ENTRO
NILE BASIN INITIATIVE
INITIATIVE DU BASSIN DU NIL

GUIDELINE

NILE BASIN SUSTAINABILITY FRAMEWORK

ENSAP SOCIAL MANAGEMENT GUIDANCE

Document Control Sheet

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ENSAP | Eastern Nile Subsidiary Action Program

Social Management Guidance

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Eastern Nile Technical Regional Office (ENTRO)

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FOREWORD

The Eastern Nile Subsidiary Action Program (ENSAP) for whose projects identification and preparation ENTRO is responsible, has given due attention to social sustainability issues from its first days. The Social Development Office was one of the earliest units established at ENTRO to pursue the social development agenda. In a nutshell, the social development agenda at ENTRO brings to the fore and informs our project preparation work with such protracted and endemic social problems as poverty, unemployment and livelihood issues, gender inequality, social cohesion/exclusion, social conflicts, inequality, participation, etc. It is indeed unconscionable to call anything "development" while these problems are left unaddressed, even worse, while they are deepening.

The Social Development Office, in pursuit of discharging its responsibilities, has been conducting social development capacity building workshops targeting Regional and National ENSAP staff along with taking full part in and informing ENSAP Project preparation processes. Further, the Office has prepared an ENSAP Social Assessment Manual (SAM) to support water resources professionals in their project preparation work. The SAM was of limited scope meant to address immediate needs related to Project preparation work. There was however a continuing missing gap pertaining to upstream, large scale, transboundary water resources development at policy, plan and program levels. This document, the ENSAP Social Management Guidance, is meant to fill this gap.

This Social Management Guidance (SMG) is companion to the ENSAP Environment Management Guidance (EMG). Both documents complement each other and in tandem will contribute strong foundation to ensure the social and environmental sustainability of ENSAP projects.

The content of this document is very extensive. Ten Appendices provide ample reference material from major documents (e.g. World Bank/IFC Safeguards/Equator Principles; SADC and EU Water Charters, Dublin Principle, etc.). Cases and examples from around the world related to each theme under discussion are brought succinctly forth in 14 text boxes, in addition to nine tables. All this is in addition to the substantive content of discussing social management guidance at policy, plan and program levels. Since this guidance is at the upstream levels, the document is expected to provide useful insights to ENSAP member countries' decision makers that deal with transboundary implications of national water resources management and development plans and programs (e.g. ENSAP governance i.e. ENCOM, ENSAPT members) in addition to related sectoral ministerial agencies such as those of agriculture, energy, environment, etc.

We hope readers will find this document useful. We are always ready and welcome your comments.

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January 2013, Addis Ababa

PART I

Social Management Guidance

I. Introduction:

The Nile Basin comprises Burundi, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, South Soudan, Sudan, Tanzania and Uganda. Of these eleven countries ten are members of the Nile Basin Initiative (NBI). Eritrea has an observer status. The NBI is a transitional institution that has developed a Shared Vision of "*sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources*." The purpose of the NBI is not only to increase the range and share sustainable socio-economic benefits, but also to promote peace and security in the region.

The NBI Shared Vision is being realized through cooperative development and management of the common Nile Basin water resources by means of two complementary programs. These are the *Basin-Wide Shared Vision Program (SVP)* - now completed and closes - and the *Subsidiary Action Programs (SAP),* which are still ongoing. While the SVP is a multi-sectoral program intended to build confidence and water resources management capacity across the basin to form the infrastructure of cooperation, SAPs are designed to initiate concrete investments and actions on the ground in the Sub-Basins of the Nile. Figure 1 shows the complimentarity between the Shared Vision and Subsidiary Action Programs.
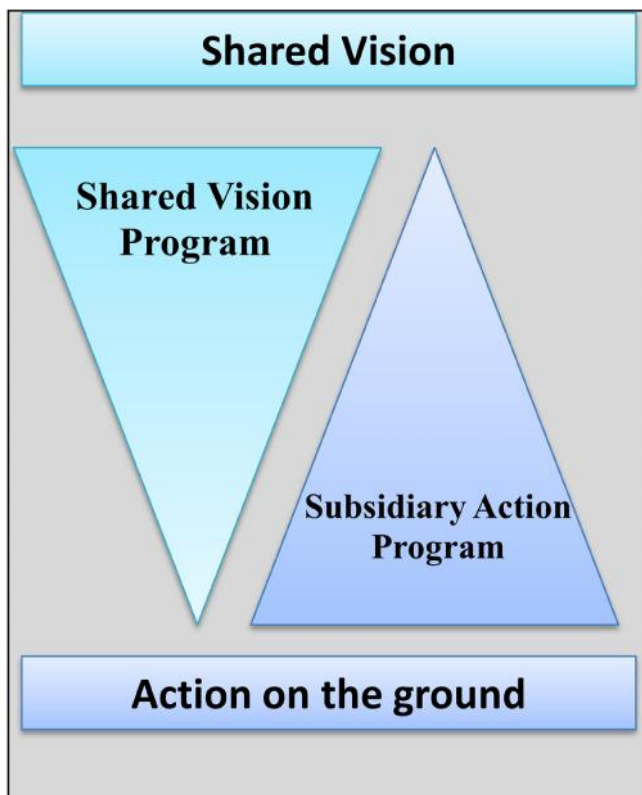
The Eastern Nile Subsidiary Action Program (ENSAP) is thus one of the two SAPs of NBI, comprising Egypt, Ethiopia, and Sudan and soon to include South Sudan, while the other program, namely the Nile Equatorial Lakes Subsidiary Program (NELSAP) covers other regions of cooperation. Each program has its working arm. ENSAP's working arm is the Eastern Nile Technical Regional Office (ENTRO), located in Addis Ababa (Ethiopia), while NELSAP is served by its Coordination Unit, namely the NELSAP-CU, located in Kigali (Rwanda).

The Eastern Nile Subsidiary Action Program (ENSAP) was launched within the framework of the NBI to initiate investments in the sectors of hydropower generations and transmission interconnection, irrigation and drainage, flood preparedness and early warning, watershed

management, development of planning models and joint multipurpose programs. In launching ENSAP, the Eastern Nile Council of Ministers (ENCOM) agreed to ensure efficient water management and optimal use of resources, target poverty alleviation and promote economic integration through cooperative investments. The first joint institution of the three countries – the Eastern Nile Technical Regional Office (ENTRO) coordinates the preparation of ENSAP projects.

Proposed ENTRO Organizational Structure (2010)
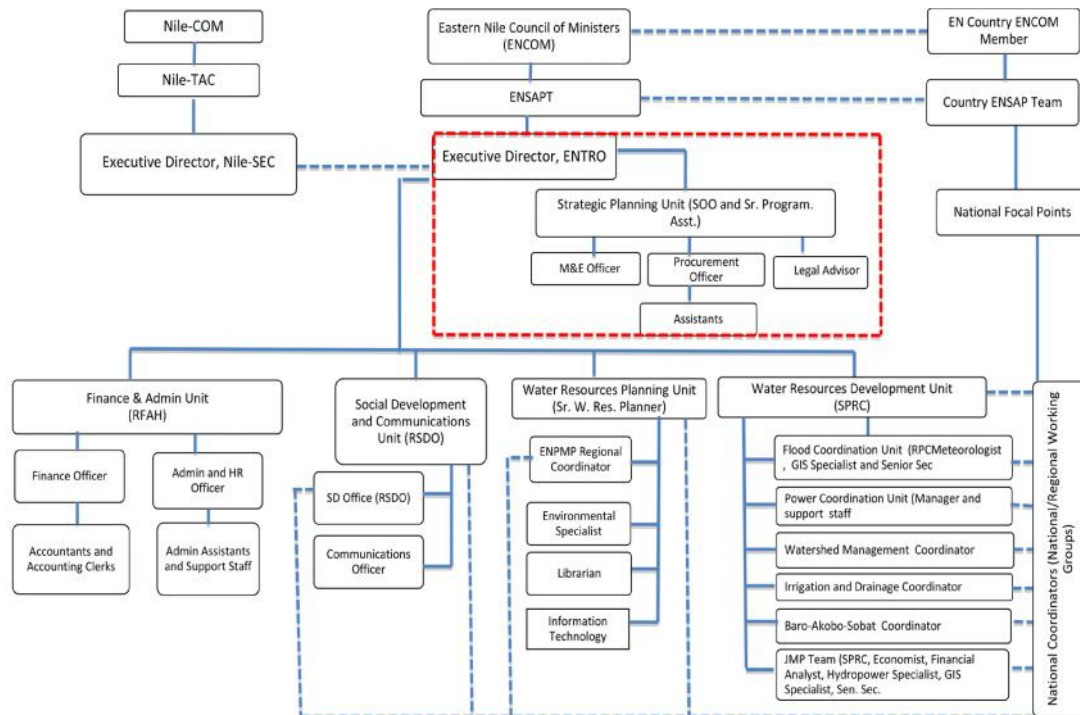
* The Chart reflects the ISP planned restructuring that is underway at ENTRO. The Water Resources Planning is being established with the ongoing recruitment of Senior Water Resources Planner. The restructuring will be submitted to ENSAPT/ENCOM for approval.
** National Project Coordinators are assigned Government Officials.

To further its Shared Vision, the NBI is developing Environmental and Social Policy (ESP), in order to provide for a basin-wide framework of cooperation on environmental and social issues that ensure an equitable and sustainable development of the Basin. Its main purpose is to improve decision-making and project results to ensure that all NBI investments are environmentally and socially sustainable, as well as in line with international best practices. To name but some, many international texts draw the principles of cooperative action on environmental and social issues, such as the Southern Africa Development Community Water Charter, the Dublin Principles, the World Bank Safeguards, the African Development Bank *Borrower's Responsibility*, and the Equator Principles for Financial Institutions. They all very rightfully highlight the importance of environmental and social sustainability as a vital aspect of all forms of development in general, and water resources in particular (for a discussion of the definition of Social Sustainability and its key features, see *Appendix A*).

In light of its own emerging Environmental and Social policy, as well as international best practices the Council of Ministers (ENCOM), governing ENSAP had required from it at its inception, to observe sustainability requirements and good practice in its operations. To achieve this, ENTRO has sought to integrate social and environmental safeguards in its project preparation.

ENSAP has thus developed several documents to structure the assessment and management of environmental and social aspects and impacts of its projects. However, in developing such documents, ENTRO has proceeded in different ways. On the one hand, and with regard to environmental issues, ENTRO proceeded by producing an Environmental Management Guide (EMG) which addresses environmental questions in a comprehensive holistic way, visible in its sections of "Management Guidelines", "Approval and Compliance Mechanisms", but also in its guidance on environmental tools as well as its development of an Action plan pertaining to the implementation phase. The Guide thus addressed the "upstream" environmental concerns, which appear at the policy, plan and program levels.

With regard to social issues on the other hand, ENTRO's Social Development and Communication Office developed a Social Assessment Manual (SAM) to meet its immediate needs. SAM gives guidance on social assessment associated with ENSAP project prepartion and shifted focus to address the social issues on a more concrete operational and project-preparation level. As such SAM did not concern itself with more upstream social issues, including the analysis of legislative and institutional contexts which would facilitate the implementation at national and/or transboundary levels.

1.1   Assignment Objectives and Challenges

The Social Management Guidance (SMG) is intended to give structure and formality to ENTRO's social function as an institution by scaling up the existing Social Assessment Manual (SAM) into Social Management Guidance (SMG). This process will lay a foundation across the EN region for: (i) a unified SM framework that embodies the social principles already guaranteed by the respective national frameworks, and (ii) consistent SM practices that actualize those principles. Furthermore, the SMG is meant to enhance the capacity of ENTRO to play a role in social management activities at policy, plans and programms levels.

The scaling up of the SAM into SMG is justified for the following reasons:

• The SAM does not address the gaps in safeguard policies at the national level as regards ENSAP projects.
• Thus the SMG aims at scaling up the SAM to lay the foundation for mainstreaming soical issues at the policy, plans and programs levels at the national as well as the trarns-boundary/regional levels.
• Social Assessment is inadequately addressed in the EMG. This by itself is a good enough reason to account for the added value of SMG. For example, one of the main areas of concern for social assessment is resettlement and compensation programs which received scant attention at the EMG.

More specifically, SMG aims to:
• Act as a preliminary guide for management of social issues at ENTRO and in the EN countries.
• Ensure that ENSAP projects are designed to be socially sustainable by strengthening capacities and providing a unified framework for management of social issues arising from ENSAP programs and projects.
• Inthe long run pave the way to transform the guidelines and practices into EN trans-boundary guidelines.
• Strengthen capacity to implement social plans in the EN countries especially for ENSAP projects.

The SMG is meant to apply only to regional and country programmes, projects and activities that are being managed by NBI centres or NBI projects. ENTRO does not currently have a mandate to regulate social issues at large in each country, but through proper management of its own activities, hopes to influence future developments in this area.

However, there are several challenges which confront this endeuvor:

(1) while in all of the EN countries there is one istitutional entity that is responsible for the formulation and implementation of environmental plolicies, plans and programs at the natonal level, no such institutional entity is in existence in any of the three countries with regards to social issues. That is to say, social issues are scatered across several government bodies such as the ministeries of education, health, labor, social welfare, planning, econmy to name a few. In all of the EN countries there is only one legal framework that deals with environmental issues (Environmental Law). Social issues on the other hand, are the concern of several laws such as labor laws, eduacation laws, criminal Laws among other.

(2) While some social issues are also transboundary issues, there is no one single transboundary institution at the regional level that focuses on addressing these issues. Each gruop of issues that fall with the juricdiction of certain ministeries .i.e. labor, education, health, gender, welfare etc... are treated in isolation. In other words, there is no regional coordinating entity.

(3) Social laws are scattered across legal codes, i.e. there is a lack for a coherent legal document of code that can be called social law.

Furthermore, while environmental issues are relatively easily identifiable, what constitutes the social is not so clear.

This guide is intended for ENSAP officials, ENTRO officials, policy makers, academic institutions, ministries of water resources and irrigation. As such it is not intended as a manual for field or projects' engineers to ensure the inclusion of the social impacts of the projects they undertake are included in their endeavors. Rather, it is intended to ensure that the social dimension is being taken into account at early stages, fairly upstream at the policy, programmers and planning level.

1.2 The approach of risks at ENSAP

The necessity for a Social Management Guide is thus born from the growing risks of addressing social aspects of development projects pretty late, only at the operational and implementation level.

Increasingly trans-boundary, it is now imperative not only to produce Guidance on the management and incorporation of social issues, in the upstream phases of water resources development but to push for better transnational cooperation of social matters in the Nile Basin. This means, that as much as the Environment Management Guide, the Social Management Guide needs to assess and address institutional and legal gaps which may hinder the incorporation of social issues at upstream levels, and in a transnational manner.

1.3 Methodology

The current SMG is based on three interconnected processes: First, review of existing documents concerned with regional and international agreements, declarations water deemed potentially relevant to EN as well as those relevant to ENTRO mandate. Second, brief consultations with ENTRO Social Development Officer and Environmental Specialist held in Cairo during early November 2012 where major substantive contents the SMG have been agreed upon. Finally, a review of current ENSAP projects and programs' social issues, particularly reference was made of the ENSAP Social Assessment Manual. These three processes synergistically yielded what to focus on and select during the analysis phase.

1.4 Implementation Mechanism(s)

As stated above, environmental issues in EN countries enjoy the privilege of having one institutional entity that is responsible for addressing them while social issues do not have such advantage. This situation brings to the fore the issue of the implantation mechanism (s) or institutions responsible for ensuring that social issues are taken into account in all policies, plans and projects at the national and regional levels.

In each of the three EN countries there exists a ministry that is responsible for managing water resources. While the extent of attention paid by these entities to socio-economic issues as they relate to water resources is difficult to assess, there are some indications that they are increasingly considering this dimension as evident by their embarking on –though still limited in scale- implementing the IWRM approach to water issues. These ministries can act as institutional incubators for ensuring that social issues are included in policies, plans, programs and projects.

