which could prevent the project from reaching its objectives (it is better to be too sceptical than too optimistic).

First ask the question: 'What could cause this project to fail beyond my direct control?' The answers to this question are the assumptions. For example you may assume that the inflation does not increase by more than 10%. It may be helpful to group assumptions by type, e.g. economic, political as listed in Table 1.

**Table 1. Assumption categories and examples**

Assumption category	Project assumptions – e.g.
Economic factors	– Economy is stable, no major crisis
Legislative factors	– Current legal framework does not change
Technical factors	– Only < 20% of computers brake down during the project – Government installs internet in proposed project area
Ecological factors	– Current ecological trends continue
Financial factors	– Inflation does not increase by more than 10% – Exchange rate change is < 5% between local and donor currency
Political factors	– Political leaders support our project
Cultural and social factors	– Project idea is accepted and supported by all stakeholders
Managerial factors	– Current and future management support our project – Availability of skilled labour compensates staff turnover

Next, identify which assumptions are the most appropriate for analysis. Out of a long list of assumptions, how do you choose the correct ones to study? We suggest a simple two criteria basis for selection - importance and uncertainty.

To begin, ask whether each assumption seems truly essential for achieving project success. If its influence seems more or less incidental, forget about it. If the assumption is judged to have high potential influence ask yourself how uncertain the project workers are about the likely performance of that assumption. Some examples of Project's assumptions and the judgments are presented in Table 2. If the likelihood of assumption is high, don't spend more time on it.

**Table 2. Importance and Uncertainty of Project Assumptions**

Project assumptions	Importance	Uncertainty
Economy is stable, no major crisis	+++	+
Current legal framework does not change	++	+
Government installs internet in proposed project area before the proposed project starts	+++	+++
Current ecological trends continue in the project area	+	++
Exchange rate change is < 5% between local and donor currency	+++	+
Local political leaders support our project	+++	+
Project idea is accepted and supported by all stakeholders	++	+
Availability of skilled labour compensates for possible staff turnover	+++	++

A detailed investigation is only worthwhile when assumptions are important and insufficiently understood. If you, for example want to set up an internet-based monitoring system, one of your assumptions would be that the government installs internet in the project area by the time your project starts. This assumption is important for the success of the project. If you do not have enough information about whether it is going to happen or not on time, you are strongly advised to do a detailed feasibility study before you proceed with your project design process.

If you decide to do a detailed feasibility study collect data that could reduce the uncertainty, especially:

- whether the key assumptions are likely to hold true or not
- the impact on project success if any of the key assumptions do not hold true
- means, tools available to managers to influence or avoid dangerous situations

When assumptions are important and have low probability, it is a signal of danger. In this case try to re-design the project. Otherwise, if redesigning is not possible, continue with the risk of not reaching the project objectives or the project should be abandoned in favour of something more promising.

### **Activity 13**

You will work in one of two groups and list factors that could cause failure of a project:

1. Nominate a speaker who reports your group's findings
2. Having listened to both groups, a 'master' list is created for future reference
3. Give examples of each factor from your experience

### **Activity 14**

This is an individual activity:

1. Using the Testing Assumptions handout think through individually the assumptions of your project design at this point
2. Justify your decision about the next step (proceed as it is, re-design, stop)

Handouts needed:

- Testing Assumptions

Photo 7 shows the group discussion in Jordan workshop about feasibility studies successes and failures.

**Photo 7. Feasibility study could save you from failure – discussion in Jordan workshop**



## ■ Session 9

### Roles and Responsibilities

#### Objectives

By the end of the session you will:

- be able to explain why it is important to clearly define roles and responsibilities
- be able to describe the different types of roles and responsibilities
- design a 'Responsibility Chart' for your own project
- be able to do a simple stakeholder analysis

Roles and responsibilities are directly linked to tasks, timeline and resources. Identifying roles and responsibilities, however, comes after making a decision about implementing the project, based on a successful feasibility test.

The most important message of this session: Active involvement of project participants is contingent upon clearly defined roles and responsibilities.

#### Roles

A role in a project can be defined as a *function*, a position which has characteristic behaviour.

You could not have reached this stage of project development without already having a few actors involved who played the role of project proponents and various stakeholders, whom you consulted to define the need of your project.

These ‘actors’ represent the three main categories of roles that have significant impact on defining the problem and identifying possible solutions:

1. project proponents
2. project stakeholders
3. project partners

Within these categories there are several different roles.

### Project proponents

When a group of people consider what can be done to deal with a particular situation, and begin to develop a project concept, those who are directly involved in making these plans and in actively supporting the project are called the *project proponents*. Some project proponents may also be stakeholders or partners.

For the purpose of this course, consider the institution responsible for taking the lead in designing the project and writing the project proposal and approaching donors to be the only project proponent. Others involved will be considered to be either stakeholders or partners.

### Stakeholders

Let consider a few definitions.

- Stakeholders are people or groups who have an interest in the project. Stakeholders are interested in the project as they may be directly or indirectly affected by the project
- Stakeholders are those people who have a ‘stake’ or an investment in the process
- ‘A stakeholder is any person, group or institution that has an interest in an activity, project or programme. This definition includes beneficiaries and intermediaries, winners and losers, and those involved or excluded from decision making processes’<sup>2</sup>
- ‘Stakeholders are those who have an interest in a particular decision, either as individuals or representatives of a group. This includes people who influence a decision, or can influence it, as well as those affected by it’<sup>3</sup>.

Stakeholders can further be defined as either secondary or primary. Secondary stakeholders are usually those with an intermediary role and primary stakeholders are those who are ultimately the beneficiaries of the project. Once you have begun to identify the stakeholder groups for your project you might need to consider whether there are sub-categories of stakeholders with different interests. A general term such as ‘villager’ might obscure a range of different viewpoints and opinions that exist within a community.

Stakeholders include:

- those who are consulted in the project planning
- those who are involved in the decision making
- those whom the project is designed to help, i.e. *the beneficiaries* of the project
- those who are directly or indirectly affected - positively or negatively - by the project: winners and losers

<sup>2</sup> Note on Enhancing Stakeholder Participation in Aid Activities - Overseas Development Administration 1995

<sup>3</sup> Multi-stakeholder Processes for Governance and Sustainability, Beyond Deadlock and Conflict, M Hemmati, Earthscan Publications 2002



Many funding agencies require that stakeholders are involved in the project design, implementation and evaluation. This is a factor to consider when planning the project.

### **The importance of stakeholder support and participation**

Stakeholder support is important for a number of reasons.

First, many funding agencies require or prefer that stakeholders are involved in project design, implementation and evaluation. This is because stakeholders hold a great deal of insight into the nature of the problem being addressed, and the types of solutions that are appropriate in that context. They are also best placed to indicate whether the project has been successful after its completion, or to help modify project implementation as required.

Second, when there is broad support for a project, there is more likelihood the project will be successful, and that the initiative will continue with local support after the project time period, achieving sustainability over the long term. The chances for project success and sustainability are also enhanced when support comes from different sectors, all representing different interests; for example, employers, unions, government and locally operated organizations such as cooperatives.

There is evidence from the Department for International Development (DFID) that shows the most successful projects proved to be those where project objectives corresponded to the priorities of partner institutions and beneficiaries, and where local institutions were regularly involved in decision-making at all stages of the project cycle. This is the perspective of a major donor towards development projects and would be representative of other funding agencies.

Third, stakeholders may be people or organizations who fall outside the immediate scope of the project. However, they may be affected by the project, and their involvement might be important for the project to succeed. For example, if a project is designed to address watershed management, stakeholders could include environmental organizations and government agencies representing districts and regions that are literally downstream of the proposed project. (The term *downstream impact* is sometimes used as a metaphor to describe the effect of a particular action on others over the longer term).

Participation should reduce the risk of failure. But it is not a guarantee of project success. Achieving participation is not easy. In any project or development activity there may be conflicting interests among intended beneficiaries as well as among others involved in the programme. It may result in conflict; it can have significant costs in time and needs to be carefully considered before engaging in a process of stakeholder consultation.

### **Partners**

One organization alone may not have all the resources or expertise needed to carry out a project, and there are potential benefits from sharing expertise and from working cooperatively with other organizations. These arrangements are typically called *partnerships*.

Partners are those organizations that have direct accountability for planning and implementing the project. Unlike a legal or business partnership, the cooperative arrangement to participate in a joint project normally lasts on a formal basis only for the duration of the project. However, organizations that have worked together successfully in the past are in a good position to develop another project as partners.

Project partnerships may be cross-sectoral, including representation from the private, for-profit sector; the government, or public sector; and the non-profit or nongovernmental organization (NGO) sector. They may include organizations in these sectors at local, national and/or international levels, depending on the scope and objectives of the project.

### **Distinction between stakeholders and partners**

For the purpose of this course, we have made a distinction between stakeholders and partners. Partners are those organizations that have direct accountability for planning and implementing the project. Stakeholders have an interest in the project, and make an important contribution to it, but do not have the same level of accountability for the project as the partners do. As in many distinctions, there are grey or unclear areas where it is not easy to make a final determination. It is sometimes possible to be a proponent, a stakeholder and a partner in the same project.

### **Beneficiaries as partners**

Beneficiaries are the people who directly benefit from the project. However, beneficiaries are no longer regarded as passive recipients of project activities. They can be active participants, even partners who gain or strengthen their knowledge and skills to maintain project activities, and take responsibilities in decisions for implementing the project.

### **Stakeholder analysis**

As the key message of this session states, the project cannot be successful without active participation by those involved in or affected by the project. It is important therefore to identify

- Who are likely to be influenced by the project?
- Who will benefit?
- Who will be harmed?
- What are their interests in relation to the project?

We identify these stakeholders in order to:

- harness the support of those who will benefit, and
- manage the risks posed by those who do not support

Stakeholders include winners, losers, those involved in the decision making process, and those excluded from the decision making process.

How should we engage these stakeholders in order to make the project successful? You can do a stakeholder analysis to understand this.

Stakeholder analysis helps to identify:

- The interests of those who may affect or be affected by the project
- Potential conflicts and risks that may hinder the project
- Opportunities for making the project successful
- Relationships that need to be built upon in order to make the project successful
- Groups that could be encouraged to participate in different stages of the project

- Roles that could be played by different people
- Ways to improve the project
- Ways to reduce negative impact on different groups of people, particularly the vulnerable groups

When should a stakeholder analysis be done?

- At the beginning of a project
- Whenever 'logframes' (Day4) are re-considered during the life of a project
- As part of monitoring and evaluation

Steps in stakeholder analysis:

1. Prepare a stakeholder Table
2. Assess each stakeholder's importance to project success and their relative power and influence
3. Identify risks and assumptions which will affect the project

### Stakeholder Table

How to prepare a stakeholder Table?

4. Identify and list all potential stakeholders.
5. Identify their interests (overt and hidden) in relation to the problems being addressed by a project and its objectives. Each stakeholder may have several interests.
6. Assess the likely impact of the project on each of these interests (positive, negative, or unknown).
7. Indicate the importance or relative priority which the project should give to each stakeholder in meeting their interests as given in Table 3.

**Table 3. Stakeholder Table - example**

Stakeholder	Interest in project: What they want	Impact by the project	Influence	Importance
Small farmers	Higher income	+	2	5
Food traders	More sales	+	3	1
Labourers	More jobs	+	1	5
Money lenders	Empowered clients Less business	+ -	4	1
Government officials	Success of project Possible loss of rent if farmers become empowered	+ -	5	2

+ = positively effected and - = negatively effected  
1= least and 5 = most

## Importance / Influence Matrix

You can create an Importance / Influence Matrix separately before you fill out the whole Stakeholder Table as in Table 4. The Importance / Influence Matrix helps you to identify the key stakeholders, the most important groups you need to address to make the project successful.

**Table 4. Importance/Influence Matrix**

High importance/ Low influence	High importance/ High influence
<b>A</b>	<b>B</b>
<b>C</b>	<b>D</b>
Low importance/ Low influence	Low importance/ High influence

**Box A:** Stakeholders of high importance to the project but low influence. Special initiatives are required to protect their interests such as vulnerable groups.

**Box B:** Stakeholders of high importance to the project and can influence the success of the project such as government officials. Managers and donors need to develop good relations with them.

**Box C:** Stakeholders of low importance but who may need monitoring. They are not the focus of any activity.

**Box D:** Stakeholders with high influence and who can affect the outcome of the activity. The interests of this group are not the focus of the project. They may be able to block the activity and are a major risk to the project.

## Identifying assumptions and risks about stakeholders

1. What roles or responses of the key stakeholders do you assume as important for the project's success?
2. Are these roles plausible and realistic?
3. Are there any negative responses which can be expected, given the interests of the stakeholder?
4. If such responses occur, what impact would they have on the project?
5. How probable are these negative responses, and do they pose major risks?
6. Which plausible assumptions about stakeholders support or threaten the project?

### Checklist for identifying stakeholders:

1. Have all stakeholders been listed?
2. Have all potential supporters and opponents of the project been identified?
3. Has gender analysis been used to identify different types of female stakeholders (at both primary and secondary levels)?
4. Have stakeholders been divided into user/occupational groups, or income groups?
5. Have the interests of vulnerable groups (especially the poor) been identified?
6. Are there any new stakeholders that are likely to emerge as a result of the project?

### Checklist for identifying stakeholder interests:

1. What are the stakeholder's expectations of the project?
2. What benefits are the stakeholders likely to get from the project?
3. What resources will the stakeholder wish to commit (or avoid committing) to the project?
4. What other interests does the stakeholder have which may conflict with the project?
5. How does the stakeholder regard others in the list?

### What is 'influence'?

Influence is the power that stakeholders have to control what decisions are made. Power comes from the nature of a stakeholder's organization or their position in relation to other stakeholders (for example ministries which control budgets and other departments). Table 5 briefs the variables affecting stakeholders' relative power and influence.

Checklist for assessing stakeholders' importance for project success involves:

1. What are the problems that the project seeks to address?
2. What stakeholder groups are most affected by these problems?
3. Who are the priority stakeholders of this project? In other words, whose needs (interests, expectations) are the most important to meet?
4. What stakeholder interests do converge most closely with policy and project objectives?

**Table 5. Variables affecting stakeholders' relative power and influence**

Formal organizations	Informal interest groups and primary stakeholders
Hierarchy <ul style="list-style-type: none"> <li>– Who holds the budget?</li> <li>– Who has control?</li> </ul>	Social, economic and political status
Authority <ul style="list-style-type: none"> <li>– Who is the boss?</li> <li>– Who has charisma? Includes political leadership</li> </ul>	Degree of organization, consensus and leadership in the group
Who controls strategic resources for the project? Suppliers of inputs	Degree of control of strategic resources significant for the project
Possession of specialist knowledge? Engineering staff	Informal influence through links with other stakeholders
Who is in a position to negotiate?	Degree of dependence on other stakeholders. Assessing importance to project success

### Responsibility

Responsibility can be defined as a duty, a course of action demanded and entrusted by other members of the project.

There are two major types of responsibilities: Responsibility for having a task completed (by others or by her/himself), and responsibility for actually doing the job:

R = responsible for the task/activity

D = does/performs the task

The same person or organization can hold both types of responsibilities, however, the bigger the project the more probable that these responsibilities are covered by different people and / or organizations. It is important to remember that when you assign responsibilities for certain tasks / activities only one entity (individual or organization) can be held responsible for the overall completion of an activity.

There are several typical responsibilities within the 'doers' category such as:

- A = Approve - people who actually approve a decision
- S = Support - people who support the implementation
- C = Consult - people who should be consulted about the activity
- I = Inform - people who need to be informed

Photo 8 shows part of the discussion about stakeholders and the responsibilities assigned to them.

**Photo 8. Stakeholder Analysis – Group Discussion in Jordan workshop**



**☑ Activity 15**

These questions are addressed to the whole group:

1. In the case study, to what extent are stakeholders involved in the project itself?
2. Can you recommend any changes that would enable stakeholders to be more involved?

**☑ Activity 16**

Consider your project and explain your answers to the following questions to your neighbour:

1. Who are the project proponents, partners and stakeholders?
2. Why do they have an interest in the project?

**☑ Activity 17**

This is an individual activity:

1. Using the 'Roles and responsibilities' handout, list potential stakeholders and partners, and assign responsibilities to them in two of your project tasks.

Handouts needed:

- Task, Timeline Chart (Gantt Chart)

**☑ Activity 18**

Prepare an Importance & Influence Matrix with your working group members for your project.

Handouts needed:

- Stakeholders Importance & Influence Matrix

**☑ Activity 19**

Prepare a Stakeholder Table with your working group members for your project.

Handouts needed:

- Stakeholder Table

## ■ Session 10 - 11

### Monitoring & Evaluation

**Objectives**

By the end of the session you will:

- be able to explain the difference between monitoring and evaluation
- be able to discuss the essential components of effective monitoring and evaluation
- be able to describe some common tools of monitoring and evaluating projects
- select and design tools for monitoring and evaluating your own project

Thorough planning gives project designers a greater chance of success. The next important step in the process is designing systems and tools for monitoring and evaluating the progress.

It is very important to plan for monitoring and evaluation as part of the project design. Failing to include a monitoring and evaluation system makes your project implementation and outcome vulnerable to unexpected factors which could jeopardise the project's success.

Once a project (or a certain project phase) has been completed, evaluation of the experience provides valuable lessons learned to improve the next planning phase of similar projects (or of the following phases of the project).

## Comparison of Monitoring and Evaluation

The difference between monitoring and evaluation comes from their original purpose.

- Monitoring measures whether the project is **on track**
- Evaluation questions whether it is **on the right track**

Therefore,

- Monitoring is concerned mostly with project activities, and concentrates on the short-term performance compared with the project plans
- Evaluation looks more at the overall project purpose/objectives and examines longer-term effects of the project
- Monitoring is a continuous process, while evaluation is a periodic event

Table 6 presents a comparison between Monitoring and Evaluation with respect to some questions as what, why, when and how. Photo 9 displays the identification of monitoring and evaluation processes by group in Jordan workshop.

**Table 6. Monitoring and Evaluation – Comparison**

Monitoring		Evaluation
Routine checking	<b>WHAT?</b>	Matching results to objectives
Keep project rolling	<b>WHY?</b>	Determine success of project
Daily, weekly, monthly	<b>WHEN?</b>	End of a project phase, end of project or later
Look at indicators	<b>HOW?</b>	Look at objectives and side-effects
Participants	<b>WHO?</b>	Project participants, beneficiaries, donors

**Photo 9. Monitoring and Evaluation – Comparison – Group Discussion in Jordan workshop**





## Monitoring:

Monitoring is the routine checking of work and/or performance. It is the keeping track of project progress, in order to:

- Anticipate problems
- Detect current problems
- Correct problems and/or redesign
- Get participant and beneficiary feedback
- Encourage progress and provide motivation

Monitoring is a necessary tool for effective project control. It can be defined as watching and influencing key activities and accomplishments. In order to be effective, however, it must also include informing others who are involved about progress, problems and future prospects in order to take whatever types of actions are necessary to solve project problems.

The specific items to monitor will vary among projects, but they usually include a range of performance, technical and cost factors.

When you design a monitoring system for your project:

- choose tasks/activities that will be monitored
- identify measures on how the monitoring will be done
- define a monitoring timeline
- identify people and organizations that will be responsible for monitoring

The five types of information that are part of a good monitoring report include:

- project activities and progress toward objectives
- project expenditures to date
- resource availability and utilisation
- schedule achievability and changes
- administrative issues

For a detailed monitoring process you may consider these recommendations:

- a) Based on the type of task/activity that will be monitored, determine what (what indicator/measure) will be monitored
- b) Decide on how (in what way/form) and when (at what intervals) to monitor
- c) Develop short, concise and simple record forms when monitoring
- d) Monitor as planned and keep records
- e) Define all the problems that you managed to identify
- f) Consider whether the problem (problems) is so significant that it needs a solution, if the solution is urgent, if the problem is getting bigger or smaller, and if it is connected to some other problem.
- g) Describe every problem: Where does it take place? Who does it involve? Who/what does it influence? How and when did it occur?
- h) Identify possible causes of the problem (defective equipment, insufficient skills or knowledge, low motivation of co-workers, late payments, etc.)
- i) Find appropriate do-able solutions, so that solving one project problem doesn't create a new one (e.g. moving workers from one task to do an other task which might potentially endanger the completion of a different task)

- j) Monitor how the accepted solution is performed
- k) Give your co-workers feedback and information on the monitoring, so that they can avoid potential problems in the future, and improve the project design process

### **Evaluation:**

Evaluation is the process of checking project results or outcomes, based on measurable project objectives. It can be done at the end of a project phase, at the end of a project, and also one or two years (or more) after completion of the project. Evaluation is done in order to:

- See if objectives and goals have been attained
- If not, to see why not? If so, why?
- Analyse mistakes and problems
- Decide how it could be done better
- Provide information and experience to other projects
- For satisfaction of participants and implementers
- To determine if the objectives achieved the goal(s) of the project or was there possibly a better solution to the problem or need?

The scope of evaluation is broader than that of monitoring. Evaluations are done at milestones and at the completion of the project, and are geared toward assessing overall results against the original plan, and toward providing data for similar projects in the future.

Specific questions to be answered include:

- Did the expected level of change occur? If not, why not? Was there local capacity building?
- Where the activities suitable to accomplish the objectives
- Did the necessary resources actually materialise? Were they sufficient and available on time?
- Did the project remain within the budget allotted?
- Were there any secondary benefits from the project?
- Will the community be able to maintain the project?

The final phase of the project is the evaluation. While it is possible to evaluate project results immediately, actual benefits -- both anticipated and unanticipated -- together with side effects, may not become apparent until the project has been operating for some time. Evaluation thus needs to cover several time periods.

Evaluation normally includes a retrospective examination of the project in attaining its intended goals within the framework of both the timetable and the budget. However, experience clearly demonstrates that it is necessary to consider evaluation as an ongoing process integrated with each phase. Ongoing evaluation, which includes retrospective evaluation, should result in a careful documentation of experiences which can provide both insights and lessons for improving project planning and project management in the future.

Evaluation of a project can take several forms. These include evaluation by those responsible for implementing the project and by others with an interest in the project, including funding organizations and contractors. Those who are funding the project will undertake a thorough investigation of its financial aspects and a whether the original project goal was achieved. The agency responsible for the project will be concerned with determining whether goals have been attained and whether the

expected impact will be achieved. The studies should also consider, in addition to impact on the target group, the impact of the project on the political, social, cultural, and environmental factors relating to the project. An exhaustive evaluation of each phase to determine its contribution to the project in regard to budget, timetable, and other factors is most desirable. In most cases, however, the project as a whole is evaluated with little effort made to analyse each phase or each task separately.

Evaluation Criteria are:

1. **Appropriateness** -- Was it 'right' for you to use this kind of strategy? This question includes whether or not the strategy was appropriate to the organization's overall purpose and also whether the strategy was appropriate for anyone to use all.

An example: building an engineered wetland could be more appropriate in certain geological context than building conventional treatment facilities.

2. **Adequacy** -- Given the size of the problem, did this strategy make enough of a difference to make it worth doing?

For example, suppose you applied a strategy that took a lot of time, human and financial resources with an objective to improve water quality of the river by decreasing the Biological Oxygen Demand by 3%. Was it worth doing?

3. **Effectiveness** -- How successful was this strategy in reaching the stated goal and objectives?

For example, if the objective was to lower the concentration of Total Nitrogen by 50%, did the strategy solve the problem by the planned %?

4. **Efficiency** -- How costly was the strategy compared to the benefits obtained? Were the benefits obtained worth the money and the other resources used? Did we get the most for our money?

For example, if the costs of establishing and operating E-Learning centres in the region were several times higher than the amount of projected benefits of improved local policies or business activities increase.

5. **Side effects** -- What good and bad side effects occurred as a result of the strategy?

For example, introducing the Logical Frameworks into an organization can have the negative impact of slowing down the project and proposal development process but on the other hand, a positive side effect can be better organised work, and better reporting on relevant measures.

### Follow-up activities

Related to, and often arising from the evaluation of a project is the need for various follow-up activities. Follow-up activities may vary from determining how unmet needs can be satisfied to action on project tasks that had not been properly fulfilled. The follow-up projects mentioned earlier may come into play at this point.

If there is a need for a follow-up project, it can mean that the previous project was successful, and there is desire to continue in its goals or to replicate it in a different region (or with a different target group).

### ☑ Activity 20

This is a whole group activity. How would you define monitoring and evaluation?

Brainstorm on the following two questions with the guidance of the trainer:

1. What is monitoring?
2. What is evaluation?

### ☑ Activity 21

You will work in a small group for this activity.

- Examine the case study and identify one way to monitor or one way to evaluate the project work in the case study
- Go to one of the monitoring or evaluation tables on the wall and write what you would do to monitor or evaluate the project
- Come back together into a bigger group and assess whether this is sufficient to ensure that the project is a success. Is there a major monitoring or evaluation component is missing?

Resources needed:

- Definition of what makes a project successful
- Case study
- Monitoring and evaluation tables written up on flipcharts

Handouts needed:

- Monitoring Checklist
- Monitoring Chart
- Evaluation Checklist
- Evaluation Chart

## Concept Note

Time	Event	Content
1 hour & 30 min	<i>Session 12</i> <b>Concept Note Working with Partners; Approaching Donors</b>	<ul style="list-style-type: none"> <li>• Overview of Day 2</li> <li>• Objectives of Day 3</li> <li>• What is a concept note?</li> <li>• Working with partners (Group discussion)</li> <li>• What makes projects attractive to donors (Group discussion)</li> <li>• How to identify potential donors</li> <li>• Building relationships with donors (Group discussion)</li> </ul>
1 hour	<i>Session 13</i> <b>Concept Note Case Studies</b>	<ul style="list-style-type: none"> <li>• Elements of good concept notes</li> <li>• Checklist of a convincing concept note</li> </ul>
1 hour & 45 min	<i>Session 14</i> <b>Drafting Concept Note</b>	<ul style="list-style-type: none"> <li>• Participants draft their own concept note in consultation with the trainers and resource persons as needed</li> </ul>
1 hour	<i>Session 15</i> <b>Sharing Concept Notes</b>	<ul style="list-style-type: none"> <li>• Presentation and analysis of participants' concept note</li> </ul>
15 min	<b>End of Day 3</b>	<ul style="list-style-type: none"> <li>• Reflection on Day 3</li> <li>• Mid-course evaluation: Keep, Stop, Start doing</li> <li>• Overview of Day 4</li> </ul>

## Developing a Concept Note

### Objectives

By the end of Day 3 you will:

- be able to discuss what you need for a concept note
- be able to explain the difference between a concept note and a full project proposal
- draft a concept note for your own project

### Activities

#### **Session 12 Working with Partners; Approaching Donors, Concept Note**

Activity 22: Reflect on your partnership experience

#### **Session 13 Concept Note Case Studies**

Activity 23: List the key elements of an effective concept note

#### **Session 14 Drafting a Concept Note**

Activity 24: Draft a concept note for your project

#### **Session 15 Sharing a Concept Note**

Assessing the project concept

Activity 25: Assess a concept note

### Resources

Handouts:

- Concept Note Template (DFID)
- Information about Stakeholders
- Planning Stakeholder Consultations
- Stakeholder Strengths and Resources

### Further resources

Partnership handouts:

- Assessing Your Partnership Capacity
- Assessing Benefits of a Partnership
- Record of Previous Work with Partners
- Partnership Guidelines
- Timetable for Finalising Partnerships

Donor handouts:

- Donor Contact File
- Record of Contacts with Prospective Donors
- Donor Agency File

## ■ Session 12

### Working with Partners; Approaching Donors

#### Objectives

By the end of this session you will be able to:

- define what a concept note is
- explain why stakeholder involvement is critical in the development of a concept note
- explain why it is important to consider donor's priorities in developing a concept note
- discuss the purpose of a concept note in proposal development
- list and describe the elements of an effective concept note

Having completed a draft design of your project idea, now you have a solid foundation that you can use to develop your *concept note* which is the first step towards a project proposal for securing resources through a grant. Based on the guidelines provided in the following two sessions, you will be able to develop an effective concept note for your own project by the end of this day.

This session provides a set of steps you can follow to develop a sound project concept:

- (1) Examine why working with partners
- (2) Approaching donors
- (3) Elements of effective concept notes

#### What is a Project Concept Note?

A project concept describes the ideas about what can be done within a specified period of time, to deal with a particular problem or situation; a situation that requires more time and resources than are normally available to an organization. In other words, the project concept represents a collective vision of those directly involved in planning the project, and describes the rationale, goals, objectives, activities, and expected outcomes of the project.

It is essential to have a project concept in place before writing a project proposal. Therefore the first and most important step in writing an effective project proposal is to develop a sound *project concept*.

In order to develop a concept note you would need to take a stock of your stakeholders again, and consider identifying appropriate partners as most donors make partnership as a requirement. You would not be able to develop your concept note, however, without knowing what donor(s) you want to submit it. For this purpose, you need to select donors whose priorities are close to or matching with your priorities.

#### Working with partners

##### ***Several actors are required***

In real life several events and meetings transpire before the project proponents decide on how to address the problems. As you experienced in Day 1 and Day 2 you need to follow several steps after deciding on the project goal before you have a draft project design at hand which is the foundation or the beginning of your *project concept*.

##### ***Roles of different actors***

Generally speaking, a sound project concept usually emerges from a project design process involving the actions and deliberations of many people. As you could see in Day 1 and day 2, these people have to identify a strategy or strategies to bring about the necessary change in the problem or situation.

Strategies may include research to obtain better information about possible causes of the situation and possible solutions, or, they may be actions to implement the best solution based on the findings of research already conducted.

As you could already see (Session 9: Roles and Responsibilities), there are three main categories of 'actors' that have an important role in defining the problem and identifying possible solutions, and eventually in contributing to the concept note development. These include i) project proponents, ii) project stakeholders, and iii) project partners.

**Table 7. Typology of Participation**

Typology	Characteristics
1. Passive Participation	People participate by being told what is going to happen or has already happened. It is a unilateral announcement by an administration or project management without listening to people's responses. The information being shared belongs only to external professionals.
2. Participation in Information Giving	People participate by answering questions posed by extractive researchers using questionnaire surveys or similar approaches. People do not have the opportunity to influence proceedings, as the findings of the research are neither shared nor checked for accuracy.
3. Participation by Consultation	People participate by being consulted, and external people listen to views. These external professionals define both problems and solutions, and may modify these in the light of people's responses. Such a consultative process does not concede any share in decision-making, and professionals are under no obligation to take on board people's views.
4. Participation for Material Incentives	People participate by providing resources, for example labour, in return for food, cash or other material incentives. Much on-farm research falls in this category, as farmers provide the fields but are not involved in the experimentation or the process of learning. It is very common to see this called participation, yet people have no stake in prolonging activities when the incentives end.
5. Functional Participation	People participate by forming groups to meet predetermined objectives related to the project, which can involve the development or promotion of externally initiated social organization. Such involvement does not tend to be at early stages of project cycles or planning, but rather after major decisions have been made. These institutions tend to be dependent on external initiators and facilitators, but may become self-dependent.
6. Interactive Participation	People participate in joint analysis, which leads to action plans and the formation of new local institutions or the strengthening of existing ones. It tends to involve interdisciplinary methodologies that seek multiple perspectives and make use of systematic and structured learning processes. These groups take control over local decisions, and so people have a stake in maintaining structures or practices.
7. Self-mobilization	People participate by taking initiatives independent of external institutions to change systems. They develop contacts with external institutions for resources and technical advice they need, but retain control over how resources are used. Such self-initiated mobilisation and collective action may or may not challenge existing inequitable distributions of wealth and power.



Sometimes a project concept may be fairly well developed by one organization before it is recognized that other partners will be needed to provide essential expertise and resources. Usually (but not always), you should confirm the partner's commitment before you submit your proposal to a donor.

Now, let's consider how to identify and collaborate with partners:

### ***Consult and build support among the stakeholders***

You have already identified the stakeholders of your project and the reasons for their interest. Now, we will explore strategies for engaging, consulting with and building support among stakeholders.

### ***Typology of participation***

Given that donor organizations often regard stakeholder involvement and participation as a critical component in the success of projects, it is worth considering for a moment the 'Typology of Participation'<sup>4</sup>. This definition is drawn from the work of development organizations and reflects the assumption that there are basically seven ways that the term 'participation' can be interpreted.

The types of participation range from passive participation, where people are involved merely by being told what is to happen, to self-mobilization, where people take initiatives independently of external institutions. It should be evident from the Table that this typology can be useful in determining the level of participation that is required for a given project, furthermore the aims of the project might also reflect a desire to mobilise a community towards more independent action.

Typically the approach of stakeholder consultation (number 3 in the typology as shown in Table 7) will be used in the development of project proposals participation. Types of stakeholder consultation will be considered in some detail in the following section.

### ***Types of stakeholder consultation***

For reasons mentioned above, it is ideal to involve stakeholders in the early stages of project planning. Stakeholders can provide the insight needed to help you determine whether your project is viable and relevant. Stakeholders can identify potential obstacles to the success of the project, and they may have good ideas about how to strengthen it.

Do not assume that because an individual or group has a stake in the project that they are necessarily supporters of it. Certain stakeholders may feel they will be negatively impacted by a project, particularly if they do not yet have very much information about the project. Their concerns should be known in advance. There are really two stages involved in stakeholder consultation - one involves establishing that there is support for the project - and the other entails translating that support into practical terms.

Suggested strategies for establishing support include:

### ***Holding a stakeholder forum – a meeting among stakeholders and project proponents***

The objectives include:

- to share basic information about the project
- to address stakeholders' issues and identify any concerns
- to invite their input regarding the project
- to build support for the project

A stakeholder forum can generate good ideas and enthusiasm, because of the synergy that is created through this type of consultation. The forum can be held face to face, or at a distance, using communications technology. A stakeholder forum might take place over a number of stages, local meetings can be held in preparation for a larger regional gathering, outreach and information is important so that all stakeholders have a clear understanding of the principal issues as this can help to avoid confusion in discussions. It is also important that all stakeholders understand the objective of the consultation, in setting the agenda for discussion the expectations of all groups should be considered.

It is worth mentioning that some tension or conflict is not unusual when different stakeholder groups are brought together in a forum for the first time, often this is because of mutual suspicion or mistrust. However through dialogue, what often happens is that different groups begin to see that they have shared views and objectives and are not on opposing sides of an issue. Careful preparation and facilitation is essential to enable the resolution of issues or conflict. In selecting a venue for a stakeholder forum, you may wish to consider a location that is neutral and does not represent a particular authority or interest.