Furthermore, in Egypt, for example, there is a Supreme Committee for Water. The Committee, however, does not include in its membership any of the ministries concerned with social issues. Its main concern is with national water security from a political perspective. Social cohesion and the impact of water issues and conflicts thereof on social cohesion is thus not considered as a major concern. An expansion of the membership of this committee to include ministers of labor, social affairs, health and education, among others, could bring such perspectives into the fore and inform deliberations from a social development vantage.

At the regional level, ENTRO can act as a catalyst to facilitate the initiation of a multilateral arrangement among the three countries to addressing social issues at the policy, plans and program levels. That the three countries are signatories to the NBI mandate which is explicit about the relevance of social issues can be built upon.

1.5 Existing Legal and Institutional Bodies in Eastern Nile Countries

Covering the Eastern Nile legal and institutional instruments pertaining to water-related projects is a task that necessitates the analysis of each country's domestic framework. Social issues in relation to water resources development and management projects are often transboundary in scope. This means that coordination between NBI member states on e policy formulation, implementation and supervision is necessary for success of social policies. *Appendix B* provides a review of existing institutional entities that deal with social issues of major relevance to in the three Eastern Nile countries. More specifically it addresses legal and institutional frameworks related to resettlement and compensation, marginalized people, gender and HIV/Aids. Furthermore, *Appendix C* presents an inventory of constitutional and legal codes related social issues in the three EN countries.

1.6 Large Scale Social Issues and Significant Risks at the Trans-Boundary Level

This section summarizes social issues relevant to ENTRO projects. As such it reflects what has taken place on the ground. Issues that must be considered at the policy, plans and programs will be dealt with in the next section.

People across countries in the Eastern Nile Basin are inter-connected by water and the centrality of this source to their lives. Because of this centrality, social issues in the Eastern Nile Basin are increasingly related to access to water resources, water management, land degradation and climate change. The commonality of water as a structural agent in social life across Eastern Nile has also precipitated in the spread of the social issues across borders, lending them a trans-boundary dimension. Social issues pertaining to water resources in the region start with poverty. Constant expansion of land for cultivation has been progressing by a considerable rate of 3% annually, due to population pressure, coupled with the decreasing productivity of land. Climate change has been an important factor in the equation, with variable rainfalls and unprecedented periods of drought. As a result, livelihood in the region has been increasingly vulnerable, with the mounting difficulties for populations to have access to basic socio-economic rights such as safe drinking water, sanitation and healthcare.

The growing need to develop the water resources of the Nile, and cooperation thereof, has encouraged investment in the water sector. However, the rapid implementation of water development projects has created further and novel social vulnerabilities, in extent and nature, which need to be addressed not only at the operational level, but also more importantly at a national and trans-boundary policy-making level. The formulation of guidance and unified principles on the incorporation of social issues in program planning at the very upstream phases is the principle, and most important mission of the Social Management Guidance.

There are numerous social issues related to water development projects. The most obvious issue is one of resettlement, which aggressively distorts the cultural and historical structure of the resettled populations. The rate at which water development projects are implemented, coupled by the increasingly rapid expansion of land for cultivation have disturbed traditional ownership distribution and systems, which are part and parcel of the historical and cultural base of populations. Thus, the preservation of cultural and historical heritages of population – most often than not intensely tied to the land, has become increasingly pressing social issue, which needs to be addressed in much earlier stages of the project cycle. Understanding the ethno-linguistic and cultural diversity of the region, which comprises 40 ethno-linguistic groups, the distortion of traditional network and social capital, especially at this rate may hinder the co-existence tradition which has preserved the region from violence, but that is also very importantly linked to land distribution and geographical location. Social cohesion is thus yet another social issue, which is most likely to accompany large-scale projects of water development, simply because they involve bigger lands and larger populations.

Attempts to address these issues during earlier stages of the project cycles highlight several branching issues, core to the efficient and effective approach of the mainstreaming ones.

First, it is crucial to properly identify who are the <u>stakeholders</u>. This means the need for social mapping to recognize and acknowledge the different actors, along with their respective roles, interests and potential impacts on the implementation and the sustainability of the project. The manner in which the stakeholders will participate in the project phases needs to be taken into consideration, especially addressing the issue of <u>sustained access to information,</u> and encouragement of <u>marginalized groups</u> to take part in the process. Hence, <u>gender</u> becomes another important central social issue to be accounted for in the upstream phases of the cycle. Although it is undeniable that disparities in traditional social structures exist before the implementation of the project, it is possible and even likely that water development projects could further the latter through unaccounted impacts of the project, especially in a region where social structure is very intimately tied to land, water and productivity. (Detailed tabulation of social impacts of ENSAP projects is presented in ***Appendix D***.)

Appendix E proposes, -in addition to those issues tabulated in Appendix D above other social issues of relevance to social development that must be taken into consideration at the policies, plans and programs levels. These proposed issues are a culmination of world wide experience in development. These issues include: social cohesion and equity, education, labor and land acquisition, resettlement and compensation, cultural and historical heritage and resource base and governance. Cross cutting social themes which include poverty, environment, population, gender, participation and health are also presented. Given the interrelationship between environmental and social issues, Appendix E also makes reference to the potential impacts of climate change on social issues and vulnerabilities. It also makes a specific reference to negative experience in the Eastern Nile countries that give rise to this guide. The presentations in Appendix D are supported by evidence marshaled from accumulated experience of best practices from around the world including the Eastern Nile and Nile Basin countries.

II. SOCIAL MANAGEMENT GUIDANCE

2.1   The Development Cycle

Proper management of ENSAP activities, to make sure they are implemented in a way consistent with the social sustainability principles of ENTRO and the NBI, requires an expanded view of the overall progression of development activities, from the formulation of Policies, Plans, and Programs (PPPs), to the preparation of projects that result from these PPPs, to the implementation and eventual decommissioning of these projects. Five stages have been identified:

PPP formulation/development: This is the process of creating policies, plans, or programs at a high level of decision making, using in depth Social Analysis of the implications of the PPP (based on previous policy experience) and the strategic objectives of the PPP making body. For policies, this usually involves a national legislative process. Consideration of environmental and social issues and the inclusion of public representatives (including public hearings, as needed) are important aspects in the formulation of sound and legitimate PPPs.

• **PPP adoption/implementation:** Approval of a PPP entails numerous lower level processes which are meant to achieve the objectives of the PPP, including formulation and design of projects. PPP implementation is a continual process, without a definitive end point. Monitoring of the activities resulting from the PPP is needed to assess its efficacy, and improve future policy decisions.

• **Project preparation**: Identification, design, and approval of specific development projects. Social Assessment must be carried out to ensure that project activities are in line with national social policies and strategies, and will comply with all relevant regulations and standards.

• **Project implementation:** Once a project receives the necessary licenses, construction and operation activities may begin. This stage involves direct impacts on the earth and environment, as well as human activities, thus requires prepartion of mitigation strategies and plans. Monitoring is needed to ensure continual compliance with regulations throughout the life of the project.

• **Project post-implementation/decommissioning:** Project activities are designed to only last for a limited time. Once the project has run its course, it may be assessed to determine its overall effectiveness in achieving goals, and the accuracy of original predictions about the implications of PPP and project activities. This information can then be used to inform higher level decision making (PPP formulation), or the preparation and implementation of other projects. The steps of this cycle, along with the associated EM tools, are summarized in Table 1, below.

The development of a PPP may be informed by a Strategic Social Assessment, to include input from relevant stakeholders on . This strategic assessment should include some monitoring and mitigation measures, which can be reviewed during the implementation of the PPP (generally a process without a well defined end) to inform individual projects that may result from the PPP, changes and modifications to the PPP, or future PPPs. The implementation of a particular PPP will tend to create lower level projects. The design of these projects should include an impact assessment. A management plan, developed as part of the impact assessment, should be used to monitor project implementation, and when the project has run its course, auditing is used as a way to assess the overall effectiveness of social measures taken.

Table 1: Development activity cycle and associated SM tools

Progression of development activities				
PPP formulation/ development	PPP adoption/ implementation	Project preparation	Project implementation	Project postimplementation/ decommissioning
Associated SM tools				
Strategic Social Assessment (SSA)	Monitoring and review (M&R)	Social Impact Assessment (SIA)	Social Impacat Management Plan (SIMP)	Auditing

2.2   Activity Categorization

It is common practice as part of the initial review (screening) of a PPP's likely social and environmental impacts to use a system of categorization that reflects the magnitude of potential impacts of the proposed activities. When considering institutional responsibilities for the environmental assessment of PPPs or projects in the EN region, it is useful to distinguish activities according to whether they are proposed or implemented by a national or regional body, and whether the potential impacts and benefits are local or trans-boundary in nature.

The proper categorization of activities will help determine what standards a particular plan or program, or project, will be held to for compliance, as well as what institutions will be involved in the approval of the assessment, and the final decision about the activity. Following in the footsteps of the categorization prposed by the recently UNEP entitled "Methodology for the Assessment of Transboundary River Basins" as well as that presented at the EMG Table 2 presents categories for general activities in the EN region that might be subject to social assessment, and indicates at what level approval and compliance matters belong. Such a categorization could be included in national assessment guidelines, to indicate when proponents need to consider trans-boundary impacts and include regional bodies in the review and approval of assessments.

Table2: General categorization of potential activities

		Proponent/Implementation	
		National	Regional
Potential Impacts/ Benefits	Local	Category 1 Approval from national authorities Compliance with national standards	Category 2 Approval from national authorities Compliance with regional standards
	Trans-boundary	Category 3 Approval from regional authorities Compliance with national standards	Category 4 Approval from regional authoritiesCompliance with regional standards

A broad definition of the terms used to categorize projects is provided here, adopting the ones formuated for the ENSAP Environment Management Guidance. However, in the long run it will be important to develop specific agreed criteria for determining these categories, particularly for distinguishing local impacts from trans-boundary ones.

For this document an activity is considered "national" if the proponent is a government body from one of the EN countries, or if the implementation happens within the national

boundaries of a particular country. National projects will be subject to national requirements and guidelines first, but may require regional consultations, information sharing depending on the scope of the impacts. On the other hand, an activity is considered "regional" if it is promoted jointly by two or more EN countries' (via bilateral agreement or a regional body such as ENTRO), or if the implementation involves activity in more than one country. In such cases, regional standards should be applied, that comply with the national systems of each affected country.

Potential impacts and benefits are considered as "local" if they are not perceived or intended to significantly affect the environment and natural systems beyond the national borders of the country. where the activity is taking place. If the opposite is true, or if the activity affects the ability of other EN countries to utilize the Nile resources in some way, the impacts are considered "transboundary". Extended geographical extent and effect of activities is a key indicator of the significance of potential impacts. Since ENSAP is a cooperative regional program by definition, and its mission is to implement regional programs with shared benefits, its activities will mostly fall into Category 4, but may fall within Category 1 if the project is the type prepared regionally but implemented under the auspicies of each country, and the impacts are not transboudary. Further discussion of this category is most relevant to the SMG practices to be adopted by ENTRO. (For further details on the relationship between social impact assessment and the development cycle see (*Appendix F*).

2.3   Compliance, Approval, and Consultation

Compliance consists of two parts:

• Conforming with assessment requirements and procedures at the appropriate level during the planning/development of the PPP or project;

• Monitoring significant environmental and social impacts during the implementation of the PPP or project and the responsibility for overseeing this monitoring. The tools included in this SMG are intended to form a set of practices consistent with international standards for best practice.

The responsibility of monitoring and enforcement must always fall at the national level, since ENTRO does not yet have the resources to monitor compliance or the mandate to enforce it, beyond the scope of its own activities. This matter ties into the issue of approval of SM activities on a regional scale, since there is not yet a regional body with the authority to approve of studies/projects.

Given the current situation, an effort must be made to work for consensus through consultation at the national (NFP) and regional (ENSAPT, ENCOM) levels within the NBI/ENSAP organizational modalities, and when and as needed consult with the public as described below. This aspect of consultation must serve as a soft form of approval until a stronger basis for regional enforcement is established.

III. Core Indicators for Social Assessment

3.1 Core indicators

Social assessment should identify the social changes and their connection to environmental impacts, evaluate the social costs of long-term continuation of the project . The assessment should be supported by core indicators and analytic tools. Clustered into five main categories, proposed core indicators to support EN River Basin social assessment are as shown in table 3 below, followed by a discussion of the indicators.

Table 3: Core Indicators for EN River Basin Social Assessment

CLUSTER	INDICATOR
Water Quantity	1. Human water stress 2. Agricultural water stress
Water Quality	3. Urban water pollution
Ecosystems	4. Biodiversity and habitat loss 5. Ecosystem/environmental service degradation 6. Fish threat
Governance	7. Governance architecture 8. River basin resilience 9. Water legislation
Socio-economic	10. Economic dependence 11. Societal well-being 12. Vulnerability

3.1.1 Water Quantity Indicators

☐ Human water stress

Rationale: Water scarcity is a, if not the *key* limiting factor to development in many transboundary basins. Water stress can be caused by a combination of increasing demands from different sectors and decreasing supply due to climate change-related variability. Human water stress has been defined in a number of different ways. This indicator deals with the quantity of water available per person per year, on the premise that the less water available per person, the greater the impact on human development and well-being, and the less water there is available for other sectors.

Computation: Water availability per person per year.

☐ Agricultural water stress

Rationale: Globally, agriculture accounts for approximately 70 percent of all water abstraction. Agriculture is important for food security and livelihoods in many countries, and can be a key source of export income. This indicator covers both rain-fed (implicitly) and irrigated (explicitly) agriculture. The proportion of irrigation indicates the dependency of agriculture in the basin on irrigation. Higher levels of irrigation will generally indicate higher levels of water withdrawal, less available water for other sectors, and potential vulnerability to decreases in rainfall as a result of climate change. This indicator can be compared to the human and environmental water stress indicators to see which issue is likely to be of greatest importance to the basin.

Computation: Available water in the basin (accounting for water abstracted for domestic and industrial uses, and irrigation), divided by area of cropland.

3.1.2   Water Quality

☐ Urban Water Pollution

Rationale: Urban water pollution can have adverse impacts on both environmental and human health. These include biological and chemical oxygen demand (BOD and COD), an increase in pathogens, turbidity, eutrophication, and an increase in 'persistent' pollutants such as metals and toxic chemicals (Persistent Organic Pollutants (POPs)). With rapidly expanding cities often without adequate sanitation services and regulatory frameworks to control pollution, this is a significant problem in many parts of the world. This indicator considers both municipal and industrial pollution, the two main pollution sources in the urban setting.

Computation: The computation of this indicator is complex. Essentially it is a measure of the quantity of municipal and industrial effluents compared to available water resources, with a 'pollution control factor' which takes into account the likely level of treatment of the wastewater.

3.1.3   Ecosystem Indicators

☐ Biodiversity and habitat loss

Rationale**:** Protection of wetlands is an example of society's recognition of the importance of ecosystems for river basins and the willingness to take concrete steps to conserve these valuable resources. In contrast, biodiversity and habitat loss often results from direct draining or longitudinal impoundment that makes floodplain areas dysfunctional by levee construction and river channelization for urban areas and cropland protection. As the habitat lost/protected ratio may be the same for two areas with different climates and biomes irrespective of biodiversity status, basins are further prioritized based on the change occurred to species threat status.
Computation: The proportion of lost wetlands lost combined with the change in species threat status i.e. the number of species in each Red List Category moving between categories in different assessments.

☐ Ecosystem degradation

Rationale**:** The negative impact on ecosystems of altering waterways by dams, water transfers and canals must be considered for managing of water resources in a sustainable way. It is no longer acceptable to draw water from nature for use in agriculture, industry, and everyday life without taking into account the role that ecosystems play in sustaining a wide array of goods and services, including water supply.

Computation: A combination of the metrics: river fragmentation (proportion of basin accessible from each grid cell), flow disruption (proportion of upstream reservoir capacity over mean annual discharge), and dam density.

☐ Fish threat

Rationale**:** Fish are a major source of protein and micronutrients for a large part of the world's population. Inland fisheries in rivers, lakes, and wetlands are an important source of this protein because almost the entire catch gets consumed directly by people, i.e. there is practically no by-catch or 'trash' fish in inland fisheries. In addition to loss of fish habitat and environmental degradation, the principal factors threatening inland fisheries are fishing

pressure and non-native species. Overfishing is a pervasive stress in rivers worldwide due to intensive, size-selective harvests for commerce, subsistence, and recreation.

Computation: The total estimated fish harvest relative to expected fish productivity and the proportion of non-native species.

3.1.4   Governance

☐ **Governance Architecture**

Rationale: This indicator assesses the existence of transboundary governance architecture', or arrangements, in place to address selected issues relevant to transboundary river basins. It considers the completeness of the policy cycle, from the preparation of advice, through implementation and monitoring and evaluation of impacts. Given the global scale of the assessment in Level 1, it does not attempt to assess the performance or effectiveness of the governance arrangements, but only to assess the existence of such systems.

Computation: The assessment will identify the extent to which governance arrangements cover the following critical transboundary issues: water allocation, water quality, fisheries, biodiversity, and habitat destruction. Vulnerability to climate change is recognized as being a component of all of these issues. These issues have been chosen for their importance to transboundary basins at a global scale. The assessment is expected to reveal the extent to which the issues are covered, whether there are gaps or overlaps in coverage and the nature of the arrangements that are in place.

☐ **River basin resilience**

Rationale: Historically, events of conflict over transboundary waters have been more frequent in regions characterized by high inter-annual hydrological variability (De Stefano*, et al.,* 2010). Under climate change, this variability is likely to increase. The level of institutional and regulatory capacity of a basin is critical to define its resilience or vulnerability to climate change-induced water variability. This indicator assesses this capacity against the risk of variability. The results also indicate the potential for transboundary conflict within the basin, with low scores indicating greater potential for conflict.

Computation: Combination of type of treaty and membership of river basin organizations for each country basin unit. These should be aggregated at the basin level based on population, area, irrigation area, and discharge.

☐ **Water legislation**

Rationale: Both the above indicators (governance architecture and basin resilience) focus on governance at the transboundary scale. It is also important to look at governance at the national scale for countries within each transboundary basin. This indicator considers the development of water resources policy and legislation in each riparian country, and the extent to which these utilize an *integrated* approach to land and water resources management.

Computation: The development of water resources policy plus water resources legislation for each country-basin unit (CBU), combined using a weighted average 'importance' of each country to the basin based on population, area, irrigation area, and runoff.

3.1.5   Socio-economic Indicators

The approach focuses on the quantifiable features of livelihood systems (economics), societal well-being (social) and vulnerability components. The three indicators are made up of a number of metrics and are therefore presented in table 4 provides an overview, with a discussion of the indicators following the table.

Table 4: Socio-economic indicators

INDICATOR	METRIC
1. Economic dependence on water resources	- GDP/total water withdrawal - Agricultural GDP/total GDP - Fish catch GDP/total GDP - Energy-related GDP/total GDP
2. Societal well-being	- Access to adequate water supply - Access to adequate sanitation - Adult literacy - Life expectancy - Income inequality
3. Vulnerability to climate-related	- natural disasters - Flood risk - Drought risk

☐ **Economic dependence on water resources**

Rationale: Several sectors that support national and basin economies depend on water resources. Increased pressures on these resources leave populations that are dependent on these sectors vulnerable. This indicator involves the metrics shown in table 4 above. The GDP per total water withdrawal gives an indication of the dependence of a society on water withdrawals across sectors. Globally, the agriculture, fisheries, and energy sectors are among the most important that rely heavily on water resources. Tourism and transport may also be dependent on water resources but insufficient data was available on a global scale.

Computation: By computing the contribution to GDP from each of the main three water-reliant sectors as a proportion of total GDP, it is relatively straightforward to combine these to obtain a proxy for economic dependence on water resources. The weighting of each metric to form the indicator must be identified.

☐ **Societal well-being**

Rationale: The inclusion of the metrics for societal well-being is based on the premise that healthy, educated and well-serviced societies have a greater capacity to adapt to, and manage, pressures on water resources. The indicator is a measure of vulnerability or resilience that can be an additional way of assessing the likely impact of other 'pressure' indicators on societies. The social component is closely interlinked with the economic, vulnerability, and governance indicators.

Computation: National data is generally aggregated to the basin level through a weighted average based on population in each country-basin unit (CBU).

☐ **Vulnerability to climate-related natural disasters**

Rationale: Floods and droughts cause more loss of life and economic losses than all other natural disasters each year, and the likelihood and severity of floods and droughts is likely to increase with climate change. Impacts of floods and droughts are felt both by humans and ecosystems, and include impacts on food security, damage to infrastructure, and displacement of people.

Computation: Flood and drought risk calculated on a grid basis by combining the level of hazard with the mortality- and economic loss-related vulnerability coefficients.

☐ **On The Relative Importance of the above Social Aspects and Indicators**

The above presentation and discussion of the social aspects and indicators is clearly built on the assumption of mutual interactions and functional interdependence between the social and environmental aspects. Given the dominant focus on social issues in this guide, it remains, however, important to explicitly state which social aspects are more important than tothers. Unfortunately, there is no rule of thumb to go by. Social issues are by nature value loaded and ideologically ridden. However, the dominant tendency in development economics until recently has been one that favored the rise in GDP as the most important indicator of societal development. As such, issues of distribution and who benefits from development have been overlooked.

Following Sen and his stress on human development it is proposed here to adopt a broader perspective that stresses human capabilities and capacities as a measure of development albeit in combination with economic indicators such as GDP growth rate. Accordingly, indicators pertaining to societal well being and societal and community resiliency as reflected by their capacity to adapt to natural disaster, floods, droughts and other calamities are considered important indicators. The rationale behind this choice is that these capacities broaden the range of choices available to human beings to react to both social and natural adversities. To these must be added those related to governance. It has been proven that the failure of development can not be attributed merely to economic policies alone; it is also, in large part, due to deeply entrenched governance failures. Increased impunity of political, economic and administrative elites in the context of constrained freedoms and weakened accountability mechanisms has undermined equitable and inclusive economic growth. Equitable development in the region has been delayed by two governance deficits: one in state capacity and accountability and one in societies' empowerment.

IV. **Social Tools**

4.1 **Participatory Rapid Appraisal (PRA)**

A variety of tools are used in PRA. A classification into visualised analysis, interviewing and sampling, and group and team dynamic methods has been suggested. Examples include: ***participatory mapping and modelling*** (people are asked for example to make maps or three dimensional representations of their social, demographic, health environment), ***time lines and trend and change analysis*** (describing changes in land uses, changes in cropping patterns, chronologies of events relevant to local life), ***seasonal calendars*** (describing seasonal variations in activities, diet, labour, expenditure, debts …), ***wealth and well-being*** grouping and ***rankings*** (by categorising households or individuals the poorest are identified by locally perceived well-being indicators, often as a byproduct a wealth of information on livelihood strategies, assets, access to factors of production is gathered).

The variety of these methods and their flexibility distinguishes them from other methods which elicit selfperception data through ***structured questionnaires*** (as for example in identifying the minimum level of income necessary for the poverty line. As these tools are often adopted in a sequence, the assessment can be tailored so as to fit the context and the issues to be analysed appropriately. Further, different tools are used in order to triangulate (i.e. validating through cross-checking) the results which might allow different insights to emerge.

In performing a PRA, care is needed to choose tools and sequences which are well suited to capture the core ***elements of deprivation*** in the specific context and the assessment. This might imply, for example, adopting different sequences for urban and rural contexts.

As an example of the variety of issues which might be investigated in a PPA in Table 5 a a description of the issues and methods considered in the World Bank's Zambian PPA in rural areas is presented. Looking through the table two main features stand out: one is the variety of issues discussed, the other is the number of methods suggested for treating every issue. The detailed breakdown of issues shows that different issues can be dealt with jointly or sequentially, which reinforces the importance of careful planning of the sequences to be adopted, not least to avoid repetition which would be time wasting as well as boring for the participants. It is also clear that, though a PPA is meant to inform policies, not all types of poverty related research would be equally concerned with discussing policy-options, especially if the research is unlikely to have a direct bearing on the options available. It could therefore raise expectations which cannot be fulfilled.

Table 5 . Issues and methods in the PRA in Zambia (rural areas)

ISSUES	METHODS
Perceptions and indicators of wealth, well being, poverty, vulnerability, powerlessness, local terminologies and their correspondence with such ideas. Differences in perceptions by gender.	Wealth/Well-being grouping, for criteria and indicators ▪ Social mapping ▪ Semi-structured mapping
Perceptions of change over time in welfare, indicators, terms of trade	Time-line (for migration, rural terms of trade, environment, etc.) Income and expenditure patterns trend Analysis
Access to services (and usage of services) such as health, education and credit. Preferences –especially where choice between option is possible. Perceptions of services, including views (or awareness) of	▪ Institutional diagramming ▪ Semi-structured interviews ▪ Trend analysis of services – e.g. health, ▪ Education, agricultural extension,

recent change. Again, different perceptions and values for men and women.	marketing.
Seasonal stress: food security, health, general livelihoods	▪ Seasonal calendar (health, food security, ▪ food intake, access to fuel, water, etc.). Comparative seasonal calendars, good years, bad years, average years
Assets of rural communities (access to services, common property resources, other natural resources)	▪ Resource mapping ▪ Focus group discussion Institutional diagramming (Venn/Chapati diagam)
Assets of rural households Wealth	▪ Wealth ranking/grouping ▪ Livelihood analysis
Coping strategies in times of crisis	▪ Livelihood analysis ▪ Semi-structured interviews ▪ Ranking exercises
Perceptions of consumption levels in terms Of food, clothing, and relation to wellbeing	▪ Wellbeing grouping/rankings on ▪ expenditure outlets, social mapping ▪ Semi-structured interviews
Community based support mechanisms for the rural poor (community "safety nets")	▪ Institutional mapping ▪ Semi-structured interviews
Long term environmental trends, for example, declining soil fertility, declining rainfall	▪ Historical transects ▪ Community time lines ▪ Rsource mapping at different points in time ▪ Trend analysis
Role of community institutions in service/infrastructure provision	• Institutional mapping • Semi-structured interviews

Source: deGraft Agyarko (1997) in IDS(1998).

4.2 Participatory Stakeholders Analysis

Participation in development can be defined as the **process through which people with an interest (stakeholders) influence and share control over development initiatives and the decisions and resources that affect them**. In practice this involves employing measures to: *identify relevant stakeholders, share information with them, listen to their views, involve them in processes of development planning and decision-making, contribute to their capacity-building and, ultimately, empower them to initiate, manage and control their own self-development*.

Participation can take different forms, depending on the breadth of stakeholders involved and the depth of their participation.

> **Box 1: Project Example: Poverty Analysis-China**
>
> *The World Bank, with grant assistance, is evaluating the poverty impact of the Bank Loess Plateau project interventions. The mountainous Loess plateau covers six provinces of northern and western China and has suffered environmental degradation due to extensive soil and water erosion which are major factors in poverty and reduced livelihood opportunities.*
>
> *The aim of the China Watershed Management Project is to improve systems for participatory monitoring and evaluation, to establish best and new practice models which emphasize poverty reduction and to establish best and new practice models to be disseminated to relevant Chinese and donor programmes.*
>
> *ITAD is involved in the development of a Monitoring and Evaluation System for the China Watershed Management Project which will help to evaluate the poverty impact of the Bank Loess Plateau project interventions. The approach is developing a process-oriented system for monitoring poverty and particularly the linkages between poverty and the environment.*
>
> *The process involves creating 'platforms' for stakeholder participation at various levels and practical application at field level with the aim of developing the skills and capacities required to establish processes and structures that will sustain the system.*
>
> *Environmental and poverty indicators are decided in a participatory manner and the system is being developed in alignment with existing approaches to project monitoring and reporting. The consultancy includes writing a practical manual which will guide implementation of the M&E system during the following project stages.*
>
> **Source**: http://www.itad.com/index.aspx

Box2 describes six progressive levels of stakeholder involvement. The first three levels (information-sharing, listening and learning and joint assessment) constitute consultation, rather than participation as such. These levels might be considered as prerequisites for participation. The next three levels (shared decision-making, collaboration and, finally, empowerment) constitute progressively deeper and more meaningful levels of participation. As one moves from "shallower" to "deeper" levels of participation, stakeholders have greater influence and control over development decisions, actions and resources.

Stakeholder analysis is a methodology for identifying and analyzing the key stakeholders in a project and planning for their participation. It is, therefore, the starting point of most participatory processes and provides the foundation for the design of subsequent stakeholder activities throughout the project cycle. A thorough stakeholder analysis should be carried out in the early planning stages of all Bank-supported projects, and reviewed and refined from time to time as the details of project design become more detailed and definite. Stakeholder analysis seeks answers to the following fundamental questions:

Who are the key stakeholders (primary/secondary) of the proposed project?

What are the interests/fears of these stakeholders?

How will they be affected (positively/negatively) by the project?

Which stakeholders are most important for the success of the project?

How will various stakeholder groups participate throughout the life of the project?

Whose capacity needs to be built to enable them to participate?

Proposed methodology

Participatory stakeholder analysis can initially draw on secondary data (desk study) but, to accurately identify interests and plan subsequent participation, requires direct collaboration with key stakeholder groups. Workshop-based and/or field-based methods can be used to gather primary data, brainstorm with stakeholders regarding their interests and expectations and to jointly plan for stakeholder participation throughout the project cycle. In many countries, experienced national institutes, research centers, government officials, social scientists, academics, or NGOs can be recruited to assist in carrying out stakeholder analysis.

Step 1 - Stakeholder Identification

The first step of stakeholder analysis is to identify relevant stakeholder groups. Key questions to ask are:

Who are the project's targeted beneficiaries?
Who might be adversely impacted?
Will the project impact (positively or negatively) any vulnerable groups?
Who are the projects main supporters and opponents?
Who is responsible for carrying out planned activities?
Who can contribute financial and technical resources?
Whose behavior has to change for the intervention to succeed?

An initial list of stakeholders can be drawn up on the basis of a desk review of secondary data (publications and documents) and existing staff knowledge of the project, sector and country. This preliminary list must then be verified, modified and enhanced at the country level through: interviews with key informants (government officials, donor representatives, sectoral experts, NGO staff, and community leaders); consultations with already identified stakeholders, and; site visits (during which methods of participatory research/data collection

may be used as necessary. See section 4.4) Special care must be taken at this stage to ensure that the scooping exercise is wide-sweeping and that no marginal groups are inadvertently excluded.

Step 2 - Analysis of Stakeholder Interests and Project Impacts

Once relevant stakeholder groups have been identified, the next step is to analyze their interests (overt and hidden) and to assess the potential impact of the proposed project on their interests. Key questions to be answered include:

How does each group of stakeholders perceive the problem at hand and proposed solutions? What are their key concerns and interests with respect to the project?

What are stakeholders' expectations of the project?

What does each group of stakeholders stand to gain/lose as a result of the project?

What conflicts might a group of stakeholders have with a particular project strategy?

How do different groups of stakeholders relate to each other?

Where is there convergence/divergence between their interests and expectations?

These questions are best answered by stakeholders themselves in the context of a stakeholder workshop. Such a workshop requires careful preparation and could require a full day (depending on the complexity of the project and stakeholder interests).

Step 3 - Stakeholder Prioritization

The analysis of stakeholder interests and project impacts should allow the project team to categorize different groups of stakeholders and to determine the relative priority that the project should give to each stakeholder group's interest. Key questions are:

a) Who is the project's targeted primary beneficiaries?

b) What is the importance of each stakeholder group to the success of the project?

c) What is the degree of influence of each stakeholder group over the project?

d) Are special measures needed to protect the interests of primary stakeholder groups that are weak or vulnerable?

4.3 Stakeholder Action Planning

The ultimate goal of stakeholder analysis is the definition and development of a stakeholder action plan that outlines the specific activities to be carried out by each stakeholder group (including agreed timelines, inputs and resources, progress indicators, etc.). Some stakeholder groups will have active and continuous roles to play, while others may only need to be kept informed of progress or be involved at certain key moments of planning/implementation. A stakeholder action plan is best drawn up in direct collaboration with those concerned. Again, a participatory workshop (or series of workshops) is often the best way to proceed.