Sometimes a stakeholder forum is the first opportunity for organizations to meet to discuss common problems, so it is an important stimulus to communication and collaboration among different groups.

A face-to-face meeting allows for more interaction in casual settings, and the possibility of working in smaller groups or teams. When a face-to-face meeting is not feasible, a distance forum can be conducted by e-mail, computer conferencing or a series of audio conferences. In either case, the gathering should have clear objectives and enable broad consultation among the participants.

### ***Meeting with representatives of each stakeholder individually***

You may decide to hold meetings with stakeholders individually for a number of reasons.

First, at certain stages of project planning you may wish to discuss specific issues with one stakeholder that has no relevance to other stakeholders. Separate meetings can be used to enable stakeholders to provide feedback on project design or implementation. For example, in the case study, it would not be necessary to organise a meeting between forestry workers and the Department of Fisheries and Oceans if the objective is to discuss how best to train government monitors in water quality assessment. On the other hand, if the project requires that forestry workers must collaborate with the environmental monitors, then a meeting between these organizations might help to determine the best means for collaboration.

Second, meetings with individual stakeholders can be used to discuss how that stakeholder might be able to support the project.

Third, you may wish to meet with stakeholders separately if they have a history of conflict. The risk of holding a stakeholder forum in this situation is that a positive outcome could be prevented if the two (or more) opposing groups dominate the meeting. In this case it may be more appropriate to discuss with the individual stakeholders how the project could help to meet their needs while reconciling the conflicting interests. If you can demonstrate how the project will produce a 'win-win situation', it is likely that the stakeholders will endorse the project and help to ensure its success. After each of these stakeholders has endorsed the project, you may be able to hold a successful stakeholder forum, if desired.

### ***Translating support into practice***

In projects as in other situations, sometimes there is a gap between an enthusiastic response to an

idea and the willingness to help make it happen. Inviting stakeholders to participate in some way in the project is a way of recognising their unique role and the contribution they can make. Table 8 gives some examples of how stakeholders can make important contributions to a project with their particular strengths.

The 'Information about Stakeholders' and 'Planning Stakeholder Consultations' handouts are a template to assist you in identifying stakeholder contributions and planning stakeholder consultations for your projects.

### ***Stakeholder participation as a major project component***

Frequently in the implementation of major projects stakeholder participation forms a significant element of the work programme. Conservation activities that require the consent and co-operation of different groups of stakeholders often build in a component of participation as a key project activity. This achieves a number of objectives - perhaps the most important of which is the creation of a positive feedback loop as part of the project management cycle. The development of a public (or stakeholder) participation strategy could be the objective of a project itself or might be designed to generate more detailed project ideas around a particular issue or geographical region. One example is the Danube River Basin Strategy for Public Participation in River Basin Management Planning 2003 - 2009<sup>4</sup>.

**Table 8. Stakeholder Strengths, Resources and Contributions**

<b>Stakeholder strengths</b>	<b>Potential contribution to the project</b>
<ul style="list-style-type: none"> <li>local knowledge: familiarity with the context and needs of the situation addressed by the project</li> </ul>	<ul style="list-style-type: none"> <li>a 'reality check': honest feedback based on knowledge of the situation;</li> <li>connections with people directly affected by the project</li> </ul>
<ul style="list-style-type: none"> <li>linkages with other local agencies, such as government, other organizations</li> </ul>	<ul style="list-style-type: none"> <li>capacity to reach a broader network when required</li> </ul>
<ul style="list-style-type: none"> <li>facilities, such as a workplace or meeting place</li> </ul>	<ul style="list-style-type: none"> <li>use of facilities for project activities, for example providing a space for a learning centre</li> </ul>
<ul style="list-style-type: none"> <li>people with expertise in a specific area</li> </ul>	<ul style="list-style-type: none"> <li>access to experts as general advisors, in specific roles, such as local consultants to the project team or as mentors in a learning project</li> </ul>
<ul style="list-style-type: none"> <li>recognized leadership in a particular geographical area or disciplinary field</li> </ul>	<ul style="list-style-type: none"> <li>letters of support from a respected source</li> </ul>
<b>Stakeholder resources</b>	<b>Potential contribution to the project</b>
<ul style="list-style-type: none"> <li>financial resources</li> </ul>	<ul style="list-style-type: none"> <li>provision of financial support for the project</li> </ul>
<ul style="list-style-type: none"> <li>community resources e.g. land</li> </ul>	<ul style="list-style-type: none"> <li>provision of land or other in-kind contribution</li> </ul>

### ***Consult with prospective project partners***

Many projects involve several organizations working in partnership because the project benefits from the combined expertise, resources, networking and outreach capabilities of all the partners. Let's explore some options for partnerships.

<sup>4</sup> Pretty, Jules N, Guijt, I, Scoones, Ian, and Thompson J 1995. A Trainer's Guide for Participatory Learning and Action, International Institute for Environment and Development, London.

## Why working with partners?

As the project proponent, you should have an idea of the kind of resources and expertise the project requires. If these resources cannot be found within your own organization, you may decide to seek out an appropriate partner. The first step is to decide what you need from a partner. Partners can strengthen a project in the following ways as given in Table 9.

### *Requirements for collaboration with partners*

Collaboration is challenging and time consuming, but it also brings rewards by broadening the scope and capacity of partners.

The challenge of working in a partnership arrangement is that there are inherent contradictions when organizations accustomed to operating independently begin to work together. Because a partnership includes a broader range of resources and perspectives than is available within one organization, each partner has different goals, organizational structures, values and management approaches. This diversity can bring additional strengths, but it also requires a commitment to develop common understandings where these are essential for the project and to respect differences that are not relevant to the project.

For the above reasons, it is important to assess whether a partnership is viable, early in the project development process.

Keep in mind:

- The objectives of the collaboration must be clearly defined, written down, and communicated to all the participants (this is called the partnership agreement, operating principles or memorandum of understanding)
- The mission statement of the collaborative enterprise should contain both short-term and long-term objectives
- There has to be a clearly established benefit for every participating institution (or organization)
- The smaller the initial group of participants, the greater the likelihood of success
- There must be a champion of the enterprise in every participating institution - a senior person with the time, commitment, and authority to see the project through to completion. The more senior in rank the better. There must also be staff who have the expertise as well as a clearly defined authority to make the project work. These people must trust each other
- Each partner should be required to contribute some resource to the endeavour. Ritual declarations of a desire to collaborate are not enough
- Be prepared to invest extra time in obtaining support, building trust and getting the work done

The 'Partnership Guidelines' handout provides some tips on how to achieve effective collaboration with partners. Remember to use these tips when deciding whether to collaborate on a project you develop in the future, or are currently developing.

**Table 9. Partners Strengths, Resources and Benefits**

<b>Partner strengths and resources</b>	<b>Benefits to the project</b>
<b>Enhanced resources</b>	The partner brings additional capacity, building on the same strengths already available to the project proponent. For example, if a project needs five biologists with expertise in water quality assessment for fisheries and your organization has only three, a partner could provide the two additional experts needed.
<b>Complementary resources</b>	The partner adds different strengths not already available to the project proponent. For example, if a project requires expertise in slope stabilisation, and the project proponent does not have this specialty, it seeks a partner with strength in this field.
<b>Agency</b>	The partner has the ability to act in an area that is beyond the jurisdiction or mandate of the proponent. For example, if a project in streambed restoration must include several districts in order to be effective, it would be advisable to include partners from each district.
<b>Networking</b>	The partner brings the ability to connect different fields of interest. Organizations tend to have linkages with others in their field. By involving a partner organization from another field, it is possible to expand the possible area of impact of the project. For example, an environmental organization working in partnership with an educational organization increases the likelihood that the project will engage both the environmental and educational communities.
<b>Outreach</b>	Some partners can increase the project's ability to reach a broad range of stakeholders or project beneficiaries. For example, an organization that is based in one major centre may choose a partner organization that is decentralised and has many local centres if the project requires broadly based data collection or information provision.

***Timetable for partnership arrangements***

It is important to develop a timetable for deciding any outstanding issues regarding project partnerships. If your role is primarily to develop a project proposal and you are not directly involved in the project planning process, you will need to know, from the project proponents, their timetable for finalising partnership agreements.

The 'Timetable for Finalising Partnership Arrangements' handout provides you with a framework for expanding and nurturing your network of partners. You may wish to use this framework in your own planning process for a project concept you are developing.

***Summary notes on partnership***

Partnerships need to be based on common goals that are intrinsically important to each organization and that go beyond simply meeting a requirement for project funding.

Identifying partners and defining partnerships requires a great deal of input from you and others involved, and in a sense is a microcosm of what's involved in collaborative projects. Time and patience are required to be successful. Each of the partners, stakeholders and beneficiaries has a role to play

in the project, and that role should be fairly clearly defined during the project planning process, prior to applying for funding.

Resources recommended for working with stakeholders, partners:

- Handout: Information about Stakeholders
- Handout: Planning Stakeholder Consultations
- Handout: Stakeholder Strengths and Resources
- Handout: Assessing Your Organization's Partnership Capacity
- Handout: Assessing the Potential Benefits of Partnerships
- Handout: Record of Previous Work with Partners
- Handout: Partnership Guidelines
- Handout: Timetable for Finalising Partnership

By the time you have developed a sound project concept and have identified the roles and contributions of partners, stakeholders and beneficiaries, drafted a logframe and a budget, you are in a good position to conduct an informed search for an appropriate donor.

We will provide you here with some tools to assist you in identifying and approaching potential donors for a project. A donor is any agency that provides financial support for a project, and can include governmental organizations, intergovernmental agencies, non-governmental organizations, non-profit organizations, foundations and for-profit organizations.

In many cases, those directly involved in or affected by a project provide some financial support for it. These are typically called in-kind contributions/self-financing parts. This unit deals specifically with donors who are NOT directly involved in the project.

Please note: People often discuss project ideas with their contacts in funding institutions before they have a sound project concept in place. This is an excellent way to determine whether your initial project ideas have potential to receive funding.

## Approaching donors

### *Who funds projects?*

Funding for projects can come from a variety of different sources, generally falling into the following categories:

- Multinational organizations
  - National government agencies, such as DFID (Department for International Development, UK), BMZ (Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung - Federal Ministry for Economic Cooperation and Development, Germany), GTZ - German Agency for Technical Cooperation (Deutsche Gesellschaft für Technische Zusammenarbeit), Germany; SIDA, (the Swedish International Development Cooperation Agency, Sweden), USAID (US Agency for International Development, USA) etc.
  - International agencies, such as UNDP (United Nations Development Programme), European Commission, GEF (Global Environment Facility), FAO (Food and Agriculture Organization), UNESCO (United Nations Educational, Scientific and Cultural Organization) etc.
- Non profit, non government organizations (NGOs)
  - National NGOs
  - International NGOs

- Private foundations
  - For example, the MacArthur Foundation, The Ford Foundation, The Aga Khan Foundation, Abu-Dhabi Charitable Foundation, King Faisal Charitable Foundation, etc

Some agencies, such as the major development banks (the World Bank, Asian Development Bank, African Development Bank, Inter-American Development Bank, Islamic Development Bank) provide long term loans for projects. In some circumstances, the development banks also provide some grants for technical assistance or needs assessment initiatives. Other funding agencies provide project grants that do not have to be repaid. All funding agencies require *accountability* from recipients, which means they must be able to show that they used the money responsibly to undertake planned project activities to achieve the stated project goals. Often funding agencies reserve the right of implementing financial audits during and after the completion of a project.

Some of the larger funding agencies provide financial support for projects in a very broad range of fields; health, education, environment, social development, administration, and so on. On the other hand, many agencies direct their funding only to projects in specific fields, for example, only to environmental projects. Print directories of funding agencies and websites publish information about funding agencies, their mandates and types of projects they will consider supporting. Among the many types of funding agencies, there are commonly accepted expectations of applicants for funding. These requirements are usually outlined in agencies' instructions for applicants and in funding application forms.

### ***Identify potential donors using your current contacts***

The process of finding sources of funding for a project has to be systematic, whether you are starting from known contacts or researching prospective donors from directories or websites.

First, keep in mind the following tips:

- Be sure to identify the donors that have a special interest in the areas addressed by your project. Carefully review the agency's statement of its goals and priorities, and determine how well your project fits these, by identifying the areas in which your project matches the donor's goals.
- Review the funding guidelines for these agencies. Identify any exclusions that apply, based on geography, type of project, size of project, and so on. Eliminate these from the list.
- Review the list of projects that the agency has recently funded. You will be able to determine if they have funded projects in related areas.

### ***Start with Current Contacts***

There are several advantages to starting the search with those associated with the project.

First, partners, stakeholders and beneficiaries can often identify potential donors from their own context or field of interest. By building on the connections of those closest to the project, you can focus the search for funding on organizations with a particular interest in the areas relevant to your project.

Representatives of the project team, stakeholders and project beneficiaries should all have names of relevant contacts to contribute. These may be individuals, such as members of professional organizations or colleagues that have interests relevant to the project. They may be agencies or organizations that are linked by work or common interests. If any of these contacts can provide linkages to other organizations, list these secondary contacts as well.

Generate the list of names first. When you have selected the most relevant potential donors, record their contact information in a contact file that you will find in Contact File handout.

The second reason to explore potential funding options with those closest to the project is that it will give you more experience in communicating with donors, finding out donors' priorities and assessing whether your project can fit with these priorities. These skills will be useful when obtaining information about donors that are not already known to you or your colleagues.

### ***Build a Donor File***

As you begin to collect information about potential donors and their priority areas as follows:

Example of a Donor File

**Name of Organization:**  
**Name of Contact:**  
**Primary contact or secondary contact:**  
**Address**  
**Phone:**  
**Fax:**  
**Email:**  
**Web site:**  
**Main areas of donor's interest, and how they best match the project:**

**Other interests relevant to the project:**

**Geographic focus:**

**Size/scope of funded projects:**

**Limitations:**

### ***Researching potential donors beyond your current contacts***

As you broaden the search for prospective donors, the same principle applies; that those most likely to fund the project are those with a particular interest in the issues the project addresses. Funding agencies are in the business of providing funds to support initiatives that match the agency's goals.

Common priorities among funding agencies are:

1. Broad participation and consultation in project design and implementation.
2. A follow-on effect from the project, which means the project extends beyond the immediate project context and timeframe. This is sometimes termed building capacity. An example is a project to train staff that are then able to train others.
3. Sustainability, which means that activities undertaken as part of the project will be able to continue after the project is concluded.
4. Inclusion of minorities and under-represented groups, such as women, in project design and implementation
5. Respect for human rights in all aspects of project design and implementation, especially research with human subjects.



6. Environmental soundness. Even projects that are not directly addressing environmental issues are normally required to demonstrate that the environmental impact has been considered, and if it is determined there will be an environmental impact, steps are included to mitigate any negative effects.

### ***Sources of Funding Information***

All funding agencies require accountability from recipients, which means they must be able to show that they used the money responsibly to undertake planned project activities to achieve the stated project goals. Among the many types of funding agencies, there are commonly accepted expectations of applicants for funding. These requirements are usually outlined in agencies' instructions for applicants and in funding application forms.

Donors publicise information about their priorities and application procedures to project proponents in a number of ways; 1) through listings in funding directories, 2) through their own publications, and, 3) increasingly, through websites.

### ***Funding Directories***

Directories of funding agencies are published by umbrella organizations that represent a selection of agencies with a common feature. Two examples are the European Foundation Centre (EFC) and the Canadian Centre for Philanthropy. There are also directories of funding organizations with a particular focus. For example, EFC publishes a directory of funding agencies that support environmental initiatives.

Although print and CD-ROM directories can be costly to purchase, many government and academic libraries make funding directories available to the public.

### ***How to use a print directory of funding agencies?***

When you first review a directory of funding sources, the amount of information available can seem overwhelming. There are several possible organizing principles for these directories. The donors may be listed alphabetically, by their area of interest, or by the country in which they are based. As well, the directory index may group donors together by area of interest, or by country. It is helpful to identify the organizing principle that suits your purposes.

If the directory provides only an alphabetical listing, examine several listings to determine the pattern, and to locate where in each listing you can find information about donors' interests and guidelines. As well, you should identify the area of the listing that defines any of that donors' limitations - for example, if they will fund only projects in Eastern Europe. When you scan the listings, keep notes on any agencies that seem to be appropriate in your donor file. This is quite a time-consuming task.

Many funding agencies also make information available through their own publications, in print and/or on a website. If there is a particular agency with areas of interest directly relevant to your field of work, it is worthwhile asking to be placed on that agency's mailing list, so that you receive information from them on a regular basis. Agency newsletters can provide valuable information about current funding priorities, special funding initiatives and projects currently supported by the agency, all of which give you useful background information about the donor.

***CD ROM directories***

CD ROM directories allow you to conduct an electronic search using keywords. They may not be as up to date as a website, but will probably be easier to search than a print directory.

***Websites***

With increasing use of the internet and the web, more funding agencies are publishing information on their own websites.

Locating the information you need through a website may take several stages. There are few comprehensive directories of donors available for free that provide complete information about each listing within the same website. Most of them require following links to other websites to get detailed information about individual donors.

It will require time and patience to follow up each link and check out each donor's website. Be sure to track which donors you have checked and which ones to follow up. As well, it is a good idea to save any website information you think might be relevant to your search, and/or print it out for future reference.

***How to use website listings of funding agencies?***

Some website funding agency listings are quite large and include a broad diversity of donors. Some of the same principles used to sort through print directories are also useful for websites, but, fortunately, the task can be simplified, especially if the directory allows you to search using keywords. These are words that are used to select certain agencies from the whole file. The keywords that you would use are those that are particularly relevant to the project concept or the context for the project. In some search systems, if the keyword consists of a phrase, you must use a plus sign (+) between each word so that the search locates only the whole phrase, not the individual words in it. For example, if a keyword was the phrase 'environmental assessment', unless it is written as 'environmental+assessment' the search may locate everything to do with the environment and everything to do with assessment, including many items not at all relevant to your search.

***Tips on computer searches***

There is often an option to refine the search by applying another set of keywords, or by providing a more complete phrase to define exactly what you are looking for.

If your computer system does not enable you to conduct a search on a website, you may still be able to conduct an electronic search. If you can download documents from a website, and convert them to a text file, word processing software will allow you to use the 'Find' function to locate documents that include a keyword or phrase relevant to your project.

***Planning an approach to donors***

Funding agencies see themselves as participating in a partnership with the agencies they support. While those implementing the project provide their ideas and hard work to achieve the project's stated goals, the donor's role is to provide the financial contribution.

Once you have familiarized yourself with the donors who may have an interest in your project, it is important to determine the best process for approaching each donor.

This section outlines a common protocol to follow when approaching prospective donors, but keep in mind that the specific protocol for each donor may vary.

Many donors recommend that project proponents take several preliminary steps prior to formally submitting a project proposal, because they need an expedient process to assess whether your project matches their goals and priorities, prior to sifting through a lengthy proposal. The steps include informal inquiry, formal inquiry and the submission of a proposal.

### **Informal Inquiry**

Some donors feel more comfortable supporting a project when they know the organization that will be managing it, so obtaining funds often requires building a relationship with a potential donor before submitting a formal proposal.

The first inquiry to a potential donor may be termed an 'informal inquiry' but it still requires planning and preparation. As a prospective applicant, your goal is to start a dialogue with the appropriate people at the funding agency who can then tell you whether it is worthwhile submitting a more formal proposal to them.

Some funding agencies have staff with expertise in the areas of focus that they support, and may be very proactive in working with project proponents. For example, the International Development Research Centre (IDRC), based in Canada, provides support for research initiatives, and 'its principal approach is to support projects and partnerships proposed by developing country research institutions'. IDRC describes the initial stages of working with project proponents as follows:

*'Proposal preparation is a time consuming process, and IDRC pursues the process in stages. Proposals are commonly reviewed and revised several times before the final version is submitted for approval. This is done in close consultation with one or more of the IDRC's programme officers. IDRC programme officers are themselves researchers, and will act as a sounding board for the project ideas, help the researcher define a problem and advise on methodology to reach the desired objectives'.<sup>5</sup>*

The larger intergovernmental agencies may not work as closely with prospective applicants. In these cases, anyone who has had project experience with these agencies would be a source of information about the best initial approach.

The initial approach can be made by fax or e-mail, or by phone, if the agency is within your own country and phone contact is feasible. It is essential to identify the name and/or the position of the person to contact. An initial contact that goes to the wrong person may be very difficult to trace, since the recipient will most likely forward your message to someone else in the organization. Most directories of donors list a contact name or position for initial inquiries. You should use this name or position for your first message, unless you have your own direct contact within that organization.

By the time you are ready to make contact with a donor, you and your colleagues may be so familiar with the project concept that you now discuss it in 'shorthand', using your own terms and phrases that assume knowledge of the project. When you prepare to approach a donor, it's important to realise that the donor has no prior knowledge of the project, and will need some background information in order to understand it. Acronyms and references will need to be explained. Consider how you would describe, in a few sentences, the basics of the project concept to someone who has no knowledge of the project,

<sup>5</sup> The International Development Research Centre (IDRC) [http://www.crdi.ca/index\\_en.html](http://www.crdi.ca/index_en.html) (Accessed 14 June 2006)

or possibly, of the context. In preparation for your approach, it's helpful to put yourself in the place of the funding agency staff person you will be contacting.

If your organization has a clearly written mission statement, you might want to incorporate it into your description of the organization. As well, you should outline the organization's goals and primary activities, in terms relevant to the project. (For example, it may seem self-evident that a university's primary goal is education. But it is useful to convey relevant information about the institution's context, teaching and research specialties, and outreach programmes.)

### ***Formal letter of inquiry***

Most organizations must submit a preliminary letter of inquiry describing their proposed project. The inquiry process is an efficient way for those assessing the proposal to determine whether it meets the funding agency's basic criteria for funding. Proposals are generally highly competitive, and this is the first stage of the selection process.

Inquiry letters are typically one to three pages in length and explain the programme mission, the background of the organization, the activities to be supported, and the requested level of support.

Letters of inquiry are frequently accepted throughout the year, but it is best to check with the agency to determine whether deadlines apply. Be sure to allow plenty of time to discuss your letter and programme ideas with the donor. It is not unusual for project proponents to begin conversations with the funding agency many months before a full proposal is considered.

First, take a few minutes to write two or three sentences that describe the case study project in terms that will be clear to someone not familiar with the project. Ask someone who does not know the project to read your description and tell you what he or she understands about the project from your description. If their understanding is accurate, then your description has passed its first test. If the person has misunderstood anything, it helps you to identify what part of the description needs clarification.

Second, describe why you think the donor would be interested in your project in the next sentence or two. You have selected this donor based on specific criteria, so it is important to convey how this project matches the funding agency's priorities, as well as the size and scope of projects it supports. This demonstrates that you have researched the donor and that you have given careful consideration to approaching them.

Third, the final part of your message should indicate what you anticipate as the next steps. Some funding agencies specify how long it takes for them to respond to an informal inquiry; in these cases, it is prudent to follow their timelines. Otherwise, it is fair to state that you will be back in touch with the donor within a month, if you have not already heard from them. If you would like to have more information from the donor, such as their prospectus or application form, you should include this request in your message.

If you are making this initial informal inquiry by e-mail or fax, ideally, it should be no more than one full page. If you are contacting the donor by telephone, your notes can serve as a reference for the initial conversation. Remember to follow up a phone conversation with a letter or fax to confirm the conversation.

Here is a sample letter of inquiry:

**Sample Enquiry Letter**

Department of International Cooperation • Mainland University

Ms Marie Robert  
Programme Director,  
Champlain Foundation

Dear Ms Robert,

We are approaching the Champlain Foundation to assess your interest in a collaborative project to establish environmentally sound logging practices that will prevent future damage to fish habitat and to restore previously damaged rivers and streams, in the East Island/West Mainland region.

Begin with a concise explanation of the project.

The project has been developed as a result of extensive consultation with fishers, foresters, environmental consultants, community representatives and both the District and National governments. New legislation requires a change to the logging practices that have, in the past, damaged fish habitat and caused a rapid decline in fish stocks. This project is designed to support the rapid implementation of these new practices. By providing appropriate and accessible training for loggers, environmental monitors and former fisheries workers, the project will instil the knowledge and skills needed to support environmentally sound forestry and careful monitoring of watershed regions.

Provide background information about the rationale and goals for the project.

The project proponents are Mainland University, East Island College, District Government Ministry of the Environment and the National Government Ministry of Fisheries. In consultation with project partners and with stakeholders, the two educational institutions will develop two training programmes. One will train forestry workers in environmentally sound practices in riparian areas, in compliance with new forestry regulations, and a second programme will train environment monitors in water quality assessment in fish-rearing streams. Both programmes will use train the trainer approaches and open and distance learning in order to make the training as appropriate and accessible as possible, and to ensure consistent training of large numbers of participants.

Provide a brief outline of what the project will do.

Over a five year period, the programmes will reach an estimated 8500 forestry workers (85% of the total in the region), 200 full time government environmental monitors, and 1500 short term environmental monitors who were formerly fisheries workers. It is estimated the total project cost, over its five year life, will be in the region of US \$600 000. Partners and stakeholders have already committed to contributing US \$60 000 to the project.

Provide basic information on the scale of the project.

This project has several distinctive features. It will help to restore ecologically sensitive areas and will reinforce the sustainability of two significant resource-based industries through training that emphasises their mutual reliance on protecting the ecosystem that supports them. As well, by using train the trainer strategies and open and distance learning, the project will help to establish a continuing training culture in forestry and environmental monitoring in the region.

Describe the unique features of the project.

Mainland University will administer the project, in close consultation with the other partners. Mainland University is a large multi faculty university with 20 000 undergraduate students and 5 000 graduate students, an international reputation for its expertise in environmental studies, forestry and geology, and over 20 years' experience in providing distance education programmes to learners throughout the region. It has managed several similar projects of this nature and size: a four-year, US \$600 000 project to expand and sustain rural health care practices, in cooperation with the Ministry of Health and rural communities, and a US \$400 000 project in innovative strategies for local economic development, in partnership with District Credit Unions, local governments and East Island College.

Establish the credibility of the project proponents.

The project partners recognize the Champlain Foundation's longstanding commitment to environmental issues, and note its special interest in linking conservation with commerce in forestry and fisheries. We believe this project is in keeping with the Champlain Foundation's general framework for projects in this area, and we would value an opportunity to discuss this project concept further with you.

Link the project to the donor's areas of interest.

I will be available at the contact numbers listed below for the next four weeks: I will be on leave from August 1 to 16, but my colleague, Ms Anna Simpson, will be able to handle any requests for further information during that time. I look forward to hearing from you at your convenience.

Provide detailed contact information.

Yours truly,

Ms Martha Jones,  
 Director, International Projects  
 Department of International Cooperation  
 Mainland University  
 Phone:  
 Fax:  
 email:

## Activity 22

You will have a discussion in a small group to share experience related to the following three questions.

1. What types of benefits partners have brought to your projects (enhanced resources, complementary resources, agency, and/or outreach)?
2. What benefits did your organization bring to the project?
3. Can you think of an example of conflict among stakeholders from your own experience?

## ■ Session 13

### Concept Note: Case Studies

#### Objectives

By the end of this session you will:

- develop a checklist of effective concept notes
- apply the knowledge by analyzing successful and failed concept notes on the basis of a jointly developed checklist of effective concept notes

This session gives you the opportunity of studying four real life concept notes. They demonstrate well written concepts for small and large projects. A quick overview will reveal their common structure. Further analysis will expose differences that are due to organizational priorities (proponent, partners, donors).

We provide you here with an example of a real life concept note from the region that is planned to support construction objectives.

#### Construction of Deir Ez-zur Sewage Treatment Plant

##### Protection of Water Resources of the Euphrates River

Project Concept Note

Syrian Arab Republic  
Ministry of Housing and Construction<sup>6</sup>

Installation of Mechanical and Electrical Equipment

Damascus, Syria

September 2004

#### Project Proponent

Ministry of Housing and Construction, Syria  
Office for International Co-operation and Project Coordination

#### Contacts

Name of contact person  
Ministry of Housing and Construction  
Office for International Co-operation and Project Coordination  
Yousef Al Azmeh Square  
Damascus, Syria  
Tel: +963-94- 838 967  
Fax: +963-11- 231 5286  
E-mail: mazissa@scs-net.org

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<sup>6</sup> Shared with the generous permission of the Vice Minister of Ministry of Housing and Construction in July 2006 to be used as case study in the FAO-GTZ-LEAD Training Programme on Project Design and Management.

## Summary

Syria intends to protect the Euphrates River from pollution by constructing a sewage treatment plant in Deir Ez-zur city. The civil works will be financed by the Ministry of Housing and Construction with USD 5 million. For the supply and installation of mechanical and electrical equipments the Syrian government seeks financing through a foreign donor agency. An estimated sum of US\$ 5 million (50%) is requested for this purpose.

## Rationale

The main sewer of Deir Ez-zur city is discharging untreated sewage directly into Euphrates River or into side branches of the river. These side branches hardly have a water flow in the dry season, so raw sewage is then being pumped directly for irrigation in the area of the side branches of the Euphrates, thus threatening the environment and the farmers along the Euphrates by health risks.

The Syrian government decided to construct a waste water treatment plant, to treat the sewage discharge of Dier Ez-zur city, up to the limit that it could be reused for irrigation purposes without any bad environmental impacts or health risks.

## Goal

The goal of the project is to protect the health of farmers in the area and the population at large by improving the water quality of the Euphrates River which is the main drinking water resource for the whole area and for Iraq as well as shown in photo 10.

**Photo 10. The sewer in front leads sewage water directly into a side branch of the Euphrates. The sewage is directly used for irrigation at the other side of the river**



## Beneficiaries

The main and direct beneficiaries of the project will be the farmers using river water for irrigation



(currently waste water) and the people living near the present sewage discharge points along the river and its side branches, where flies and mosquitoes are present in large numbers threatening the public health. The consumers of vegetables in the city will also benefit from the project. In addition, the drinking water resources downstream of Deir Ez-zur will be protected from contamination thus improving the public health at large.

### Budget

Total budget: US\$ 10 million

Requested amount from GTZ: US\$ 5 million

The Syrian government is asking foreign donor agencies to finance the **supply and installation of the technical equipment** for the treatment plant. The tendering documents are already available and not subject for financing. The tender documents and additional information are available on request.

Contributions from the Syrian Government:

The preparation of the design studies and the construction of civil works may be considered as a Syrian contribution to a joint project:

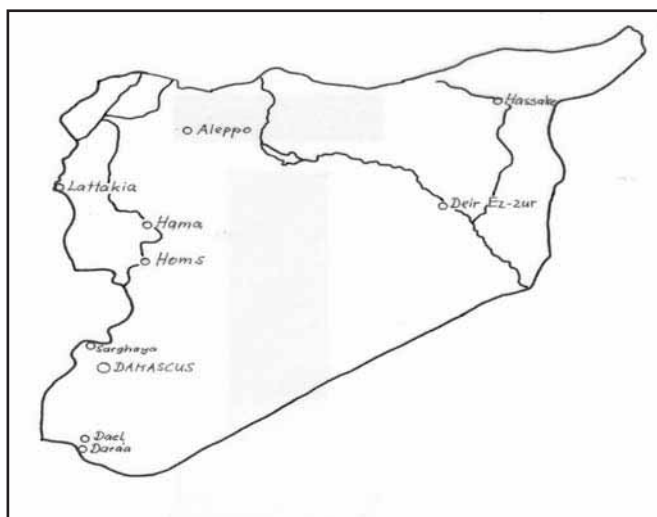
(1) The technical study of the project - including the civil works and the requirements for mechanical and electrical equipments - has been already prepared by the General Company for Engineering and Consultation in Homs financed by Ministry of Housing and Construction.

(2) The Ministry of Housing and Construction will also finance the construction of the civil works.

### Background

The city of Deir Ez-zur is located in the eastern part of Syria. The area is an agricultural area with mostly irrigation driven, and few rain fed agriculture is presented in Figure 7.

**Figure 7. Deir Ez-zur is located in the west of Syria at the Euphrates River**



The main crops are cotton, wheat, and sugar beet. Vegetables and fruits are produced for the local markets. The climate is characterized by long dry and hot summer (May to October) where temperature goes as high as 42 C, and short rainy winter (November to March). The average annual rainfall is 160 mm. The main source of income is agriculture and small industries connected with agriculture like fabric and textile industries and food industries.

A population of around 222 000 inhabitants will be served by the proposed sewage treatment plant. The existing sewer network of 185 km length (including the secondary branches) connects the city of Deir Ez-zur. The sewage water is at the moment discharged to the side branches of Euphrates without any treatment. The water in those branches which contains pathogens is used for irrigation.

The city of Deir Ez-zur has a drinking water supply network. The general establishment for drinking water and sewerage is responsible for water supply at the governorate level. The main drinking water resource is Euphrates River.

The municipality of Deir Ez-zur is responsible for the running of the sewer network at present time; however a separate sewage company will be established in the future to be responsible for the sewage sector at the governorate level including the operation and maintenance of the future sewage treatment plant shown in photo 11.

**Photo 11. Rehabilitation and Construction of the sewer net work is ongoing as a prerequisite for the planned sewage treatment plant**



**Current policy and strategy of Syria for the removal of waste water**

Syria sees the pollution of the groundwater and drinking water resources as a major problem for the country. Therefore Syria started constructing treatment plants in the major cities of the country. First priorities are sites, where the source of drinking water supply is affected by sewage pollution. A countrywide investigation is under development, which will set the priorities for the future investment planning.

Due to the lack of experience in constructing sewage treatment plants, Syria sees a large field of co-

operation with foreign countries. This is not only regarding financing of projects, but more than this emphasizing on '**know how transfer**' into the country.

The Ministry of Housing and Construction is responsible for the drinking water supply and the sewage disposal in the national context. Although the Ministry of Housing and Construction is formally responsible for the sewage disposal, the maintenance of the sewer networks is still organized by the municipalities which are under the Ministry of Local Administration and Environment. The Syrian government wants to have the sewage sector in one organization. Therefore, a sewage company was established, where new treatment plants had been built. These new sewage companies took over the responsibilities for the sewer networks and the new treatment plants. It is therefore also envisaged to establish a sewage company in Deir Ez-zur.