4.4 Gender Analysis

Gender Analysis is a way of looking at socio-economic and political situations to identify underlying factors related to gender that can enhance or inhibit efficacious development interventions. Undertaking gender analysis requires collection and analysis of results by gender e.g. data on the social status and socio-economic roles of different groups of women and men. Gender based or specific indicators make it possible to measure inequalities between women and men, for example as regards poverty, violence, education, HIV/AIDS and political representation.

In contrast with their role as primary caretakers in the welfare of their societies, the role of African *women in decision-making processes in the development and management of water resources* has most often been neglected. In general, women have largely been excluded from institutional structures responsible for, or involved in, the planning and implementation of

water-sector projects. Thus, in the past, projects have been formulated and implemented without taking into account the *preferences and capacities* of women. Furthermore, women also suffer from discriminatory *land tenure systems*, and inadequate *access to credit* which place them at a distinct disadvantage when it comes to allocation of resources for socio-economic activities. Policies to equip and empower women to participate at all levels in water resources management programmes are rare.

Gender equity implies the effective participation of women in the planning, design, implementation, evaluation, and all other decision-making processes in water resources development and management. The role of women as custodians of food and water related issues at household level should be fully taken into account. Women are particularly concerned about family and community issues. They may therefore be better contributors to the establishment and maintenance of project facilities. Experience has shown that women are sometimes better financial managers of water projects. They may also have preferences for different services that could enable them to engage in higher economic value activities.

Based on the above, for example, the African Development Bank supports water resources projects and policies that :

- give due recognition to the role of women, alongside men, as custodians of domestic water consumption and, as agricultural and food producers, who have interests in irrigation;
- improve women's access to and control over production factors, services and infrastructure facilities;
- reduce the domestic workload of women;
- create opportunities for women to improve their knowledge and capacities;
- seek women's active participation in decision-making at domestic, local, national and international levels; and
- Strengthen women's organizations**.**

4.5 Peace-Conflict Impact Assessment

Bush defines PCIA as a means of evaluating (ex post facto) and anticipating (ex ante, as far as possible) the impacts of proposed and completed development projects on: 1) those structures and processes which strengthen the prospects for peaceful coexistence and decrease the likelihood of the outbreak, reoccurrence, or continuation of violent conflict, and; 2) those structure and processes that increase the likelihood that conflict will be dealt with through violent means.

The dominant donor approach to evaluations locates them within the project cycle management' (PCM). While the details and nuances of this terminology will vary from donor agency to donor agency, PCM will always include the same basic components: project identification and design, project implementation and project evaluation. These are often represented as being in a dynamic, interactive relationship with a built in feedback loop (see Diagram 1).

Diagram 1: Project Cycle

Design

Evaluation
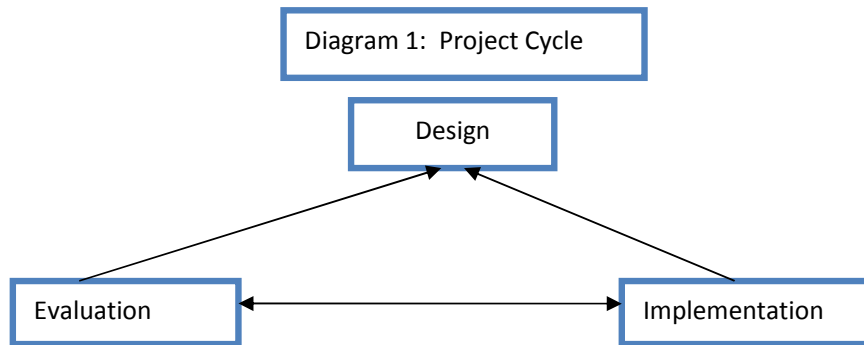
Implementation

The nature and purpose of such an evaluation is: Analysis of results and impact of the project during or after implementation with a view to possible remedial action and/or framing of recommendations for the guidance of similar project in the future" (European Commission 1993.) The reality, however, is much more linear. Evaluations often take place only at the end of the project cycle. In the more thoughtful implementing and donor agencies, the summative nature of these evaluations may then lead to ongoing monitoring or feed into overall programming guidelines.

More often than not, however, institutional practices inhibit the transfer of lessons learned and rarely are the insights from the evaluation of one project transferred to the design stage of similar or related projects. An interesting effort at institutionalising the follow up to evaluations was the Joint Evaluation Follow up Monitoring and Facilitation Network (JEFF). This was established after the Rwanda joint evaluation with the intention of ensuring that the report's recommendations were taken seriously and acted upon. Another example is the quarterly monitoring by the Operation Lifeline Sudan consortium (see OECD 1999, 27).

On the basis of a number of DANIDA and SIDA evaluations, as well as the guidelines of the Development Assistance Committee of OECD (OECD/DAC), the criteria most frequently invoked are:

4.5.1   Impact and coverage

Measures the lasting changes which are a consequence of project activities. It addresses the question: what real difference has the activity made and to whom? Impacts can be positive or negative; intended or unintended; immediate or long term; and take place at the micro, meso or macro levels. Coverage refers to the differential nature of the impacts which can be seen across particular sectors (e.g. social, economic, political, and environmental) and/or target groups (e.g. individuals, particular social groups such as the elderly, children, women, or communities and institutions).

4.5.2   Relevance and appropriateness

The former criterion assesses the extent to which the overall goal and purpose of a project is in line with policy needs and priorities; the latter focuses more on the activities and inputs level, assessing whether the project activities are properly tailored to local needs. This distinction allows an evaluation to conclude that, while the overall programme or project aim may have been relevant, the particular activities or projects pursued were not the most appropriate, and that better alternatives could or should have been identified.

4.5.3 Effectiveness and efficiency

Measures the degree to which the intended results are actually what was achieved, and whether maximum results were reached within the given level of resources. This allows for a judgment as to whether the same or better outcomes might have been achieved through the use of different inputs.

4.5.4 Timeliness

Were the activities pursued at the most opportune or appropriate moment?

4.5.5 Sustainability

This measures the extent to which the impact of a project is likely to continue after external funding has been withdrawn. It brings the longer term focus to bear on the project, highlights the possible impact on local power structures, dynamics and social capital and emphasises the need to be cautious about creating situations of dependency between the outside actors and the internal structures, processes or organisations (either in terms of funds, resources, ideas or processes)

A recent OECD/DAC overview of humanitarian evaluation methodology recognised some of these limitations and argues that evaluations must move beyond a narrow ‚project only' focus and develop a wider, policy oriented approach This expanded orientation would focus not just on the rationale and objectives of individual projects but on the mandates, underlying beliefs, assumptions and ideologies that have led evaluators to deem them worthwhile in the first place. It would also allow for a more pointed assessment of the tensions that can well exist between these and the successful implementation of particular projects. It is argued that such an approach would better capture the fluidity, complexity and interconnectedness of a situation and the range of responses to it.

In shifting away from a narrow, linear focus on cause/effect relationships to one that puts forward textured narrative accounts of events, processes and structure, an evaluation would aim at validation rather than verification. While this shift in orientation to the wider policy level would provide the basis for a more strategic assessment of the impact of policy on conflict dynamics and peacebuilding opportunities, it would still leave a gap in project level assessments. Moreover, although there is much that is relevant and helpful for PCIA in the standardised criteria being devised for the development and humanitarian fields, these cannot, in themselves provide an adequate foundation for the creation of an operational methodology unique to PCIA.

One current endeavour at developing and deploying a working PCIA methodology is that being developed by INTRAC for the UK Department for International Development (DFID). Noting that none of the various efforts at developing PCIAs to date have had much success in translating these into „frameworks and tools that can be integrated into donor policy", the INTRAC project sets out to develop a „smart planning and management tool that can assist policy makers and practitioners to mitigate conflict and promote peace in a more systematic manner" Drawing on an earlier DFID discussion paper it identifies three different components of an overall conflict assessment methodology: strategic conflict assessment (SCA), conflict impact assessment (CIA), and a peacebuilding framework (See Box 3).

Box 3: Areas of Potential Peace and Conflict Impact	
PCI Areas	Examples
Institutional Capacity to Manage/Resolve Violent Conflict & to Promote Tolerance and Build Peace	Impact on the capacity to identify and respond to peace and conflict challenges and opportunities; organisational responsiveness; bureaucratic flexibility; efficiency and effectiveness; ability to modify institutional roles and expectations to suit changing environment and needs; financial management.
Military and Human Security	Direct and indirect impact on: the level, intensity, dynamics of violence; violent behaviour; security and insecurity (broadly defined); defence/security policy; repatriation, demobilisation and reintegration; reform and retraining of police and security forces/structures; disarmament; banditry; organised crime.
Political Structures and Processes	Impact on formal and informal political structures and processes, such as: government capabilities from the level of the state government down to the municipality; policy content and efficacy; decentralisation/concentration of power; political ethnicisation; representation; transparency; accountability; democratic culture; dialogue; conflict mediation and reconciliation; strengthening/ weakening of civil society actors; political mobilisation. Impact on rule of law; independence/politicisation of legal system; human rights conditions; labour standards.
Economic and Political Structures and Processes	Impact on strengthening or weakening equitable socioeconomic structures/processes; distortion/conversion of war economies; economic infrastructure; supply of basic goods; availability of investment capital; banking system; employment impact; productivity; training; income generation; production of commercial products or services; food insecurity. Impacts on the exploitation, generation, or distribution of resources, especially non-renewable resources and the material basis of economic sustenance or food security.
Social Reconstruction and Empowerment	Impact on: quality of life; constructive social communication (e.g. those promoting tolerance, inclusiveness and participatory principles); displaced people; adequacy of health care and social services; incompatibility of interests; trust/distrust; inter-group hostility/dialogue; communications; transport; resettlement/ displacement; housing; education; nurturing a culture of peace.

Source:Bush, K. 1998. *A Measure of Peace: Peace and Conflict Impact Assessment of Development Projects in Conflict Zones*, Ottawa: International Development Research Centre, (IDRC) Peacebuilding and Reconstruction Programme Initiative and The Evaluation Unit (Working Paper No.1).

The first component, the strategic conflict assessment, is designed to offer an analysis of the conflict environment and would be conducted at a regional or country level. The second component, the conflict impact assessment, is intended to be a tool for desk officers in the screening, appraisal, monitoring and evaluation of projects. This second tier focuses especially on the project level, and establishes a basis for better assessing their capability to mitigate conflict related risks and to support peacebuilding opportunities. Such a tool also enables the conflict proofing of projects (minimising the impact of the conflict on the project), minimisation of harm (the impact of the project on the conflict) and maximisation of benefits (enhancing opportunities for conflict prevention and peacebuilding). The third component is the peacebuilding framework. This would be used to assess, monitor and evaluate projects

with an explicit and dedicated focus on peacebuilding. It would build upon the detailed project CIA, but also examine stakeholders' perceptions as the basis for developing indicators that could be used to assess impacts. The distinction between the second and third tiers is that the former focuses on ‚risk mitigation' while the latter on ‚exploiting opportunities'.

The third component is the peacebuilding framework. This would be used to assess, monitor and evaluate projects with an explicit and dedicated focus on peacebuilding. It would build upon the detailed project CIA, but also examine stakeholders' perceptions as the basis for developing indicators that could be used to assess impacts. The distinction between the second and third tiers is that the former focuses on ‚risk mitigation' while the latter on, exploiting opportunities'

4.6 Public Consultation

The general public should be allowed the opportunity to provide input during all phases of the project cycle. The methods, however, vary according to the project phase. During the preparation/planning/design of development activities (i.e. as part of the assessment process), consultation meetings should be held in which all IAPs ( ) are informed about the activities and their implications, and can voice their concerns about the relevant impacts of these activities. It is good practice to hold these meetings twice during the assessment process; once during **the scoping** and identification of impacts, and the second time after the **full assessment** of impacts has been carried out. This form of consultation can be seen as an independent method of approval for project activities, since the *documentation of major complaints should withhold formal approval of a project*.

The other form of inclusion occurs during the **implementation** of activities, at which time members of the public must be allowed to file *complaints or grievances* reflecting the quality of project implementation. A formal grievance mechanism is necessary to ensure that there is a proper avenue for feedback and that it is actively reincorporated into project design and implementation. This ensures that environmental and social impact predictions and standards are upheld, and that activities are stopped if they are not. Effective public involvement will:
• improve project design and sustainability by ensuring that all relevant needs and concerns are addressed.
• raise awareness of environmental issues among the people of the EN region, thus strengthening the overall capacity for environmental management.
• helps strengthen public confidence in ENSAP projects, and ENTRO and the NBI as Institutions.

The NBI has also developed its own framework for public participation and consultation. This framework is presented in *Appendix G*.

4.7   Resettlement Programs

Most, if not all, large scale interventions thouugh designed to benefit society at large, will neverthless entail social and/or environmetnal costs. It is often considered unfortunate but unavoidable that certain parties may at the same time be negatively affected by aspects of the intervention, such as acquisition of land or changes in access to assets, resources, and livelihoods. These situations require some form of compensation, particularly when forced resettlement of residents is a necessary part of project implementation. Resettlement programs may be designed to address negative social impacts which are incurred by any peoples displaced or affected by project activities. It is essential that consideration of all of the key social concerns identified in the SAM be included in the assessment of resettlement programs. Resettlement Policy Frameworks (RPFs) and Resettlement Action Plans (RAPs) are the tools used to deal with such situations. The purpose of the RPF is to establish resettlement objectives, organizational arrangements and funding mechanisms for any resettlement operation that may be necessary. When during implementation the exact extent of land acquisition becomes known, a RAP will be prepared. It should also be emphasized that the resettlement process should be completed *prior* to the start of physical works.

In Eastern Nile large scale water infrastructure developmentwill   most likely to require significant resettlement planning. Rresettlement planning should aim to to rehabilitate the moved people, and to provide reparation for the losses that they have incurred. Development undertakings, such as the construction of dams or other large infrastructure, should ideally provide affected people with an enhancement of their material circumstances, their range of options, and their control over day to day affairs, resulting in a number of specific outcomes:

   • Increasing income levels, as well as diversity of income sources, both agricultural and nonagricultural
   • Increasing control, and autonomy, over their productive activities
   • Property rights and security of tenure in the resettlement area
   • Access to services and infrastructure, which should also be reflected in better health indices.

These outcomes allow displaced peoples to instead become beneficiaries of the project, and thus be included in the development process. The World Bank specified certain measures, procecdures and criteria to be followed by any resttlement action plan resultant from large scale projects. *Appendix H* provides the details of the contents of the World Bank Resettlement Action Plan.

For further details on social assessment tools see (Apendix G).

4.8   Monitoring and Evaluation

4.8.1 Monitoring and Management Plans

Social (Impact) Management Plans (SIMP) should be developed as a key part of the assessments mentioned above, both strategic and project specific. RAP (Resettlement Action Planning is one such SIMP tool. At both levels, environmental and social predictions will be made, and mitigation measures suggested, and these need to be followed up to ensure that the assessments taking place are technically sound and reliable. This form of monitoring not only informs the particular project for which the SIMP is developed, but can increase the effectiveness of environmental management at other stages as well. SMPs are generally implemented by the project management unit or project proponent, and must be carried out in close partnership with the communities and local authorities for full compliance to national and international regulations.

4.8.2 The Interrelationship between Policies, Plans and Programs and Social Assessment Tools

Unlike environmental management where there are by now conventional methodologies such as Strategic Social and Environmental Assessment (SSEA) and Environmental and Social Impact Assessment, Social assessment is yet to reach this stage as evident by the review of the various tools stated earlier in this guide. Since social management is interlinked with environmental management, certain environmental tools will need to be used as part of the assessment process. It should be stressed, at this juncture that added emphasis must be placed on the follow-up to the assessment process (i.e. monitoring and evaluation) to ensure that good practices and lessons learnt are institutionalized and kept throughout the life of activities. The relationship between Social Assessment Tools and the various levels of associated development activities is presented in Figure 6.

4.8.3 Reporting

Periodic reporting on the progress of ENTRO's SM activities will help encourage feedback and positive growth in the practices. Semi-annual to annual reports would be ideal for the early phases of SMG implementation. The reports capture experiences with implementation of the SMG procedures (reporting format to be developed later) and guide on issues relevant for improving application and performance. The reports also provide information on the general state of the environment in the EN region.

Figure : The Link Between PPP and Social Assessment Tools
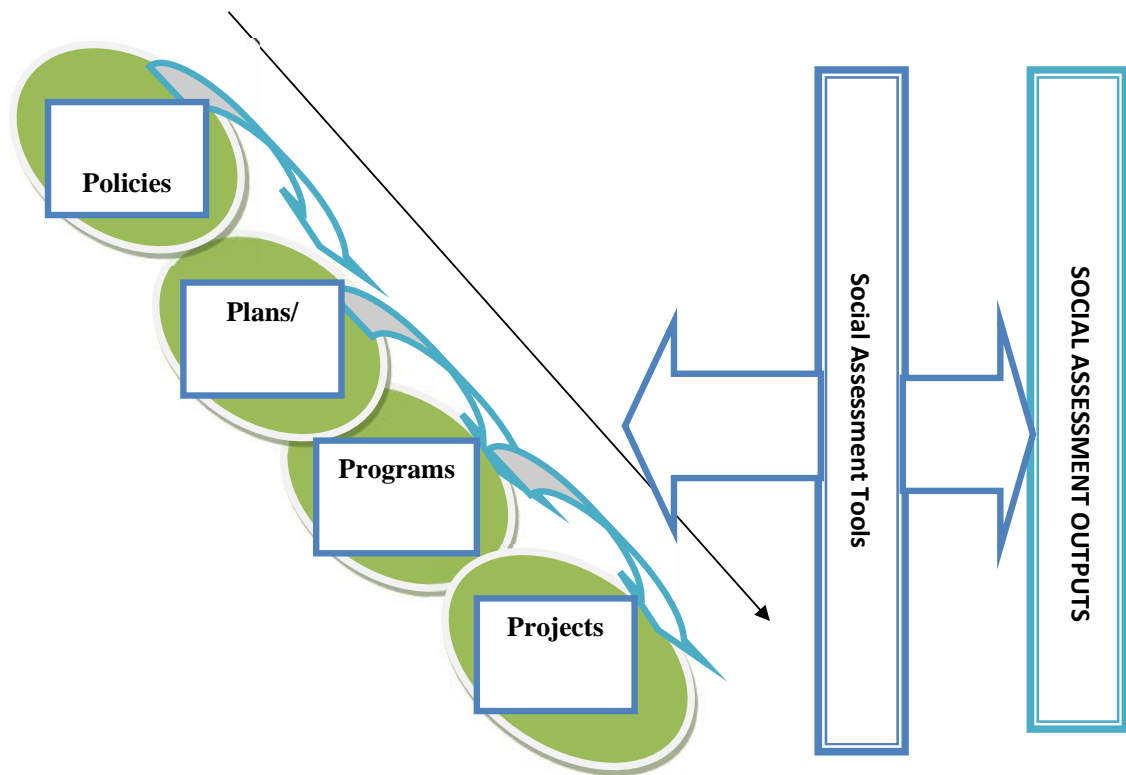
The ultimate purpose of development (to enhance human potenial) however, can be denied by the unintended consequences that reduce benefits or, if severe enough, threaten the sustainability of the project. Social assessment provides an opportunity to identify major impacts with the purpose of reducing or mitigating negative consequences and magnify positive ones. Good practice also requires acknowledging that social and environmental impacts are inherently linked.

Policies and Projects may create specific risks. For example, physical construction may present risks of impoverishment through displacement from land, housing, other assets, income or resources; such effects require a resettlement plan. Policy conditions may have costs such as loss of jobs or benefits through restructuring, reduced access to services, or increased prices of essential commodities through tariff increases. The poor are particularly vulnerable to risk. There may be other groups particularly at risk by reason of gender, ethnicity, age, or disability. Social protection measures or full mitigation plans are required in such cases. Risks can be turned into opportunities for development, and project benefits may be extended to poor and excluded groups.

Anticipated social consequences must be identified and potential negative social costs as well must be assessed and evaluated thoughout the project life and strategies to mitigate their impact must be prepared to achieve the desired objectives. Therefore, information on social processes gained through social assessment is likely to be useful in areas of project prepartion, design, implementation and evaluation. During either strategic assessment or project specific impact assessment, the social issues identified in the SAM as well as in this guidence mst be considered in combination with the environmental issues, to ensure a

rounded and fair approach. Table 6 presents the relationship between the various stages of PPP and social assessment tools. It is important, however, to realize that there is no fixed set of methodologies for each country, policiy, program or project. Therefore, the content of the table must be taken as suggestive.

Table 6: PPP stages, Associated Activities, Main and Auxilary social Tools

PPP Identification	• Pre-screening • Screening	• High level Social Analysis (institutions, norms, gender,, stakeholders, participation analysis etc.) Participation and Risk Analysis (Resettlement for ex.).	**Interviews, focus group discussions, community mapping, and public hearings.**
PPP Preparation	• Scoping • .	• Livelihood Analysis • Stakeholders participation, • Social Impact assessment, • poverty analysis and time use Analysis.	**Semi-structured Interviews, questionnaires, focus group discussions, and Base line survey**
PPP Appraisal	• Social Impact Assessment	• Institutional mapping and analysis, • Public consultation, • Stakeholder Analysis and • social cost-benfit analysis.	**Desk review, interviews, Focus groupn discussion and workshops.**
Implementation	• Social Impact Msanagemenat Plan (e.g. Resettlement Action Plan)	• Stakeholders analysis, • Social Assement. • SARAR Method*	**Focus group discussion, Semi structured interviews, structured interviews and workshops.**
Post-Project Evaluation	• **Auditing**	• **Ex-Ante poverty analysis** • **, Peace-Conflict Im pact Assessment,** • **Gender analysis.** • **Stakeholders analysis.**	**Documentation of lessons learnt and best practices. Semi structured Interviews, questinnaires**

* SARAR (Self-esteem, **A**ssociative strength, **R**esourcefulness, **A**ction planning and **R**esponsibility).

4.8.4 Review

While most project activities have generic environmental and social issues that are manageable through guidelines, some could carry a higher risk of environmental and social disruptions and/or impacts. These projects are subjected to reviews to identify lower cost/impact options and mitigation measures in line with the prevailing legal framework, as well as any relevant safeguard policies such as those of financial institutions. The reviews focus on the performance of monitoring and mitigation through the ESMPs, as well as general implementation of the SMG. An outcome of the reviews are approved project specific SMPs.

4.8.5 Monitoring and Management Plans

Specialized Social Management Plans should be developed as a key part of the assessments mentioned above, both strategic and project specific. At both levels, environmental predictions will be made, and mitigation measures suggested, and these need to be followed up to ensure that the assessments taking place are technically sound and reliable. This form of monitoring not only informs the particular project for which the SMP is developed, but can increase the effectiveness of environmental management at other stages as well. SMPs are general implemented by the project management unit or project proponent, and must be carried out in close partnership with the communities and local authorities for full compliance to national and international regulations.

4.8.6 Auditing

A Social Compliance Audit can be used to investigate whether a developed facility or program is in compliance with all the environmental and social regulations, where compliance is defined as the achievement and maintenance of environmental and social standards. Compliance audits are a key management tool. They are used to verify that ENTRO's internal compliance programs are running and to identify any gaps in compliance before major instances of violation happen. They will alert the environmental management at ENTRO to specific issues that must be addressed in order to remain in compliance. Further action plans may be developed as a result, leading to improved environmental performance.

PART II

Appendices

Appendix A: Social sustainability as the main goal of SMG

Defining Social Sustainability

. Social Sustainability is the core element of Sustainability. Some may argue differently, but essentially sustainability is about creating and maintaining quality of life for people. Financial and Environmental factors are important, but thay are both means to the end, rather than ends in themselves. Therefore, by working towards financial and environmental sustainability, we are already working towards creation of an enabling condition for social sustainability. However, the social element of sustainability does have a number of its own distinct criteria. Directly social sustainability involves protecting the mental and physical health of all stakeholders, encouraging community, treating all stakeholders fairly, and providing essential services. These elements are essential because a healthy society cannot be developed and maintained if the population are in poor health. If they are treated unfairly then it will only be a matter of time before they protest and social peace at threatened.Community fosters the sense of personal and collective responsibility necessary for a society to operate effectively without degenerating into chaos. It is also critical that essential services are effectively delivered. Others define social sustainability as being concerned with how individuals and societies live with each other and set out to achieve the objectives of development models which they have chosen for themselves taking into account the physical boounadries of their places .

Though relatively a new concept, social sustinability tended to focus in the aerly stages on basic needs, including housing, education and skills, equity, employment, human rights, poverty and social justice. More recently new key themes and domains started to emerge as ingrediants of social sustainability. These include: demographic change (aging and international migration) empowerment, participation and access; identity, sense of place and culture; health and safety; social mixing and cohesion; social capital and wellbeing, hapiness and quality of life.

There are several theoreticalapproaches to social sustainability. For example, **equity and humann rights proponents** tend to focus on issues of *poverty and unequal development*, while those of **institutional theory** and g*overnance* have their eyes on issues of *participation and stakeholder analysis*. By contrast, **business and corporate** studies have as their foci on the idea of *corporate social responsibility*. **Behavioral and social sciences** adopt a *well-being and happiness* perspective. These theortical orientations have their **policy linkages**. **Institutional theory, stakeholder analysis and governance focus** at the policy level on *participation and empowerment*. The UN Agenda 21, (1990's-2000's) and capacity building of NGO's provide good examples of the the linkages to policy related to this perspective. **Capital approach** focuses on *social capital* promotion as a policy measure. The World Bank's Social Capital Implementation Framework (e.g. Albania, Philippines and Sierra Leon) is a case in point.

There is a paucity of social sustainability assessment methodologies. The assessment is often conducted through: 1) Social Impact Assessment (SIA) which is extended to include other sustainability pillars; 2) by stretching Environmental Impact Assessment and Strategic Environmental Impact Assessment (SEIA) to incorporate social issues; and/or 3) broadening the definition of environment, and hence the thematic coverage of theme-specific assessment such as SIA.

The scope of SIA has widened since the 1990's, however, there is insuffcient linkages between the various socio-economic components and quantification is limited and manily focused on demographics, employment, services and facilities provision. Furtheremore, it still

suffers from limited community engagement and reduced involvement of a wide range of stakeholders.

Sustainability Assessment

Key features

Over the last few decades, a plethora of approaches and methods for the assessment of sustainability have been devised. For example Dalal-Clayton and Sadler (2005) and LUDA (2006) identified at least 27 sustainability assessment (or sustainability appraisal) techniques that have recently emerged in the literature and are distinguished by different theoretical underpinnings and practical applications. This increasing number of assessment methods mirrors the rise in importance of sustainable development on the political agenda of several western governments and the calls for the appraisal of policies, programmes, plans and projects against sustainability criteria. Table 7 gives the details of operationalization of social sustainability as developed by different authors.

Table 7 : Key themes for the operationalisation of social sustainability

Features	Author
Livelihood Equity Capability to withstand external pressures Safety nets	Chambers and Conway (1992)
Inclusion Equity Poverty Livelihood	DFID (1999)
Equity Democracy Human rights Social homogeneity Equitable income distribution Employment Equitable access to resources and social services	Sachs (1999
Paid and voluntary work Basic needs Social security Equal opportunities to participate in a democratic society Enabling of social innovation	Hans-Böckler-Stiftung (2001)
Social justice Solidarity Participation Security	Thin *et al, DIFD* (2002)
Education Skills Experience Consumption Income Employment Participation	Omann and Spangenberg (2002)

   Basic needs
   Personal disability
   Needs of future generations
   Social capital   Baines and Morgan (2004) and(Sinner *et al*, 2004)
   Equity
   Cultural and community diversity
   Empowerment and participation

   Interactions in the community/social networks
   Community participation
   Pride and sense of place   Bramley *et al* (2006)
   Community stability
   Security (crime)

Broadly speaking, sustainability appraisal is a form of assessment that aims to inform and improve strategic decision making. The assessment relies on the application of a variety of methods of enquiry and argument to produce policy-relevant information that is then utilised to evaluate the consequences of human actions against the normative goal of sustainable development. Indeed, sustainability assessments ought to:

• integrate *economic, environmental, social and increasingly institutional issues* as well as to consider their interdependencies;
• consider the consequences of present actions well into the future;
• acknowledge the existence of uncertainties concerning the result of our present actions and act with a precautionary bias;
• engage the public;
• include equity considerations (intragenerational and intergenerational).

Sustainability assessment builds on Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) and despite being a less mature assessment framework than its predecessors, there is general agreement that the assessment is characterised by four main features. These include (i) an emphasis on integration of techniques and themes, (ii) the call for multi-criteria approaches, (iii) the importance of objectives and principles-setting, (iv) and stakeholders' participation in the assessment itself. The in-depth analysis on these aspects is outside the scope of this paper, however, a brief overview of them is provided below in turn.

(i) Integration of techniques and themes

The emphasis in sustainability appraisal is on integration because many approaches to sustainability assessment can be said to be example of 'integrated assessment' derived from EIA and SEA, which have been extended to incorporate social and economic considerations as well as environmental ones. Sustainability assessment can be seen as the 'third generation' of impact assessment processes, following project EIA and the SEA of policies, plans and programmes. From this perspective, EIA-based integrated assessment has been adopted as a sustainability appraisal method by simply replicating the one-dimensional form of assessment in the three-pillar model of sustainable development. This allows for the discrete assessment of the potential environmental, social and economic changes of a proposal and reflects a systemic 'triple bottom line' approach to sustainability.

(ii) Multi-criteria approach

There is an increasing call to use a multi-criteria approach in sustainability appraisal in light of the multifaceted nature of the concept that amalgamates social, environmental and economic matters into a new independent entity. For example, in the field of decision making, Multi Criteria Decision Analysis is an emerging method for sustainability appraisal. It consists of a set of methods using dissimilar criteria, which are combined together by using scores and weightings in order to aid decision making with regards to conflicting evaluations, options and interests. Examples of these methods are Analytic Hierarchy Process, Goal Programming and Novel Approach to Imprecise Assessment and Decision Environments. These appraisal methods acknowledge *a pluralist view of society and render the decision-making process more transparen*t. Further, because of the social learning and the reflexive participatory process involved in the assessment, these techniques can help in the evaluation of projects or proposals whose impacts are not well understood and would therefore benefit from a participatory and multidisciplinary approach.

(iii) Importance of objectives and principles-setting

Sustainability appraisal is a form of strategic assessment linked to guiding principles and the achievement of policy objectives. Within this context, the literature distinguish an *objective-led appraisal and a principle-based* assessment approach to sustainability. The former is similar in nature to SEA, in which the assessment is carried out to achieve specific policy goals within an explicit framework encompassing environmental, social and economic objectives. The latter is led by objectives derived from broader sustainability principles. In their views, the objective-led appraisal focuses on the appraisal of the 'direction to target', which is usually indicated with '+' '0' or '-' for a positive, neutral and negative move toward the sustainability target. Conversely, the principle-based assessment goes beyond the mere establishment of a 'direction to target' and endeavours to establish the 'distance from target', that is, the extent of progress toward sustainability.

Stakeholder participation in the assessment

There has been an increasing call for more participation in the sustainability assessment process because the latter is often wrongly grounded on the traditional assessor – client relationship. This form of assessment often fails to understand the varying sensitivity attached to specific issues by a plethora of actors with a stake in the project, process or objective been assessed. It has been pointed out that this traditional technical-rational model of appraisal in which *'objective assessment' by an assessor is assumed to lead automatically to better decisions has proved theoretically, politically and practically inadequate*. In his views, the type of assessment can influence its outcome. In other word, the choice of appraisal method and criteria is not a wholly technical question but a 'institutionalising social choice'in which participation is likely to engender a greater sense of ownership of the appraisal process itself.