In all 14 Syrian governorates the Syrian government has founded establishments for drinking water and sewerage. The Ministry of Housing and Construction is the supervising authority for these establishments. The main duty of these establishments is to secure the drinking water supply for the population.

The Syrian government doesn't see the municipalities capable to run the future sewage treatment plants. Thus the Syrian government intends to establish sewage companies in all 14 governorates. At the moment it is still not decided whether the companies shall be independent or connected to the establishments for drinking water and sewerage in the governorates. This will be the precondition to establish qualified companies to run the sewage treatment plants. The objective is to strengthen the institutions that will be responsible for running the sewer networks and the sewage treatment plants.

**Photo 12. Agriculture is the main source of income along river Euphrates**



To train the future staff of the treatment plants Syria will establish a training centre in Hama. It is envisaged, that the training centre will be operating by 2006. A Vocational Training Centre in Damascus Sewage Treatment Plant has already started operation recently. Although there are few existing treatment plants in the country some experience were already gained by operating the existing sewage plants. It is planned to organize an experience exchange between the staff of the sewage treatment plants, which will start this year.

### Technical Information

To construct Deir Ez-zur sewage treatment plant, a site located few kilometers out of the city was chosen, presented in photo 13. The site is approximately 5 km to the south of the Euphrates River. Two pumping stations will be constructed to pump the raw sewage to the sewage treatment plant. It is planned to use the treated waste water to increase the amount of irrigated land in the area by considering a new irrigation schemes. Ground water recharge shall be investigated as an option for reuse of surplus of treated waste water.

**Photo 13. Site for the future treatment plant with areas for irrigation with treated sewage water in the background**



A technical and financial study had been conducted by the Ministry to decide, whether stabilization ponds, aerated lagoons or activated sludge technology shall be used for the treatment of sewage water.

It was found out, that the activated sludge process will be the most feasible at Deir Ez-zur. The design parameters were estimated for the first stage as follows in Table 10.

**Table 10. Design parameters of the first stage treatment plant at Deir Ez-zur**

Number of equivalent inhabitants:	222 000
Daily mean flow:	45 000 m <sup>3</sup> /d
Concentration of BOD (Biological Oxygen Demand <sub>x</sub> ) at inlet: at outlet:	317 mg/l 30 mg/l
Concentration of SS (Suspended Solid) at inlet: at outlet:	447 mg/l 40 mg/l

It is foreseen to enlarge the treatment plant in a second stage starting from 2015 to a number of equivalent inhabitants of 440 000 equivalents to the inhabitants of the year 2030 with a daily mean flow of 67 000 m<sup>3</sup>/d.

Major components of the plant are:

- Inlet works
- Screening system
- Grit removal chamber
- Flow meter
- Primary sedimentation tanks
- Aeration tanks
- Secondary settlement tanks
- Chlorination tanks with chlorination equipment hall
- Distribution chambers
- Open digester tanks
- Sludge drying beds
- Necessary pumping stations
- Administration building
- Workshop
- Laboratory

The civil works will be financed by funds of the Syrian government by US \$ 5 millions. After finishing the construction work it will be necessary to install the technical equipment. The scope of the works includes the supply, installation, supervision, testing and final takeover of all mechanical and electrical equipment at the treatment plant. International or recognised national standards shall be used for the supply of equipment. The conditions of the works are laid down in the already finished tender book. Further technical information is available through the Office for International Co-operation and Project Coordination of the Ministry of Housing and Construction.

### **Financial information**

The overall investment budget for Deir Ez-zur treatment plant is estimated to be US \$ 10 millions. The estimated costs for the mechanical and electrical equipment are calculated to 5 Million US\$.

The running costs will be partially financed by user fees, which will be introduced after the finishing of the construction work. The Syrian government already introduced user fees in cities, where a sewage treatment plant was built. By this, the government wants to introduce the 'polluter pays' principle.

### **Activity 23**

This activity starts out as a whole group activity and then you continue working in small groups.

1. Whole group - 'What are the key elements of an effective concept note?' Suggest ideas to create a checklist for analysing concept notes based on a concept note example from Syria
2. Small group - Based on the checklist of an effective concept note, analyse one of the provided two concept notes: one successful, the other unsuccessful
3. You will be asked to report your findings to the whole group and discuss lessons learned for developing your own concept note

## ■ Session 14

### Drafting a Concept Note

#### Objectives

By the end of this session you will:

- be able to draft a concept note
- have started to draft a concept note for your own project

Once all of the actors (project proponents, stakeholders and partners) agreed on the project concept, you are in a good position to write a brief (three to four pages) outline of the project concept.

It is useful to have a project concept outline for a number of reasons:

- When you review your outline by considering donors' guidelines, it will become clear whether any additional information is needed in order to develop a full project proposal
- The project concept outline can be used to write an initial letter of inquiry to the donors you decide to approach
- As you continue with your consultation process during project planning, you can refer to the outline to provide people with basic information about your project

The project concept outline should include the following information:

1. A description of the project concept context
2. A summary of the main goal and objectives of the project
3. A description of the scope and scale of the proposed project
4. An outline of the potential outcomes and impact of the project
5. Name and brief description of project proponents
6. Brief description of partners
7. An estimate of the cost of the project
8. Timeframe for the project

**Guidelines** for each of the above elements of a concept note

#### ***1. A description of the project concept context***

How did the project originate? What steps were taken to develop the concept (refer briefly to meetings, correspondence, decisions relevant to proposal)?

#### ***2. A summary of the main goal and objectives of the project***

Outline what needs it addresses, and how the proposed project would address those needs. Explain why this project is the best option for addressing the situation.

### **3. A description of the scope and scale of the proposed project, in terms of:**

- a) How many people will be involved as participants?
- b) Who are the beneficiaries?
- c) The potential impact of the project on local populations
- d) The size of the geographical area covered

### **4. An outline of the potential outcomes and impact of the project**

The project **outcomes** describe how the project will change the situation it is designed to address. The project **impact** generally describes effects that will continue beyond the timeframe of the project or beyond the region where the project is situated. When considering project impact, think about answers to these questions:

- What other populations or systems will be affected by this project?
- If the project as proposed was successful, what are the possibilities for expansion?
- Can this project serve as a model for addressing similar situations in other regions?
- Could this initiative be sustained over the long term?

**5. The name of the project proponents**, and description of how they have indicated their support.

**6. A brief description of the organization(s) to be involved as partners**, their areas of expertise, and the reasons for their interest in and support for the project. Include the names of individuals that represent these organizations.

### **7. An estimate of the costs of the project**

Once stakeholders and partner organizations have been identified for the project, you will be able to estimate what resources will be required to implement it. Resources include staffing, equipment, facilities, space, supplies, as well as expenditures for communications, transportation, additional specialist staff, and so on.

Generally, project proponents and partners will provide some of the resources for the project (*these are called in-kind contributions or self-financing parts*), as an indication of their commitment. Stakeholders may also provide some resources, and the remainder will have to be obtained from other sources, such as a funding agency.

A detailed budget is not required at this stage, but you should determine an estimate of costs that will be required by each partner organization involved in the project. Based on this estimate, it is useful to identify a cost range most appropriate to your project, in local currency, and/or in euros, pounds or dollars. By doing so, you state the expected scale of the project.

The following are some examples of cost ranges:

- less than US \$10 000
- between US \$10 000 and \$25 000
- between US \$25 000 and \$50 000
- between US \$50 000 and \$100 000
- between US \$100 000 and \$200 000
- between US \$200 000 and \$500 000
- between US \$500 000 and \$1 000 000

**8. Describe the anticipated time frames of the proposed project**, in terms of 1) the length of time required to initiate the project and set up administrative systems, 2) the length of time required for project implementation, 3) the time required to assess the project impact (which may extend beyond the project completion), and 4) the expected duration of the donor's involvement.

### ☑ Activity 24

You will work individually in this activity with the support of the trainers and resource people.

- Draft a concept note for your project based on your project design

Handouts needed:

- Concept Note Template (DFID)

## ■ Session 15

### Sharing a Concept Note

#### Objectives

By the end of this session you will:

- enhance your understanding and skills for writing effective concept notes
- develop ideas on how to improve your own concept note

Before identifying and approaching a donor, it is important to verify that everyone involved - the project proponents, partners, and stakeholders - have an accurate shared understanding of the project concept.

This section provides some examples of questions posed by funding agencies when they assess whether a project is 'worthy' of funding, so to speak. These questions are a preliminary guideline only. You will have to determine the criteria used by the donor you plan to approach when doing your assessment.

#### General principles for all projects

There are a number of general principles that most donors look for to determine the soundness of a particular project. These include:

- a) Problem definition
- b) Relevance
- c) Scientific and technical merit
- d) Capacity building
- e) Gender considerations
- f) Human and institutional resources
- g) Complementarities
- h) Sustainability
- i) General research soundness
- j) Development relevance
- k) Ethical considerations



- l) Assumptions and risks
- m) Environment
- n) Monitoring and evaluation

**a) Problem definition**

- Have the project proponents identified the problem clearly?
- Is it something that can realistically be tackled?
- Does the project clearly relate to the problem?

**b) Relevance**

- Is the project consistent with goals that have been identified by policymakers or others in the project's context?
- Will the execution and success of the project promote sustainable and equitable development that helps to empower vulnerable or disadvantaged groups?

**c) Scientific and technical merit**

- Is the importance of the problem convincingly demonstrated through sound research?
- Are the project objectives clear and easy to conceptualise in operational terms?
- Is the methodology appropriate and convincing for achieving the project's objectives?

**d) Capacity building**

- Will the project contribute to the development of local/regional/national/international capacity?
- Will the recipient institution be strengthened as a result of the project?
- Does the project promote collaboration and cooperation?

**e) Gender considerations**

- Do the design and methodology of the project take into account gender considerations - for example, men's and women's different roles, perspectives, and interests?
- What will the project's impact be on men and women?
- Does the project build capacity of both men and women? Why or why not?

**f) Human and institutional resources**

- Have the proponents of the project successfully mobilised the necessary collaboration and interest to ensure the most effective use of financial resources and the success of the project?

**g) Complementarities**

- Do partners share commitment to the project?
- Is the project consistent with funding agency development priorities?
- Is it unique or complementary to other development activities?

***h) Sustainability***

- Does the project enhance the capacity of the partners to effect change?
- Does it ensure the autonomy of clients, beneficiaries or partners to reproduce results after project completion?
- Does it ensure local funding of recurrent costs if results are to be sustained after project completion?

***i) General research soundness***

- Relevance of the research
- Clarity of research aims and questions/hypotheses
- Likelihood of influencing policy and practice within a limited time period
- Originality of the proposal
- Soundness of proposed methodology
- Perceived quality of the researcher(s)
- Appropriateness and adequacy of the methods to generate the information sought in the study

***j) Development relevance***

- Are the research findings likely to be applicable in developing countries or regions other than the one in which the research takes place?

***k) Ethical considerations***

- Does the project raise any ethical issues affecting those who will be involved in the project, where there could be a negative impact on their health, right to privacy, financial circumstances, or any other matter of significance to them?
- What strategies are suggested to ensure the research will be conducted such that it minimises risks and that people give free, informed consent to their participation?

***l) Assumptions and Risks***

- What assumptions are being made about attitudes, motivations and opportunities?
- To what extent is the project dependent on external forces? Is it specific about economic factors such as marketing?

***m) Environment***

- Has an Environmental Impact Assessment been conducted?
- What effect will the project have on the environment?
- How significant are the effects?
- Will the project benefit the environment?
- Can any detrimental effects be reduced and if so how?

***n) Monitoring and evaluation***

- How will the progress of the project towards its goals be monitored?
- How will the project end?

- How will its success be determined and by whom?
- If there are quantifiable targets, what are they, and how were they determined?
- What are the arrangements for the revision of the project during its implementation?
- What plans are there for evaluating the project?
- Will there be a formal evaluation exercise? If so how and when will this take place?
- Will results be shared with others?
- How will results inform future practice?

Writing a concept note requires a great deal of input from you and from others, and in this sense is a microcosm of what is involved in collaborative projects. It also demonstrates that building working relationships takes time and patience.

Each of the partners, stakeholders and beneficiaries has a role to play in the project, and that role should be fairly clearly defined during the project planning process, prior to applying for funding. Partnerships need to be based on common goals that are intrinsically important to each organization and that go beyond simply meeting a requirement for project funding.

Although working cooperatively is challenging, there are long term benefits, as indicated by the following comments on lessons learned from a partnership initiative for a community learning network in Newfoundland:

By bringing stakeholders together and determining how each can contribute without jeopardising its own mandate, it has allowed the various agencies' representatives to foster a 're-education' process within their own organizations. It has helped to amend awkward and out of date regulations and rules. Government funding has been vital, especially in leveraging support from other sources.

From the start, local representatives from the various public agencies were committed to the initiative, helping ease bureaucratic rules; they also shared the 'good news story' within their departments, which responded more readily to suggestions from the community as a result. The initiative's greatest success to date has been its ability to coordinate efforts among the various agencies operating in the area, and to achieve a cost-effectiveness which would not have been possible if the same organizations had been operating independently.<sup>7</sup>

## Activity 25

This is a whole group activity. You will be presented your fellow participants' concept notes.

Offer your ideas on the following:

- What do you think is good in this concept note?
- What can be improved?

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<sup>7</sup> Wong, A. Institutional Collaboration: Thinking Globally, Acting Locally, in Brooke, M. and M. Waldron, eds., University Continuing Education in Canada, Thompson, Toronto, 1994

## Full Proposal

Time	Event	Content
1 hour & 30 min	<i>Session 16</i> <b>From Concept Note to Full Proposal</b>	<ul style="list-style-type: none"> <li>• Overview of Day 3</li> <li>• Objectives of Day 4</li> <li>• Components of a full proposal and the differences between a concept note and a full proposal</li> <li>• Presentation of project proposal templates</li> <li>• Analysis of successful and unsuccessful proposals: Case studies (Group Discussion)</li> </ul>
1 hour	<i>Session 17</i> <b>Logical Frameworks</b>	<ul style="list-style-type: none"> <li>• Introduction to Logical Frameworks</li> <li>• Examples and analysis of Logical Frameworks (Group discussion)</li> <li>• Developing your own Logical Framework (Computer)</li> </ul>
45 min	<i>Session 18</i> <b>Budget Development</b>	<ul style="list-style-type: none"> <li>• Budget categories</li> <li>• Example of a budget</li> <li>• Developing your own project budget (Group discussion, Computer)</li> </ul>
1 hour	<i>Session 19</i> <b>Drafting Full Proposals</b>	<ul style="list-style-type: none"> <li>• Steps and plan to develop your proposal</li> <li>• Drafting your full proposal (Computer)</li> </ul>
1 hour	<i>Session 20</i> <b>Sharing Draft Proposals</b>	<ul style="list-style-type: none"> <li>• Overview of Day 4</li> <li>• Objectives of Day 5</li> <li>• Presentation and analysis of participants' draft proposals</li> </ul>
15 min	<b>End of Day 4</b>	<ul style="list-style-type: none"> <li>• Reflection on Day 4</li> <li>• Overview of Day 5</li> </ul>

## Developing a Full Proposal

### Objectives

By the end of Day 4 you will:

- be able to describe the components of a full proposal
- be able to list the steps you need to follow to develop a full proposal
- start drafting a full proposal of your own project based on your concept note

### Activities

#### **Session 16 - From Concept Note to Full Proposal**

Activity 26: Tell the difference between a concept note and a full proposal

Activity 27: Tell the difference between a successful and an unsuccessful proposal

#### **Session 17 – Logical Frameworks**

Activity 28: Draft your own 'LogFrame'

#### **Session 18 – Budget Development**

Activity 29: Develop your own budget

#### **Session 19 – Drafting the Full Proposal**

Activity 30: - Develop a framework for your full proposal

#### **Session 20 – Sharing the Full Proposal**

### Resources

Handouts:

- Logical Framework Template (DFID)
- Plan for Completing your Proposal
- Proposal Template

### Further resources

Proposal Handouts:

- Organizational Proposal Review
- Partner Proposal Review
- Stakeholder Proposal Review
- Proposal Assessment
- Feedback and Revision Guide

## ■ Session 16

### From Concept Note to Full Proposal

#### Objectives

By the end of this session you will:

- be able to describe the difference between a concept note and a full proposal
- develop a greater understanding of the elements of a successful proposal through review of real life proposals
- develop an awareness of the information/steps needed to turn a concept note into a full proposal

#### ☑ Activity 26

This is a whole group brainstorming activity on the following questions:

- What more should there be in a full proposal?
- What would be different in a proposal from a concept note?

#### ☑ Activity 27

You are going to work in a small group and screen two proposals. One of them was successful, the other rejected. Your task is to decide which proposal was successful and why.

On a flip chart paper (or computer) say which proposal was successful and then list the reasons why you think it was successful. Select a reporter who will report back to the plenary.

Resources needed:

- Two proposals: one successful and one unsuccessful proposal
- Template for a full project proposal

## ■ Session 17

### Logical Frameworks

#### Objectives

By the end of this session you will have:

- an understanding of the project logical framework, and why it is used
- examples of project logical frameworks
- practical experience in developing a draft project logical framework for your own project

Experience has shown that poor results from projects - and, as a consequence, from funding instruments - are principally due to two major weaknesses:

- one or more essential factors, fundamental for the success of the project, were overlooked during the preparation and implementation phase, and/or the
- mechanism to make the right decisions at the right time over the project's life cycle was lacking due to poor planning and management.

In response to this criticism, a lot of effort has been put into developing a practical framework and methodology that would enable project managers to address these weaknesses at the outset - this

resulted in the Logical Framework Approach (LFA). The concept was first used by multilateral donor agencies in disbursing development aid and has been increasingly promoted elsewhere amongst bilateral funding agencies and in particular amongst European Commission's funding instruments. The Logical Framework Approach is an objective-oriented project planning method to help those who want to prepare and implement projects in planning, assessment, follow-up and evaluation of projects in order to ensure good and long lasting results. LFA is an analytical, presentational and management tool which can help planners and managers to:

- analyse the existing situation during project preparation
- establish a logical hierarchy of means by which objectives will be reached
- identify the potential risks to achieving the objectives, and to sustainable outcomes
- establish how outputs and outcomes might best be monitored and evaluated
- present a summary of the project in a standard format
- monitor and review projects during implementation

The Logical Framework Approach is often applied by a Logical Framework Matrix (Logframe) which is designed to prompt you on the elements you should be considering and helps set them out in a logical and systematic way as shown in Table 11. As each box is filled in systematically, the relationship between the different components of the project becomes clearer.

An example of a typical Logical Framework Matrix from an EU-Asia proposal format<sup>8</sup> is shown in the following (you can download it from the Project Website). The terminology, however, used in Logical Frameworks requested by different donor agencies is not consistent.

**Figure 8. Logical Framework – Relationship between Goal & Outcomes and Objectives & Outputs**

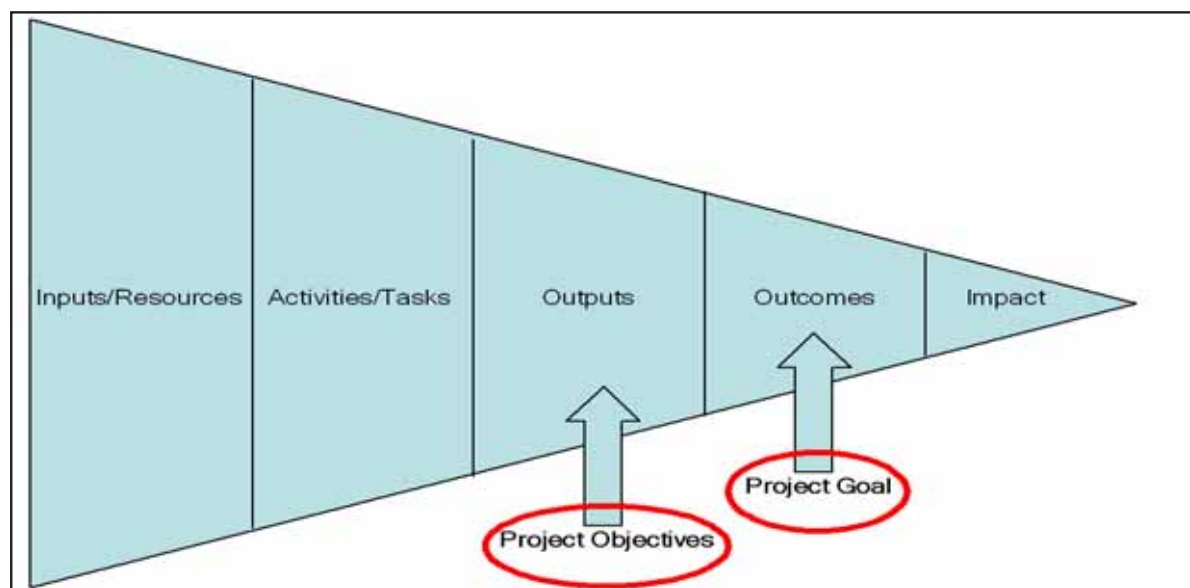


Figure 8 presents the elements of the logical framework in their occurrence sequence. As much as there are inputs and activities by the beginning of the project, outcomes and impacts tend to be less by its end. Achieving the projects outputs leads to fulfilling the planned objectives and reaching the desired outcomes associated with positive impacts lead to fulfilling the project's goal.

<sup>8</sup> EU-Asia Pro Eco II B - Post Tsunami Programme:

[http://ec.europa.eu/comm/europeaid/projects/asia-pro-eco2/apply\\_tsunami.htm](http://ec.europa.eu/comm/europeaid/projects/asia-pro-eco2/apply_tsunami.htm) (Accessed 14 June 2006)

Table 11. Logical Framework

	<b>Intervention logic</b>	<b>Objectively verifiable indicators of achievement</b>	<b>Sources and means of verification</b>	<b>Assumptions</b>
<b>Overall objectives</b>	What is the overall broader objective, to which the project will contribute?	What are the key indicators Related to the overall objective?	What are the sources of information for these indicators?	
<b>Project purpose</b>	What are the specific objectives, which the project shall achieve?	What are the quantitative or qualitative indicators showing whether and to what extent the projects specific objectives are achieved?	What are the sources of information that exist or can be collected? What are the Methods required to get this information?	What are the factors and conditions not under the direct control of the project which are necessary to achieve these objectives? What risks have to be considered?
<b>Expected results</b>	What are the concrete outputs envisaged to achieve the specific objectives? What are the envisaged effects and Benefits of the project What improvements and changes will be produced by the project?	What are the indicators to Measure whether and to what extent the project achieves the envisaged results and effects?	What are the sources of information for these indicators?	What external factors and conditions must be realised to obtain the expected outputs and results on schedule?
<b>Activities</b>	What are the key activities to be carried out and in what sequence in order to produce the expected results?	<b>Means:</b> What are the means required to implement these activities, e.g. personnel, equipment, training, studies, supplies, operationa facilities, etc.	What are the sources of information about project progress?	What pre- conditions are required before the project(s) start(s) What conditions outside the projects direct control have to be present for the implementation of the plannea activities?



**Table 12. Comparison of Donor Terminologies for results/Logical Frameworks**

	Ultimate Impact	Long-term outcomes	Intermediate Outcomes	Outputs	Interventions	
CARE terminology <sup>10</sup>	Program Impact		Effects	Outputs	Activities	Inputs
Care Inframe	Program Goal		Intermediate Objectives	Outputs	Activities	Inputs
AusAID <sup>17</sup>	Scheme Goal	Major Development Objectives		Outputs	Activities	Inputs
CIDA <sup>18</sup> , GTZ <sup>19</sup>	Overall goal		Project purpose	Outputs	Activities	Inputs
DANIA, DFID <sup>20</sup>	Goal		Purpose	Results/ outputs	Activities	
European Union <sup>21</sup>	Overall objective	Project Purpose	Results	Activities		
FAO <sup>22</sup> , UNDP <sup>23</sup> , NORAD <sup>24</sup>	Development Objective		Immediate Objectives	Outputs	Activities	Inputs
PC/logFrame <sup>25</sup>	Goal		Purpose	Outputs	Activities	
UNHCR <sup>26</sup>	Sector Objective	Goal	Project Objective	Outputs	Activities	Inputs
USAID Logframe <sup>27</sup>	Final Goal	Strategic Goal Objective	Intermediate results		Activities	202E
USAID Results Framework <sup>28</sup>	Strategic Objective	Intermediate Results		Outputs	Activities	Inputs
World Bank	Long-term Objectives		Short-term Objectives	Outputs		Inputs

18 CARE Impact Guidelines, October 1999.

17 AusAID NGO Package of Information, 1998

18 Guide for the use of Logical Framework Approach in the Management and Evaluation of CIDA's International Projects. Evaluation Division.

19 ZOPP in Steps. 1989.

20 A Guide to Appraisal, Design, monitoring, Management and Impact Assessment of Health & Population Projects. ODA [now DFID]. October 1995.

21 Project Cycle Management: Integrated Approach and Logical Framework, Commission of the European Communities Evaluation Unit Methods and Instruments for Project Cycle Management, No. 1, February 1991.

22 Project Appraisal and the Use of Project Document Formats for FAO Technical cooperation Projects. Pre-Course Activity: Revision of Project Formulation and Assigned Reading. Staff Development Group, Personnel Division, August 1992.

23 UNDP Policy and Program Manual

24 The Logical Framework Approach (LFA). Handbook for Objectives-oriented Project Planning.

25 PC/LogFrame™ 1988-1992 TEAM technologies, Inc.

26 Project Planning in UNHCR: A Practical Guide on the Use of Objectives, Outputs and Indicators for UNHCR Staff and Implementing Partners, Second Ver. March 2002.

27 The Logical Framework Approach to portfolio Design, Review and Evaluation in A.I.D.: Genesis, Impact, Problems and Opportunities. CDIE, 1987.

28 Results Oriented Assistance Sourcebook, USAID, 1998.

**☑ Activity 28**

This is an individual activity. You are going to develop a draft project logical framework for your own project based on the demonstrated sample Logical Framework Matrices, and supported by the trainers and resource persons.

Resources needed:

- Two examples of logical project frameworks (provided at the workshop)

## ■ Session 18

### Budget Development

**Objectives**

By the end of this session you will:

- have developed a shared understanding of common budget categories
- be able to discuss the importance and practice of non-project contribution and in-kind contribution in budgeting
- have analysed examples of successful project budgets
- be able to explain the importance of using the proposal's budget in financial reporting
- have drafted a budget for your own project

Developing a project budget is one of the most time consuming aspects of preparing a project proposal, because it entails obtaining financial information from all the project partners, estimating costs as much as four to five years before they will be incurred, and if there is more than one executing agency, assembling information generated by different financial reporting systems.

But the time invested in preparing a good, sound budget is worth it, because it can determine whether your organization will receive funding. More than any other component, the budget will highlight the quality of your planning. Your budget should demonstrate a realistic assessment of the financial resources required to implement your project in a cost-effective manner.

Each funding agency has slightly different requirements for how budgets are presented, and applicants must adapt their budget to conform to the format requested by the donor. Fortunately, donors usually provide very specific directions about the kind of information they need in a budget. Many donors will also answer questions from applicants about budget formats or the meaning of particular terms in their guidelines.

This section provides some basic principles for organizing project budget information that are common to many funding agencies. The differences tend to be in the details.

**How to research budget information?**

When you first begin to develop a budget, there may be quite a few 'unknowns'. Particular costs may be unknown for two reasons:

- i) because some key planning has not yet been completed (for example, perhaps the amount

- of staff time required for training has not yet been estimated) or
- ii) because you have not yet obtained the cost of a particular item (for example, travel to certain project locations)

Developing the project activities and the project budget often happens concurrently. Identifying a cost item may require clarifying certain aspects of a project activity, in discussions that involve both project design and budget decisions.

A systematic approach is to review the list of project activities year by year, and determine the cost categories associated with each activity. Some donors require that the budget outlines each year's expenses for the duration of the project, and that the totals for each category are also presented in summary form.

It's useful to deal with the major expenses first. Typically, the most significant part of a project is the costs for people; staffing, consultancies, honoraria, and associated benefits. When you are working with partner organizations, you will need to obtain information about salary ranges for staff who will be engaged with the project. Even though it can sometimes be difficult to obtain this information, it is essential. Unless you have information to the contrary, it is prudent to ask for a salary range for the positions involved, and then use the midpoint of that range for determining staff costs for the budget. If staff salaries tend to increase each year, include this increase as a factor in the budget.

Travel and accommodation can also represent a significant proportion of a budget, especially for a project requiring international travel. This will require obtaining information about current costs for travel between the specific locations, and some predictions about the estimated increase in travel costs over the duration of the project. Travel agencies that regularly serve the project partners are usually able to provide this kind of information.

It is important to keep all of the working documents used to prepare the budget, so that the budget can be readily reviewed and updated if necessary. Computer spreadsheets are useful for organizing and updating budget information.

The next sections review some of the more common organizing categories:

### **Expense budget**

Funding guidelines may require that applicants create two major expense budget segments, one for the costs of project management/administration, and one for the costs of project implementation.

#### **i) Project management and administration costs**

Project management and administration costs are the costs directly associated with coordinating the project. Typically these costs include staff time and communications costs for:

- a) communication and meetings with project team members and other stakeholders about project management issues
- b) overhead costs associated with accounting and record keeping, including utilities and supplies
- c) travel related to project management

In many cases, project proponents are asked to contribute to a share of the project cost. In these situations, it is common for project proponents to contribute some or all of the project administration costs, especially if the regular staff of an organization handles project administration. This is sometimes called an in-kind contribution or self-financing part.

## ii) Project implementation costs

Project implementation costs include the costs directly associated with the project activities. These would typically include:

- a) salary and benefit costs for staff hired especially for the project
- b) consultancy fees for project work
- c) training costs; for staff involved in the project, for participants in the project, including the costs of instructors, travel, accommodation and supplies
- d) costs of production of resource materials or report
- e) equipment and supplies required to implement the project. (Many donors place limitations on expenditures for capital equipment for a project)

Note: When the expense budget must be segmented into project management / administration costs and project implementation costs, it sometimes means setting up duplicate categories for some expense items. For example, there might be an expense category for 'travel-management' and an expense category for 'travel-implementation'. If you are required to distinguish between project management and project implementation costs, you will need to refer to the donor's definition of what belongs in each category. You should check with the donor if it is not clear to you where a major budget item belongs.

## iii) Capital costs and operating expenses

Capital costs for a project include major equipment, such as vehicles, computers, furniture, etc. Many donors will not cover the cost of acquiring capital, unless it can be demonstrated that acquisition of this capital equipment is essential to the successful operation of the project. For example, if a project involves computer-based training, and the location for the training is not equipped with the necessary hardware and software, equipment acquisition and some facilities upgrades may be essential to the project.

The ongoing expenses required to ensure the sound functioning of the project are sometimes called operating expenses. Definitions of operating expenses vary widely, but may include certain administrative or overhead costs, such as the cost of a telephone line or an internet service provider that is required for the duration of the project. It is important to consult with the donor to determine how to categorise this type of expenditure.

## Revenue budget

Project revenue can include:

- i) financial contributions from other sources
- ii) in-kind contributions (self-financing part) of services or facilities from project partners or others associated with the project
- iii) income, such as tuition income from participants in training programmes

The revenue budget should list all confirmed financial contributions from other sources: these serve to indicate broader support for the project. These can include government grants, contributions from corporations, non-government or non-profit organizations.

In-kind contributions (self-financing part), as discussed above, include provision of staff time, use of facilities and equipment by organizations involved in the project. In-kind contributions can also include the donation of services by another organization, for example the use of a long distance phone network at no charge. Values of in-kind contributions/self-financing parts should be calculated as accurately as possible and should be consistent with costs for these services in the expense budget.

If the project is designed to generate income that will be returned to the project, rather than to any of the project partners, this should be shown in the revenue budget. Income may come from interest paid by financial institutions, from sale of products or licensing fees for the use of materials developed by the project, from tuition fees, and so on. If the revenue generated during the project is an indicator of continuing revenue generation after the project is over, this should be highlighted if it points to continued sustainability of the project initiative.

In project proposals developed in response to a donors' announcement that it will provide a certain amount of money for specific types of projects, it is quite acceptable to include this amount in the revenue budget, and to identify it as the donors' contribution. In other situations, the amount requested should simply be designated as 'Requested Funding'.

The revenue budget is less detailed, and shows the major sources of income and amounts.

### **Budget presentation**

The total budget shows both the expense and the revenue side, and, of course, they must balance. The budget should be presented so that it is clear that it follows the pattern of activities listed in the proposal. In addition to the spreadsheet that shows the entire budget, most funding applications also have a section entitled 'notes to accompany budget'. This is where you provide the detailed information.

When presenting background information to the budget, it's important to explain the basis for estimated costs and revenues; prior experience, current costs, reasonable estimates, and so on. As well, the budget presentation should indicate confidence in the information provided. Donors are uneasy with vague budgets or those that include categories that do not really identify expenditures- such as 'contingency', or 'unforeseen expenses'. Unless there is a separate line item in the donor's budget form for contingency expenses, it is better to leave it out, and instead allocate a small additional margin (5% to 10%) to the other expense categories. Although it is reasonable to expect that not everything will go as planned in a project, the budget is not the place to convey this expectation. In many cases, there are provisions in contracts between donors and project proponents to enable a revision of the budget if there is a significant change in circumstances.

In summary, the budget section of your proposal must conform to the requirements of each individual funding application that you complete. Generally speaking, your budget section should meet the following basic requirements:

- Respects all funding agency financial regulations and standard rates
- Uses unit costs based on current prices
- Relates directly to input quantities and scheduling
- Distinguishes programme from management costs

- Reflects a proportionate balance between programme and management costs
- Provides sufficient financial resources to manage the project effectively
- Provides sufficient detail without compromising financial reporting ability
- Presents an attractive cost/benefit package

## ☑ Activity 29

You are going to develop a draft budget for your own project based on the demonstrated sample budgets, and supported by the trainers and resource persons.

Resources needed:

- Proposal Template - Section 10: Project Budget

## ■ Session 19

### Drafting the Full Proposal

#### Objectives

By the end of this session you will have:

- an understanding of the process of developing a full proposal especially in regard to timeline and roles and responsibilities
- a plan for developing your own full project proposal with a timeline and names of who will be responsible for each step
- developed the first framework draft of a full proposal based on your own concept note

This session uses a project proposal template that includes the type of information requested in most donor application forms. Specific donors may use slightly different guidelines and forms, so be sure to work directly from the donor's application form when you are writing your own proposal

The background material of this session is divided into two parts. The two parts are related to the two stages you should go through when you write a project proposal. The first stage involves writing a draft, and the second stage involves assessing the proposal with those involved in the project, and then finalising it. Once it is finalised, you will be ready to send your proposal to the donor.