However, despite the rapid ascent of sustainability assessment techniques in the international arena, the appraisal process has also been subject to criticisms. For example, the current integrated assessment approaches are often regarded as imperfect because they confine the holistic concept of sustainability to the consideration of separate environmental, economic and social factors and focus on balancing the trade-offs between these dimensions rather than exploring the linkages and interdependencies between them. Furthermore, there is no consensus concerning the meaning of integrated assessment. There are at least three different meanings of the word 'integration'. These include, a) bringing together different types or *categories of impacts*, such as biophysical and socioeconomic (horizontal integration); b) *linking together separate assessments* undertaken at different levels and/or stages (vertical integration); and c) integration of assessments into decision-making, for example *linking a plan to the policy making* process.

Undeniably, sustainability appraisal is much about assessing and providing strategic guidance as it is about generating a participatory and reflective process in which objectives, principles and assessment criteria are commonly defined through stakeholders' participation. In fact, the significance of sustainability appraisal is to be found not only in its actual *product* but also in the *process* by which the appraisal is developed and conducted. This greater emphasis on *how* impacts are assessed rather than on *which* optimum targets are to be achieved can be rationalised following two different arguments. The first argument focuses on the democratic right to be involved in the assessment procedure if the development being assessed may have a significant direct or indirect impact on the stakeholder themselves. The second argument is associated with the greater effectiveness of the assessment itself if it incorporates stakeholders' or society's values, beliefs and preferences. Undoutedly, a more democratic participation in the planning of future developments can raise awareness of the cultural and social qualities of localities and avoid conflicts that may emerge in policy implementation later.

However, the true participatory nature and efficacy of these processes have been questioned on both practical and theoretical ground. Stakeholder involvement is often deemed in practice more consultative rather than participative due to the complexity of the overall assessment process and the availability of resources. For these reasons, other authors call for stakeholders' participation to go beyond mere consultation or consensus building on a series of alternatives. Customarily, in consensus-building processes the ultimate goal shifts away *from reaching a quality decision and moves it towards reaching an agreeable one*. By contrast, stakeholders should actively express the objectives and aspirations that they seek to achieve through the development project being assessed for it to be truly sustainable.

The concepts of sustainable development, a popular concept in planning since the Brundtland Commission report brings some hope for water researchers and policy makers. Sustainable development was defined as: *Development that meets existing needs without compromising the ability of the future generations to meet their own needs.*

In light of this philosophy, sustainable water resources development has become an important topic in many national and international agencies such as the United Nations (UN), the World Bank, the American Society of Civil Engineers, etc. The definition of sustainable water resource systems is given by ASCE (1997) as: *Sustainable water resource systems are those designed and managed to fully contribute to the objectives of society, now and in the future, while maintaining their ecological, environmental, and hydrological integrity.*
There are many well known guidelines for water resources management in light of sustainable development; unfortunately, what is less known is how to achieve this goal even though we know something about what to do.

In the water resources literature, there are many studies that discuss the importance of sustainability for water resources development, and that describe principles needed to direct water resources management in view of sustainability. But only a few studies can provide a systematic approach to incorporate sustainability principles in an analytic framework of water resources management.

A key to sustainable water resources management is the existence of sufficiently well trained personnel in all of the disciplines needed in the planning, development, and management processes. The following comments given by The World Engineering partnership for Sustainable Development (WEPSD) may be appropriate to express the motivation of this research: *Engineers need to translate the dreams of humanity, traditional knowledge, and the concepts of science into action through creative application of technology to achieve sustainable development.*

The concept of sustainable water resources development means that not only negative impacts on environment should be eliminated or minimized but also water resources should be transferred to the next generations by conserving its natural balance in quantity and in quality. This approach, which gives priority on conserving of natural environment or ecological system, is different from conventional development approach. From this point of view, the sustainable development concept on water resources represents structural components including precautions and activities for the purpose of socio-economic development to raise the life standards of people both at local and national levels.

One of the basic compounds of sustainable water resources development is integration. IWRM approach as a part of sustainable development involves *coordination with institutions* engaged in development and management of water resources and also *water users* in different sectors. It also covers defining the *interaction between surface and ground water resources*. The main objective of the integrated development on water resources management is to have a continuous and balanced development by taking into consideration *socio-economic* development efforts made in country basis and their effects to *our natural environments*. Even though strong interactions are well known between water resources and economic development as well as social prosperity, the policies on sustainable water resources have not been realized successfully in developing countries up to now. As a result of continuously increased demands on water resources, the management of water resources has also gained a characterization being sensitive to demands.

Conventional approach in which continuous development scenarios are taken into consideration all water demands has showed some differences from popular approach based on integrated water resources development and management as a fundamental development element. Activities in conventional approach usually focus on having appropriate conditions for socio-economic development by taking measures to avoid from *water scarcity*, whereas the integrated management approach aims *at continuous socio-economic development* by balancing water demands and supplies. For that reason, integrated approach takes the opportunity to get *interactions among the water resources, users and environment as well as relationships between community and their social and economic conditions*. Environment factor takes into consideration maintaining continuity and productivity of resource potential without disregarding economic and social dimension of the process by protecting integrity of natural surroundings against all structures constructed by men. Although these concepts and approaches are not new, integrated water management concept being towards sustainable development has a meaning beyond the techniques, methods, definitions, and interpretations on interactions among water resources, users, and environment.

Consensus on water resources development is that *land and water resources* are used for a variety of purposes that *interact* and many *compete* with one another. It is desirable to plan and manage all uses in an integrated manner. Integration should take place at two levels; the first considers *social and economic factors and the second covers environmental and resource components* (water and soil resources conservation and protection). Social issues such as urban and rural infrastructure, transportation, industry, education, health, housing and tourism among others such as gender, participation and governance are of major concern as well.

Appendix B: Existing Legal and Institutional Arrangements in the three EN Countries

On Resettlement and Compensation in Egypt, Ethiopia and Sudan

In Egypt, the State has a Resettlement Policy Framework which adopts ESIA as a tool to forestall adverse environment and social impacts of water-related projects. The resettlement process is completed prior to the start of the actual physical work, while Egyptian legislation shields communities from involuntary resettlement; through the Egyptian Irrigation and Drainage Law number 12 year 1984, and the accords with the World Bank Safeguard OP 4.12. The weakness of Egypt's legislative and institutional instruments is that the Resettlement Action Plan is prepared after survey of the extent of land acquisition, and in relation to the scale and severity of the project's impacts on communities. This means that in the absence of a policy on value of properties qualifying for compensation, including land, the RAP can unfold to be too costly. Shortage of resources and State capacity to carry on the RAP will definitely play an important role in the effective implementation of the latter, and the social repercussions of the project on the communities concerned.

On the other hand, Ethiopia has adopted the Proclamation on Expropriation of Landholdings for Public Purposes and Payment of Compensation No 445/2005. The text thus sets a RAP, which outlines the modalities of compensation payment to all people whose land and property are likely to be affected by the development of any named project. Still, the framework only addresses communities which land rights have been recognized and acknowledged. The danger here becomes the overlooking of compensation rights for marginalized people, who although in the most need for development find themselves deprived of participation in the development process.

Sudan has adopted the Land Settlement and Registration Ordinance of 1925, as well as the Land Appropriation Act of 1986. The legal framework recognized land rights but does prioritize the communities' rights to land, when RAP compete with other projects on the land. This means that in the absence of appropriate mechanisms to ensure the implementation of alternative RAP in projects ought to take place on the initial land; communities might not have access to neither resettlement nor compensation for their land. This necessarily means a further exclusion of poor communities from water-related development projects, while the elite continues to profit from better access to water and quality of life.

On "Marginalized People" in Egypt, Ethiopia and Sudan

Egypt's Constitution upholds to all Human Rights International texts and instruments regarding marginalized people. Still, in the absence of a clear definition of "who are the marginalized people", the identification and documentation of discrimination and marginalization is an almost impossible task. The absence of such information has rendered water development projects, by default, even further exclusionary of marginalized communities who are not only the most vulnerable, but also the most in need of development projects.

On the other hand, the Ethiopian State recognizes the rights of all Ethiopians to land, without discrimination, negative or positive, vis-à-vis marginalized people. Yet, the fact remain that marginalized people of Ethiopia persistently lose their land to foreign companies, with no due

monitoring of the government on the processes of compensation or resettlement. This has meant that marginalized people in Ethiopia have been victims of increased poverty by the day, due to their already precarious status.

In Sudan, marginalized people are recognized by the country's law, but the absence of clear definition has been excluding some of the most marginalized communities from consideration. Furthermore, the land rights and rights to social services of marginalized people remain at risk in the absence of clear protection policy from the State to alleviate their vulnerability.

On Gender in Egypt, Ethiopia and Sudan

Women are arguably the most important vulnerable social group across the Eastern Nile countries. For this matter, it deserves to be treated in a separate and distinct section. In Egypt, although the State has formulated a Gender Policy, gender equality issues are of the concern of the Ministry of Environment when pertaining to water-related projects, and not the Ministry of Social Services. The Egyptian Environmental Affairs Agency Policy guidelines for the Environmental Policy Framework have called for a "holistic, gender sensitive and participatory approach". This means that the extent to which gender is integrated as an issue in projects depends on the willingness of different actors to submit the projects to concerned institutions. This also means that the approach, with which the gender issue is dealt with, highly depends on the State's awareness level to gender related issues.

The Ethiopian Constitution has recognized the importance of gender, and the State has reconfirmed it through its national policy on women in 1993. The Policy ensures that development projects are gender-sensitive and will provide equitable development between the different genders. However, the Policy does not prioritize the most pressing issues of gender, such as inequalities in education, employment and wages in the projects. This means that the existent Framework does not allow for efficient address of gender issues.

In Sudan, the Ministry of Social Affairs, along with the Directorate for Women are responsible for the implementation of the Beijing Accords. This being said, discriminative laws against women in the workplace still exist in Sudan, which exposes Sudanese women to legal discrimination in employment and participation in water-related projects.

On HIV/AIDS in Egypt, Ethiopia and Sudan

In Egypt, a national HIV/AIDS policy is mainstreamed into all projects undertaken in the country. This has meant that all foreign labor applying for projects is obligated to take the test for HIV/AIDS, while victims of HIV/AIDS in the country are persistently denied employment on the projects on these bases.

In Ethiopia, while a national HIV/AIDS policy is part and parcel of a wider national health program, no mechanism is set to indicate how labor in fact victim of the disease is to be made aware of or treated. In the absence of such mechanism that is able to monitor victims of HIV/AIDS, Ethiopians remain at risk of contracting the disease.

In Sudan, the National HIV/AIDS policy, supported by the President in 2004, has not been mainstreamed into Employment laws. This means that Sudanese people, like Ethiopians remain at risk of contracting the disease from either foreign labor entering the country for the project, or existing labor not declared as infected by the virus.

As already mentioned in the introduction to the analysis, the most worrying of the legal and institutional analysis is the realization of no transboundary or regional policy between Eastern Nile countries of social issues pertaining to water projects. This said, many of the critique

which has been to the existing tools, as well as the observed gaps, are common to the three countries.

Across the countries, legal framework needs to precisely and effectively name or create the institutions which will deal with different social issues. More often than not, the lack of precision in distribution of roles among existing institutions of respective states play an essential role in the failure to implement existing national policies, and the persistence –if not aggravation of social issues, due to project implementation. The diffusion of social issues among different existing institutions is also a common phenomenon in legal frameworks of mentioned countries. The diffusion has two worrying results. The first is the negligence of intricate relations between social issues which rendered their address essentially related. The second is the consequent inefficiency and waste of state resources because of absence of coordination between concerned bodies.

Moreover, commonly enough, legal frameworks fail to name specific institutions, simply because the latter do not exist. With already-existing state bodies overwhelmed, there is a need for the countries to create more bravely invest in specialized institutions, which can carry out the formulation, implementation and monitoring of social policies, targeting social issues related to water projects. This investment in specialized institutions is key because it will not only allow better management of social aspects pertaining to water projects, but will most certainly allow for coordination of social policies pertaining to the water projects across countries. NBI was created in the idea that regional collaborative effort to design and manage water-related development project is key to the effective and efficient development of the Nile Basin. ENSAP, as much as ENTRO were design in the correct perception that geographical proximity between countries is key to common experiences and domino effect. This does not only hold in terms of water and environmental consequences but also social issues. Thus the need for cooperation is great and necessary.

The legal framework should also thoroughly indicate the procedures through which the survey of social issues will be conducted, as well as the progress monitored and the implementation assessed. The latter should ensure that the policies are equitable, participatory and protective of social groups or communities with precarious statuses.

Appendix C: Pertinent Legal Inventories of the EN countries
Egypt

According to the Constitutional declaration of the Arab Republic of Egypt issued in March 2011 which was based on the Constitution of 1971. These will be modified upon approval or rejection of the new constitution subject to referendum this week).

- Article 4 – economic development, social justice, and rights to property
- Article 8 – equality of opportunity for citizens
- Article 23 – fair distribution of wealth and higher living standards
- Article 27 – participation
- Article 29 – ownership
- Article 34 – expropriation
- Article 40 – equality before the law
- Article 59 – safeguarding the environment
- Article 151 – international treaties

Policies, Plans, and Strategies

- National Development Plan (2013-2022)
- National Water Resources Plan (2005)

Social/Resettlement Laws, Regulations, and Decrees

- Egyptian Civil Code
- Labor Law
- Child and Motherhood Law
- Water Law
- Environmental Law
- Law of Civil Society and NGOs
- Social Insurance Law
- Education Law
- Agricultural Law
- Law No. 3/1993 Physical Planning Law
- Prime Ministerial Decree No. 160/1991
- Prime Ministerial Decree No. 2166/1994
- Law No. 27/1956
- Law No. 557/1954
- Law No. 10/1990 for the Expropriation of Ownership for Public Interest
- Decree No. 358/2008

Ethiopia

The Constitution of Federal Democratic Republic of Ethiopia, 1995

- Article 25 – Right to Equality
- Article 26 – Right to Privacy
- Article 40 – Right to Property
- Article 41 – Economic, Social and Cultural Rights
- Article 42 – Rights of Labor
- Article 43 – Right to Development
- Article 44 – Environmental Rights
- Article 86 – Principles for External Relations
- Article 89 – Economic Objectives
- Article 90 – Social Objectives
- Article 91 – Cultural Objectives

Policies, Plans, and Strategies
- Water Resources Policy, 1999
- Water Sector Strategy, 2001
- Water Sector development Programme, 2000
- Sustainable Development and Poverty Reduction Program

Social/Resettlement Laws, Regulations, and Decrees
- Civil Code of Ethiopia
- Proclamation No. 455/2005 on Expropriation of Land Holdings for Public Purposes and Payment of Compensation
- Council of Ministers Regulation No. 135/2007 on Expropriation and Compensation
- Proclamation No. 456/2005 on Rural Land Administration/Land Use
- Plan for Accelerated and Sustained Development to Eradicate Poverty

Sudan

Constitutional Articles
Interim National Constitution of the Republic of Sudan, 2005:
- Article 7 – equality of citizens
- Article 10 – economic development, eradication of poverty, equitable distribution of wealth
  - Article 11 – clean and diverse environmental, sustainable utilization of natural resources
  - Article 12 – social justice
  - Article 17 – promote international cooperation and economic integration
  - Article 23 – duties to preserve natural environment
  - Article 43 – right to own property, expropriation
  - Article 185 – principles for equitable sharing of resources and common wealth
  - Article 186 – land regulation

Policies, Plans, and Strategies

- National Water Policy, 1992
- National Water Policy, 2000 (Draft)

Social/Resettlement Laws, Regulations, and Decrees

- Land Registration and Settlement Act, 1925
- Land Acquisition Act, 1930
- Unregistered Land Act, 1970
- The Civil Transactions Act, 1984
- Urban Planning and Land Disposal Act, 1994
- Central Forest Act, 1932
- Provincial Forest Act, 1932

Appendix D: Tabulation of Potential Social Impacts of ENSAP Projects

Name of the Project	Brief description of the Project	Social Issues Relevant to the Project
Watershed Management (WSM)	The project focuses on 3 watersheds: • The Abay/Blue Nile • The Tekeze/Atbara • Main Nile from Khartoum to the Aswan High Dam The projects' main objectives are: • Create alternative livelihoods • Achieve food security • Enhance agricultural productivity • Reduce land degradation • Encourage sustainable development-oriented investment	• *Livelihood:* the poorest members of the communities heavily rely on the wetlands, with no alternative sources of Income. Any irregularities will severely affect their lives • *Stakeholders' participation:* Stakeholders are primary and secondary. The inclusion of all stakeholders may require transboundary coordination. • *Conflict:* As scarce resource or holder symbolic-cultural meaning, development projects can generate conflict if these significances are not taken into account. • *Gender:* women's participation and access to the benefits of the project can be reduced by their subordinate position in the communities.
Flood Preparedness and Early Warning (FPEW) Projects	The projects aims at achieving 2 results: 1) Flood Warning and Preparedness, which means: • Information generation on measures of water flows, cycles of flood, meteorological information • Vertical and horizontal information relay networks 2) Flood Response and Recovery, which means: • Integration of emergency relief with a range of flood mitigation activities	1) In Flood Warning and Preparedness: • *Stakeholders*: Integrating customary existing systems of flood warning, with government laws and structures. • *Livelihood:* The damage left by the flood touches the land (sedimentation, siltation), but also property of farmers and crops. Floods can thus leave farmers very vulnerable. Flood is also considered by some communities as source of livelihood, which renders then more vulnerable to effects of the projects. 2) In Flood Response and Recovery: • *Vulnerability:* the structure in the community renders some groups more vulnerable than others to the flood, and more affected by its happening. • *Livelihood:* It is important to recognize the fact that flood is considered source of livelihood for some, and integrate this fact in this part of the project. • *Gender:* Women are a vulnerable social group inside of the community, be it by virtue of their "position", or because they are pregnant or single parents. • *Resettlement:* Sometimes the only option, resettlement means the separation of the community from its land, which does not only pertain to its livelihood, but also to its socio-

		cultural heritage which can distort relations inside the community.
The Multipurpose Development: Hydropower Generation, Transmission and Trade (HGTT)	• Hydropower Generation • Hydropower Transmission	1) In Hydropower Generation: • *Livelihood:* Many, if not all, the population around the sub-basin are involved in mixed farming activities. The construction of dams for hydropower can involve loss of farming and residence, or riverine fish resources. 2) In Hydropower Transmission: • *Livelihood:* Electricity brought to rural areas, despite its many benefits, can bring about rural underemployment, rural-urban migration and further urban unemployment. • *Health:* Migration of labor force can participate in rapider propagation of some disease. Also, the effects of electro-magnetic fields and low slung transmission can damage human health and activities. • *Cultural and Historical Heritages:* Hydro-transmission can damage historical sites, worship places, or introduction of alien culture due to labor influx.
Irrigation and Drainage Projects (IRDP)	• Construction of Dams and Canals • Water Distribution and Management • Improving Agricultural Productivity and Marketing	1) Construction of Dams and Canals: • *Livelihoods:* Construction of Dams and Canals often requires re-distribution, re-allocation of lands and compensation for lost land, the lack of previous experience in these processes can lead to reproduction of social inequalities. • *Stakeholders Participation:* Primary and secondary stakeholders need to be consulted and included in the phases of the project. • *Conflict:* Construction of Dams and Canals can aggravate water inequity and cause conflict among communities. The conflict can also be caused by the influx of labor and the existing population, or the resettled population and the original inhabitants of the region. • *Cultural sites and history:* The construction of dams and canals can damage ancestral sites or worship places. 2) Water Distribution and Management: • *Livelihood:* Irrigation agriculture and mechanized farming favor those who have better access to water and more capital. Water distribution and management can reinforce inequalities inside the community, especially if big companies are involved. It can also attract foreign labor and cause social disruption. • *Stakeholders' participation:* It is always a challenge to integrate primary and secondary stakeholders, especially if they are located

		across the borders of the EN.
		3) Improving Agricultural Productivity and Marketing:
		• *Livelihood:* Improving productivity and marketing agriculture can orient production towards cash crops and exportation goods, which may lead to insufficient production of food crop.
		• *Gender:* Women can often be excluded from benefiting of new agricultural technologies because they're role in constrained to household activities and/or food crop production.

Appendix E: Social Issues To be considered in the Eastern Nile Countries

The EN hosts some of the world's poorest population with recurrent drought, environmental degradation and lack of access to basic services. The poor in the region live in degraded environments and their livelihood is being increasingly threatened; suffer the impact of climatic variation and consequently food shortages; have no access to basic social and physical amenities: e.g., to electricity, safe drinking water and sanitation, health, education and transportation facilities. For example 44% of the population in Ethiopia suffers from chronic hunger. (FAO, 2006).

Although poverty is generally high in the region there is significant difference in the level of poverty across the three countries. These inequalities on the one hand reflect the inequitable use of resources that need to be redressed while on the other hand they provide opportunities for cooperation.

The EN suffers from increasing natural resource degradation that includes land degradation, high sediment loads and sedimentation of dams and irrigation canals, loss of products and servicesprovided by forests and wetlands, overgrazing of rangelands and loss of biodiversity. The compound negative effect on climate change leads to rainfall variability and the vulnerability of livelihood that is very dependent on natural resource base.

Several factors contribute to the natural resource degradation of the Eastern Nile including population pressure growing at an annual rate of 2.5% to 3%, expansion of land for cultivation into rangelands that further exacerbate erosion, policies related to ownership and management of land and other natural resources. The fragile natural resource systems are under increasing pressure as traditional systems of husbandry start to breakdown. Many parts of the basin are now suffering from severe land degradation (soil, vegetation, rangelands and water supplies).

The EN region has an extremely heterogonous population. Ethno-linguistic and cultural diversity characterizes the region where over 40 ethno-linguistic groups live. Some of these are communities that live across political borders. The people of EN follow Islam, variations of Christianity and other traditional beliefs. Often there is overlap between religious groups and ethnicity making relations with different groups more complex. There is a history of co-existence of the different religions but may also be causes for tension and marginalization especially in the context of dominant groups living with minorities. Religious suppression is thus an issue in some parts of the region. Religious leaders are very influential in forming opinions of the followers. Religious groups and their members are often engaged in charity activities. Informal social structures are also formed among community groups linked through faith, neighbourhoods, etc.

Conflict in the region are also caused because of differences in livelihoods (e.g. pastoralists and sedentary farming communities), between migrants settler communities and indigenous host population. Ethnic extremism and politicization of ethnicity at national and local government level also contribute to conflicts.

There are two main forms of social organization among the ethnically diversified populations of the EN region namely Kinship and Patron client relationships. Kinship based social organization lineage or clan constitutes the basic units of the system. In some parts of the region clans are the corporate owners of land and other natural resources. In patron client relations households not clans are the basic units of social and agro-economic organization.

In most cultures in East Nile the young have to defer to the old and women have to differ to men. Older people dominate decision making, in community meetings etc. Gender relations have similar patterns across different ethnic groups, different sub-basins and even national boundaries. In the whole of the EN women and women headed households are the poorest and the most vulnerable to periodic shocks. Women's contribution to productive activities in their communities is not recognized. As a result women are excluded from development consultations and policies and even services (e.g. agricultural extension).

Historically the region hosts some of the world's most important historical sites, landscapes natural and ecological resources that are linked to people's livelihood, identity and traditions. Projects in the region should ensure that minimum damage is caused to these cultural, historical and aesthetic values of the people in the region.

Social Cohesion and Equity

Social tensions arise when inequitable distribution of resources happens between members of the community. Thus if water development projects do not take into consideration people's interconnectedness, the uneven development inside the communities can seriously hinder its social cohesion.

On the other hand, projects should not be blind to excluded and discriminated against groups among communities. Projects unawareness to these social dynamics of exclusion can and most probably will mean accentuation of the discrimination, which often times means difficult access to resources and vulnerable livelihood. The absence of key "equity" component in project design can present as very dangerous to the social cohesion of the community.

Education

The relationship between water and education is clearly visible in the African context, where the responsibility for the laborious task of fetching water for the household falls largely on women and female children. There is also the additional burden of providing household energy needs by fetching wood, animal dung and crop residues. The time taken up by such chores is a factor in the lower enrolment rates, poorer performance, and high early dropout rates of African girls. It is also a factor in diminishing the leisure time which adult women could have used for self improvement activities such as participation in adult literacy programmes and other women's activities. The lack of basic education and training in hygiene, and safe handling and storage of water contributes greatly to the spread of water-related diseases, to mishandling of public wastewater infrastructures by the populations, and to mismanagement of water. The provision of literacy and basic education to women is therefore essential to building their capacity as water managers.

Box 4: Participation and equity

Uganda has had an affirmative action programme since 1997. This mandates that all administrative levels from cabinet down to village should include at least 30 percent women. As a result, women raised their voices and have been trained to locate water sources in the village, to decide on the location of facilities and to repair pumps. The incidence of breakdown has decreased considerably. Women have also participated in businesses: in rural areas, setting up shops to store spare parts for boreholes and in urban areas, managing water systems. In water user associations, women are often responsible for the finances.

The WASH campaign, organized by the Water Supply and Sanitation Collaborative Council (WSSCC), is bringing its message of "Water, Sanitation and Hygiene for all" to women and men in over 40 countries. The Council includes UN organizations, NGOs, bilateral donors, institutions and the private sector. A recent initiative called "African Ministerial Initiative on WASH" (AMIWASH) aims to assist African countries to achieve the MDGs in water and sanitation. Leading this effort is the Chair of the African Ministerial Council on Water (AMCOW), Maria Mutagamba, Minister of State for Water of Uganda. The initiative includes the formation of a Group of Women Leaders (Women Leaders for WASH) to champion the role of women in decision-making, capacity building, educating children on sanitation and hygiene, and mobilizing political will around other priorities such as the linkages between water, sanitation, hygiene and HIV/AIDS.

Source: Water Supply and Sanitation Collaborative Council and African Ministers Council on Water (WSSCC/AMCOW). 2004. Draft concept paper on AMIWASH.

In Ukraine, the cleaning of railway oil tanks combined with an inadequate sewerage system caused overflows of sewage into houses and onto the streets. When women approached the local authority, they were denied funds to solve the problem. With the help of an environmental NGO, women met with residents, launched a political campaign and filed a legal suit against the local authority. As a result, the government allocated resources to finish construction of a sewage pump, financed environmental works, and closed the hazardous oil-tank cleaning facility

Source*: Khosla (2002) Khosla, Prabha 2002. MAMA-86 and the drinking water campaign in the Ukraine. Prepared for the Gender and Water Alliance.*

Other examples demonstrate that projects are more effective when women play a pivotal role. For instance, women in the town of La Sirena in Colombia wanted to improve the quality of water in the Canaveralejo River, which was highly contaminated. In 1995 the women struggled to secure leadership positions on the action board. The board was run by men, and the women had to impose themselves to participate. Once the women proved themselves capable and were in a leadership position, a treatment plant was constructed. Since then there have been many improvements. For example, diarrhoea and other children's skin diseases have been reduced, and the town was spared in a cholera epidemic

Source*: IRC International Water and Sanitation Centre (IRC) (undated-a). Community water supply management. Case studies. La Sirena: women taking leading positions.*

http://www2.irc.nl/manage/manuals/cases/sirena.html (accessed on 26 March 2004).

But men often have to be encouraged to enable the women to participate. In Hoto village, Baluchistan (Pakistan), where women follow a strict form of purdah, a participatory action research team went to help the village improve its water management in 1994. For a year the men would not give permission to the action team to meet the women of the village. Eventually, the women were able to participate in a joint meeting, and put up a proposal to build a new water tank on unused land, which would provide water to the non-functioning public standpipes. The women's solution, which was far more cost effective, was adopted over a male proposal. Moreover, after this initial success, women became active participants in decision-making, and significant changes have been made in their lives through hygiene education. Most significant has been the demand for education for their daughters. In 1998, a new girls' school was opened in Hoto. Traditional leaders have been impressed by the result of the project. The same approach is now taken in other villages.

Source*: IRC International Water and Sanitation Centre (IRC) (undated-b). Community water supply management. Case Studies, Hoto Community, Pakistan. See:
http://www2.irc.nl/manage/manuals/cases/hoto.html (accessed on 25 March 2004).*

Box 5: TOGO: Integrating Gender into the Promotion of Hygiene in Schools

In the rural village of Effumani, 15-year-old Gentil Weleke attended the only primary school close to home. Every morning, Gentil would collect water from a distant river, then sweep the courtyard and inside her hut. Afterwards she would put a limited amount of that red-colored water in a recycled plastic bottle to take to school. She would arrive late, but she still had to clean the teacher's office. Three times a week, she would also have to collect water from a river which was 2 kilometers away and return to class after lessons had already started. On weekends, lest she be punished, she and her girlfriends would collect water for her class and clean the headmaster's office; meanwhile her brother would play soccer. Plan Togo, an international NGO, sought to address the lack of water and sanitation facilities in Gentil.s and other villages, using a gender perspective. But the toilets did not meet everyone's needs and fell into disuse, with .girls paying the heaviest cost,. as one teacher explained. Plan Togo sought support from the African-based Regional Centre for Cost-Effective Fresh Water and Sanitation (CREPA), to identify the original project's limitations and correct them in a pilot project. A lack of consultation was identified as one of the limitations.

Background information

How Gentil used to spend her days reflects some general statistics about Togo, and the province of Est-Mono in particular. In Est-Mono, one of the 10 thirstiest zones of Togo, only 10 per cent of the population has access to potable water, in comparison to the national average of 51 per cent (Young Volunteers for the Environment, 2002). While 5 per cent of Togolese have drinking water piped into their home, 27 per cent get water from unprotected wells and 19 per cent from rivers. Only 2 per cent of the population of Est-Mono has access to sanitation at home. Men usually use nearby forests for sanitation purposes, whereas women walk to distant farms.

At the national level, 30 per cent of schools have sanitary toilets or latrines and only 26 per cent have access to water. In spite of the success of the government's .Education for all. Programme initiated in 2000, girls still represent only 43.8 per cent of students. Lack of sanitation facilities is one of the main reasons why many parents do not send their children to school.

Best practices

Given the problems identified in the original water and sanitation project for schools, CREPA ensured that all villagers participated in the design of the pilot project. Three local coordinators stayed in the villages for six months, developed close ties with the villagers and presented the project to all the stakeholders, including women and men in the community. Their work included: 1)An information kit on behavioral change used to inform stakeholders; 2) Household visits; 3) A high level of participation of boy and girl students, as well as men and women teachers and administrators; and 4) A diagnosis of the water and sanitation available at schools to detect hygiene and sanitation problems.

Based on this input, an action plan for hygiene promotion was approved by the schools and the villages. The final project and the shared responsibilities it entailed, were presented to the local general assemblies for their feedback and validation. The project provided water and sanitation facilities, as well as educational resources to each village and school. They included: 1) The installation of a hand-pump in each school; A sanitary latrine for girls; 2) A hand-washing pot; A garbage dump; 3) A plastic drinking pot for potable water for each classroom; and 4) Nine colorful educational kits adapted to local conditions provided to each school.

To ensure the success and sustainability of the project, two committees were established in each village: 1) The Water Committee manages the money, maintenance and repair of equipment; and 2) The School Health Committee controls all the equipment and oversees hygiene.

The members of the School Health Committee are teachers and pupils selected to ensure a gender balance. The School Health Committee has implemented its mandate to bring about changes in hygiene practices. Students who are unclean are sent back home. Those who do not wash their hands are requested to do so and unclean students are reprimanded. The Food Safety Commission denies access to food sellers who come to the school with unclean water or unhygienically prepared food. The active and ongoing participation of so much of the population has considerably decreased the amount of time needed. For all villagers boys and girls, men and women to adopt these

Hand-washing has gradually become a habit; Only 7 out of 29 pupils think household work is for girls and only 2 in 17 girls are still in charge of house-sweeping More boys fetch water, bathe before school, clean the yard at home and clean the girls. Toilet; A 171 per cent increase in girls. attendance in Est-Mono; Most girls have visibly overcome their shyness and are becoming self-confident; 6 out of 8 students would rather stay at school than go home after class; Every boy now uses the toilet; Of the 66 per cent of girls who now use the toilet at school, 88 per cent use the new latrines for girls; 74 per cent of girls proudly declare they can serve as class prefect or leader; Girls are glad to have their voices heard on the various committees; Girls denounce gender imbalances at school: running errands for teachers, sexual. The project had other impacts on health, sanitation, women villagers and on the communities at large.