Part One deals with writing the draft project proposal, and Part Two provides some tools to help you assess the project proposal and finalise it.

#### Part One: Preparing the draft project proposal (Section 1-10)

The sections in Part One match the information categories of the Project Proposal Template handout. They provide some additional directions and ideas about completing each section.

As you work on this unit, keep in mind some basic tips on good presentation and readability of a project proposal:

- Provide a visible frame for the proposal, by introducing each section with a preview of what's in that section and including subtitles that are consistent with the section introduction

- Try to use the simplest words and sentence structures that convey the intended meaning
- If you must use words that are specific to your field, and may not be understood by the reader, provide a simple, one-line explanation of the word the first time you use it
- Try to keep paragraphs short and to the point
- Use a point form structure where there are long lists of sentences or phrases
- Keep your language simple if the readers of your proposal may not be completely familiar with the language of the proposal
- Don't rely on your computer's spell checker to pick up all spelling errors. For example, it won't identify misspelled words that are themselves real words (for example, hour instead of our)
- Use a consistent numbering system to number the pages and paragraphs
- Make the document as attractive and functional as possible. Use a readable font and leave reasonable margins and spaces between paragraphs so the words don't seem crowded on the page

## **Section 1: Assembling the basic information**

### **Basic information about your organization**

The first section of a proposal (and important not to forget!) usually provides the basic information about your organization. This is the 'just the facts' section.

Be sure to mention any factors that may make it difficult to contact your organization in this section (for example, if the e-mail is not always reliable). It is also helpful to indicate your organization's standard working hours, and any time zone differences between your location and that of the funding organization, in case they want to contact you by telephone.

Include the following information:

- Organization Name
- Date established
- Name of contact person
- Contact information: postal and e-mail addresses, phone and fax numbers, website (if applicable)

### **Basic Information about the proposed project**

Select a title for the project

It is very useful to have a clear, succinct title that effectively conveys the essential information about the project. Both project proponents and prospective donors will be using this title in all correspondence and reports for the duration of the project, so the title should be manageable and memorable.

## **Section 2: Project overview or summary**

Some donors indicate they prefer to have an overview of the project as a whole, and then the specific details. Check the donors' guidelines.

The summary may be the only item read by those who conduct the preliminary review of many proposals, so it must include essential proposal information, and a sound rationale that justifies support. In addition, a summary serves to introduce the project, encourage the reader to continue reading the

entire proposal and give the reader a framework for understanding the details of the proposal. The summary should also present the project in terms that are most relevant to the donors' stated criteria. For this reason, you may decide to adapt your summary (along with other elements of your proposal) to appeal to specific donors.

Although the summary appears near the beginning of the project proposal, it is best to finalise it after all other elements of the proposal have been completed, when all the information required for the summary has been compiled.

The proposal summary should, in one page or less:

- identify all the project proponents and stakeholders;
- introduce the problem or issue the project is designed to address;
- explain why the project will address this problem effectively;
- outline the project objectives;
- outline in broad terms the project activities and timelines; and
- enlist the expected long-term outcomes of the project.

In short, your overview will explain to the donor why this project is worth doing, and why your project team is ideally placed to do it.

By the time you write the full proposal, you may have already approached a potential donor with a letter of inquiry. If so, the information in your letter of inquiry should be sufficient for the summary.

### **Section 3: Functions of the proposal**

The introductory section of the proposal includes information about the project context, rationale, goals and objectives, and methodology.

#### **The project context or background to the issue/problem**

This section describes the issue or problem that the project intends to address. It helps the potential donors to understand why the proposed project is a realistic approach to dealing with the issue. In selecting what contextual information to provide, you should be aware of the donors' expected prior knowledge.

This is also the section in which you briefly describe the project beneficiaries, those who are expected to benefit from the project in some way. You should provide information about both direct and indirect beneficiaries.

In this section, be sure to demonstrate that your proposal is based on sound local research (whether conducted by the proponents or by others), extensive consultation with stakeholders, and, where applicable, on research studies and/or best practice from the field or academic disciplines relevant to the project.

The project context should lead naturally into a project rationale.

#### **The rationale**

In a sentence or two, the rationale section outlines why the project is an appropriate way of addressing



the issue, and why it is the best fit with the available resources.

### **The goal(s)**

The goal describes in broad terms what the project hopes to achieve. The goal is generally associated with an 'outcome' as indicated earlier in Figure 8. In other words, it describes how the situation will change as a result of your project being implemented.

### **The project objective(s)**

The objectives follow logically from the goal. They describe the benefits of the project in specific, measurable terms. Project objectives should be able to be assessed, even if not all of them lend themselves to quantitative analysis. This is because one element of project evaluation is assessing how well it achieved its stated objectives.

Objectives are generally associated with outputs -- in other words, they describe exactly what you and your partners will do if funded. It is important to invest some time and discussion in developing project objectives that will work over the long term.

As well, project objectives serve as an important reference for all the project proponents for the duration of the project, especially if the project is complex. By questioning which course of action is most likely to support the project objectives, you can facilitate decision making throughout project implementation.

## **Section 4: Staffing and organizational information**

This section explains which organizations will be involved in the project as proponents, partners and stakeholders, and how they will be involved. Proposal applications differ in terms of the location in which they ask for information about those implementing the project, but wherever it is located, it is a key element in establishing the credibility of the project and the proposal.

### **Information about the project proponents and partners**

Donors need basic information about the organizations that will be responsible for implementing the project (these organizations are sometimes called executing agencies). This includes the project proponents and all partners.

Focus on the aspects of these organizations that are relevant to the project and that establish their credibility and experience in related areas. In general, it is important to include:

- i) Factual information about each partner organization's mission, size, main activities, the region and population it serves
- ii) A brief description of the organizations' particular achievements in fields relevant to the project
- iii) An indication of the organizations' capacity to undertake the tasks involved in the project

Donors are also interested in the experience of project partners in working together, and their capacity to share responsibility and communicate effectively.

You should also include the names and responsibilities of staff who will have key roles in the project,

including: project managers, team leaders, experts, and consultants. Mention their areas of expertise relevant to the project and previous experience relevant to the project. The full curricula vitae of key project staff can be included as appendices to the proposal.

### **Information about the project stakeholders**

Many donors require that project stakeholders, including beneficiaries, are involved in the project in some way (through consultations or in an advisory role, but not necessarily in its management).

When stakeholders have a role in the project, you should include the following information:

- i) A brief profile of each key stakeholder, emphasising aspects relevant to the project. For example, if an agricultural cooperative is a stakeholder, include information about the length of time it has been operating, number of members, achievements, operating structure, and contributions to the development of the project concept
- ii) Indicators of stakeholders' capacity to participate in the project; people and resources relevant to the project, documentation of decisions to support the project and to allocate staff and/or volunteer time and resources

## **Section 5: Methodology**

The methodology section describes how your project will be planned and implemented in order to achieve your goals and objectives. It includes the strategies, activities, and timelines for the project. This section also describes what will be done, by whom, and when.

The methodology section deserves special emphasis. It provides an opportunity to demonstrate your knowledge of the field by explaining why certain activities were selected.

### **Strategies**

The project strategies provide a broad picture of what will be done to achieve goals, and generally include the main organizational approaches required for both programme management and programme implementation.

For example, if two different components of a project are to be developed, there may be two separate teams (and possibly separate partners) to develop each component. The project would therefore require some means of ensuring communication among all the teams, and there would be a need to ensure overall coordination of programme delivery among the partner institutions.

### **Project activities and timeframe**

Project activities describe the specific actions that will be undertaken to achieve objectives. These may be written in point form or as a work plan that includes these subtitles: Action (to be taken), Responsibility (by whom), Date (by when) as shown in Table 13.

In most cases, it will not be possible to use exact dates for the timelines, because it is usually uncertain when the funding and administrative arrangements will be in place so that the project can start. Timelines should indicate your best estimate of how long it will take to complete the major activities of the project. Timelines can be included in the activities section or they can be described separately, as a list of key

dates when activities will be completed, sometimes called milestones.

Although there is a tendency to be optimistic when developing timelines for a project, it is important to be realistic and allow enough flexibility for unforeseen problems. Creating a realistic project timeframe demonstrates to the donor that the project proponents have relevant project experience.

The activity plan in the project proposal will be an outline of the major activities. A more detailed work plan will be needed after the project is approved.

Based on the information you have so far, complete the following activity chart for your project:

**Table 13. Activity Chart**

Activity	Responsible	By date	Comments
Project administration			
Project management			
Project implementation			
Project monitoring			
Project evaluation			

### Responsibility Matrix

When a project entails a number of partners and stakeholders, it is sometimes useful to prepare a responsibility matrix that outlines who is responsible for implementing specific categories of activities, who is kept informed, who will advise, and the timeline for all of these. An example of responsibility matrix is given in details in Table 14.

**Table 14. An example of a responsibility matrix**

ACTIVITY		RESPONSIBILITIES					
Partners and Stakeholders							
Project Administration							
Project Management							
Programme Development							
Project Monitoring							
Project Evaluation							
Legend: R = responsible for the task/activity D = does/performs the task A = Approve - people who actually approves a decision S = Support - people who support the implementation C = Consult - people who should be consulted about the activity I = Inform - people who need to be informed							

When you've finished your methodology section, consider whether it meets the following criteria:

- Describes clearly what the project will actually do
- Flows naturally from the rationale and objectives
- Clearly describes programme activities
- States reasons for selection of activities
- Describes sequence, duration and timing of activities
- Includes a realistic timetable for the project activities
- Clearly describes management activities
- Describes staffing of programme
- Describes management organization
- Describes management roles and responsibilities
- Presents a reasonable scope of activities that can be managed by the proponent

### **Section 6: Project budget**

Refer to Session 18

### **Section 7: Project results**

The results section of a project proposal answers the question: what will happen as a result of this project? It is sometimes broken down into project outputs, project outcomes and project impact.

#### **Project Outputs**

The outputs are the short-term, or immediate results of the project, and the easiest results to formulate. They indicate whether the partners successfully achieved each objective. Determine how the anticipated results of each completed objective will effect the situation the project addresses.

For example, if your objective is 'to train 8,500 forestry workers in improved logging practices in riparian areas,' then the output would be written as:

'8 500 forestry workers trained in improved logging practices in riparian areas.' See Table 13.

#### **Project Outcome**

The outcome of the project addresses how the outputs are expected to change the situation the project addresses. The outcome of the project is therefore reflected in the project goal.

#### **Project Impact**

The impact of the project refers to the broader development, research or policy implications that result from the project. For example, how might the project influence policy formulation and implementation? How might it impact development processes at the local, national and regional levels? How might it affect the sustainability of the local economy over the longer term? Could the results be used in other settings? What contribution could they make to existing technical and scientific knowledge?

Note: Many donors indicate that projects must consider the needs of specific target populations, for example, those who are typically under-represented in society, such as, minorities, women, and low-income earners. Results statements should identify how target populations will benefit from the project.

If you have a complex project with several objectives and activities, it may be useful to create a results chart that can be used to organize your results in a logical framework as shown in Table 15.

## Section 8: Conditions and risks

This section describes the conditions that are necessary for the project activities to take place, and for them to achieve their intended goals. These conditions should be immediately relevant to the project and fall within the project's scope.

**Table 15. An example of result chart**

Activities	Expected Results	Performance Indicators	Critical Conditions (Assumptions and Risks)
Development of open and distance training programmes on logging in riparian areas	8500 forestry workers, 85% of the forestry workers in the region, are trained to implement environmentally sound logging practice in riparian areas	<ul style="list-style-type: none"> <li>- Increased awareness of sound logging practice</li> <li>- Less logging damage to fish habitat</li> <li>- Increased spawning and survival rates of fish over long term</li> </ul>	<ul style="list-style-type: none"> <li>- Government monitors, loggers and former fisheries workers available to both participate in and facilitate training programmes</li> <li>- Employers remain supportive of improved logging practice</li> <li>- Those who complete the programme continue in their occupation</li> </ul>
<ul style="list-style-type: none"> <li>- Development of open and distance training programme on environmental monitoring for government monitors</li> <li>- Development of open and distance training programme on environmental monitoring for government monitors</li> </ul>	<ul style="list-style-type: none"> <li>- 200 full time government monitors trained to determine the viability of fish habitat in freshwater streams and rivers</li> <li>- 1500 short term Environmental trained staff to use water quality assessment tools and restore damaged fish habitat</li> </ul>	<ul style="list-style-type: none"> <li>- Improved monitoring of logging practices and of fish habitat</li> <li>- Restoration of damaged fish habitat</li> </ul>	<ul style="list-style-type: none"> <li>- Those who complete the programme continue in their occupation</li> <li>- Sufficient resources available to continue monitoring and habitat repair activities</li> </ul>
	Training programmes serve as templates for worksite training in resource based regions	Development of additional training programmes based on this model	Continued government and employer interest in on the job training
Collaboration among government, employers and educational institutions	Development of collaborative processes for addressing environmental problems	Continued collaboration among all partners to work on other environmental initiatives.	Continued commitment to collaborative approaches among all partners.

By including information about conditions and risks, you indicate to donors that your proposal gives careful consideration to the implications of factors that may be beyond the control of project proponents.

Not all plans proceed as expected, particularly when the project extends several years into the future.

## Section 9: Monitoring and evaluation

Project proposals usually include a section on monitoring and evaluation, because they are considered by most donors to be integral to a sound project.

Monitoring enables project partners to assess how well the project is going, for the purposes of adjusting project plans if necessary. These activities are conducted throughout the duration of the project. (This is sometimes also called interim or formative evaluation).

Evaluation enables project partners, stakeholders and donors to determine how well the project met its objectives after the project has been completed. (This is sometimes called summative evaluation).

It is generally expected that both project partners and stakeholders are involved in the evaluation process.

The monitoring and evaluation plan should describe:

- i) how the project process itself will be reviewed and adjusted if necessary
- ii) how the progress towards project milestones will be assessed, what indicators will be used, who will be involved, and at what points in the project
- iii) how the results of project activities will be assessed, what indicators will be used, who will be involved in the evaluation, and what decisions will be affected by these results
- iv) how the end point evaluation will be conducted, and how it will determine the project's effectiveness and sustainability

Some donors require external evaluations of projects they support, conducted by people who are not directly involved in the project. The evaluation plan in the project proposal should take into account any external evaluation, but should also describe evaluation strategies that project partners will undertake.

The Project Proposal Template handout provides a Table that you can use to help you organize your monitoring and evaluation plan.

## Section 10: Linking the project to organizational goals and funding goals

It is important to know how donors' priorities match the issues addressed by your project. Donors often require a statement that links the proposed project to the goals of your organization, and to goals of the funding organization. This statement can help donors to determine how well the project relates to your organization's priorities and to theirs.

Common priorities of funding organizations are:

1. Broad participation and consultation in project design and implementation
2. A follow-on effect from the project, which means the project extends beyond the immediate project context and timeframe. This is sometimes termed building capacity. An example is a project to train staff that are then able to train others
3. Sustainability, which means that activities undertaken as part of the project will be able to continue after the project is concluded

4. Inclusion of minorities and under-represented groups, such as women, in project design and implementation
5. Respect for human rights in all aspects of project design and implementation, especially research with human subjects
6. Environmental soundness. Even projects that are not directly addressing environmental issues are normally required to demonstrate that the environmental impact has been considered, and if it is determined there will be an environmental impact, steps are included to mitigate any negative effects

## **Part Two: Assessing and finalising the proposal (Step 1-4)**

Part Two provides some basic steps you can follow to assess a proposal to ensure that it is complete, correct and consistent with generally accepted guidelines for proposals.

It's important to provide key people with an opportunity to review the completed proposal before it is finalised. Everyone involved - the project proponents, partners, stakeholders and donors - should have the opportunity to verify that the project proposal is an accurate reflection of their shared understanding of what the project entails.

A good project proposal must meet the following three groups of criteria:

1. it must describe a good project
2. it must address the donor's issues and concerns clearly and completely;
3. it must be presented in a easy to read, straightforward style

There are two possible options for reviewing the proposal for style and clarity:

- i) Have an objective reader check the proposal for style, clarity, grammar and spelling. Ideally, the person reviewing it at this point should be a good writer or editor, who can recommend improvements without imposing his or her own style on the document.
- ii) Another option is to have someone who is not familiar with the project read the document, and then meet with you and tell you, in their own words, what they think each section says. This person can also be asked to suggest improvements in presentation. This will highlight any issues of clarity, but another reader should also check it for spelling and grammar.

### **Step 1: Review of the proposal by the relevant organizations**

First, indicate how reviewers can provide feedback. This very much depends on your working relationship with the particular reviewer, as well as logistics. In some cases, it may be useful to have written comments, especially if the reviewer does not live or work nearby and most communication is in writing (print or electronic). In other situations, it may be most helpful to have a discussion with the reviewer to talk about each of the issues raised. In any event, a dialogue about the issues, in person, on the phone or in writing, can help to clarify questions and establish a common understanding.

If you suggest how the reviewer's feedback can be discussed, it gives him or her an idea of how extensive you expect the review to be. For example, if you suggest that feedback can be discussed in a one-hour meeting in a week's time, it conveys that a more thorough review is expected than if you suggest a ten-minute phone conversation the day after you give the reviewer the proposal.

### **Organizational review of the proposal**

If your organization has a central role in the project, as the initiator or project manager, there may be several people, representing different parts of the organization, who want to review the proposal, for example, from the perspective of its financial implications, management, and implementation.

It's a good idea to give ample opportunity for discussion of the project proposal after people have reviewed it. Seeing a proposal in 'black and white', in other words, as a completed print document, can trigger questions and realizations that were not previously evident, even for people who are well informed about the project.

The Organizational Proposal Review handout provides some sample assessment questions to ask of a reviewer from your own organization.

### **Partner review of the proposal**

The representatives of each project partner should also have an opportunity to review and comment on the project proposal at this stage. Partners are in a good position to recognize any 'design flaws' in the project, and their comments should be taken seriously. Partners need to know that this is not simply an exercise to include them as a matter of form, and that their comments will be considered appropriately.

Partners may provide feedback on a number of levels: about the project itself, about the specific partner's role in the project, and about the proposal as a document that accurately presents the project.

The assessment questions used to guide the partners' review of the proposal are similar to those for an organizational review, with some small differences. The Partner Proposal Review handout you with a few key sample questions to ask of a project partner.

### **Stakeholder review of the proposal**

Project stakeholders should also have an opportunity to review the project proposal. Stakeholders may have had less direct involvement than project partners in the detailed preparation of the proposal. However, because they are directly or indirectly affected by the project, stakeholders are in an ideal position to assess whether or not the project will meet their needs and concerns. In particular, stakeholders may be in the best position to judge how well the proposal describes the context and issues, and conditions and risks. They can also identify gaps or other issues around the project design and the project proposal.

Stakeholders need to know that their feedback will be taken into account. Because they may have had less opportunity than project partners to provide input at the various planning stages for the project, it is crucial to respond to any concerns at this stage.

You can find some sample questions that can be used to guide a stakeholder's review of the proposal in the Stakeholder Proposal Review handout.

### **Donor review of the proposal**

When assessing a proposal, donors generally distinguish between the three different dimensions:



- i. Assessment of the project concept - does the project meet standard criteria or donors' criteria for a quality project?
- ii. Assessment of the proposal content - does it provide clear and complete information about the project that is responsive to donors' issues?
- iii. Assessment of the proposal's presentation style - is the proposal well written, without ambiguity or jargon?

***i. Assessment of the project concept: Is this a good project for the donor to support?***

Day 3 sessions on project concept note development provide some general principles that donors look for to determine whether a project is worthwhile to support. In brief, these include:

- a) Problem Definition
- b) Relevance
- c) Scientific and technical merit
- d) Capacity building
- e) Gender considerations
  - f) Human and institutional resources
- g) Complementarities
- h) Sustainability
  - i) General research soundness
  - j) Development relevance
- k) Ethical considerations
- l) Assumptions and risks
- m) Environment
- n) Monitoring and evaluation

These general principles are a guideline only, and you will have to determine the criteria used by the donor you are approaching when doing your assessment of your project concept.

***ii. Assessment of the proposal content: Is this a good proposal?***

Generally speaking, if a proposal is well-written and thorough, it should strongly indicate that the project concept and its implementation have been clearly thought out, and that partners and stakeholders have been involved in the process of developing the proposal.

A good proposal clearly presents what the project proponents will do, how they will do it, and why they will do it. The Proposal Assessment handout provides you with a guide for proposal assessment with spaces for you to record your comments.

A donor will assess the content of your proposal based on whether it clearly addresses the criteria identified above, under what constitutes a good project.

***iii. Assessment of the proposal's presentation style: Is the proposal presented in a clear, comprehensive and easy to read style?***

Part One provided some useful tips on good presentation and readability of a project proposal.

One author on fundraising suggests the following approach for assessing readability of a proposal:

- Does the first sentence of each paragraph introduce the idea?
- If you took the first sentence of each paragraph in a section in sequence, would the resulting paragraph make sense?
- If you took the first and last sentence of each section in sequence, would the resulting be a summary of the proposal?

## **Step 2: Dealing with Feedback**

Despite extensive consultation in the project planning stages, there may still be feedback at the later stages of proposal development that mean that project team must reassess the project design: this process may lead to decisions that require some changes to the proposal. As well, the proposal writing team may receive feedback that indicates that the proposal still needs some rewriting or restructuring.

The final version of the proposal can be strengthened if it addresses the issues raised by those who have reviewed the proposal. This section provides some tools to use feedback constructively to refine the proposal. In most cases, you will receive feedback of two kinds: some that indicates the proposal is fine as it stands, and some that indicates that changes should be made to the project and/or the proposal. Both have their uses.

Positive feedback from an informed reviewer reinforces confidence in the proposal, and serves as a useful point of reference when considering other feedback that suggests changes. Feedback that conveys concerns about the project design or recommends changes to the proposal requires more attention and action. This section addresses this second type of feedback.

### **Types of feedback**

One important distinction to make when working with feedback is determining whether the comment relates to style or to substance. Both are important.

#### ***i) Style***

Comments about style identify areas that are not sufficiently clear, or are awkwardly phrased, or have grammar or spelling mistakes. Usually, these can be addressed by careful editing. A clearly written proposal makes a good first impression: for a donor, it can determine whether the proposal gets considered seriously.

#### ***ii) Substance***

Comments about the substance of the proposal can relate either to the project concept itself or to how the project is presented in the proposal document. It is important to distinguish between these types of feedback. Sometimes the two types of issues are so closely connected that they have to be addressed together.

Members of the project team should consider comments about the project design, because they should decide whether to modify the project based on this input, or to provide a better rationale for the project design as it stands.

Be sure to clarify whether the feedback arises from a misinterpretation of the project proposal, which points to a need for more clarity in the proposal, or whether they are pointing out a problem with the way the project is designed. Any comments that are based on a misunderstanding of the proposal should be relayed to the proposal writers so they can clarify the relevant sections of the proposal. We

will explore some examples of this type of misinterpretation later on in this section.

If there are differences in interpretation about the project, it's useful to find out now, rather than later on in the project. If a number of different reviewers raise similar concerns about the project, this indicates that the project team should rethink how this part of the project was planned and designed.

The project team should also consider comments about the roles of the various organizations, as they are presented in the proposal. The proposal review process provides an opportunity to clarify the agreement about the different roles, and to affirm each organization's commitment to the project.

The proposal writers should consider the comments about the proposal itself as a document when they revise and edit it.

### **How to interpret and respond to feedback**

Consider which sections of the proposal are the primary focus of the feedback. In general, comments that recommend substantive changes to the early sections of the proposal (rationale, context, issues, goals, objectives) are more likely to be related to the basic principles of the project, the project concept.

For example, comments that suggest that the rationale of the project should be reconsidered raise serious questions that should be discussed carefully by the project partners and stakeholders. (As an aside, if there are challenges to the project rationale at this late stage, by someone close to the project, it raises doubts about whether the initial consultative processes were sufficiently broadly based and comprehensive.)

Comments about project methodology and implementation may suggest useful changes that will improve project results without fundamentally changing the direction. An example is a suggested change in the schedule of a training plan.

You can use the following questions as a guide for analysing feedback. Consider, from the perspective of the person providing the feedback:

- What is seen as the problem?
- Are there suggestions about changes that would address this problem?
- What would be the impact of these changes, if they were implemented, on other aspects of the project, or of the proposal?
- If these changes were implemented, would it make it a better project, or a better proposal?

Let's work through three examples (A-B-C):

#### **Example A: Feedback from a partner, the Adult Education Coordinator, East Island College**

'I'm not sure that the project planners have really taken into account that implementing training is much more challenging when it involves changing people's attitudes, and when many of the trainees have limited prior education. This is difficult enough to do in person, but will be even more difficult by distance education. There do not seem to be sufficient resources invested in implementing these training programmes to make them successful.'

**Answer the following questions in your file:**

- What part of the proposal is this reviewer addressing?
- Would you say these comments relate to the project concept itself or to the proposal document?
- How should these concerns be addressed?

**Our analysis is:**

In the view of this educator, the problem is that the project's training strategies are not appropriate to the task. Although she has not directly suggested alternatives, the statements that more resources are needed, and that distance education is not a good option imply that the programmes should be provided by face to face training. The educator's criticism appears to be based on a belief that distance education precludes local, personal contact. However, the project design is based on using distance education and a train-the-trainer concept. The train the trainer approach means there will be a great deal of personal contact and on site mentoring as well as distance learning techniques. Each trainer will work with small groups, a context that is conducive to open discussions that can change attitudes, as well as team learning for skills development.

**Responses**

- The project team decides to meet with this educator to explain the educational rationale behind the choices of strategies and describe how they see these strategies working in practice. At the same time, they will ask for her suggestions about how to enhance the team-building side of the project
- Using input from this meeting, the project proposal team writes a brief explanation of the reasons for choosing these approaches, to be added to the Strategies section. The Activities section will include more information about how the train the trainer approach will be implemented

**Example B: Stakeholder feedback, from the President of the Fish workers Association of 'Anduga'**

'We originally supported this project when it was presented to us because we support initiatives that help fishers get back to work. We recognize that it is important to address one of the major causes of the decline in the fisheries, by dealing with forestry practice, but this project seems to have lost sight of the real victims, the fishers. We do not see how this project is going to help fishers...it does nothing to help them get back into fishing. The temporary jobs that are proposed for them in environmental monitoring will take them away from their coastal communities and will mean they will have to do a lot of training for two or three years' work' .

**Answer the following questions:**

- What part of the proposal is this reviewer addressing?
- Would you say these comments relate to the project concept itself or to the proposal document?
- How should these concerns be addressed?

***Our analysis is:***

The President of the Fish workers Association of Anduga feels that the project does not help fishers very much. Within his own perspective, he is right. He does not directly suggest any changes to the project to address this issue, but there is an implied suggestion that the project should lead to more re-employment of fishers in the short term.

But the project takes in a longer term view: its strategies are designed to help rebuild fish stocks by restoring habitat that is essential for spawning. The project is also designed to fit in with a number of other projects in the same region that do address the shorter term needs of unemployed fishers. The project planners recognized that the total employment needs of fishers would not be addressed by offering some fishers the opportunity to work with environmental monitors on streambed regeneration. But they felt it was an important strategy for establishing a community-wide awareness of the interdependence of the two resource-based occupations.

***Responses:***

- The project team decides to address the president's concerns by meeting with him to provide more information about the reasoning behind the project design, to present the case for projects that address longer term issues, and to ask him once again for his endorsement of the project
- The proposal writing team will include an explanation of how this project fits with other projects in the Issues section of the project document. In the Issues section, they will also make it clearer that there is a need to raise community awareness of the interconnections among occupations that depend on the same environment. The Goals section will identify this as an additional goal, and in the Activities section, an additional objective will specify what the project will achieve with respect to this goal

**Example C: Stakeholder feedback, from the Public Affairs Coordinator, Western Logging Association**

'This project design has made some assumptions about the feasibility of former fisheries workers taking on temporary jobs as environmental monitors. We believe that this is a flawed plan that will potentially lead to serious conflict in the logging areas. Fisheries workers already blame the logging industry for the loss of their incomes. If they are in a position where they are monitoring the work of loggers for potential environmental damage, the situation could threaten the physical safety of both loggers and fishers. We recommend that loggers themselves be assigned to the environmental monitoring programme. This would also be in keeping with our longstanding claim that the logging industry can be self-regulating.'

***Answer the following questions:***

- What part of the proposal is this reviewer addressing?
- Would you say these comments relate to the project concept itself or to the proposal document?
- How should these concerns be addressed?

***Our analysis is:***

In the view of the logging association representative, the problem is that the project strategy to train former fishers to work in environmental monitoring could result in conflict in the forestry area. He recommends a basic change to the project design, that loggers, rather than fishers, engage in short term environmental monitoring. The implications of this change are that fishers would no longer have any stake in the project, and that the non-government part of environmental monitoring will be industry-based rather than community-based.

***Responses:***

- The project team recognizes the concern about potential conflict in the forest, but decide that the logging industry's proposed solution is opposed to a fundamental principle of the project, which is to enhance community awareness of shared responsibility for the shared environment. They decide that the concern should be addressed by including in all of the training programmes a segment on conflict resolution and community building. They reach an understanding with the logging representative that by supporting a cooperative approach, the logging industry will improve its credibility regarding its commitment to resolving environmental issues
- The project proposal team revises the Strategies section of the proposal to explain the inclusion of the conflict resolution component, and revise the Activities section to include a description of how this component will be implemented

In summary, here are some strategies for dealing with feedback on the project concept itself. These are issues for the project team to address:

1. Consider whether the feedback is from someone who has another perspective on how the project should operate. Determine whether this perspective has to be taken into account, and if so, how can this be done?
2. Consider whether the alternative perspective can be integrated into the project design, or whether it is incompatible with the project design.
3. Consider the role of the person providing feedback vis à vis the project. Can this person play a part in helping to resolve the difficulty?

**How to deal with conflicting feedback**

The examples showed how a project team can deal with feedback by addressing each issue separately. However, sometimes reviewers with different interests in the project will provide conflicting feedback. One person may be very positive about a particular aspect of the project proposal that another person wants to see changed. For example, partners may feel that the role of their organization has not been highlighted sufficiently, or that the importance of a particular element of the project has not been given enough emphasis.

If the conflicting feedback is about the project concept itself, it indicates that further work is needed to resolve conflicting issues among the project partners and stakeholders.

The proposal writing team and project teams (if they are different) need to rely on their own judgement when dealing with differences of opinion about the project proposal document. The following questions can help to assess conflicting feedback about the proposal:

1. Is it based on an accurate reading of the proposal? If not, how can the proposal be clarified?
2. If feedback suggests changes, would these changes improve the proposal's clarity and effectiveness?
3. How can the positive feedback be used, along with the feedback that suggests changes, to produce a well balanced document?

### **How to deal with feedback from donors**

Dealing with feedback from donors is in fact the final stage of proposal writing. All of the effort involved in establishing partnerships and in developing stakeholder support is an investment in a successful project: it is also excellent preparation for building a good connection with the project donors. If your proposal is successful, your donor will essentially become a partner in the project. The initial communication with the donor is the first opportunity to establish this connection. Next, and more crucial, is responding to a donor's feedback on your draft proposal.

The donor's direct feedback on your proposal gives you more information about the donor's perspective and how it is applied when assessing the proposal, especially with respect to:

- their priorities as a donor.
- their assessment of what makes a good project
- consistency with the donor's range of operations

### **Style and substance**

Most likely, the donor's comments will be directed to the substance of the proposal rather than to the presentation style, unless a problem with style means that something is not clear to the donor. The substantive comments will include those related to the project itself, and those related to the proposal as a document.

### **Relevance to the donor's priorities**

If you have followed the donor's information about the types of projects they fund, there is more likelihood that the proposal will match their criteria. Keep in mind that funding priorities do change, and sometimes not all of the donor's criteria are listed in full detail.

When you write a proposal with the donor's priorities in mind, it can be discouraging to receive a response that indicates that a proposal is 'not relevant to our funding priorities at this time'. If this is the only response by the donor, then it is probably not worth pursuing funding from this source any further.

If the donor indicates that there is room for discussion and negotiation, you may still have a chance at being successful.

Consider an example from the case study project, in which the donor says:

'Although our funding priorities are mainly directed towards environmental education, rather than on the job training, we find your proposal interesting because it combines environmental education for two occupational groups sharing the same context.'

The donor has provided an opportunity to discuss the options available. In this type of situation, you can then find out from the donor whether they would reconsider the proposal if the project were changed or if the proposal were changed. (In the example, this would mean either that the training aspects need to be changed, or that the donor will accept the project design as it is, if the proposal adds more information to explain how it does address the donor's priorities.)

### **Consistency with donor's range of operations**

Even though project proposals are prepared with reference to information about the scope and scale of projects the donor will support, the donor may respond that the project does not match their current range of operations. This could be because the donor's situation has changed, or the published information was not up to date.

The donor's response may indicate that the project meets their priorities, but is not a good fit in terms of:

- its region (not the geographical area they fund)
- its size (too big or too small)
- its scope (too short or too long a term, too many or not enough people; a geographical area that is too big or too small).

There is generally very little that can be done if the donor does not support projects in the region, unless they are open to funding projects involving partnerships between two regions, one of which they do fund.

If a project is larger than those the donor normally supports, the options are to reduce the size of the project or ask the donor whether they would be interested in supporting one aspect of the project, if funding can be obtained for the other elements of the project from other sources.

If the project is smaller than those the donor normally supports, the options are to increase the size of the project, (if the partners have sufficient resources to accommodate a larger project), or to consider combining forces with another project with similar goals (if there are resources available to manage a more complex project.) As well, sometimes large donors will support what they call a 'micro-project', a demonstration project that can subsequently be operated on a larger scale. It is worthwhile finding out if this is a possibility.

If a donor indicates that the project's scope exceeds the scope of those it usually funds, it is worth exploring options for funding part of the project. (For example, if the project covers too large a region, you could ask if they would fund a part of the project in a specific district).

Again, the nature and tone of the donor's response provides a good indicator of whether or not it is worth pursuing the matter.

For example, 'We regret that we cannot fund your project because we no longer fund projects related



to the environment' is a fairly definite 'no'.

But a response that indicates, 'we are currently focusing on innovative projects, and your project, although very interesting, seems quite similar to one that we funded in Chile five years ago', may leave some options open.

If your communication with the donor indicates they are open to receiving further information about the unique features of your project, you may be able to research the Chile project and demonstrate to the donor that yours is in fact quite different and innovative.

In many of these situations, the donor's feedback is about the project itself, and means that the project team has to reassess the project plan. In all cases, the project team should consider the donor's feedback, whether it is about the project itself or about the proposal: it is an opportunity to learn more about the process of working with donors. The most basic question they need to consider is, 'Are we willing to change the project in order to obtain funding, or should we look for another donor?'

Here are some questions to consider when reviewing a donor's feedback about the project itself:

- Does the feedback relate to the match between the project and the donor's priorities? If so, how can the project be changed to achieve a better fit?
- If some elements of the project must be changed to meet a donor's priorities, are these elements fundamental to the project?
- Can they be changed without jeopardising the goals and intent of the project, or the support of partners and stakeholders?
- If these changes were implemented, would they make it a better project?

### **The donors' perspective on a good project**

If the donor generally feels that the project is a reasonable fit with their priorities and scope, they may direct their comments to the question of whether they feel the project is a good one, based on their experience.

In the 'What makes a good project' handout general principles indicate what donors constitute as a 'good' project. They generally include these features; feasibility, sustainability and reliability.

As well, donors usually have obligations (that are the donor's equivalent of the Hippocratic Oath - do no harm) to the environment, to participants, or to the social, economic and cultural systems that sustain the region.

Donors have extensive and cumulative experience about projects, and their feedback about the project itself can be very helpful. They may raise issues that have not been considered in the project development process, especially if this is a first project for the proponents. When a donor takes the time to point out a difficulty with a project, but also has positive comments, their helpfulness should be acknowledged. It is worth communicating with the donor to explore the basis for their concern and to find out how best to address it.

### **The donor's feedback on the proposal itself**

Donors' feedback on the proposal itself will address several areas. First of all, many donors do not respond well to proposals that are not presented within the proposal format and sequencing they request. Typically, donors review proposals in a committee process, in which several people will

consider a group of proposals at one time. This process often entails comparing proposals section by section, i.e. the reviewers will consider Section 1 of Proposals A , B, C and D all at once, and then Section 2 of Proposals A , B, C and D next. If one of the proposals is out of sequence, it takes time to find the appropriate section, and creates frustration for the reviewers. Reviewers may conclude that if the proposal writers have not followed the stated guidelines, it indicates a lack of respect for the donor and a potentially difficult partnership.

As well, if the proposal writers have not provided the information the way it was requested, donors may dismiss the proposal, or, if they see some promise in the project, may request that this information be provided in the appropriate form.

If there are situations in which you cannot meet the donors' requirements for information, it is better to provide an explanation on the proposal form or in a covering letter than to simply fill in not available or not applicable (N/A) on the form.

Donors may also ask for additional information that was not originally requested in the proposal guidelines. For example, they may request financial information for previous projects. These requests for information may need to be discussed with project partners, and follow up information should be provided in as clear and complete a form as possible.

### **Step 3: Finalise your proposal**

Once you have sorted through the all the feedback you have received, outline a plan for addressing each of the issues raised in this feedback. When you have completed this plan, you are ready to prepare the final version of the proposal for submission to the donor.

### **Step 4: The cover letter**

There is just one more item to complete before your proposal is ready to go: the cover letter. The cover letter is written as a conventional business letter to accompany the proposal. It provides basic contact information and a very brief overview of the proposal, in a few sentences.

If you completed Unit 2, you may want to refer back to the original letter of inquiry you completed. Your cover letter for the proposal will not have as much detail, since you now have a full fledged proposal, you may choose to include some of the elements you emphasised in the first letter.

Most importantly, the cover letter is an opportunity to present the project partners as experienced, competent professionals who are capable of making the project a success. Briefly present the most positive and most relevant highlights of the collective experience of the project proponents.

If, in the process of developing the proposal you have been in communication with the donor, it may be appropriate to acknowledge their help. (Of course, you would not do this if you are submitting a proposal in a competitive process.)

Conclude your letter on a hopeful note...without appearing too presumptuous!

### ☑ Activity 30

This is an individual activity which benefits from sharing your 'work in-progress' with your colleagues.

1. You are going to:

- develop a framework for your full proposal using a check list of components that will be given to you, The trainers are available to assist you if needed during this exercise
- identify what additional information or activities you need to undergo to complete the proposal
- develop a list of activities and a timeline with names of who should be the responsible person using one of the two formats provided or using your own format

2. Join up in pairs or pairs of groups to:

- swap your framework draft and timeline with each other and review them
- give feedback on what is good and what could be improved

3. Continue to work on draft proposals and plan of activities and timeline for completion of draft proposals.

Participants from Egypt workshop working on drafting their proposals are shown in Photo 14.

#### Photo 14. Participants work on their projects proposals in Egypt workshop



## ■ Session 20

### Sharing the Full Proposal

#### Objectives

By the end of this session you will have:

- shared your group's draft full proposal
- analyzed, assessed and commented on other group's draft full proposal based as shown in photo 15.

Resources needed:

- Proposal Assessment

#### Photo 15. Sharing Draft Proposal of a group in Jordan workshop



#### After you received your grant

This last day provides a short overview of what to expect after a donor has agreed to support the project. The hard work invested in developing a good project proposal has long term benefits, because the project proposal provides a planning framework for the duration of the project. This potential future use of the project proposal, as the basis for project planning and implementation, provides one more perspective for reviewing your proposal.

The information here is not designed to be a comprehensive presentation of project implementation, but it provides a brief introduction to this new phase in the life of a project.

#### The Donor as a Partner

When a donor agrees to support your project, that donor becomes an important partner in the initiative. Many of the same principles about building project partnerships also apply to building a working relationship with a donor. Over the past two decades, there have been significant changes in the nature of the relationship between donors and organizations carrying out a project. These changes are the result of a shift in the approach to development. An old English expression, 'He who pays the piper

calls the tune', describes the previous situation; that the organization providing the money determined how the project was carried out by the organization receiving the money. Now, most funding agencies see the relationship with project executing agencies as one of mutual accountability. This is in keeping with an increased awareness that genuine development requires participatory decision making; including in the process those who are directly affected by changes in their social, economic, cultural and environmental situations.

Throughout each stage of the project, the donor and executing/implementing agency partnership entails certain responsibilities and activities. Here is an outline of the usual sequence of a project, in four stages:

Stage 1: Funding is approved, and the reference to the term project proponent changes

Stage 2: After the funding is approved, but before the project starts

Stage 3: While the project is being carried out (the implementation phase)

Stage 4: At the conclusion of the project

### **Change from Project Proponent to Executing Agency**

When your organization's role changes, so does the terminology for its role: the project proponent becomes the executing agency or implementing agency. These terms simply mean 'the agency that is carrying out the work'.

### **Activities before launching the project**

#### ***Say thank you***

Once you have received the official news that funding has been approved, one of the most important steps is to say thank you. A short note of thanks directed to the person who is your primary contact at the funding agency can convey the message on behalf of all the project partners.

#### ***Develop an operating agreement with the donor***

An important element of the partnership approach entails defining responsibilities and clarifying expectations regarding communication and support. This operating agreement between the donor and the executing/implementing agency is generally prepared in written form as a memorandum of understanding or contract. In general, the size and formality of the agreement increases with the size of the organization and the amount of funds involved in the project. Reaching an operating agreement generally entails developing a work plan, an evaluation plan and a reporting schedule and modifying the project budget.

#### ***Develop a work plan***

The project proposal outlines the major strategies, activities and timelines, and may include a responsibility matrix. These form the core of what is called a work plan for the project. This is a detailed schedule of project activities, with specific information about personnel involved, duration of activities and anticipated milestones (specific achievements at particular points in the project).

For larger projects, the donor may provide the format for the work plan, to ensure that it covers all the required information. The work plan is usually developed in consultation with all the project partners, and the donor may be included in these consultations.

***Develop an evaluation plan***

Evaluation is a method for maintaining a continuing awareness of the project's progress, achievements and challenges. The evaluation plan prepared for the project proposal will probably require some revision so that it is consistent with the revised work plan. As well, the donor may have specific requirements for evaluation. The evaluation plan should also ensure that ongoing evaluation by the project partners is compatible with any external evaluations that are required by the donor.

***Establish the reporting schedule***

Donors will have their own requirements about what type of information they need, and at what stages of the project. Larger projects may require different types of reports at different stages, and these may be linked to provision of interim payments. As well, stakeholders and project partners will need regular reports. In general, those closer to the project require more frequent, but briefer reports. A schedule that shows what types of reports are to be produced at specific points should be included in the project work plan.

***Modify the project budget***

It is very likely that the project budget developed for the proposal will need some changes before it can be used as the actual budget. Many factors can change the financial picture between the time the proposal is written and the time that the project is ready to launch. The amount of funding available may be less than anticipated; changes in exchange rates can affect the cost of goods and services; there may be unexpected increases in expenses for travel, communication or other essential elements.

Budget changes need to be discussed with all project partners at the same time as work plan changes because the budget has to be consistent with the work plan. The donor may have guidelines about the allocation of funds (for example, the proportion of management costs in relation to the total budget) and may also provide direct input into the budget discussion.

***Conclude an operating agreement with the donor***

The work plan, evaluation plan and the budget usually represent the major portion of an operating agreement. Other elements that are usually included are: provisions for communication between the donor and the executing agencies for the duration of the project; an outline of how changes to the project plan are to be discussed and agreed, and an 'exit clause' that describes what steps are to be taken if either party cannot fulfil its obligations. The people who are named as officially accountable for the project are usually those who sign the operating agreement.

***Keep progress notes***

When many people are involved in an extensive project, it can be difficult to keep track of all the activities, and even more difficult to recall, after the fact, exactly what happened, when, and why.

For all members of the project team, keeping progress notes is an important part of remaining in touch with the project. Each project team member should keep notes on the aspects of the project for which they are responsible. Brief notes that are kept up to date will be much more useful than very lengthy notes that cannot be maintained consistently. At regular intervals, the project team should exchange and compile information about the project, and produce summaries that are available to all team members. This practice also provides an opportunity to discuss issues or concerns and to maintain good management and accountability.

Progress notes are a useful resource for the project team, for the preparation of regular reports and for project evaluation; both the ongoing evaluation that is part of the project plan, and any external

evaluation by donors or stakeholders.

### ***Implement ongoing evaluation***

By maintaining progress notes and regular communication, the project team can also support ongoing project evaluation. This type of evaluation enables consistent monitoring and assessment of how the project is coming along. Some evaluation activities involve keeping track of particular indicators (which can be anything from learners' achievements to levels of pollution in a river system). Evaluation also entails watching for indicators of good project management: these include regular communication and discussion, early identification of any problems, and levels of activity and expenses that are consistent with the project plan.

### ***Discuss any changes from anticipated progress***

The project work plan and budget outline the generally agreed structure of the project. But, as in many other aspects of life, things do not always work out according to plan. Adverse weather conditions can affect a crucial activity, staff may be reassigned, an essential piece of equipment may not work as expected. Dealing with these situations is part of the day to day responsibility of the project management team. This team usually makes the decision about whether the donor should be informed of a situation. The operating agreement may specify the kinds of situations that should be discussed with the donor. In general, situations that will affect the project's ability to achieve its objectives in the long run should be reviewed with the donor. The project team should be able to foresee whether a particular situation will have a long term and significant impact on the project.

### ***Negotiate any major changes in the project plan***

If there are significant factors that appear likely to affect the project's potential to achieve its goals, there will probably need to be some changes to the project plan. These changes should be discussed among project partners and include the donor. The project team should prepare a brief case for major changes. This short report should state the context and issues that have affected the original project plan, and provide a rationale for a proposed alternative strategy and activities. Implications for the work plan, the budget, and any other significant elements of the project should also be presented. When a major change to the project plan has been discussed and agreed among the project partners and the donor, it should be documented for future reference; as part of an interim report, or as part of an amended project plan, or both. This information is then available for evaluators or others who may not otherwise be aware of the change in project plans.

### ***Work with external evaluators as needed***

External evaluators may review the project at any stage, but it is more likely that they will be involved towards the end of the project. The project team should support the external evaluation process by providing background information, and, if requested, helping to coordinate meetings, travel, interviews, and data collection.

### ***Consider options for follow up projects***

If the project was a pilot, or was the first stage of a series of strategies, and there are good indications that the project will achieve its goals, the late stage of the project is a good time to develop plans for a follow up project.

## Project Management

Time	Event	Content
1 hour & 30 min	<i>Session 21</i> <b>Delivery Skills</b>	<ul style="list-style-type: none"> <li>• Five key components of good project delivery</li> <li>• Introduction to tools for successful project delivery</li> <li>• Assessment of project management, delivery skills (Group discussion)</li> </ul>
1 hour & 45 min	<i>Session 22</i> <b>Monitoring and Measuring Impact</b>	<ul style="list-style-type: none"> <li>• Involving project partners and beneficiaries in the monitoring and evaluation (Group discussion)</li> <li>• Resolving problems encountered in monitoring (Group discussion)</li> <li>• How do you measure impact? (Group discussion)</li> </ul>
1 hour	<i>Session 23</i> <b>Reporting</b>	<ul style="list-style-type: none"> <li>• Evaluation by Logical Frameworks</li> <li>• Guidelines for report preparation</li> <li>• Communication with the partners, beneficiaries and donors</li> <li>• Report formats</li> <li>• Dissemination</li> </ul>
1 hour	<i>Session 24</i> <b>Reflection Next Steps</b>	<ul style="list-style-type: none"> <li>• What are you going to do after the workshop, how are you going to share your new skills? (Sharing individual plans)</li> <li>• Reviewing training objectives and overview of all sessions</li> <li>• Feedback and workshop evaluation</li> </ul>
15 min	<b>Closing</b>	<ul style="list-style-type: none"> <li>• Distribution of Certificates</li> <li>• Closing</li> </ul>



## Improving Project Management & Delivery Skills

### Objectives

By the end of Day 5 you will be able to:

- discuss what skills you need for effective project management and delivery
- identify tools to enhance your key project management and delivery skills, especially monitoring and evaluation and report writing for your own projects

### Activities

#### **Session 21 – Delivery Skills**

Activity 31: 'What do we need to do to achieve a successful project?'

Activity 32: Outline what you found effective and useful in the delivery of your projects?'

Activity 33: Select and describe project management tools

Activity 34: Improve your delivery and management skills

#### **Session 22 – Monitoring and Measuring Impact**

Activities before launching the project

Activity 35: What do you do in these situations?

#### **Session 23 – Reporting**

Activity 36: Analyse a project report

#### **Session 24 – Next Steps, Closing**

Activity 37: Develop your actions after the workshop

Activity 38: Reflect on the goals, objectives and your expectations and achievements

Activity 39: Complete and submit your workshop evaluation form

### Resources

- Your draft project plan
- Proposal Assessment
- Workshop Evaluation Form (Handed out at the workshop)

## ■ Session 21

### Delivery Skills

#### Objectives

By the end of the session you will

- understand the components of project implementation
- be introduced to examples of tools that will assist in project management/implementation
- identify areas you need to improve
- identify further training needs if necessary

#### How to be a Great Project Manager?

What skills and characteristics do you need?

The project manager is a key member of the project team. The character and skills of this person can make the difference between a successful project and a failure between an adequate project and a brilliant one. Do you think you have the skills and characteristics for the job?

Surveys in project management journals consistently list the following characteristics as vital for effective project management:

1. Leadership by example
2. Visionary
3. Technically competent
4. Decisive
5. Good communicator
6. Good motivator
7. Capable of standing up to senior management when necessary
8. Supportive of team members
9. Encourages new ideas

The following key characteristics are identified for a great project manager (modified for relevance):

**1. Interpersonal skills.** The ability to manage people is vital. Project managers will ultimately be responsible for co-ordinating the work of the project team. It's crucial that they have the interpersonal and leadership skills to direct team members and keep them motivated and on track. In cross cultural projects e.g. when the donor is from another country, the ability to be aware of and address cultural differences can be very important. The project manager also needs to be able to smoothly navigate through the tricky politics within and between the participating organizations be they those of stakeholders or partners. Keeping donors informed, involved as appropriate and satisfied also requires good diplomacy skills.

**2. Organizational skills.** This key characteristic of great project managers is absolutely critical to keep projects on schedule and budget. The ability to allocate resources, prioritize tasks, and keep track of the budget will ensure quality and ensure the project's success. Vision is needed to come up with innovative solutions, but without the discipline of organization, the vision will become an empty dream.

**3. Communication skills.** The project manager is the main communication link between the donor and the project team, the donor and the beneficiary and the team and the beneficiary. Her or his ability to clearly communicate with members of all groups is essential. She/he must be able to clearly communicate project objectives, challenges or problems, and the proposed solutions and regular project status reports.

**4. Problem-solving skills.** In every project, it's unexpected problems or challenges that drive everyone crazy. The project manager must be able to effectively handle these situations and mitigate risks so they don't get out of control.

**5. Professional training.** When assessing the project team proposed for to manage and implement a project, donors will often look not only the formal, long term training and qualifications, but also the kind of professional training completed post graduation. They also consider the length of time a person has been working in the role similar to the one they will fill in the project. All this is for a very good reason. Being a project manager is a complex and demanding task. For it to also be rewarding, you need the skills and knowledge to do it well.

There is a fit between the key characteristics of a great project manager and five key components of successful project management - see the Table 16 below.

**Table 16. Relation between Successful Projects and Successful Project Management Needs**

Successful projects include:	Successful project management needs:
Monitoring and evaluation	Organizational skills, professional training
Communication	Communication skills
Managing risks and maximising opportunities	Problem solving skills
Good organization	Personal organizational skills
Good people management	Interpersonal skills

If you feel you need more training to be a great project manager, there are avenues you can follow. Your organization may have a staff development programme or in house training organization. This is often the case with government departments. There may be incentive programmes conducted by your government to increase the general level of skills, alternatively you may be able to incorporate relevant training in support offered by donors.

#### **A tool kit for successful project management<sup>9</sup>**

Successful projects are those that are delivered as promised, completed on time and to budget, produce the expected quality of outputs, meet the original purpose and stakeholders expectations and leave the project team satisfied and motivated to do. Below as shown in Table 17 is a set of real tools that with help any project manager to best manage any project. When reviewing the tools, remember that:

- The following tools represent the key information and thought processes that are needed to effectively manage a project
- Separate documents are not always needed. Relevant information, particularly in relation to a particular topic such as planning, can be grouped in to a single document
- Planning documents need to be reviewed and agreed to by the relevant project stakeholders and team members

As you can see, the following tools all fit neatly into the five essential components of project management, monitoring and evaluation, communication, managing risks and maximising opportunities, good organization, and good people management.

<sup>9</sup> The following draws heavily on 'Absolute Beginner's Guide to Project Management', Que Publishing but is substantially modified to meet the requirements of this training. See the original material see [www.quepublishing.com/title/0789731975](http://www.quepublishing.com/title/0789731975).

Have a look at the five key components of successful projects, and see if you can decide which tool will help with which component and why. For example, the Project Organization Chart/organogram will help ensure good people management because all team members will have a clear understanding of their roles and responsibilities and relationships with other members of the project team. This will reduce confusion and frustration.

**Table 17. Project Manager Tools** (some of these tools can be combined)

<b>Tool</b>	<b>Description</b>	<b>Benefit</b>	<b>Notes</b>
<b>Project Contract/ Agreement</b>	A document that authorises project and the project manager.	Provides official notice to the organization	Essential before any work starts on the project. Unless there is authorisation, there is no requirement by the donor to cover any costs incurred. Depending on the nature of the project, this is not always be a formal document; at a minimum, get email notification followed up by more formal documentation
<b>Project Definition document</b>	Often can be a logical framework. Defines project purpose, objectives, success criteria, and the scope of the work	Key for managing expectations, controlling scope, and completing other planning efforts	Some of these components can change in the development phase of the project or after the initial/inception phase of the project. It is important that the final definition of the project is clear for all participants
<b>Requirements/output Document</b>	Can also be in the Logical /frame work. Defines the specifications for products/ outputs of the project	Key for managing expectations and controlling scope	Essential for control of the quality of the outputs or products
<b>Project Schedule/or timeline</b>	Shows all work efforts and activities, reasonably estimated, assigned to responsible people and scheduled according to the calendar	Key for directing all project team work efforts; Key for managing expectations; Allows for impact and what-if simulations when things change	
<b>Milestone Chart</b>	It is a summary of the detailed project schedule/ timeline showing progress against key milestone	Allows stakeholders to see high level project progress on one page	Detailed work plans and timelines can be difficult to read and interpret; or to Incorporate into Status Reports. A simplified version allows for instant overview and tracking

Table 17. (Continue)

<b>Status Reports</b>	Periodic reviews of actual performance/outputs versus expected performance/ outputs	Provides essential information to stakeholders; Allows for timely identification of performance variances	Core tool
<b>Project Organization Chart/ sometime also called an organogram</b>	Shows the project team, partners, stakeholders, beneficiaries and the working relationships among them	Allows team members and all project participants to get a better understanding of project roles and organizational dynamics	On smaller projects, may be combined with project plan or project definition document
<b>Responsibility Matrix</b>	Defines all project roles and the responsibilities that go with that role including decision making responsibilities.	Key for managing expectations; Establishes accountability, Clarifies who should make what decision	As above, on smaller projects, may be combined with project plan or project definition document
<b>Communication Plan</b>	Defines the how, what, when, and who regarding the flow of project information with the project team, and to stakeholders including the donors, beneficiaries and partners	Key for managing expectations; Establishes buy-in	On smaller projects, may be combined with project plan or project definition document
<b>Monitoring and Evaluation Plan</b>	Defines the approaches and methods that will be utilized to monitor the project and manage the quality levels of project processes and results	Key for managing expectations regarding quality, performance, and compliance with planning and budgets	On smaller projects, may be combined with project plan or project definition document
<b>Staffing Management Plan</b>	Lists how project experts will be recruited, when they are needed, how much they are needed, and how long they will be needed	Key for building the schedule; Key for properly managing human resources	May also include role profiles, rates, training needs; On smaller projects, may be combined with project plan or project schedule.
<b>Risk Response/Risk management Plan</b>	Lists each identified risk and the planned response strategy for each	Communicates potential issues in advance Proactive measures help reduce impact to project	On smaller projects, may be combined with project plan or project definition document
<b>Project Plan</b>	Formal, approved document that is used to manage project execution	Includes all other supplemental planning documents; Key output of project planning	On smaller projects, it may combined with the project Project Schedule/ timeline
<b>Summary of the Deliverables</b>	Defines and lists all deliverables to be produced by the project	Key to managing expectations; Ensures proper visibility, tracking, and reporting of targeted deliverables	May be combined with status reports

Table 17. (Continue)

<b>Project Log</b>	Captures essential information for each project risk, issue, action item, and change	Ensures proper visibility, tracking, and reporting of items impacting the project	Can be combined with the Project file
<b>Project File</b>	Used by project manager to maintain official record of important project documents and deliverables	Part of managing project information	Electronic and/or hardcopy versions
<b>Terms and Conditions</b>	These are the rules or expectations by the donor for the conduct of the project.	Ensures that everyone is clear about what are the proper processes to follow and avoids breaches in the agreement with the donor that may come from	Usually these from part of the project contract/ agreement
<b>Standard Formats</b>	The particular form to be used each time an activity or process is required eg report formats, requests for changes in budget or activities, time sheets, expenses forms, requests for payment	Ensures consistency in project documentation and reporting, ensures all the required information is included and the proper processes followed, allows for clearer tracking and reporting	
<b>Administration guidelines/Procedures</b>	Outlines the proper processes to follow and which forms to use	Ensures that all the donor terms and conditions are met and the procedures required by your own organization are known and followed by the project team	Important when there are several countries involved to know in which country
<b>Grievance procedure/ Disputes Resolution Document</b>	Outlines the steps to follow when you are not happy with the conduct of another team member/project partner or how the project is being implemented. Outlines how disputes should be resolved and the legal basis for this resolution	Ensures the project team know how to address differences and disputes in a constructive way and also under which legal measures the dispute should be resolved	

## Project management software

There are several project management software available that help you to manage complex and or multiple projects. These software would remind you of upcoming tasks, deadlines, warn you if project tasks and events clash, help you to monitor roles, responsibilities, provides you space to share documents, comments etc. These software come in all shape and forms: desk-top, web-based, individual and collective use, for single and multiple projects, simple or complex projects etc. On-line (internet-based) project management software are especially useful when your project staff work in various geographical locations and the project has a tight schedule which requires frequent monitoring of milestones.

Consider, however, if and/or when you want to use project management software as it takes significant amount of time for keeping your project management system up-to-date. You may not really need computer software to manage simple projects.

In order to use any of these project management software effectively, you need to, however, fully master the basics of project design and management.

This is a list of open source and commercial project management software:

- List of recommended software: <http://www.teamtechnology.co.uk/project-management-software.html>
- PRINCE2 <http://www.citi.co.uk/open/Method-and-accreditation/PRINCE2/>
- Project Place (web-based) <https://projectplace.com/>
- Web Office (web-based) <http://www.weboffice.com>

### Activity 31

You will be brainstorming on the following question in the whole group: 'What do we need to do to achieve a successful project?'

### Activity 32

You will be interviewed with the following question in the whole group: 'Briefly outline what you found effective and useful in the delivery of your projects?'

### Activity 33

You will be invited to select a tool and explain what you understand the tool to be, how it is used and the value of it. This is a fun, whole group activity.

### Activity 34

You will be invited to reflect on what of your delivery and management skills you wish to further improve, followed by a discussion on how and where you can find opportunities.

## ■ Session 22

### Monitoring and Measuring Impact

#### Objectives

By the end of the session you will:

- be able to discuss the importance of treating the donor as partner
- develop shared understanding of how monitoring and evaluation can ensure successful project delivery
- be able to discuss the importance of involving partners in monitoring and evaluation
- develop shared understanding of common, typical problems, unexpected events which could hinder project implementation and how to 'put the project back to track'

#### ☑ Activity 35

You will be playing the role of a project manager in four situations (see below) where the project is taking unexpected direction.

You will discuss your project management suggestions from three perspectives:

- (1) How can you put the project back to track?
- (2) What monitoring tools could have you used in the past or could you in the future to prevent the current situation?
- (3) How do you communicate the situation with the donor?

#### Situation 1

*You are the project manager. The project is in its last year.*

A critical year in terms of making sure the technical innovations are accepted by all stakeholders. These technical innovations have been criticised as economically beneficial but socially and environmentally rather questionable measures.

You do not hear from one of your colleagues for two weeks. This colleague of yours is working for a partner organization, an excellent colleague, full of initiatives, great communicator, a key person in terms of getting things done, keeping good public relationship, raising the project profile, and having solid knowledge on appropriate technologies. Not hearing from him is rather unusual. You drop a few e-mails but no answer. You are just about calling when there is an e-mail from your missing colleague saying that he was hired for an important government job and he is leaving the project in a week.

1. How can you put the project back to track?
2. What monitoring tools could have you used in the past or could you in the future to prevent the current situation?
3. How do you communicate the situation with the partners?
4. How do you communicate the situation with the donor?

#### Situation 2

*You are the project manager. You are half way through a three year project.*



You achieved all planned objectives of year one in terms of number of participants, number of events and timeliness. The number of participants in your project activities is actually even higher than anticipated.

As you are preparing for a training of trainers event and you are doing a training needs assessment, you find out that people are asking for different set of knowledge and skills than you had planned in the proposal. The new situation requires new research. Your project is heading to a new direction.

1. How can you put the project back to track?
2. What monitoring tools could have you used in the past or could you in the future to prevent the current situation?
3. How do you communicate the situation with the partners?
4. How do you communicate the situation with the donor?

### **Situation 3**

*You are the project manager. It is still in the early phase of the project.*

This phase is just after the first half year report which reported on the establishment of the project office, and hiring a local coordinator. You are working a lot, putting in increasing number of hours and you are realising that you are picking up tasks what others were supposed to do but never happened.

You feel frustrated as your project is just at the beginning but already behind timeline.

1. How can you put the project back to track?
2. What monitoring tools could have you used in the past or could you in the future to prevent the current situation?
3. How do you communicate the situation with the partners?
4. How do you communicate the situation with the donor?

### **Situation 4**

*You are the project manager. Your project is half way through.*

You are drafting the mid term report and as you are flicking through the previous progress reports, you realise how activities have been completed but also how difficult to work with your partners, how difficult to coordinate with them, e.g. events clash and do not follow your original project plan, and they have not even sent you the necessary information and data to report against project objectives, and the logical framework... so do not even know if the project is on track in spite of all the activities. You wonder why.

1. How can you put the project back to track?
2. What monitoring tools could have you used in the past or could you in the future to prevent the current situation?
3. How do you communicate the situation with the partners?
4. How do you communicate the situation with the donor?

## Situation 5

*You are the project manager. Your project is approaching to the end of the first year.*

You are drafting the annual financial report and you realise that you still have a lot of money, you have under-spent.

1. How can you put the project back to track?
2. What monitoring tools could have you used in the past or could you in the future to prevent the current situation?
3. How do you communicate the situation with the partners?
4. How do you communicate the situation with the donor?

## ■ Session 23

### Reporting

#### Objectives

By the end of the session you will:

- be able to list guidelines for writing reports and keeping the donors informed
- analyse examples of effective project reports of various level of complexity (mid-term; final; activity report; financial report)
- be able to discuss the importance of involving partners in writing reports
- be able to list three effective tools for disseminating project results

#### ***Provide regular reports to the donor***

In discussions about the operating agreement, the project donor will indicate what they expect from the executing agencies in terms of reporting. Donors usually provide guidelines about the frequency, level of detail and types of issues that should be covered in a regular report, as well as identifying the kinds of issues that should be discussed directly with the donor, rather than in a report. Familiarise yourself with the report guidelines and contact the donor if in doubt.

Most donors provide report formats. These formats require you to re-visit your proposal, your goal, report on the progress made towards your objectives. Most donors require you to report on the categories of the project logical framework.

#### ***Involving partners in reporting***

As you involve your partners in monitoring and evaluation, you may also want to engage your partners in writing reports. The joint writing process adds extra clarity, highlights the key achievements and consolidates the sense of ownership. A joint writing process requires setting clear roles and responsibilities, allocating plenty of time, so be prepared to develop a plan before each reporting period leaving generous amount of time both for exchanging notes between partners and finalising the report (copyediting, proofreading, binding, burning a CD-ROM with all attachments, photos etc.).

#### ***Support appropriate publicity and public relations***

There are usually several different groups who are interested in a project and its results, in addition to the project partners, donors and stakeholders. Others who work in a similar or related field, government agencies, political representatives, and the general population in the area are likely to be interested in how the project is going. The nature of the project and, sometimes the donor's guidelines, will determine

when and how information about the project should be provided to these interested parties. Project team members may be asked to host officials or visiting experts and to explain the project to them, to provide information for press releases, or to help plan an event, (for example, an official launch, or a celebration of a project achievement, such as the first graduates from a programme). Project team members may also want to report to colleagues on the project at academic or scientific meetings. In general, provision of interim information should be cleared with project colleagues and the donor.

### ***Prepare the final report***

Almost all project donors will require a final report. If project partners have been maintaining their records and keeping progress notes throughout the project, it will make it much easier to prepare the final report. Other stakeholders, such as government agencies, may also require a final report. It may save time if the project partners can reach an agreement with donors and stakeholders that one final report will meet the needs of all concerned, but this is not always possible. In some cases, it may be more efficient to produce separate reports that address the specific concerns of donors and stakeholders: trying to prepare a large report that addresses very diverse issues may result in an unwieldy, less effective document.

The resources for the report will include the project workplan, evaluation plan, budget, progress reports and evaluation reports, and the original project proposal. The project proposal provides a point of reference, explaining what the project intended to achieve when it was first envisioned. It also serves as a means of comparing the situation at the time the project was planned with the situation when the project has been completed.

The contributions of those who helped with the project should be acknowledged appropriately: these include the donors, partners, stakeholders and individuals outside the project who provided advice and support.

### ***Disseminate results***

Some donors require that results of a project are disseminated, that is, that they are made available widely within the field. This entails, in addition to the project report, publication of findings in appropriate journals, presentations at conferences, communication with colleagues in related areas, and in some cases, planned publicity activities, such as presentations and interviews in the media.

### **Activity 41**

Having learned about key reporting tips, you will be analysing a project report by the donor's reviewing guidelines in the whole group. You will be playing a reviewer who has not met the project partners and has not visited the project before either.

## ■ Session 25

### Next Steps

#### Objectives

By the end of the session you will have:

- developed steps and timeline to share your knowledge and skills gained at this workshop with your colleagues for the completion of developing your own proposal
- re-visited the learning objectives and activities of the five the training workshop
- reflected on your sense of achievements compared to your expectations
- formulated key lessons learned
- evaluated the workshop and provided feedback for the improvement of similar Project Design and Management training workshops in the future
- received the certificate for attending this training programme

#### ☑ Activity 37

You will be invited to list the first steps for activities you need to do right after the workshop to complete the proposal you drafted in this project.

#### ☑ Activity 38

You will be revisiting your training goal and objectives with 'walking' through the five day schedule and activities, followed by checking your original expectations.

You will be using a simple technique to discuss the following two questions:

1. 'To what extent have you achieved your expectations?'
2. 'What are the key lessons you are taking from this workshop?'

#### ☑ Activity 39

An individual activity, fill out and submit the workshop evaluation form.

Resource needed:

- Workshop Evaluation Form

## English &amp; Arabic

English	Arabic
<p><b>Appropriate resources:</b> Resources that contribute to the sustainability of project outcomes. Appropriate resources are locally available, environmentally sound, low cost, culturally acceptable, technologically appropriate</p>	<p><b>الموارد الملائمة:</b> المصادر التي تساهم في استدامه نتائج المشروع. الموارد الملائمة تكون متاحة محليا ، سليمة بيئياً منخفضة التكلفة ، ومقبولة حضارياً ، وذات تكنولوجيا ملائمة</p>
<p><b>Beneficiary:</b> A person or group whose lives the project plans to improve in some way</p>	<p><b>المستفيد:</b> أي شخص أو مجموعه يخطط المشروع لتحسين حياتهم بشكل أو بآخر.</p>
<p><b>Budget:</b> A budget is a plan of itemised project expenses that helps allocate resources</p>	<p><b>الميزانية:</b> الميزانية هي خطة بند مصروفات المشروع التي تساعد على تخصيص الموارد.</p>
<p><b>Concept note:</b> The project concept note describes the ideas about what can be done within a specified period of time, to deal with a particular problem or situation; a situation that requires more time and resources than is normally available to an organization. In other words, the project concept note represents a collective vision of those directly involved in planning the project, and describes the rationale, goals, objectives, activities, and expected outcomes of the project</p>	<p><b>مفهوم المذكرة:</b> مفهوم مذكرة المشروع يصف الأفكار حول ما يمكن القيام به خلال فتره زمنيه محددة ، التعامل مع المشكلة او الموقف لوضع يتطلب عادة مزيداً من الوقت وموارد أكثر من المتاح. وبعبارة أخرى ، فان مفهوم المشروع يمثل رؤية جماعية للمتدخلين مباشره في تخطيط المشروع ، ويصف الاسباب والغايات والاهداف والأنشطة والنتائج المتوقعة من المشروع</p>
<p><b>Deliverables:</b> See Outputs</p>	<p><b>المسلمات:</b> أنظر النتائج</p>
<p><b>Evaluation:</b> Evaluation is a planned, systematic process that assesses an achievement by preset criteria. Evaluation determines to what extent the achievements (results, impacts, outputs, outcomes) are comparable with the original intended purposes, and what lessons can be learned for the next planning and management cycle</p>	<p><b>التقييم:</b> التقييم عملية مخططة ومنظمة لتقييم انجازاً بناء على مجموعة من المعايير. التقييم يحدد مدى الانجازات (المتحصلات ، الآثار ، المخرجات ، والنتائج) المقصودة ، وما هي الدروس التي يمكن استخلاصها للتخطيط المقبل ودورة الإدارة</p>

<p><b>Executing agency:</b> An organization that carries out a project with the support of other organizations or governments. (See also implementing agency)</p>	<p><b>الهيئة المنفذة:</b> المنظمة التي تنفذ المشروع بمساعدة منظمات أخرى أو حكومات. (انظر أيضا الهيئة المطبقة)</p>
<p><b>Gantt chart:</b> A Gantt chart is a visual project design and management tool which lists all project tasks and their relationship to time. Designing a Gantt chart helps you to analyse, schedule and monitor tasks, and allocate resources on time and efficiently. Henry Gantt (1861-1919) was an American engineer who invented and used this simple technique for the first time which has been used ever since under his name by all managers and planners</p>	<p><b>مخطط غانت:</b> مخطط وأداة تصميم وإدارة المشروع يتضمن جميع المهام وعلاقتها بالوقت. غانت مخطط يساعد على تحليل جدول المهام ، ومتابعه ورصد الموارد في الوقت المناسب وبكفاءه. هنري غانت (1861-1919) مهندس أميركي مخترع هذه التقنية البسيطة المستخدمة تحت اسمه من قبل جميع المديرين والمخططين</p>
<p><b>Goal:</b> The goal describes in broad terms what the project hopes to achieve. In other words, it describes how the situation will change as a result of your project being implemented</p>	<p><b>الغاية:</b> توصف الغاية بعبارة عامه عن ما يأمل المشروع في تحقيقه. وعبارة أخرى تصف كيفية تغيير الوضع نتيجة أن المشروع قيد التنفيذ</p>
<p><b>Impact:</b> Impact is a significant and direct influence. Project impact generally describes effects that will continue beyond the timeframe of the project or beyond the region where the project is situated, and refers to the broader development, research or policy implications that result from the project. Consider the following questions: How might the project influence policy formulation and implementation? How might it impact development processes at the local, national and regional levels? How might it affect the sustainability of the local economy over the longer term? Could the results be used in other settings? What contribution could they make to existing technical and scientific knowledge?</p>	<p><b>الأثر:</b> تأثير كبير ومباشر. اثر المشاريع عموما يصف الآثار التي ستظل خارج الاطار الزمني للمشروع او خارج المنطقه التي يقع المشروع ، وتشير إلى زيادة التطوير والبحوث والسياسات العامة الناشئة عن المشروع. بحث الأسئلة التالية : كيف يمكن ان يؤثر المشروع في صياغة وتنفيذ السياسات؟ كيف يمكن ان يؤثر في عمليات التنمية المحليه والوطنيه والاقليميه؟ كيف يمكن ان يؤثر علي استدامة الاقتصاد المحلي علي المدى الطويل؟ هل يمكن استخدام النتائج في مواقع أخرى؟ اي اسهام يمكن ان تقدمه التقنية والمعرفة العلمية؟</p>
<p><b>Implementing agency:</b> An organization that carries out a project with the support of other organizations or governments. (See also executing agency)</p>	<p><b>الهيئة المطبقة:</b> المنظمة التي تنفذ المشروع بمساعدة منظمات أخرى أو حكومات. (انظر أيضا الهيئة المنفذة)</p>

<p><b>Indicator:</b> A measure that can be used to determine the performance of functions, processes, and outcomes over time. It should be easy to measure, practical and sensitive to the smallest changes of performances</p>	<p>المؤشر: المقياس الذي يمكن ان يستخدم في تحديد اداء المهام والعمليات والنتائج علي مر الزمن. وينبغي ان يكون سهل القياس وحساس لأدنى تغيير في الأداء</p>
<p><b>In-kind contribution:</b> This term generally refers to a financial contribution to a project made by the project proponents, partners, or stakeholders</p>	<p>مساهمة عينية: ويشير هذا المصطلح عموما الي المساهمه ماليا في المشروع المقدم من مؤيدي المشروع والشركاء ، او اصحاب المصالح</p>
<p><b>Input:</b> See 'Resource'</p>	<p>المدخلات: انظر 'المصدر'</p>
<p><b>Lead partner:</b> See 'Project proponent'</p>	<p>شريك رئيسي: انظر 'انصار المشروع'</p>
<p><b>Logical Framework Approach (LFA):</b> The Logical Framework Approach is an objective-oriented project planning method to help those who want to prepare and implement projects in planning, assessment, follow-up and evaluation of projects in order to ensure good and long lasting results</p>	<p>نهج الاطار المنطقي: نهج الاطار المنطقي هو نظام التخطيط بالأهداف لتصميم المشروعات يساعد الذين يرغبون في اعداد وتنفيذ مشاريع في مجالات تخطيط وتقييم ومتابعة المشاريع من أجل ضمان جودة ودوام النتائج</p>
<p><b>Methodology:</b> The methodology section describes how your project will be planned and implemented in order to achieve your goals and objectives. It includes the strategies, activities, and timelines for the project. This section also describes what will be done, by whom, and when</p>	<p>المنهجية: المنهجية قسم يصف كيفية تخطيط وتصميم المشروع من أجل أن يحقق أهدافه ومقاصده. وتشمل الاستراتيجيات والانشطة ، والجداول الزمني للمشروع. يصف هذا الجزء ايضا ما ينبغي عمله من قبل من ومتي</p>
<p><b>Milestones:</b> A milestone is a scheduled significant time or event in a project when certain activities are completed, their outputs are delivered</p>	<p>المعالم: المعلم هو محدد المدة الزمنية المناسبة أوحدث بالمشروع عند الانتهاء من بعض الأنشطة والنواتج المقدمة.</p>

<p><b>Monitoring:</b> Monitoring is a planned, systematic process that closely follows a process and compares the actual values with the expected ones. Monitoring the GEO process makes sure the environmental assessment reaches its intended purposes within the scope of allocated resources (time, financial, human, informational, technical etc.)</p>	<p><b>الرصد:</b> الرصد هو عملية مخططة ومنظمة لمتابعة ومقارنة القيم الفعلية بالمتوقعة. عملية الرصد الجغرافي تضمن وصول التقييم البيئي للأغراض المقصودة في نطاق الموارد المخصصة (زمنية ومالية وبشرية وتقنية وإعلامية الخ)</p>
<p><b>Objective:</b> Objectives describe the benefits of the project in specific, measurable terms. Project objectives should be able to be assessed, even if not all of them lend themselves to quantitative analysis. They are generally associated with project 'outputs,' i.e. 'to train 8500 forestry workers in appropriate management practices in riparian areas'</p>	<p><b>الهدف:</b> الأهداف تصف فوائد المشروع المحددة القابلة للقياس. أهداف المشروع يجب ان تكون قابلة للتقييم ، حتى لو ليست كلها تصلح للتحليل الكمي. عادة ما تكون المشاريع مرتبطة 'بالمخرجات' مثلاً " لتدريب 8500 من العاملين في الغابات بممارسات الإدارة الملائمة في المناطق الساحليه'</p>
<p><b>Outputs:</b> The outputs are the short-term, or immediate results of the project</p>	<p><b>المخرجات:</b> والمخرجات هي نتائج المشروع قصيرة المدى</p>
<p><b>Outcome:</b> The outcome of the project addresses broadly how the situation or problem will change as a result of project implementation. The outcome of the project is therefore reflected in the project goal</p>	<p><b>النتيجة:</b> نتائج المشروع توضح كيفية تغير الوضع أو المشكلة نتيجة تنفيذ المشروع. نتائج المشروع تنعكس في الغاية</p>
<p><b>Parallel task:</b> A parallel task does not depend on the completion of other tasks within a certain period of the project. E.g. creating a website to communicate results</p>	<p><b>مهمة بالتوازي:</b> وهي المهمة التي لا تتوقف علي انجاز المهام الاخرى خلال فتره زمنية معينه في المشروع. مثلا انشاء شبكه لإتصال النتائج</p>
<p><b>Participatory development:</b> An approach that maintains that improving the social, economic and environmental situation must entail active involvement and decision making on the part of those most directly affected by the initiative</p>	<p><b>التنمية القائمة علي المشاركة:</b> نهج يري ان تحسين الحالة الاجتماعية والاقتصادية والبيئية يجب ان تتضمن المشاركة وصنع القرار من جانب البلدان الاكثر تضررا من هذه المبادره</p>



<p><b>Partners:</b> Those organizations that have direct accountability for planning and implementing the project. Unlike a legal or business partnership, the cooperative arrangement to participate in a joint project normally lasts on a formal basis only for the duration of the project.</p>	<p><b>الشركاء:</b> تلك المنظمات التي لها المسؤولية المباشرة عن تخطيط وتنفيذ المشروع. خلاف الشراكة القانونية والأعمال التعاونية في مشروع مشترك تستمر عادة علي اساس رسمي فقط خلال مدة المشروع</p>
<p><b>Primary contact:</b> Staff members in one's own organization, professional colleagues, agencies.</p>	<p><b>الاتصال الأولي:</b> الموظفين بمنظمة مملوكة ، الزملاء المتخصصين والوكالات</p>
<p><b>Project:</b> A project can be defined as an initiative to achieve specific goals that are related to, but go beyond, the normal mandate of an organization or institution, and require additional resources beyond the usual capacity of the organization or institution. A project is designed to meet an identified need. The word 'project' comes from Latin: <i>projectum</i> ' something thrown forth, ' from <i>pro-</i> 'forward' + combining form of <i>iacere</i> (pp. <i>iactus</i>) 'to throw'</p>	<p><b>المشروع:</b> المشروع يمكن ان يعرف كمبادرة لتحقيق أهداف محددة ذات صلة ، وتتجاوز القدرة البشرية العادية لأية منظمة أو مؤسسة ، وتتطلب موارد اضافيه تتجاوز قدرة المنظمة أو المؤسسة العادية. المشروع يهدف الي تلبية الاحتياجات المحدده. كلمه 'المشروع' تأتي من اللاتينية : بروجيكتوم' ما ألقى الي الامام '+ الجمع شكل ياسيري (باكتوس) 'رمي'</p>
<p><b>Project Cycle:</b> The project cycle covers the life of a project from identification of needs and priorities until the completion of work and evaluation of results. Main steps include: project identification, preparation, appraisal/negotiation, implementation and follow-up and evaluation</p>	<p><b>دوره المشروع:</b> دوره المشروع تتناول حياه المشروع من تحديد الاحتياجات والاولويات حتي الانتهاء من العمل وتقييم النتائج. الخطوات الرئيسية في المشروع : تحديد المشاريع وتقييمها والإعداد والتفاوض والتنفيذ والمتابعه والتقييم</p>
<p><b>Project design:</b> A planning process that defines the key elements and structure of a project</p>	<p><b>تصميم المشروع:</b> عمليه التخطيط التي قد تحدد العناصر الأساسية وتشكيل المشروع</p>

<p><b>Project implementation:</b> This refers directly to project activities. These would typically include non-administrative activities of staff or consultants that deal with the substance of the project, training for staff or participants involved in the project, research, and production of resource materials or reports</p>	<p><b>تنفيذ المشروع:</b> هذه اشارة مباشرة إلى أنشطة المشروع. وتشمل أنشطة غير إدارية للموظفين أو الاستشاريين المتعاملين مع جوهر المشروع ، تدريب الموظفين والمشاركين في هذا المشروع ، البحوث ، وإنتاج المواد المرجعية أو التقارير</p>
<p><b>Project management:</b> This refers to all aspects of management and administration associated with coordinating the project. It typically includes staff time and communications for meetings with project team members and other stakeholders about project management issues, accounting and record keeping, and travel related to project management</p>	<p><b>ادارة المشاريع:</b> وينطبق هذا علي جميع الجوانب التنظيمية والادارية المرتبطة لتنسيق المشروع. وعادة ما يتضمن وقت الموظفين والاتصالات لعقد اجتماعات مع اعضاء فريق عمل المشروع والمعنيين الآخرين بشأن قضايا ادارة المشاريع والمحاسبه ومسك الدفاتر والسفر المتعلقة بإدارة المشروع</p>
<p><b>Project proponents:</b> Those who are directly involved in making plans and in actively supporting and implementing the project. A person or group that puts forward a proposal</p>	<p><b>أنصار المشروع:</b> يشاركون مباشرة في وضع الخطط ودعم المشروع وتنفيذه. أي شخص أو جماعه تقدم مقترح</p>
<p><b>Project proposal:</b> A document that describes the details of a potential project, including the outcomes, outputs, major risks, costs, stakeholders and an estimate of the resources and time required. Project proposals are often solicited by a formal Request for Proposals (RFP) by donor agencies, private clients</p>	<p><b>المشروع المقترح:</b> وثيقة تصف تفاصيل المشروع المحتملة ، بما في ذلك نتائج المخرجات الرئيسية والمخاطر والتكاليف والمعنيين وتقدير الوقت والموارد المطلوبة. مقترحات المشاريع تطلب طلباً رسمياً من قبل الوكالات المانحة أو العملاء</p>
<p><b>Rationale:</b> The rationale section of a project proposal outlines why the project is an appropriate way of addressing the issue, and why the project is suitable given the available resources</p>	<p><b>المنطق:</b> يتضمن القسم المنطقي الخطوط العريضة لاقتراح المشروع وأسباب مناسبة للمشروع لمعالجة موضوع ما ، ولماذا هذا المشروع مناسب نظراً للموارد المتاحة</p>
<p><b>Resource:</b> Resource is anything - not only money and material - that is needed to reach the project objectives. Resources are also referred to as 'inputs'.</p>	<p><b>المورد:</b> المصدر أي شيء ليس فقط المال أو المواد لتحقيق أهداف المشروع. يشار للمصادر أيضاً بالمدخلات .</p>

<p><b>Responsibility Matrix.</b> When a project entails a number of partners and stakeholders, it is sometimes useful to prepare a responsibility matrix that outlines who is responsible for implementing specific categories of activities, who is kept informed, who will advise, and the timeline for all of these. An example of a responsibility matrix can be found in the tools section of this course</p>	<p>مصفوفة المسؤولية: عندما المشروع يتضمن عددا من الاطراف والجهات المعنية ، يكون في بعض الأحيان من المفيد أعداد مصفوفة المسؤولية التي تحدد من هو المسئول عن تنفيذ فئات محددة من الأنشطة ، من يعلم ، من يقدم المشورة والزمن لكل منها. مثال مصفوفة المسؤولية يمكن العثور عليها في قسم أدوات هذه الدورة</p>
<p><b>Responsibility:</b> A duty, a course of action demanded and entrusted by other members of the project</p>	<p>المسؤولية: واجب لإجراء المطلوب والمعهود من الاعضاء الاخرين في المشروع</p>
<p><b>Role:</b> A role in a project can be defined as a function, a position which has characteristic behaviour</p>	<p>الدور: يعرف الدور في المشروع بالوظيفة ، وهو عمل له سلوك مميز</p>
<p><b>Secondary contact:</b> An individual or organization recommended by primary contacts</p>	<p>الاتصال الثانوي: الفرد أو المنظمة التي أوصي بها الإتصال الأولى</p>
<p><b>Sector:</b> A distinct category of society characterised by its particular role and relationship with society and the economy. For example, government is part of the public sector; corporations are usually part of the private sector.</p>	<p>القطاع: فئة متميزة في المجتمع مميزة بدور محدد وعلاقتها بالمجتمع والاقتصاد. فعلي سبيل المثال ، ان الحكومه جزء من القطاع العام. والشركات عادة جزء من القطاع الخاص</p>
<p><b>Sequential task:</b> A sequential task that depends on the completion of another task. For example you can not start proof-reading a document before you complete the narrative</p>	<p>المهمة المتسلسلة: وهى المهمة التي تتوقف علي انجاز اي مهمة اخري. فعلي سبيل المثال لا يمكنكم البدء في تصحيح وثيقة قبل اكمال السرد</p>
<p><b>'SMART' objective:</b> Objective which is specific (S), measurable (M), achievable (A), realistic (R) and time-bound (T)</p>	<p>الهدف الذكي: هدف محدد ، يمكن قياسه ، واقعي ، ومحدد زمنيا</p>

<p><b>Stakeholders:</b> Those who have an interest in the project, because they will be directly or indirectly involved in it, or because they will be affected by it. They have a 'stake' or an investment in the process and the outcome</p>	<p>المعنيين: من لهم مصلحة في المشروع ، سواء مباشرة أو غير مباشرة ، أو لأنهم سيتأثرون به. لهم منفعة أو الإستثمار في هذه العملية ونتائجها</p>
<p><b>Strategies:</b> Strategies provide a broad picture of what will be done to achieve goals, and generally include the main organizational approaches required for both programme management and programme implementation</p>	<p>الاستراتيجيات: الإستراتيجيات تقديم صورته عامه لما يمكن عمله لتحقيق أهداف عامه ، وتشمل الطرق الرئيسية التنظيمية اللازمة لإدارة وتنفيذ البرامج</p>
<p><b>Sustainability:</b> The capacity to continue operations with the resources available after project funding has ended</p>	<p>الاستدامة: القدرة علي مواصلة العمليات بالموارد المتاحة بعد إنتهاء تمويل المشروع</p>
<p><b>'SWOT' analysis:</b> An analytical planning and management tool which lists the project's (or organization's, individual's) internal strengths (S), weaknesses (W), as well as explores the external opportunities (O) and threats (T)</p>	<p>تحليل (سوت): أداة تخطيط وإدارة تحليلية تعرض القوه الداخليه للمشروع (او المنظمة ، والفرد) ونقاط الضعف وكذلك بحث الفرص الخارجية ، والتهديدات</p>
<p><b>Synergy:</b> The increased capacity for action resulting from the combined efforts of individuals or groups with complementary skills and resources, achieving more together than could be done separately.</p>	<p>التعاون: ازدياد القدرة علي العمل نتيجة تضافر جهود الافراد او الجماعات مكمله بالمهارات والموارد ، تحقيق المزيد كمجموعة عن ما يمكن عمله علي حده</p>
<p><b>Task:</b> Tasks are specific actions that need to be undertaken to achieve objectives</p>	<p>المهمة: المهام هي إجراءات محددة التي يتعين القيام بها لتحقيق الأهداف</p>
<p><b>Win-win situation:</b> A situation in which two or more groups each meet their own distinct interests through collaboration or conflict resolution</p>	<p>وضع التوفيق: حالة وجود فئتان أو أكثر تلبى مصالح مشتركة عن طريق التعاون وفض المنازعات</p>

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<http://learning.ifpri.org/>

International Development Research Centre, Canada  
[www.idrc.ca](http://www.idrc.ca)

International Institute for Environment and Development, UK  
<http://www.iied.org/>

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<http://www.macfound.org/site/c.1kLXJ8MQKrH/b.855229/k.CC2B/Home.htm>

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## Case Study - Lake Manzala, Egypt

Improving Lake Manzala's Water Quality through Lake Manzala Engineered Wetland

### 1. Basic information

#### 1.1. Basic information about the proposed project

<b>Project Title</b>	<b>Improving Lake Manzala's Water Quality through Lake Manzala Engineered Wetland</b>					
Project Acronym (abbreviation)	LMEWP					
TIMEFRAME	START	1-1-2006	END	31-12-2007	DURATION	24 month

#### 1.2 Information about project proponent / lead partner organization

<b>Organization Name:</b>	Drainage Research Institute		
<b>Address:</b>	Delta Barrage , Cairo, Egypt		
<b>Date established:</b>	1975		
<b>Hours of operation:</b>	9 a.m. to 3 p.m.		
<b>Website:</b>			
<b>Name and title of contact:</b>	Prof. Hussam Fahmy		
<b>Phone:</b> (202) 2189383	<b>Fax:</b> (202) 2189153	<b>Email:</b> dri@dri-eg.org	

### 2. Project Description and Summary

This project, being implemented by the Egyptian Environmental Affairs Agency, is demonstrating an approach to achieving sustainable development while addressing deteriorating water quality in Lake Manzala. The project will empower local residents and build the capacity of nongovernmental organizations and government institutions to achieve Egyptian self-sufficiency in an innovative technology. The project's specific objectives include:

- (a) promote sustainable development by enhancing environmental and economic opportunities at the local and national levels
- (b) construct and operate a demonstration wetland that will treat 25 000 to 50 000 cubic meters of wastewater per day before entering Lake Manzala

Lake Manzala is located on the North-Eastern edge of the Nile Delta. The lake discharges to the Mediterranean Sea west of Port Said and the Suez Canal. The Lake is exposed to pollutants from industrial, domestic, and agricultural sources. Five major drains carry irrigation return flows to the lake. Bahr El Baqar Drain is the largest and most polluted of the five drains, it travels 150 kilometres from Cairo to Lake Manzala and drains approximately 270 000 hectares. The average flow of approximately three million cubic meters per day carries particulates, nutrients, metals, organics and toxic compounds from spent irrigation waters, municipal and industrial discharge, and non-point sources of pollution.

Pollutant inflows to Lake Manzala have severely impacted the lake and threaten the Mediterranean Sea. Efforts to protect the lake include improved wastewater treatment of municipal and industrial point sources, primarily in Cairo. In addition, alternatives have been considered for directly treating polluted drain water before it enters the lake. The Lake Manzala Engineered Wetland Project creates artificial transitional zones between terrestrial and aquatic systems. They trap sediments and pollutants, cycle

nutrients, and reuse treated water in agriculture. Engineered wetlands are anticipated to provide an economically and environmentally sound alternative to traditional wastewater treatment facilities.

The Egyptian Environment Affairs Agency (EEAA) has initiated the design and construction of a 20 hectares engineered wetland, operated in year 2001. The Global Environmental Facility / United National Development Program (GEF/UNDP) funds the project, with a main objective of treating 25 000 m<sup>3</sup> per day of the polluted drainage water as a demonstration for low cost technique for wastewater treatment to protect the ecology of Lake Manzala and Mediterranean Sea.

### Site description

Lake Manzala, the largest of Egypt's Mediterranean wetlands and the most productive for fisheries, is located in the north-eastern corner of the Nile delta. Manzala is generally rectangular in shape, about 60 km long and 40 km wide, and has an average depth of 1.3 m. It is separated from the Mediterranean Sea by a sandbar, through which it is connected to the sea by three channels (bughaz).

The salinity in the lake varies greatly; while it is low near drain and canal outflows in the south and west, it is high in the extreme north-west. Brackish conditions predominate over much of the remainder of the lake. Over 1 000 islands of varying sizes are scattered throughout the lake.

The three main habitats are reed-swamps, saltmarshes and sandy areas. The reed-swamps of *Phragmites* and *Typha*, with associated submerged water-plants (e.g. *Potamogeton* and *Najas*), are found extensively in the less saline portions of the lake in the south and west and fringing many islands. Saltmarshes of *Juncus* and *Halocnemum* occur on the northern (coastal) margins of the lakes and some islands. Sand formations are occupied by several plant communities, e.g. coastal dunes. Open water and mudflats are also important habitats for birds. Large areas in the north-west of the lake have been turned into fish-farms, while much of the southern part of the site (south of 31°10' N) has been divided into large plots and drained, in preparation for its conversion to agricultural use.

A total of 3.7 km<sup>3</sup> of fresh water (mostly from agricultural drainage) flow annually into Lake Manzala from nine major drains and canals. The most important of these are Faraskur, Al Sarw, Baghous, Abu Garida and Bahr El Baqar. Of all the drains discharging into Lake Manzala, Bahr El Baqar drain is the most polluted. It carries a mixture of treated and untreated waste-water originating from Cairo and contributing much to the deteriorating water quality of the lake. Bughaz El Gamil is the main connection between the lake and the Mediterranean. Several other less important sea connections have recently been enlarged.<sup>10</sup>

### Activities

#### 1. Capacity building

This component will increase capability for sustainable development in managing Lake Manzala, including local and national participation. This involves activities to:

- (a) strengthen and promote community involvement in environmental management activities
- (b) build capacity and develop human resources to ensure that the engineered wetland can be operated and replicated on a regional scale
- (c) disseminate lessons and experiences of the project at global, national, and community levels

<sup>10</sup> BirdLife International 2005 *BirdLife's online World Bird Database: the site for bird conservation*. Version 2.0. Cambridge, UK: BirdLife International. Available: <http://www.birdlife.org> (Accessed 11 June 2006)



## **2. Engineered wetland technology**

This component will demonstrate a low-cost, efficient method of treating large bodies of water in Egypt and promoting a cleaner Mediterranean Sea. This will involve:

- (a) completing preconstruction planning and activities
- (b) constructing the demonstration wetland treatment system, sediment pond, engineered wetlands, and aquaculture facility
- (c) implementing innovative wetland technology
- (d) establishing a monitoring and evaluation system to enable the Egyptian Environmental Affairs Agency to maintain the wetlands' expected performance levels

In addition, biomass will be harvested and processed into marketable products. The clean effluent water will be used for an aquaculture facility to produce juvenile fish stock for the lake and other aquaculture ventures.

### **Benefits**

1. Reduce pollution flowing into Lake Manzala and the Mediterranean Sea, protect diversity and enhance habitats of fish, bird, and other aquatic species Reduce emissions of greenhouse gases from anoxic drain water.
2. Improve economic well-being and health of local residents Strengthen local and national institutions in project delivery and implementation
3. Demonstrate sustainable, low-cost alternative to traditional waste treatment and increase environmental awareness of local citizens.<sup>11</sup>

## **SEVEN STEPS**

### **STEP 1: Identify, State and Clarify the Problem:**

The water quality of Lake Manzala is poor. The polluted water threatens:

- (1) Health - causing diarrhoea, hepatitis, kidney failure and other water born diseases (e.g. malaria)
- (2) Economy - due to
  - (a) Absence of high value fish varieties with lake water sweetening
  - (b) Sedimentation which makes fishing difficult for large fishing boats
  - (c) Weakened livestock which is threatened by contaminated drinking water
- (3) Habitats - resulting in losing ecosystem services and the international status of being 'Important Bird Area'
- (4) Mediterranean Sea - as Lake Manzala communicates with the Mediterranean Sea

### **STEP 2: Analyze the Problem by Gathering Facts and Information:**

The pollution is directly related to the incoming drainage water discharging mixed industrial, communal and agricultural contaminants into the lake.

Five major drains carry irrigation return flows to the lake. The Bahr El Baqar Drain is the largest and most polluted one. It travels 150 kilometres from Cairo to Lake Manzala and drains approximately 270 000 hectares, including Cairo. The average flow is approximately three million cubic meters per day.

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<sup>11</sup> IW LEARN: International Waters Learning Exchange and Resource Network:

[http://www.iwlearn.net/iw-projects/Fsp\\_112799468063/view?searchterm=None](http://www.iwlearn.net/iw-projects/Fsp_112799468063/view?searchterm=None) (Accessed 11 June 2006)

The water carries particulates, nutrients, metals, organics and toxic compounds from used irrigation waters, municipal and industrial discharge, and non-point sources of pollution. In addition, the local communities living on the five big and several smaller islands in the lake generate further pollution.

### **STEP 3: Develop Alternative Solutions:**

Efforts to improve Lake Manzala's water quality included:

1. Improving the current wastewater treatment of municipal and industrial point sources, primarily in Cairo
2. Treating the polluted drain water directly before it enters the lake
3. Creating an engineered wetland with artificial transitional zones between terrestrial and aquatic systems which could trap sediments and pollutants, cycle nutrients, and reuse treated water in agriculture

#### ***1. Improving the current treatment process and installing new facilities***

To further improve wastewater treatment of municipal and industrial point sources, primarily in Cairo would require improving the current treatment process and installing new facilities which are resource intensive and very expensive large scale investments.

However, even if the improvement of current facilities and the installation of new ones had been implemented satisfactorily, the pollution of Lake Manzala would still persist because of the small villages disposing raw sewage directly to the drains connected with the Lake. Moreover, hundreds of scattered houses along the drain-banks would also continue contributing to non-point pollutions.

#### ***2. Direct treatment of the polluted drain water before it enters the lake***

For this solution, we need to consider that treating polluted water is much more effective and economic when the treatment takes place as close as possible to its source rather than being far away, a long distance down the drain.

In addition, this solution would also require finding appropriate treatment technologies that could cope with mixed (domestic, agriculture and industrial) pollutant loads. Separating different types of pollutant is the key of selecting treatment facility at a reduced cost. Mixing more than one pollution type also means increasing treatment cost.

#### ***3. Engineered wetland***

Having studied other engineered wetlands, it is anticipated that this solution could provide an economically and environmentally sound alternative to traditional wastewater treatment facilities (e.g. items 1 & 2).

Other similar engineered wetland projects studied for sewage treatment in Egypt are:

1. Abu Atwa, Ismailia Governorate - Constructed wetland
2. Samaha village (12 000 ) - Subsurface wetland with alum application and sand filtering

Benefits of engineered wetlands:

1. The treated water may be reused in agriculture production and aquaculture
2. Harvested vegetations from the wetland - e.g. reed, cattail - may be recycled through bio-gas production or as fodder when environmentally safe

**STEP 4: Select the Best Solution:**

The Egyptian Environment Affairs Agency has selected the engineered wetland as the best solution based on the following:

- The reduced treatment cost compared with the high costs of conventional treatment options
- The availability of lands for wetland constructions (donated from government)
- Flexibility of wetlands for treating mixed wastewater which can not be achieved through conventional treatment techniques
- The model value of replacing high cost, difficult-to-operate sophisticated conventional treatment systems with more low or no maintenance natural systems, i.e. wetlands

**STEP 5: Design a Plan of Action:**

The Egyptian Environmental Affairs Agency (EEAA) has translated the engineered wetland idea into a project with the following goals:

- To improve the health conditions of communities living around Lake Manzala
- To provide a non-conventional water source for fishing, irrigation, and raising livestock
- To protect the Mediterranean Sea through improving the Lake Manzala water quality

EEAA has approached the Global Environmental Facility / United National Development Program (GEF/UNDP) for funding to construct a wetland that could treat 25 000 m<sup>3</sup> per day of polluted drainage water as a demonstration of low cost technique for wastewater treatment to protect Lake Manzala and the Mediterranean Sea.

**STEP 6: Implement the Solution:**

GEF has provided funding to construct the engineered wetland. An Environmental Impact Assessment (EIA) study was conducted prior to the project implementation

The construction included the following infrastructures:

- Pump station with screw pumps.
- Two sedimentation ponds - 1.5 m depth
- Ten free water surface cells (250x50x0.5 m) for secondary treatment.
- Two reciprocating gravel bed cells for tertiary treatment.
- Two fingerling ponds
- Four fish farms for fish production
- Two drying beds for pond dredging sediments

**STEP 7: Evaluate the implemented solution:**

To evaluate LMEWP a follow-up performance evaluation project was initiated by NWRI with the same project partners and stakeholders as above.

The performance evaluation project had two major goals:

1. To assess the feasibility of wetland treatment systems for improving drain water quality, public health, and the aquatic ecology of Lake Manzala
2. To assist the transfer of wetland treatment technology to other parts of Egypt

A performance evaluation included a research project with the following objectives:

- To carry out a sensitivity analysis for a computer model - PREWet - to find out what major parameters affect the wetland's capacity of treating pollutants
- To compare the computer model results with field results
- To study the applicability of the PREWet model to estimate pollutant removals for constructed wetland design purposes

### 3. Functions of the Proposal

#### 3.1. Project background

Egypt is making tremendous efforts to conserve water through increasing water use efficiency and the reuse of low quality water in irrigation. The recycling of water seems to provide a great opportunity for obtaining additional water resources. One of the potentially recycled water sources is treated municipal and industrial wastewater. Treated wastewater of appropriate and consistent quality is essential for irrigation to protect the environment and human health and to provide predictable crop growth. The treated wastewater quality could be controlled through the treatment techniques.

Lake Manzala Engineered Wetland Project (LMEWP) main objective is to introduce wetland technology through a demonstration project. This technology has been successful for several years in developed countries. The project should treat 25 000 cubic meters per day of the heavily polluted water of Bahr El Baqar drain. The full scale project would generally improve the lake-drain water quality, and all related environmental and health conditions. It would also promote sustainable development through enhancing environmental and economic opportunities at the local and national levels.

The main targets of the project can be summarised as follow:

1. Lake Manzala Water Quality Improvement
2. Treating a part of Bahr El Baqar Drain Water
3. Introducing new and economic Wastewater Treatment Systems

Evaluation of the performance of the LMEWP as a low cost treatment technology to improve polluted drainage water quality before dumping to the lake is a very important step before its replication in different locations specially, near village as a low cost treatment technology.

#### 3.2. Project rationale

Arid countries - such as Egypt and other Middle East countries - are facing a water scarcity crisis. The crisis requires these countries to optimize the use of all available water resources. The reuse of drainage water is becoming an increasingly important water source in Egypt. However, large quantities of water in the drainage network can not be used as the water is polluted. Constructed wetlands, however, could be used to treat the polluted water as wetlands trap sediments and pollutants, cycle nutrients, and reuse treated water in agriculture.

#### 3.3. Overall project goals

- To protect the Mediterranean Sea through improving the Lake Manzala water quality
- To provide a non conventional water source to fulfil different requirements such as fishing and irrigation
- To improve the health conditions of communities living around Lake Manzala

### 3.4. Project objectives

The full scale project would generally improve the lake-drain water quality, and all related environmental and health conditions. It would also promote sustainable development through enhancing environmental and economic opportunities at the local and national levels.

The main goals of the project can be summarised as follow:

1. Lake Manzala Water Quality Improvement
2. Treating Bahr El Baqar Drain Water
3. Introducing new Wastewater Treatment Systems

### 3.5. Project impacts

The project's intended impacts include:

1. Improved water quality of Lake Manzala and consequently the Mediterranean Sea
2. Enhanced environmental and economic opportunities at the local and national level
3. Development of a transferable model of wetland treatment technology to other parts of Egypt
4. Safe and clean fish fingerling for safe fish production to replace the risky polluted fish currently produced from the Lake area.

## 4. Staffing and Organizational Information

### 4.1 Project proponents and partners

1. National Water Research Centre through Drainage Research Institute and Central Laboratory for Environmental Quality Monitoring CLEQM
2. Ministry of Environmental Affairs through EEAA

### 4.2. Project stakeholders

1. Ministries (Ministry of Water Resources and Irrigation MWRI, Ministry Of Environmental Affairs MOEA, Ministry Of Health MOH), MWRI is concentrated on treated drainage water reuse in irrigation as a water saving strategy. MOEA is interested in the protection of Northern Lakes, the environment of the drains as well as conservation of Lake Manzala. MOH fights water born diseases and works on reducing the infection with malaria
2. Farmers and fishers
3. NGOs NGO's helps in establishment of water user associations and crops - fish marketing, public awareness and future operation of similar projects
4. Universities for scientific research in water soil, flora and fauna, socio-economic and operation and maintenance manuals

## 5. Project Methodology

### 5.1. Work Packages

Work Package No	Work Package title	Responsible Partner	Involved Partners
WP1	Project Administration and follow up	DRI	
WP2	Field activities	DRI	CLEQM
WP3	Reporting activities	DRI	CLEQM
WP4	Research Activities	NWRC	Universities
WP5	Establishment of Constructed operational guidelines	NWRC	CLEQM
WP6	Egyptian Wetland initialization	NWRC	EEAA
WP7	Finance management	NWRC	

**Plan of Activities**

Work-package No	Action No	Start (mm/yy)	End (mm/yy)	Description of activities, components, means	Responsible Partner	Involved Partners	Location	Expected output / deliverables
WP1	1	1/2006	1/2006	Project action plan (project activities, time frame, resources, equipments, regulatory requirements.....;)	DRI	CLEQM	DRI (Cairo)	Project action plan
	N	2/2006	2/2006	Designing the monitoring plan				Monitoring plan
WP2	1	1/2006	4/2006	Preparing filed lab	CLEQM			Prepared filed lab
	2	5/2006	10/2007	Field trips for sampling (water, sediments, plants, fish) according to the monitoring plan	DRI	CLEQM	Project area	Samples collection
	3	5/2006	10/2007	Samples analysis	CLEQM		CLEQM Lab.	Samples analysis results
	4	5/2006	10/2007	Field analysis	DRI	CLEQM	Project area	Analysis results
WP3	1	5/2006	10/2007	Data interpretation and statistical analysis	DRI		DRI (Cairo)	Data Interpretation
	2	2/2006	12/2007	Monthly Report	DRI		DRI (Cairo)	Reports
WP4	1	5/2006	12/2007	Water quality ,Agronomy, Hydraulic, And other topics could be studied	NWRC			Research results
	2							

5.2. Timetable

Year	Months	2006	2007	2008
No months (1,2,3,...)*				
Work Package 1				
- Action 1.1		↑		
- Action 1.n		↑		
Work Package 2				
- Action 2.1		↑		
- Action 2.2			↑	
Action 2.3			↑	
Action 2.4			↑	
Work Package 3				
- Action 3.1				↑
- Action 3.2				↑
Work Package 4				
- Action 4.1				
- Action 4.n				
Work Package 5				
- Action 5.1				↑
- Action 5.n				
Work Package 6				
- Action 6.1				
- Action 6.n				



## 6. Project Management

### Results

The following infrastructures, physical outputs were developed as a result of the project:

- Pump station with screw pumps
- Two sedimentation ponds - 1.5 m depth
- Ten free water surface cells (250\*50\*0.5 m) for secondary treatment
- Two reciprocating gravel bed cells for tertiary treatment
- Two fingerling ponds
- Four fish farms for fish production
- Two drying beds for pond dredging sediments
- Complete construction of the wetland treatment system
- Implementation of innovative wetland technology

Other results related to capacity building and follow up are as follows:

- Strengthening community involvement in environmental management
- Developing the personnel capabilities to ensure optimum wetland operation
- Experiences dissemination at global, national, and community levels
- Establishing the wetlands monitoring and evaluation system

### 7. Project Outcomes

- Improving Lake Manzala water quality and thus protecting the Mediterranean Sea water
- Providing a non conventional water source
- Improving the health conditions of communities living around Lake Manzala

### 8. Monitoring and Evaluation

Project activities	monitoring	Indicators used	Responsibility	Dates
Operation of the system		Number of Problems	Field manager	On going activity
Setting appropriate water quality sampling frequencies		Appropriate Frequency	management	3/2006, 12/200
Sampling and lab. Analysis of water quality parameters		Values of the analysed parameters	Field staff Lab. staff	On going activity
Project activities	evaluation	Indicators used	Responsibility	Dates
Assessing the system performance		Treated water quality	Project Management	monthly

## 9. Project Budget

### 9.1. Project costs per items and partner (in Euro)

Partner	Personnel	Meeting, conferences, seminars	Travel and accommodations	Promotion and publication	External expertise and audit	Equipment materials and rents	Operational costs	Others	Total
DRI	100,000	50,000	100,000	50,000	50,000	200,000		100,000	800,000
CLEQM	80,000	50,000	100,000	50,000	50,000	200,000	50,000	50,000	600,000
EEAA	100,000	50,000	50,000	50,000	50,000	50,000	50,000		400,000
Total	280,000	150,000	250,000	150,000	150,000	450,000	100,000	150,000	1,800,000

### 9.2. Project costs per year and partner (in Euro)

Partner	2006			2007			Total (Euro)
	Donor contribution	Other sources	Total	Donor contribution	Other sources	Total	
DRI	300,000	100,000	400,000	300,000	100,000	400,000	800,000
CLEQM	200,000	100,000	300,000	200,000	100,000	300,000	600,000
EEAA	100,000	50,000	150,000	100,000	50,000	150,000	300,000

## Project Proposal

### Environmental Management of Floating Fish Cages within Nile Branches, Egypt

#### 1. Basic information

##### 1.1. Basic information about the proposed project

<b>Project Title</b>	Environmental Management of Floating Fish Cages within Nile Branches					
<b>Project Acronym (abbreviation)</b>						
<b>TIMEFRAME</b>	START	1-1-2006	END	31-12-2006	DURATION	12 month

##### 1.2. Information about project proponent / lead partner organization

<b>Organization Name:</b>	Environment and Climate Research Institute					
<b>Address:</b>	Delta Barrage.P.O. Box 13621, Kalyiobia, Egypt					
<b>Date established:</b>	1998					
<b>Hours of operation:</b>	8 hours/day					
<b>Website:</b>						
<b>Name and title of primary contact:</b>	Prof. Laila M. Abed, Director					
<b>Phone:020-2182070</b>	<b>Fax:020-2182070</b>		<b>Email: lcre@ Maktoob</b>			
<b>Name and title of additional contact</b>	Mohamed Abedl-Meguid					
<b>Phone:020-2184757</b>	<b>Fax:020-218-2182070</b>		<b>Email: Abdel_Meguid@Maktoob</b>			

#### 2. Project overview or summary

In Egypt, the fish culture is an old activity and it remained in lowest general interest as long as captive fisheries provided a ready supply of fish in an adequate way. However, with the increase of the human population in the last 60 years, and the resulting increasing pressure on the natural resources, fish farming has received more attention; especially that fish is considered as the cheapest animal protein to the Egyptian populace.

Currently, fish farming in Egypt ranges from the traditional village type ponds and hosha systems, to modern governmental and private fish farm. With the modern technologies, fish can be raised in earthen ponds, concrete ponds, or above-ground PVC or steel tanks. Also, integrated agri-aquaculture systems over conventional farming systems have been used to increase the farm productivity and profitability without any net increase in water consumption. Moreover production of fish in floating cages has been established in the Nile River and its branches because it is simple technology and does not need additional water economically feasible under Egyptian conditions. In both Rosetta and Damitta branches there are many legal and illegal floating fish cages. There are benefits of such culture including increases in farm productivity and profitability without any net increase in water consumption. However there is much concern about an environmental hazard if discharged pollutants to water. This negative impact is based on the assumption that can be summarized as follows:

1. Toxic substances, either naturally present or added to the feed (components) before, during

or after processing or regenerated within the feed by decomposition during its storage may be toxic to other organisms including plants and the human

2. Aquaculture drainage water may contain residues of hormones, pesticides, herbicides, antibiotics or chemical compounds associated with fish treatments; can cause serious problems to the ecosystem and the human health
3. Bad operation of the floating fish farm associated with over stocking of fish in the cages may cause negative impacts on the water quality
4. Nutrients in the effluent waters from floating fish cages are primarily derived from feed waste (fines/dust and feed not eaten by fish), and excreted and faecal wastes. Usually, such nutrients discharged are in form of  $\text{NH}_4$ . However, during the process of equilibrium if  $\text{NH}_3$  exceeds to certain level it may toxic to the human and other organisms

### 3. Functions of the Proposal

#### 3.1. Project context or background to the issues/problem

- 1 Environmental concerns
- 2 Complains to decisions makers
- 3 Conflicts among water beneficiaries
- 4 Fish farming is a very important component for the Egyptian economy
- 5 Nile water quality threats

#### 3.2. Project rationale

Floating fish cages are considered the main source for fish protein within their areas as well as neighbouring communities. However, the in-correct implementation of these cages caused lots of environmental threats to these areas. Therefore, accurate and comprehensive assessment of these cages is considered a very essential basic step towards improving their management. Thereafter, and based on various stakeholders' consultations, guidelines for management these cages can be performed based on scientific, realistic, and socio-economic investigations. This methodology with the mentioned sequence ensures the applicability and technical sound of the final product (guidelines).

#### 3.3. Project impact

Improve the quality of life.

#### 3.4. Overall project goal

Management of floating fish cages within Nile branches without causing any negative environmental impacts.

#### 3.5. Project objectives

- 1 Improve the hydraulic efficiency
- 2 Improve the water quality status
- 3 Increase fish productivity and animal protein
- 4 Improve socio-economic status
- 5 Reduce water born disease
- 6 Increase public awareness
- 7 Involvement of different stakeholders in conflicts resolution

## 4. Staffing and Organizational Information

### 4.1. Information about the project proponents and partners

- 1. Institution :** Environment and Climate Research Institute  
**Name of Project Leader :** Prof. Laila M. Abed, Director  
**Postal Address:** Delta Barrage.P.O. Box 13621, Kalyiobia, Egypt  
**Email :** [eacri@idsc1.gov.eg](mailto:eacri@idsc1.gov.eg)  
**Type of Institution :** Research
- 2. Institution :** Strategic Research Unit  
**Name of principal Investigator :** Prof. Dr. Nahla Aboul-Fotoh, Director  
**Postal Address:** Delta Barrage.P.O. Box 13621, Kalyiobia, Egypt  
**Type of Institution :** Research
- 3. Institution :** Central Laboratory for Environmental Quality Monitoring  
**Name of principal Investigator :** Prof. Tarik A. Tawfic, Director  
**Postal Address:** Delta Barrage.P.O. Box 13621, Kalyiobia, Egypt  
**Type of Institution :** Research

### 4.2. Information about the project stakeholders

The project will create the necessary co-ordination mechanisms to develop implementation with seven stakeholders involved as the following:

- 1 Fish farmers
- 2 Fishermen
- 3 Neighbouring community
- 4 Local authority for drinking water
- 5 MWRI
- 6 Ministry of Health
- 7 Youth

## 5. Project Methodology

### 5.1. Work Packages

Work Package No	Work Package title	Responsible Partner	Involved Partners involved
WP1	Collecting the most recent data and papers concerning the floating fish cages.	(ECRI)	
WP2	Field data collection	(ECRI)	
WP3	Data analysis	(CLEQM)	
WP4	Writing the reports	(ECRI)	(CLEQM)
WP5	Environment assessment for the current situation.	(SRU)	
WP6	Implementing participatory strategy to create consultation environment for information sharing.	(SRU)	
WP7	Develop Guidelines for managing floating fish cages.	(SRU)	(ECRI)
WP8	Guidelines Report	(SRU)	(ECRI) (CLEQM)

## Plan of Activities

Work-package No	Action No	Start (mm/yy)	End (mm/yy)	Description of activities, components, means	Responsible Partner	Involved Partners	Location	Expected output / deliverables
WP1	1			Collecting background data information from different sources such as library, net, authorities	(ECRI)		Local and international	Get more reliable data
	1			Collecting water and hydrosoil samples	(ECRI)		Rossetta and Damitta Branches	
	2			Collecting biological samples such as planktons, fish and benthic organism	(ECRI)		Rossetta and Damitta Branches	
	3			Measuring the hydraulic efficiency	(ECRI)		Rossetta and Damitta Branches	
	4			Determine the aquatic weed infestation	(ECRI)		Rossetta and Damitta Branches	
	1			Determine the water quality parameters such as, temperature, turbidity, pH, dissolved oxygen, electrical conductance, total dissolved solids, major nutrients (ammonia, and orthophosphates), all major cations ( $\text{Ca}^{+2}$ , $\text{Mg}^{+2}$ , $\text{Na}^+$ and $\text{K}^+$ ), anions ( $\text{Cl}^-$ , $\text{NO}_2^-$ , $\text{SO}_4^{2-}$ , $\text{HCO}_3^-$ and $\text{CO}_3^{2-}$ ), total suspended and volatile solids, chemical oxygen demand, oil and grease and Heavy metals.	(CLEQM)		(CLEQM)	
	2			Determine Total Coliform (TC) and Fecal Coliform (FC) as well as the phytoplankton and zooplankton densities for surface water samples will be determined.	(CLEQM)		(CLEQM)	

	3				Determine Biaccumulation of pollutant within the tissue of fish will be measured.	(CLEQM)		(CLEQM)	
	4				Determine the quality of the sediment will be considered during the field investigation (Mechanically and chemically).	(CLEQM)		(CLEQM)	
WP4	1				Writing the preliminary and final reports about data analyses	(ECRI)	(CLEQM) (SRU)	The main building of Research Center	
WP5	1				Assessment of the current environmental status of the fish cages	(SRU)	(ECRI)		
	2				Writing the assessment report	(SRU)		The main building of Research Center	
	1				Development of Participatory strategy	(SRU)		The main building of Research Center	
	2				Implementing Strategy through workshops, field meetings	(SRU)		Rossetta and Damitta Branches	
WP7	1				Carry out consultation meetings with various stakeholders	(SRU)		Rossetta and Damitta Branches	
	2				Develop Guidelines	(SRU)		The main building of Research Center	
WP8	1				Writing guidelines report	(SRU)	(ECRI)	The main building of Research Center	



## 6. Project results

Activities	Expected Results	Performance Indicators	Critical Conditions (Assumptions and Risks)
Raw data	Report	Existence of report	Field campaign goes smooth on time, problems for data collection
Assessment	Assessment report	Existence of report	Reliable data, data error produce wrong assessment
Implementing participatory strategy	Report, meeting, workshop	Documentations for participatory work	stakeholders are motivated the need of stakeholders unsatisfied
Guidelines for managing	Report, guidelines	Existing guideline report	Acceptance of the guideline Unacceptable guideline

### 6.1. Project Outcomes

- 1 Planning and managing floating fish cage activities for the benefit of the Egyptian communities who are willing to improve the water quality, fish productivity and increase the animal protein to the Egyptian populace
- 2 Efficient use of water resources in the best way from a socio-economic and environmental point of view
- 3 Create mechanisms to develop implementation with all stakeholder involved within the Nile River to improve QoL

## 7. Monitoring and Evaluation

Project monitoring activities	Indicators used	Responsibility	Dates
Data collection	Papers and reports	researchers	Previous data
Field data collection	reports	expertise	Recent data

## 8. Project Budget

### 8.1. Project costs

Total budget resources required for the project duration are **81 500 Euro**.

### 8.1.1. Project costs per items and partner (in Euro)

	Personnel	Meeting, conferences, seminars	Travels, accommodation	Promotion, publication	Equipment	Operational costs	Total
ECRI	9000	6000	1000	1000	7000	4000	28000
CLEQM	9000	-	-	-	-	13000	22000
SRU	9000	2500	2000	1000	7000	10000	31500
Total	27000	8500	3000	2000	14000	27000	81500
%	33.1	10.4	3.7	2.5	17.2	33.1	100

### Brief Evaluation of the Project Proposal

In general the project is quite clear and focused however a number of improvements could be made. The project overview provides some useful background information, however the actual problem that the proposal seeks to address could be made more clearly. It might be better to make the description of the negative impact more general rather than describing in detail information about toxic substances etc.

The proposal would benefit from being more clearly focused around a significant issue - then a case can be built up showing how certain activities can improve the problem and deliver other benefits besides.

In this case the problem could be summarized as “un-managed fish farming using floating cages in Nile branches”. The proposal aims to establish effective mechanisms for management of fish farming in these locations to reduce negative environmental impacts. Try to avoid describing particular technical issues unless it is essential to describe these to demonstrate the main problem.

The project objectives could also be further clarified and elaborated. Terms such as “hydraulic efficiency” might have little meaning to someone who has no technical expertise. The importance of stakeholder consultation is mentioned in the proposal - more could be said about this element of the project. Clearly management guidelines are only useful if they are to be implemented by the right stakeholders - the objectives could therefore be amended to reflect this.

The role of stakeholders in the project could also be developed - there’s a good opportunity to use stakeholders to carry out some of the collection of water samples and testing. In addition it may be worth considering whether the project could aim to develop guidelines and then pilot implementation of the guidelines to test their effectiveness. This would add another dimension to the project but would help in measuring the impact and offers scope for replication.

The project could also be consistent in terms of matching the outcomes, activities and expected results. One way to consider this is to look at what will be achieved at the end of the project and work backwards from this.

## Project Proposal

### Utilizing Local Made Geo-technical Geo--synthetics in Protecting Side Slopes of Open Water Channels from Seepage, Erosion, Sedimentation, and Instability, Egypt

#### 1. Basic information

##### 1.1. Basic information about the proposed project

<b>Project Title</b>	Utilizing Local Made Geo-technical Geo--synthetics in Protecting Side Slopes of Open Water Channels from Seepage, Erosion, Sedimentation, and Instability					
<b>Project Acronym</b> (abbreviation)	Protecting Side Slopes of Open Water Channels from Seepage, Erosion, Sedimentation, and Instability					
<b>TIMEFRAME</b>	START	march/2006	END	march/2008	DURATION	24 months

##### 1.2. Information about project proponent / lead partner organization

<b>Organization Name:</b>	Construction Research institute					
<b>Address:</b>	Delta Barrage, Elkalubia,Egypt,13621					
<b>Date established:</b>	1976					
<b>Hours of operation:</b>	35 /week					
<b>Website:</b>						
<b>Name and title of primary contact:</b>	Prof. Ashraf ElAshail					
<b>Phone:</b> 002-02-2186992	<b>Fax:</b> 002-02-2188508			<b>Email:</b>		
<b>Name and title of additional contact</b>	Assoc. Prof. Yehia Barakat					
<b>Phone:</b> 002-02-2185568	<b>Fax:</b> 002-02-2188508			<b>Email:</b> yehia_barakat@yahoo.com		

#### 2. Project overview or summary

Water conservation and sustainable water supply is a primary goal of the Egyptian government. The Ministry of Water Resources and Irrigation took the lead in that regard and established the National Water Research Center (NWRC), which oversees the activities of 12 research institutes. Water channels act as veins for delivering and distributing water for different purposes. Egypt has two networks of water channels; one for irrigation canals and the other for drainage purposes with the necessary control structures. The size of the canals network has grown tremendously in the past two decades in order to meet all the water needs in Egypt. However, there is a never-ending demand for irrigation and other usages of water to fulfil the goals of future development plans. This contradicts with the fact that Egypt has a constant share of River Nile water, which granted a change in strategy within the Egyptian irrigation school. They started to think into two parallel ways, developing new water resources, and executing water conservations plans through the enhancement and rehabilitation of canal network in order to cut down the water losses.

The Egyptian network of canals comprises all sizes of canals that range from the small farm canal (Meska) up to the large navigation canals (Rayaah). Most of those canals run through the old Nile Delta with its well-known low-permeability silty clay soil. However, a significant part of it runs through high-permeability sandy soil, especially in the newly developed reclamation areas. The silty clay soil, that composes the canal embankments in the Nile Delta acts as a natural barrier to water. This results in a great reduction in the losses of the precious canal water due to seepage. This seepage process not only causes big water losses in the irrigation system but also results in, in many cases, local failures in canal embankments. Thus, leads to additional economic losses in the form of rehabilitations costs, local flooding of farms and communities...etc. Moreover, in many of the newly developed reclamation areas the irrigation canals may lie very close to the drains network in the area. The water quality in the drains network is usually lower than the standards due to the human and industrial waste disposing purposes. The seepage of canal water into the drains network results in mixing the high quality canal water with the drains low quality water. Although, the irrigation engineers in Egypt have been trying to maximize the reuse of drainage water in irrigation, this still represents a severe loss of water quality through the irrigation system. It also represents a major environmental problem that has to be thoroughly investigated in order to reduce its effect.

The seepage flow through canal embankments causes the migration of the fine particles of the embankments, with the seepage flow, creating what is known as the piping phenomenon. This phenomenon results in internal erosion of the embankments and usually leads to gradual failure. The irrigation experts at the Ministry of Water Resources and Irrigation have been facing and trying to resolve this problem on a case-by-case basis utilizing several rehabilitation techniques. These techniques vary depending on the nature of the soil profile at the site and the levels of surface and ground water in the surrounding areas. Some of these techniques are constructing a supporting soil block to enhance the embankment stability, using a system of sheet pile walls or slurry walls to cut off the seepage flow, constructing an intercepting drain to collect the seepage flow, or a combination of any of them. In most cases, the option of supporting soil block is considered the most economical one. Using an engineering-designed block of soil, with the necessary filter, to replace the failed part of the embankment serves two purposes. The first purpose is embankment reconstruction while the second is seepage control. This in turn reduces the migration of the fine particles (internal erosion), which consequently increases the stability of the embankments.

The soil block usually consists of two parts. The first part (mixture of cohesive and cohesionless soils with enhanced engineering properties) acts as a supporting block whose purpose is to increase the stability of the embankment. The second part is an engineering-designed filter (of suitable gradation) whose function is to protect against internal erosion of the embankments. A major defect of this technique is the necessary measures to execute while having water in the channel. This usually causes a significant delay in the execution schedule as well as an increase in rehabilitation cost. Therefore, it is of great benefit to the owner to reduce the excavation activities in the canal bed and side slopes. This may be achieved through using advanced filter systems and installation technologies, which do not require large excavating regions and whose installation cost may be economically visible.

The geo-synthetics are engineering materials that have been developed through the past two decades or so, and have since been extensively used in engineering practice. They are usually manufactured by recycling the human and industrial waste, and that itself presents an environmental value to the society. Two well-known kinds of geo-synthetics that have been successfully used in civil engineering applications which are: geo-grids and geo-textiles. With the development of these materials, new technologies have also been introduced which added to their good engineering properties and low processing costs. Considerable research has been conducted on developing these new technologies in areas such as embankment's reinforcement using geo-grids or geo-textiles, geo-textile filters, and more

recently, canal lining using a combination of geo-textiles and concrete (known as Concrete Mattress).

Implementing the proposed project should help to reduce the water losses through irrigation system, enhance the stability of the canal embankments, and prevent erosion either surface or internal. This would result in valuable and sound water conservation as well as environment improvement measures. A reach of 100.50 m of a small canal will be chosen to conduct a pilot project of lining using geosynthetics.

### 3. Functions of the Proposal

#### 3.1. Project context or background to the issues/problem:

Many cases of slope failure due to seepage or existence of problematic soil such as soft clay or dispersive soil have been investigated by the Construction Research Institute (CRI). Three sites are selected to clarify the significance of such research project. The first is, Esmailia canal, which has a length of 120 km before splitting into Suez irrigation canal and Port said canal. A major portion of that canal runs through poorly graded sandy soil, which results in seepage losses that were estimated as high as 45% of its discharge. The second case is at Ganoub Elkantara canal in Sinai, which is part of the Elsalam canal project. The soil profile in this case contains layers of problematic soil in the form of dispersive soil and soft clay. The third case is at the site of one of the major canals in upper Egypt known as Elbahr Elusifi. This case presents the effects of meandering flow on cross section scour and deposition and the successive failures that result from them.

#### Esmailia Canal

This is considered the main source of water for the newly developed areas in more than five governorates in Northern Egypt. In addition to the irrigation needs, the canal also supplies these areas with their industrial as well as drinking water needs. In order to meet the increased water demands in these areas, the canal is continuously upgraded by increasing the hydraulic cross section and/or water level to increase the canal discharge. The first stage of the canal upgrade aimed at supplying the water demand for 392000 Feddans, while the second stage aimed at adding another 400000 Feddans. The current canal cross-section, which represents the end of the second stage, has a bed width of 40 - 47 m, water depth of 3.5 - 4.5 m and side slopes 2:1. The third stage aims at increasing the cultivated area to 832000 Feddans, while the final stage aims at adding 250000 Feddans. The maximum discharge of the canal under investigation is approximately 197 m<sup>3</sup>/s (17 million m<sup>3</sup>/day) to irrigate an area of more than 450000 Feddans. The design bed slope is 6.5 cm/km in average.

Due to the continuous canal upgrading, the water level in the canal was raised, which led to raising the ground water level in the nearby-cultivated areas causing severe environmental problems. Some of these areas were badly affected, especially between kilometer 54,000 and kilometer 73,000 since the cultivated lands lie below the canal water level. The increase in ground water level caused problems to farmers in these areas, such as water logging, created bonds, and growing weeds.

#### Ganoub Elakantara Canal

In this site, problematic soil, in the form of dispersive soil and soft clay, dominated the soil profile. This case study includes an irrigation canal having a bed width of 10.0 m, a maximum water depth of 2.75 m, and a side slope of 3:1. The canal cross section is lined by gabions of gravel. According to the owner, the canal side slopes were stable until a parallel drain was constructed. The drain bed width is 5.0 m and the maximum water depth is 0.25 m. On the completion of the drain excavation, the instability problem started to show up in forms of drain side-slope failures, collapse of embankment surface, and collapse of the gabions on the canal side slopes. The failure process was initiated by salt leaching through the

soil mass of the drain embankments, followed by a successive migration of fine particles leading to a complete failure in some sections of the drain.

### **Elbahr Elusifi Canal**

Elbahr Elusifi is the main source of Irrigation, domestic and industrial needs of El Fayoum governorate. The canal is a natural canal (not man made) and has a bed width of 44 - 46 m, water depth of 7 - 9 m and side slopes of 1:1. The canal has a unique feature, that its path contains several curves (meandering path). Because of such meandering soil, erosion occurs at almost every curvature throughout the path, creating side slope failures. Due to these failures, the local farmers have been complaining about their land losses.

### **3.2. Project rationale**

The general theme of the project can be stated as "Water Conservation and Environmental Improvement Measures through Seepage and Erosion Control". This in fact is of strategic importance to the government of Egypt and the National Water Research Center as the research house for the Ministry of Water Resources and Irrigation. Implementing the ambitious future economic development plans of Egypt necessitates adopting a real and well-executed water conservation plan. This plan has to take into consideration the huge loss through the canals network, the resulting embankments failures and their environmental impacts.

The end and ultimate product of the proposed project is to provide the irrigation engineers at the Ministry of Water Resources and Irrigation with new economically visible technologies to resolve field problems. At the same time, the whole society will benefit through water conservation and environmental improvement measures. In order to achieve that goal, the above mentioned sites, where the seepage flow caused severe problems are selected as pilot projects for the study. The sites will be thoroughly investigated and the proposed new technology of canal lining under water, embankments reinforcement, and geo-textile filters will be tested, with the proper instrumentation installed. All the observation before, during and after installation will be thoroughly recorded and analyzed. Technical reports, with the proper recommendations and specification for the design and installation procedures will be prepared. Economical comparison between the typical and new technologies will also be reported so that it may be used as a guide for interested business investors.

### **3.3. Project impact**

The impact of this project will be positive for the farmers at the end of the channel due to the enhancement of the channel transportation efficiency and will be negative for the farmers at the beginning of irrigation canal due to the problem of land evacuation in some situations. Also the enhancement of the channel embankment will increase the efficiency of transportation hence the embankments are used as a road way for most cases. The output of the research proposal may be used in the regional area which have the same characteristics and environmental conditions. The output of the project will be sustainable hence the geo-textile has an expanded life cycle.

### **3.4. Overall project goal**

The main goal of this research proposal will increase the efficiency of irrigation and drainage network performance in problematic areas.

### 3.5. Project objectives

The main objectives of such project is protecting of irrigation and drainage water courses against seepage losses, erosion, sedimentation and instability using the geo-technical geo-synthetics. This will be achieved through the following sub-objectives:

- Surveying number of sites where the seepage flow caused embankment internal erosion and/or failure.
- Collecting and analyzing all the necessary data at each site regarding soil profiles, surface and ground water conditions, and seepage flow condition.
- Investigating the reasons that lead to embankment failures at each site.
- Redesigning of the failed canal embankments at the surveyed sites with the proper seepage control measures using geo-synthetics.
- Lining a canal using a system of geo-textile and concrete mix (concrete mattress) and monitoring its behaviour after installation.
- Preparing the necessary technical as well as economical reports, with the proper recommendations and specifications for the design and installation procedures.
- Providing the suitable specifications needed for the improvement of the geo-synthetics industry in Egypt to finally produce an applicable local made geo-synthetics.

## 4. Staffing and Organizational Information

### 4.1. Information about the project proponents and partners

#### Project Proponent

The Construction Research Institute (CRI), Delta Barrage, Egypt, is one of the twelve research institutes within the National Water Research Center of the Ministry of Water Resources and Irrigation (MWRI). CRI is specialized in the field of geo-technical and structural engineering. The construction research institute has four departments. These departments are: Soil Mechanics and Foundation, Irrigation Construction, Material, and Structural dynamic. CRI has a broad experience in drilling and monitoring activities in many places all over Egypt. The Construction Research Institute, National Water Research Center - Ministry of Water Resources and Irrigation, is the main authority responsible for implementing the project "Utilizing Local Made Geo-technical Geo-synthetics In Protecting Side Slopes of Open Water Channels from Erosion, Sedimentation, and Instability".

The following is a partial list of the research and consulting projects conducted by the CRI staff:

- The exploratory geo-technical studies at the site of the gigantic pump station, stilling basin, and El-Sheikh Zayed canal path of the South of Egypt Project.
- The Geo-technical studies to strengthen the El-Salam canal embankments west of Suez Canal.
- The Geo-technical studies for the Construction of the new El-Saff canal from intake to kilometer 24.00.
- The geo-technical studies of Lake Moot in El-Wady El-Gaded.
- The geo-technical and structural studies to widen the El-Lahoon lock at El-Lahoon power station site.
- The geo-technical studies at the site of Syriaquos Barrage and lock.
- The geo-technical studies of Wady Karkar Dam at Aswan.
- The geo-technical studies of the secondary dams near the High Aswan Dam.
- The structural studies for the construction of a retaining wall at Yosef Sea in front of Qayet-bay Mosque in Fayoum.
- The geo-technical studies for the lining of El-Postan canal.

- The geo-technical studies of West El-Nobaria drain.
- The geo-technical and structural studies to strengthen the bridge at Damietta Dam.
- The geo-technical studies to upgrade the navigation of Damietta Nile branch.
- The geo-technical studies of the new Damietta canal.
- Strengthening of the foundations of Bahr El-Bakar Syphone using the technique of sand drains.
- Many studied for the side slope stability of irrigation and drainage canals through out Egypt and their rehabilitation.
- Technical and research studies of earth reinforcement to upgrade the water channels cross sections.

And last but not least the CRI is involved, as a consultant, in most of the important national projects such as development of South of Egypt project, El-Salam canal project, and other MWRI's projects to achieve the safest and most economical operating conditions of the structures. Furthermore, the CRI conducts geo-technical studies for the structures executed by other ministries and governmental agencies in Egypt. CRI will make the next resources available for the implementation of the project:

- Laboratory equipments available at the following labs:
  - Soil Mechanics and Foundation Engineering Laboratory
  - Construction Modelling Laboratory
  - Properties of Material Laboratory
  - Chemical Laboratory
  - Computer Laboratory
- Field equipments such as drilling rig, field testing machines, etc.
- Vehicles for field investigations to collect the necessary data, supervise the field pilot project, and exchange visits with experts from the other governmental and private sectors.
- Qualified and experienced personnel trained at different international and national universities as members of the research teams.

The construction Research Institute will conduct the required field and lab investigation in addition to numerical studies to achieve the objective of this proposal.

### **Project Partners**

The partners will be the interested sectors at the Ministry of Water Resources and Irrigation in addition the interested ministry involved with the project such as transportation etc. MWRI is responsible to save water demands at the field site for the farmer and it has a very qualified staff that may help in conducting of this project. The Ministry of Transportation used the road that constitutes the water courses embankment which may have a lot of problem due to these embankments failure. Their contribution may be feeding back the available data that could serve this study.

## **4.2. Information about the project stakeholders**

The major stakeholders are the farmers, Ministry of water Resources and Irrigation, and Ministry of Transportation.

## **5. Project Methodology**

### **5.1. Work Packages**



### Plan of Activities

As discussed earlier the proposed project emphasizes three major new technology applications: using geo-synthetics to reconstruct soil-reinforced canal embankments, using geo-textile filters to protect against embankments internal erosion due to migration of fine particles, and using concrete mattress in canal lining under water. These applications are described next.

Work-package No	Action No	Start (mm/yy)	End (mm/yy)	Description of activities, components, means	Responsible Partner	Involved Partners	Location	Expected output / deliverables
WP1	1	March/2006	April/2006	Preparation and transportation of the required equipment to the field	CRI	CRI	Project area	Starting the field investigation
	2	Aprile/2006	December/2006	Geo-technical investigation with required field tests	CRI	CRI	Project area	Carrying out the field test and obtaining the required soil sample
	3	May/2006	January/2007	Lab tests	CRI	CRI	CRI Lab	Identifying the required soil parameters and soil profile
	4	January/2007	March/2007	Geo-technical report preparation	CRI	CRI	CRI	Technical report
WP2	1	April/2006	October/2006	Hydraulic measurement	CRI	CMRI	Project area	Field measurements
	2	October/2006	December/2006	Seepage losses estimation and evaluation	CRI	CMRI	CRI & CMRI	Percentage of losses
WP3	1	March/2007	October/2007	Model verification and numerical study	CRI	CRI	CRI computer Lab	Factor of safety and solution technique with generalized specification
	2	October/2007	March/2008	Reporting	CRI	CRI	CRI	Technical Reports

## 6. Project results

Activities	Expected Results	Performance Indicators	Critical Conditions (Assumptions and Risks)
Seepage losses	Minimizing seepage losses and facing the main problem that may raise in the case of lining under water	% Efficiency	<ul style="list-style-type: none"> <li>- Complete survey for the failed water courses</li> <li>- Estimate the risk that may happen if the project not realized</li> </ul>
Erosion	Minimizing the erosion and soil immigration (internal erosion)	Efficiency	
Instability	Increasing the stability of the embankment and side slope	Factor of safety	

### 6.1. Project Outcomes

The main outcomes of this research project will be:

1. Better performance of the network of irrigation canals in Egypt.
2. Reducing the losses in irrigation and drainage water channels, improving their efficiency and maximizing the benefits of the Egyptian share of River Nile. This will save more water for the future development plans and help in improving the usage of irrigation water in Egypt.
3. Stabilizing the side slopes of unstable water channels and minimizing the probable erosion whether internal or surface.
4. Improving the environmental protection measures through introducing a useful and environmental friendly new industry of manufacturing geo-synthetics using recycled human and industrial waste.
5. Introducing the new industry in the market creates new investment opportunities that help in improving the overall economic situation in Egypt.
6. The new investments create plenty of employment opportunities for the Egyptians, which assist in improving the economic development of the whole society.

## 7. Monitoring and Evaluation

Monitoring and evaluation of this project will be conducted through three pilot projects one for each problem that will be studied. The studied problems are seepage losses, erosion, and instability of the embankment and side slope.

Project monitoring activities	Indicators used	Responsible	Dates
Seepage losses	discharge	CRI and HRI	6 months
Erosion	Scour depth or piping evolution	CRI and HRI	6 months
instability	Lateral and vertical movement	CRI	6 months
Project evaluation activities	Indicators used	Responsible	Dates
Seepage losses	% efficiency	CRI and steering committee	1 month
Erosion		CRI and steering committee	1 month
instability	Factor of safety	CRI and steering committee	1 month

## 8. Project personnel

C.V. upon request.

## 9. Project Budget

### 9.1. Project costs

Total budget required for the project is 241 500 Euro.

#### 9.1.1. Project costs per items and partner (in Euro)

	Personnel	Meeting and conferences	Travel and accommodation	Promotion and publication	External expertise and audit	Equipment and material and rents	Operational coasts	others	Total
<b>Proponent</b>	35000	9000	6000	4000	5500	100000	25000	10000	194500
<b>Partner 1</b>	10000	3000	1000	1500	2500	20000	5000	4000	47000
<b>Total</b>	45000	12000	7000	5500	8000	120000	30000	14000	241500
<b>%</b>	18.63	4.69	2.89	2.27	3.31	49.68	12.42	5.79	100

## Brief Evaluation of the Project Proposal

The proposal is well presented and the document is very comprehensive. Much of the content of the proposal is quite technical and this makes it difficult to read for the non-technical person. It is worth keeping this in mind when drafting a proposal for donor - try to avoid using too much technical language unless it is completely necessary.

The project title is very long and also quite technical. Ideally the title should describe very briefly what the project aims to do - however it is important not to overload the title with too much information. The general theme of the project mentioned in Section 3.5 might actually make a better title.

The project section that provides an overview is quite long and would benefit from being edited down. Much of the information that is included is very specific - it's better in this section to aim for a broad picture rather than anything too detailed. Just aim to cover: what the problem is, the impacts of the problem and a brief summary of why the proposed solution is the best one.

Section 3 also goes into quite a lot of detail including technical language that is difficult for the non expert. Rather than describe in detail specific problems for each canal it could be appropriate to provide a summary with the geographic information attached in a map as an Annex (if the donor permits supporting documents in this way).

Section 3.6 could be more focused on what the outcome of the project will be - in terms of more effective and sustainable management of water resources. In the section about project objectives there is quite a lot of information that actually describes activities such as collecting and analyzing - it's better to present this information separately.

Section 6 of the proposal is quite strong. The project outcomes are well described and very clear. It might be worth reviewing the proposal - taking into consideration that these outcomes are really what the

project aims to achieve and working back from them. So that in order to stabilize the slope, it's necessary to deliver a clear set of activities, starting with survey. The proposal describes the new investments that will be created by the project - if this is a realistic outcome it might be necessary to be clear about what activities can be carried out to support this.

## Project Proposal

### Effective management of the aquatic weeds infestation and its impacts in Nasser lake by using remote sensing and geographic information system, Egypt

#### 1. Basic information

##### 1.1 Basic information about the proposed project

<b>Project Title</b>	Effective management of the aquatic weeds infestation and its impacts in Nasser lake by using remote sensing and geographic information system (GIS)					
<b>Project Acronym (abbreviation)</b>						
<b>TIMEFRAME</b>	<b>START</b>	(01/2006)	<b>END</b>	(01/2008)	<b>DURATION</b>	24 months

##### 1.2 Information about project proponent / lead partner organization

<b>Organization Name:</b>	Channel Maintenance Research Institute (CMRI) - NWRC					
<b>Address:</b>	Delta Barrage.P.O. Box 13621, Kalyiobia, Egypt					
<b>Date established:</b>	1975					
<b>Hours of operation:</b>	8 Hours					
<b>Website:</b>	www.nwrc-egypt.org					
<b>Name and title of primary contact:</b>	Prof. Dr. Mohamed Bakry					
<b>Phone:</b>	<b>Fax:</b> 202 2189596			<b>Email:</b> Bakcmri@hotmail.com		
<b>Name and title of additional contact</b>	Dr. Hosam Ibrahim					
<b>Phone:</b>	<b>Fax:</b> 202 2189596			<b>Email:</b> Hosamm32@hotmail.com		

#### 2. Project overview or summary

The current lake's water quality now is satisfactory for all uses. However, recent observations in Nasser lake showed the appearance of weeds and algae in scattered locations. The existence of such species is an indicator of possible water quality deterioration in the lake. Moreover the growth of algae would cause real threats to the water quality and consequently the aquatic life in the whole lake on the long run. Besides, If water quality is deteriorated and became unsuitable for some uses, the water budget for the whole country will be severely unbalanced. Therefore, the conservation of water quality in this huge reservoir should be greatly considered. Several measurements can be taken to preserve the original conditions, and even to restore the water quality of the lake.

Channel Maintenance Research Institute (CMRI) proposes to study by using remote sensing (satellite

images) and geographic information system (GIS) technologies in distinguishing and mapping the distribution of aquatic weeds in the main Khores. The final satellite images covered the studied Khores will show the location and the percentage of aquatic weeds distribution. The intensive aquatic weed infestations may cause a lot of problems by creating losses of water as well as the fishery productions, retardation of flow, interference with navigation, health hazards and alteration in the physico-chemical characteristics of both water and hydro-soil.

### 3. Functions of the Proposal

#### 3.1 Project context or background to the issues/problem

Lake Nasser provides about 95% of Egypt's water resources. The Lake was formed after the construction of Aswan High Dam, and started to fill since 1967. The Lake is considered as the safety element for Egyptians against threats of both droughts and floods. The Lake is characterized by its very long extension and narrow width as shown in the given map.

The Lake is monomictic with a single circulation period in winter. However, it is stratified in the top 15 meters during summer. The current lake's water quality now is satisfactory for all uses. However, recent observations in the lake showed the appearance of weeds and algae in scattered locations. The existence of such species is an indicator of possible water quality deterioration in the lake. Moreover the growth of algae would cause real threats to the water quality and consequently the aquatic life in the whole lake on the long run. Besides, If water quality is deteriorated and became unsuitable or some uses, the water budget for the whole country will be severely unbalanced Therefore, the conservation of water quality in this huge reservoir should be greatly considered. Several measurements can be taken to preserve the original conditions, and restore the water quality of the lake.

This project is introducing a scientific approach for assessing the potential threat to water quality in the lake, and also investigates the necessary practical action to be taken to conserve the lake's water quality.

#### 3.2. Project rationale

1. Monitoring the aquatic weeds infestation in Nasser Lake Khores by using GIS
2. Monitoring the physical and the chemical parameters in the water and the sediment

#### 3.3. Project impact

1. Enhancing the water quality in the Lake
2. Effective management of the aquatic weeds in the Lake
3. The impact of drainage system on groundwater to control contamination through water seepage to the Lake

#### 3.4. Overall project goal

1. Monitoring the aquatic weeds infestation in Nasser Lake Khores by using GIS
2. Monitoring the physical and the chemical parameters in the water and the sediment

#### 3.5. Project objectives

Predicting the aquatic weeds infestation during the near future (five years) all-over the studied Khores.

## 4. Staffing and Organizational Information

### 4.1 Information about the project proponents and partners

#### Project proponents

High Aswan Dam Authority, the Ministry of Water Resources and Irrigation.

#### Project participants

Channel Maintenance research Institute, High Aswan Dam Authority.

#### A brief description of the Principal organization

Channel Maintenance Research Institute (CMRI) is conducting design of open channels and maintaining of the open channels covering the irrigation and drainage networks in n Egypt. CMRI carried out several studies using remote sensing (satellite images) and geographic information system (GIS) technologies in distinguishing and mapping the distribution of aquatic weeds in the main Khores.

#### Project Manager

**Name:** Prof. Mohamed Fawzy Bakry

**Title:** Director of Channel Maintenance Research Institute-NWRC

**Postal address:** Delta Barrage.P.O. Box 13621, Kalyiobia, Egypt

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#### Principal Investigators

**Name:** Asst.Prof. Magdy Mohamed Hossny

**Title:** Vice director of Channel Maintenance Research Institute-NWRC

**Postal address:** Delta Barrage.P.O. Box 13621, Kalyiobia, Egypt

**Email:** MagdosCMRI@ hotmail.com

**Name:** Hosam Mahmoud Ibrahim.

**Title:** Associate prof. Researcher, Channel Maintenance Research Institute-NWRC

**Postal address:** Delta Barrage.P.O. Box 13621, Kalyiobia, Egypt

**Email:** [Hosamm32@hotmail.com](mailto:Hosamm32@hotmail.com)

**Name:** Salwa Abou Elella.

**Title:** Dr. Researcher at Channel Maintenance Research Institute-NWRC

**Postal address:** Delta Barrage.P.O. Box 13621, Kalyiobia, Egypt

**Email:** Salwaabouelella@hotmail.com

### 4.2. Information about the project stakeholders

Channel Maintenance research Institute, High Aswan Dam Authority.

## 5. Project Methodology

### 5.1. Work Packages

The proposed study will be undertaken within 2 years as the following:

#### *The first year*

Study the aquatic weed problems in Nasser Lake will be carried out to formulate one question “What are the type of the aquatic weeds and their infestations along the lake?”

In order to answer this question, data will be collected on the following items:

1. Establish and develop a comprehensive geo-referenced database for Nasser lake concerning the type of aquatic weeds and their infestation. The database will depend on:
  - 1 Collecting data from published papers concerning the aquatic weeds infestations along Lake Nasser
  - 2 Collecting data from some authorities such as Ministry of Agriculture, Ministry of Water Resources and Irrigation, etc.
  - 3 Detecting the most heavily infested locations along Nasser lake that cause serious problems.
  - 4 Defining the history of the presence of weeds in the lake for several years ago
  - 5 Using the collected data, new modern technologies that contain a set of satellite images could be integrated with the GIS for distinguishing and mapping the distribution of the aquatic weeds
2. Determine the potential negative impacts of excessive aquatic weeds infestations along the proposed study areas
3. Monitor water quality, algae types, and other species along Nasser lake which affect on the weed growth
4. Determine the pollution sources qualitatively and quantitatively

***The second year***

The second year will focus on the following:

- 1 Testing the most appropriate tools/methods to control the aquatic weed infestations. It will be standardized by a group of experts in order to translate the shared vision into concrete action
- 2 Conducting series of training courses under the foregoing programs for the benefit of the staff to meet the challenge of water resources management, types of aquatic weeds, problems of aquatic weeds, and methods for aquatic weed control

**Plan of Activities:**

Work Package No	Work Package title	Responsible Partner	Involved Partners involved
WP1	<p>Establish and develop a comprehensive geo-referenced database for Nasser lake concerning the type of aquatic weeds and their infestation. The database will depend on:</p> <ul style="list-style-type: none"> <li>• Collecting data from published papers concerning the aquatic weed infestations along Lake Nasser                             <ul style="list-style-type: none"> <li>a. Collecting data from some authorities such as Ministry of Agriculture, Ministry of Water Resources, etc.</li> <li>b. Detecting the most heavily infested locations along Nasser lake that cause serious problem</li> <li>c. Defining the history of the presence of weeds in the lake for several years ago</li> <li>d. Using the collected data, new modern technologies that contain a set of satellite images could be integrated with the GIS for distinguishing and mapping the distribution of the aquatic weeds</li> </ul> </li> </ul>		
WP2	Determine the potential negative impacts of excessive aquatic weed infestations along the proposed study areas		
WP3	Monitor water quality, algae types, and other species along Nasser lake which affect on the weed growth		
WP4	Determination of pollution sources qualitatively and quantitatively		
WP5	Testing the most appropriate tools/methods to control the aquatic weed infestations. It will be standardized by a group of experts in order to translate the shared vision into concrete action		
WP6	Conducting series of training courses under the foregoing programs for the benefit of the staff to meet the challenge of water resources management, types of aquatic weeds, problems of aquatic weeds, and methods of aquatic weed control		



Work-package No	Action No	Start (mm/yy)	End (mm/yy)	Description of activities, components, means	Responsible Partner	Involved Partners	Location	Expected output / deliverables
WP1	1	1/2006	7/2006	<p>Establish and develop a comprehensive geo-referenced database for Nasser lake concerning the type of aquatic weeds and their infestation. The database will depend on:</p> <p>a. Collecting data from published papers concerning the aquatic weed infestations along Lake Nasser</p>	CMRI			Implementing a data base for aquatic weeds infestation in Nasser Lake Khores
	2	1/2006	7/2006	<p>b. Collecting data from some authorities such as Ministry of Agriculture, Ministry of Water Resources, etc.</p>	CMRI	AHDA		Implementing a data base for aquatic weeds infestation in Nasser Lake Khores
	3	1/2006	7/2006	<p>c. Detecting the most heavily infested locations along Nasser lake that cause serious problem.</p>	CMRI	AHDA		Implementing a data base for aquatic weeds infestation in Nasser Lake Khores
	4	1/2006	7/2006	<p>d. Defining the history of the presence of weeds in the lake for several years ago.</p>	CMRI			Implementing a data base for aquatic weeds infestation in Nasser Lake Khores
	5	1/2006	7/2006	<p>e. Using the collected data, new modern technologies that contain a set of satellite images could be integrated with the GIS for distinguishing and mapping the distribution of the aquatic weeds</p>	CMRI			Determine locations of overgrowth aquatic weeds and detect their negative potential impact on the ecosystem in lake Nasser

WP2	1	1/2006	1/2007	Determine the potential negative impacts of excessive aquatic weed infestations along the proposed study areas	CMRI	AHDA	Determine locations of overgrowth aquatic weeds and detect their negative potential impact on the ecosystem in lake Nasser	
WP3	1	2/2006	7/2006	Monitor water quality, algae types, and other species along Nasser lake which affect on the weed growth	CMRI		Extend the knowledge of the environmental factors and their roles in determining the biomass allocation in aquatic weeds	
WP4	1	1/2006	1/2007	Determination of pollution sources qualitatively and quantitatively	CMRI		Extend the knowledge of the environmental factors and their key roles in determining the biomass allocation in aquatic weeds	
WP5	1	1/2007	1/2008	Testing the most appropriate tools/ methods to control the aquatic weed infestations. It will be standardized by a group of experts in order to translate the shared vision into concrete action				
WP6	1	6/2007	7/2007	Conducting series of training courses under the foregoing programs for the benefit of the staff to meet the challenge of water resources management, types of aquatic weeds, problems of aquatic weeds, and methods of aquatic weed control			Improve the capacity building of staff in water resources management issues by providing series of training courses concerning the aquatic weeds and their control	



## 6. Project results

Activities	Expected Results	Performance Indicators	Critical Conditions (Assumptions and Risks)
<ul style="list-style-type: none"> <li>- Collecting data from some authorities such as Ministry of Agriculture, Ministry of Water Resources, etc.</li> <li>-Defining the history of the presence of weeds in the lake for several years ago.</li> <li>-Using the collected data, new modern technologies that contain a set of satellite images could be integrated with the GIS for distinguishing and mapping the distribution of the aquatic weeds</li> <li>- Detecting the most heavily infested locations along Nasser lake that cause serious problem</li> </ul>	<p>Establish and develop a comprehensive geo-referenced database concerning types of aquatic weeds and their infestations in lake Nasser and its khores.</p>		<p>Creating a data base for all activities.</p> <p>Training institute staff for carrying out the GIS analysis and remote sensing technologies</p>
<ul style="list-style-type: none"> <li>-Determine the potential negative impacts of excessive aquatic weed infestations along the proposed study areas</li> <li>-Monitor water quality, algae types, and other species along Nasser lake which affect on the weed growth</li> </ul>	<p>Extend the knowledge of the environmental factors and their key roles in determining the biomass allocation in aquatic weeds</p>		<p>Support the ministry to protect the water resources environment in Nile River.</p>

Activities	Expected Results	Performance Indicators	Critical Conditions (Assumptions and Risks)
-Determination of pollution sources qualitatively and quantitatively	Determine locations of overgrowth aquatic weeds and detect their negative potential impact on the ecosystem in lake Nasser (especially water losses and fish production)		Support of the minister of irrigation and water resources.  Support the decision maker in selecting the time and the required budget for aquatic weeds management
-Testing the most appropriate tools/methods to control the aquatic weed infestations. It will be standardized by a group of experts in order to translate the shared vision into concrete action	Determine the aquatic weeds controlling methods (manual - mechanical ) in order to find the most required appropriate control methods in each determined location		Using consultants for insuring the availability of the out put.  Support the ministry to protect the water resources environment in Nile River.
-Conducting series of training courses under the foregoing programs for the benefit of the staff to meet the challenge of water resources management, types of aquatic weeds, problems of aquatic weeds, and methods of aquatic weed control	Improve the capacity building of staff in water resources management issues by providing series of training courses concerning the aquatic weeds and their control.		

## 6.1. Project Outcomes

The outcome of the project addresses how the results are expected to change the situation the project addresses. The outcome of the project is therefore reflected in the project goal.

## 7. Monitoring and Evaluation

Project monitoring activities	Indicators used	Responsibility	Dates
Using a specific soft ware for analyzing the satellite images	-Using consultants for verifying the accuracy of the out put results	CMRI	1/2006 - 1/2007
Measuring the physical and the chemical parameters in water surface and different depths from water surface and also from the sediment	Using the Egyptian allowable standard for law 48/1982 for the measurable allowed some parameters in irrigation and drainage watercourses	CMRI	1/2006 - 1/2007

Project evaluation activities	Indicators used	Responsibility	Dates
Every six months	Initial results reports	CMRI	6 & 12 / 2006 - 6 / 2007
End of the project	Final report	CMRI	12/2007

## 8. Project personnel

Name	Position/Title	Qualifications relevant to the project	Experience relevant to the project
Prof. Dr. Mohamed Fawzy Bakry	Director of Channel Maintenance Research Institute-NWRC		
Dr. Magdy Mohamed Hosny	Associate Prof. Researcher, Channel Maintenance Research Institute-NWRC		
Dr. Hosam Mahmed Ibrahim	Associate Prof. Researcher, Channel Maintenance Research Institute-NWRC		
Dr. Salwa Abou Elella	Researcher, Channel Maintenance Research Institute-NWRC		

## 9. Project Budget

### 9.1. Project costs

#### 9.1.1 Project costs per items and partner (in Euro)

Estimated budget: L.E. 0.3 Millions Euro (L.E. 0.15 Million Euro yearly for 2 years)

### Brief Evaluation of the Project Proposal

The project proposal is well thought out and clearly presented. Although the scope of activity is quite technical the amount of technical language is limited - in some cases specific language is used (e.g. Khores) that would be difficult for a reader with no prior understanding.

In setting out the project overview it can be useful to begin with a sentence that describes what the project aims to do, such as: "Lake Nasser provides 95% of Egypt's fresh water - this project aims to utilize technology to manage invasive weed species that can threaten this resource."

The section on project context contains some technical language that could be difficult for non technical personnel to understand. This same section makes a number of points that underline the importance of the project in terms of maintaining effective management of water resources - and the potential of

## Project Proposal

### Geo-Information Management System for Evaluating the River Nile Banks Stability (GISNB)

#### 1. Basic information

##### 1.1 Basic information about the proposed project

<b>Project Title</b>	Geo-Information Management System for Evaluating the River Nile Banks Stability					
<b>Project Acronym</b> (abbreviation)	GISNB					
<b>TIMEFRAME</b>	START	1/2006	END	1/2008	DURATION	24 months

##### 1.2 Information about project proponent / lead partner organization

<b>Organization Name:</b>	Survey Research Institute					
<b>Address:</b>	308 Al Ahram Street Al-Talbia Giza.					
<b>Date established:</b>						
<b>Hours of operation:</b>	From 8:0 a.m to 3:0 p.m					
<b>Website:</b>						
<b>Name and title of primary contact:</b>	Prof. Dr. Maha Tawfik, director of Institute.					
<b>Phone:</b> 5849283	<b>Fax:</b> 5849297			<b>Email:</b> SRI_NWRC@yahoo.uk.co		
Name and title of additional contact			Dr. Hanan Farag, Head of GIS unit.			
<b>Phone:</b> 5849283	<b>Fax:</b> 5849297			<b>Email:</b> Hanan_Farag@yahoo.com		

#### 2. Project overview or summary

The stability of River Nile banks has a major economical, environmental and social influence on the people living along the river banks. Banks' stability comprises many hydraulic, spatial and temporal parameters varying continuously, which enhances the need of Geo-Information system capable to store, manipulate, analyze spatially and update diverse data easily and efficiently.

Furthermore, the management of the large amount of data related to the River Nile Banks needs to be stored in well organized system. In addition, the variation of data spatially and temporally requires a system capable of updating these data regularly. The system will provide a full power of managing spatial and attribute data offering an appropriate tool for studying the stability of the River Nile banks.

Researchers, technicians, water sector organizations and decision makers will be involved in this project. Their contribution will be in controlling the irrigation and drainage systems and providing their experience. The most beneficiaries will be the land owners along the river banks. The initial proposed project will cover the pilot area along the Nile River banks.

This project is enhancing the proper controlling of the irrigation and drainage systems based on the stability of the river banks. So, it is expected to be expanded along the River Nile banks from Aswan to Delta after implementing the results of the proposed methodology. The suggested project can be considered as a pilot project which can be addressed in other region suffering from the instability of river banks.

To execute the suggested project, experts in the field of geo-technical engineering will be involved. They provide the data concerning the soil properties of the banks. Also, experts in hydraulic theories are needed for proper implementation of the project outputs, to help decision makers in selection of the best sites for construction the hydraulic structures and the technical contribution of the directories of irrigation and drainage system in the pilot area.

The SRI will provide the surveying equipment required GIS software, facilities, space, supplies and the qualified staff in the field of survey and GIS. This staff will be contributed in data collection and construction the geo-information system. In addition, the project will need a technical support in the fields of hydraulic and geo-technical engineering and the co-operation of the directories of irrigation, drainage and water sectors authorities.

### **3. Functions of the Proposal**

#### **3.1 Project context or background to the issues/problem**

The management process for the river banks stability should take into account the economical, environmental and social influences on the people living along the river banks. Banks' stability comprises many hydraulic, spatial and temporal parameters varying continuously, which enhances the need of Geo-Information system capable to store, manipulate, analyze spatially and update diverse data easily and efficiently. The system will provide a full power of managing spatial and attributes data offering an appropriate tool for studying the stability of the River Nile banks.

#### **3.2 Project rationale**

The project will develop the methodology for compiling a geo-information system to a slope stability program. This will develop decision support system capable of evaluating the stability of any section along the River Nile banks. The developed system will be able to store and retrieve data easily and in a limited time according to any future field variations or observations.

#### **3.3 Project impact**

The project has different influences in the environmental and social scale. The land owners who are living along the river banks are considered the main sector affected by the project outcomes in order to protect their land, homes and their agricultural activities. The organizations responsible for building the hydraulic structures are indulged with the project in order to design adequate structures capable of efficient controlling of irrigation and drainage in the study area. After implementing the project outputs, an assessment will be presented to be applied in region suffering of the same problems. The project first phase will be applied in a pilot area and then expand to cover the river banks from Aswan to Delta.

#### **3.3. Overall project goal**

Developing a Management Information System to analyze the stability of River Nile banks and to define the priority of River banks sites which need banks protection.



### 3.4. Project objectives

- Define the significant parameters influencing bank stability along the Nile River
- Customize a geo-information system to store, organize and manipulate the data describing any particular section along the river banks
- Develop a code that permits the retrieval of geometric, hydraulic and geotechnical properties from the geo-database to be analyzed by a slope stability program in order to assess the stability of the river banks.
- Present the results of the engineering code in an integrated geographical framework that relates the information and results to their spatial location along the river banks.
- Execute the proposed methodology on a pilot area for developing engineering code capable of assessment the stability of any river banks.

## 4. Staffing and Organizational Information

### 4.1. Information about the project proponents and partners

The researchers who work in the survey institute are in charge in designing the geo-database and the proposed methodology, engineers and technicians collect the field data needed using survey instruments, analyze queries of geo-database and implement the outputs of the project. In addition experts are involved in the hydraulic and geotechnical designs to provide the adequate information needed for assessing the river banks stability. Construction Research Institute (CRI) is considering one of the research institutes of the National Water Research Center (NWRC) which has a great experience in the field of geo-technical studies. Also, Hydraulic Research Institute (HRI) is the research institute concerning mainly with the hydraulics studies. In addition, Water sector authorities play significant role in controlling the irrigation and drainage systems in the pilot area studied.

### 4.2 Information about the project stakeholders

The main stakeholders involve in the project are the land owners along river banks, they report the actual situation of the banks and any sudden modifications. Organisations responsible of building the hydraulic structures on the river banks provide valuable consultations regarding hydraulic impact in the area studied. Staff of SRI institute plays an active role in executing the project based on their experience in the survey and GIS domains. Directories managing the irrigation and drainage systems in the pilot area offer great support to the project by supplying expert staff needed in the evaluation of the river banks stability.

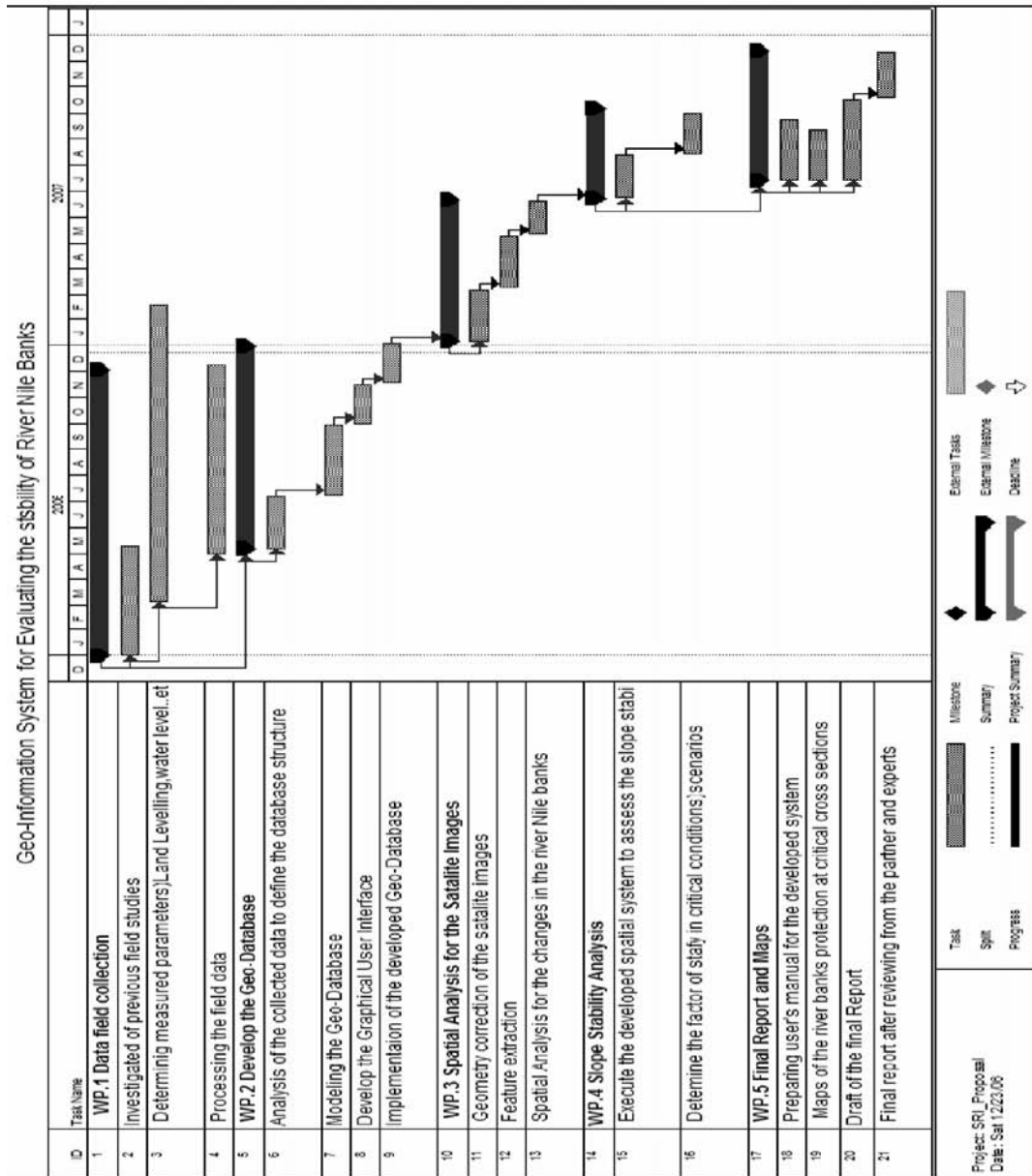
## 5. Project Methodology

### 5.1 Work Packages

Work Package No	Work Package title	Responsible Partner	Involved Partners involved
WP1	Data field collection	SRI Staff CRI Staff HRI Staff	Hydraulics and geotechnical experts (CRI), (HRI)

WP2	Develop the Geo-Database	SRI Researchers	
WP3	Spatial Analysis for the Satellite Images	SRI Researchers	
WP4	Slope Stability Analysis	CRI Staff	
WP5	Final Report and Maps	SRI Staff CRI Staff HRI Staff	Hydraulics and geotechnical experts (CRI), (HRI)

The detailed project activities plan is described in the next chart and the critical activities are determined.



## 6. Project Results

In this section the project expected results will be described. In addition, four progress reports (every six months) will be published. User's manual guide for the developed system and information maps are one of the expected project outputs.

Activities	Expected Results	Performance Indicators	Critical Conditions (Assumptions and Risks)
Data field collection	Technical report of the field measured data	Follow up system based on the time scheduling plan for the activities through defining Critical Path Method (CPM)	-Financial Support -Permanent Qualified Staff
Develop the Geo-Database	Information reports which present the actual situation and the prediction of the future changes.		Financial, Human and physical resources
Spatial analysis for the Satellite Images	Maps of the river Nile banks.		-Financial resources -Permanent Qualified Staff
Slope Stability Analysis	Factor of safety (F.S) of the slope stability in critical condition		

### 6.1. Project Outcomes

The expected project outcome is enhancing the controlling of the irrigation and drainage systems based on the stability of the river banks. So, it is expected to be expanded along the river Nile banks from Aswan to Delta after implementing the results of the proposed methodology. The suggested project can be considered as a pilot project which can be addressed in other region suffering from the instability of river banks.

## 7. Monitoring and Evaluation

Project monitoring activities	Indicators used	Responsibility	Dates
The validation of the geo-database	Capability of the system to support the updated data	SRI researcher	Jan 2007
The acquisition of surveying field data	Reviewing of integrated field data and comparing with the satellite images	SRI, CRI researcher	

# IPTRID

The International Programme for Technology and Research in Irrigation and Drainage (IPTRID) is an international multi-donor programme, co-managed by partner organizations, created in 1990 at the request of the International Commission for Irrigation and Drainage (ICID).

Its Secretariat, first located at the World Bank, was transferred to FAO in 1998, where it is being hosted, in the Land and Water Division (NRL) as a Special Programme.

IPTRID aims at improving the uptake of research, exchange of technology and management innovations by means of capacity development in the irrigation and drainage systems and sectors of developing countries to reduce poverty, enhance food security and improve livelihoods, while conserving the environment.

IPTRID acts as a facilitator mobilizing the expertise of a worldwide network of leading institutions in the field of irrigation, drainage and water resources management.

Together with its partners, the IPTRID Secretariat provides advisory services and technical assistance to countries and development agencies, for the formulation and implementation of strategies, programmes, and projects. During the last ten years, it has been supported by more than twenty international organizations and government agencies. The present Programme is cofinanced by the Food and Agriculture Organization of the United Nations (FAO), the United Kingdom, the Netherlands, France and Spain, the World Bank and the International Fund for Agricultural Development (IFAD).

For further information about the IPTRID Programme, please contact the IPTRID Secretariat at the following address:

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