Lessons learned

As a result of this project these villages have provided potable water and clean and sex-specific sanitation facilities at schools, girls. Attendance rate at school has increased, and more boys are contributing to housework. Addressing gender imbalances among students and ensuring the participation of the entire community has led to impacts far beyond the immediate results. These are:1) Greater mutual respect among boys and girls, girls have increased their self-esteem and they are respected as leaders; 2) More students are continuing to secondary education; 3) Schools are selling the water to their communities and saving money; 4) Teachers, parents, food sellers, community leaders and other villagers have changed their behavior to adopt hygienic practices with water, food, and waste; and 5) The health of the community, especially school-attending children, has improved.

Community leaders and donors recognize the need to address both gender issues and water and sanitation issues hand-in-hand: 1) The water and sanitation problems at school were adequately dealt with once some of the gender imbalances were addressed. These successes have prompted demands for even greater change in the three communities such as: a) Children are critical of their parents if they have unclean water or unsanitary practices; b) Girls criticize sexism at school, for example in the curriculum; and C) Women leaders want to address domestic violence and other gender imbalances in the communities.

Labor and land Aquisition Issues

Core labour standards (CLS) are gaining increasing acceptance as a basis for establishing criteria to which countries, all over the world are held accountable. The main elements of the CLS as developed by the ILO include the freedom of association
and collective bargaining, elimination of forced or compulsory labour, abolition of child labour and the elimination of discrimination in employment. These are issues of great concern in the three Eastern Nile countries especially with regards to freedom of association and the right to collective bargaining, which also tie up with governance issues. Gender discrimination in employment and child labour are also problems in all of the three countries. In water resources management, some of the potential issues include the rights of workers involved in construction, the potentials of water sector projects in freeing young children to go to school, the relationship between water availability and health/environment of workers. Some initiatives clearly need to be taken by the three countries to address these issues in their policies, programs and plans and hence projects be it at the national or regional levels.

It must be also indicated that due to the predominantly agricultural nature of the economy and the rural character of its population –although agriculture contributes only 13% to the GDP in Egypt, it still employs about 30% of the labor force and abot 56% of the population still live in rural areas- of the EN countries land aquisition is of major concern.

Resettlement and Compensation

Involuntary resettlement is a typical adverse impact, particularly of large-scale dams and reservoir projects, which generally give rise to socio-economic problems. But, there are other water resources projects, which often give rise to involuntary resettlement. These include large-scale irrigation and sanitation projects, river diversion projects and canal construction. Involuntary resettlement generally results in loss of homes and property, deprivation of agricultural land, and loss of established livelihoods. Furthermore, it can lead to the weakening of community structures and loss of cultural identity. Poor planning without comprehensive social impact assessment and mitigation measures magnifies the negative impacts.

Box 7: The Komati River Basin Development Plan Best Practices and Lessons Learnt

The late 1970's saw increasing water demands for irrigation in the Komati River Basin particularly between Swaziland and South Africa. After the failure in 1981by the Joint Permanent Technical Committee (JPTC) to agree on the cross-border flow on the eastern border between Swaziland and South Africa, the JPTC resolved to engage a consultant to carry out a joint reconnaissance study of the Komati River Basin. On the basis of the joint reconnaissance study, the JPTC issued in 1983 a report agreeing on a long-term phased water resources development plan in the Komati River Basin.

The JPTC further recommended a feasibility study for the first phase of the water resources development plan comprising a joint development project consisting of Driekoppies Dam on the Lomati River in South Africa and the Maguga Dam on the Komati River in Swaziland. The feasibility study commenced in 1984 and in 1986 the JPTC recommended the construction of the first phase of the project including principles for water allocation and cost apportionment.

The drafting of the Joint Water Commission Treaty and Treaty on the Development and Utilisation of the Water Resources of the Komati River Basin commenced in 1987. In 1989 Swaziland and South Africa agreed to proceed with Phase 1 of the project. In 1990 Swaziland initiated a separate review and feasibility study of the Maguga Dam and the proposed an irrigation development along the Komati River in Swaziland. South Africa and Swaziland withheld signing the treaties pending an agreement with Mozambique.

The agreement with Mozambique was signed in Piggs Peak, Swaziland in 1991. In the agreement Mozambique agreed that South Africa and Swaziland could proceed with Phase 1 of the project subject to: i) The completion of the Joint Incomati River Basin Development Study; ii) An interim 2 m3/s minimum cross border flow averaged over three days at Ressano Garcia; and iii) South Africa should not to construct any new water works with storage capacity in excess of 250,000 cubic meters or an abstraction rate exceeding 110 liters per second in the Sabie River sub-catchment, without prior consultation.

A study conducted by the World Bank in 1994 concluded that, in developing countries, at least 10 million people are displaced to make way for development projects. The study has shown that communities that are forced to make way for "development" inevitably suffer a decline in their standards of living. In addition to losing their homelands and cultural resources, local communities suffer from lost economic opportunities as businesses lose their customer base, productive farmland is destroyed, and other forms of livelihood are dismantled. The social fabric of these communities is torn apart; the informal networks and kinship ties that sustained them in times of need are destroyed. Realizing this, and that there is no standard procedure in attaching monetary figure to the loss of grazing area, loss of a home, loss of cultural resource, loss of access to a natural resource and loss of a community network, KOBWA resolved that the standard 'cost-benefit' method was incapable of determining a monetary value to attach to a home. In order to increase the standard of living of the relocated people, a more generous approach of valuation was embarked on. Consequently, compensation was determined using a more modern valuation of housing. In addition to the compensation on the loss, an inconvenience allowance was given. During the construction of the houses, an extra architect's fee and consultancy fee also formed part of the package.

The compensation process was more consultative than the drafting of the resettlement and compensation policy. Compensation modalities were extensively debated by all stakeholders and a consensus was reached. The compensation rates were then determined and set in the compensation rates document which is currently guiding the compensation procedure. All of this was made possible by the fact that it was a joint project between two countries and as such, countries are at liberty to produce hybrid policies that are in-line with international principles. Hybrid policies, in the case of joint multinational projects, take precedence over national legislation as issues become of international importance. In the case of KOBWA, the Maguga Dam Resettlement and Compensation Policy and the compensation rates that were developed subsequent to that, are a good examples of hybrid policies that are in line with international principles.

The Treaty on the Development and Utilization of the Water Resources of Komati River Basin sees the resettlement of affected communities in Phase 1 of the project as being the responsibility of the Government where each dam is located, while the construction aspects is a responsibility of KOBWA. While this makes perfect sense, it is important to ensure that during implementation the resettlement programme is linked to the construction programme. A problem arose during the implementation of the Maguga Dam Project in that the resettlement programme lagged behind the Dam construction programme. This resulted in households having to be temporarily accommodated in temporary housing structures. Further, they had to be given interim support such as food replacement because they could not produce their own since they still had to be permanently relocated. This process is very costly financially and most importantly emotionally degrading to the affected people. The resentment that arises from the feeling that the project is more important than them can be far reaching. It could also build a dependency syndrome where people get used to being given food support instead of producing their own. To resolve this matter, KOBWA was asked to take up the resettlement project and link it to the construction programme.

When resettlement policies are focused on compensation alone, they tend to lead to a stage where the project interest of the affected communities wane out over time in favour of other pressing matters. The approach is often based on getting the job done and getting out as quick as possible. Studies have shown that the effects of resettlement could linger on for generations to come. There are projects such as the Kariba Dam where these issues are still being debated 30 years since the project was completed. Once interest is lost over the resettlement process the fate of the resettled communities usually takes a dive – and normally to the detriment on the reputation of the project. In this regard project monitoring is planned to continue for some time to come.

Source: InWent- Germany on behalf of the Federal Ministry of Cooperation and Development. Dams and Development: The KOBWA – Experience Practices for balancing social, environmental and economic aspects

Cultural and Historical Heritage including Indigenous Populations and their Resource Base

Culture and tradition affect the behaviour of people towards water as a social and economic good. Certain aspects of cultures and traditions may be incompatible with rational allocation and use of water resources or the preservation of water quality. On a positive note, however, in practically all of the three countries of the Eastern Nile cultures and traditions, water is a most hallowed, treasured, and respected resource – revered for its mystical role in sustaining life on earth. As an important aspect of good governance in traditional Africa, communities everywhere have evolved institutional arrangements for developing and protecting water resources and allocating it among rich and poor families alike. It is true that these traditional institutions, which were not designed to mediate the problems that societies face today, have come under increasing strain, and some have even broken down altogether, resulting in the degradation or depletion of resources and heightened societal conflicts over dwindling supplies and even in increasing social conflict. The challenge for any national or regional policy , therefore, is to guarantee water security and equity for the the peoples of the Eastern Nile countries in the 21st Century. In the quest for this objective, national policies should learn from, adapt and incorporate relevant aspects of cultures and traditions in water policies and strategies.

In the Eastern Nile we can not speak of indigenous people that stand distinct from their surrounding communities culturally, anthropologically, socially.In   a way all people in Eastern Nile are „indigneous". It its in this context we use the term, to mean local. Local people possess traditional knowledge and skills concerning the sensing/locating of water and protection of the source. Water sources on lcoal lands are often considered a sacred element, and local women may be the holders of "water knowledge." Their traditional land management skills often provide the most effective method of water resource management in their settlement areas. However, due to their lack of sovereignty over natural resources, indigenous people are seriously affected by their uncompensated and unsustainable loss of water to farming and other industries introduced from outside their communities. In the worst cases, governments have closed water sources in an effort to forcibly relocate indigenous people from their traditional territories. In other instances, indigenous peoples are not

Box 8: Protection of the resource base: indigenous perspective

In the Witjira National Park in Australia, pastoralists had caused serious deterioration of the "mound springs" (referred to as the Tjurkurpa sites) in the Great Artesian Basin. Due to the fencing for livestock and damage to many water sources, Aboriginal people were not able to travel and were denied access to sites that were of high cultural significance. When p pastoralists started to move away from the mound springs to seek new water sources for their stock, the Aboriginal people who stayed at the springs were then able to return to their traditional land management practices. Indigenous peoples combined traditional land management skills and western scientific methods to restore the mound springs. They negotiated a cooperative management structure with National Parks; they have a Board of Management with a majority of Irrwanyere people on it, who also hold a 99-year lease over the park. The park remains the property of the South Australian Government but the lease allows the Irrwanyere people to live on, use and manage the park in accordance with the plan of management. Through the process of cooperative management, some of the sites have been restored.

Source*: Dean Ah Chee. 1995. Indigenous people's connection with kwatye (Water) in the Great Artesian Basin. Department of Environment and Natural Resources 1995. Witjira National Park Management Plan*

In some cases, women are taking the lead in their communities to protect water resources. In the community of São João D'Aliança in central Brazil, the local Union of Rural Workers in collaboration with University of Brasília (UnB) designed a community water project to stop pollution of the das Brancas River and to rehabilitate original vegetation along the river banks. In the women-led initiative, called the "Water Women" project, each group of women adapted environmentally-friendly practices to their every day activities. The Water Women NGO was launched in April 2002 to support social and environmental development of the region, with a focus on improving women's situations, generating new jobs and income, providing education to youth and adults and preserving the existing culture and traditions. Community education taught local people not to dump their sewage into the river, and how to plant native species of trees along the river banks. As a result, there is a visible absence of waste in the river, a considerable growth of new vegetation of native species on the river banks and decreased soil erosion. Women's political participation was strengthened, and public perceptions regarding their leadership capabilities were changed.

Marcia M. Brewster, Thora Martina Herrmann, Barbara Bleisch and Rebecca Pearl. (2006). A Gender Perspective on Water Resources and Sanitation. Wagadu, Special Issue: Water and Women in Past, Present and Future. Vol.3.

provided with clean safe drinking water to the same level as other nationals in a given country.

Agenda 21 (para 26.5) calls for international and national organizations to draw on the active participation of indigenous people and their communities and "…to incorporate their values, views and knowledge, including the unique contribution of indigenous women, in resource management..." In para 26.9 international development agencies and Governments were requested to "…commit financial and other resources to education and training for indigenous communities to develop their capacities to achieve sustainable self-development, and to contribute to and participate in sustainable and equitable development at the national level." Particular attention is to be given to strengthening the role of indigenous women (Brewster, Thora Martina Herrmann, Barbara Bleisch and Rebecca Pearl. (2006)).

Governance

Similarly, the role and contribution of modern civil society organizations such as consumer groups, cooperatives, professional associations and other similar institutions, has not been significant in water resources management. These groups, if empowered and supported, could play important roles in terms of setting development goals, objectives and standards, participating in programme and project implementation, undertaking technology adaptation and research, and bridging the gap between the public sector and the benefiting communities.

Governments also have to make strenuous efforts to promote good governance. This involves the institutionalization of financial and administrative accountability, transparency and fairness; ensuring effective participation and inclusiveness in governance at all levels, allowing the systems of checks and balances to function well; providing for independent audit systems for the public sector etc. Experience in the region has indicated that achieving success in the area of good governance is an important ingredient in the effective functioning of institutions, attracting domestic and foreign investment, achieving sustainability and generally in the fructification of efforts made in other areas of water resources management.

Crosscutting Themes

The crosscutting themes are defined as transversal issues that are critical to achieve sustainable development. Of paramount importance among them are the following: poverty, environment, population, gender, participation and health: HIV/AIDS and Malaria control, Virus C and Bilharzias. Consequently, health outcomes must be also considered as a crosscutting theme in the SMG Guidelines. Transversal issues tend to overlap as they are interrelated and cover a multitude of aspects. For example, gender and poverty issues are closely linked as the poor and women often face the same constraints (restricted control over land, lack of education, limited access to health services, etc.).

Poverty

Poverty is a multidimensional concept that covers income and non-income aspects. It is a state of livelihood characterised by material deprivation, food insecurity and lack of access to productive means. Major signs of poverty include malnutrition, high rates of infant and maternal mortality, poor health status, unemployment, inappropriate housing, inadequate access to infrastructures and services (education, health care, transport, etc.), social and physical insecurity, vulnerability to shocks, low self-confidence and powerlessness.

Consequently, ensuring that policies, programs and plans as well as projects assist in reducing poverty requires considering the status of various social and economic components influencing poverty. Key components that are considered under poverty in these Guidelines are the economy; information, education and communication; and access to infrastructures and services.

Environment

The environment consists of the components of the biosphere in which all life exists. Therefore, it encompasses the air, water, soil and related ecosystems. It also includes the flora, fauna and landscape as well as the natural and cultural heritage. Mainstreaming the environment also involves considering the human interactions and impacts on the biosphere, both positive and negative.

Box 9: Addressing poverty through Procedures for Transboundary Cooperation

The four countries making up the Mekong River Commission (MRC) have agreed on a vision of "An economically prosperous, socially just and environmentally sound Mekong River Basin". The MRC uses a number of tools to help achieve this objective; including environmentally and socially responsible best management practices for hydropower and fish friendly irrigation, a Basin Development Plan, and five agreed procedures. While the shared basin planning process provides a framework within which all four countries outline their plans for economic development, it is the procedures which move transboundary management towards the countries' common goal. Procedures for Maintaining Flows on the Mainstream (PMFM) ensure that sufficient water flows downstream to sustain vital ecological functions on which poor and vulnerable communities depend; sustaining fisheries, and ensuring sufficient dry season flows. Procedures for Water Quality (PWQ) provide a basis for safeguarding water quality, ensuring that it remains fit for human use and aquatic ecosystems; thus protecting communities with limited resources to treat water for potable use.

Procedures for Water Use Monitoring (PWUM) provide the information necessary to assess how development and use of the water of the basin impacts on mainstream flow and water quality. Procedures for Notification, Prior Consultation and Agreement (PNPCA) help ensure the reasonable and equitable use of water, and that water resources development does not compromise the livelihoods of the poor; while Procedures for Data and Information Exchange and Sharing (PDIES) provide for the free exchange of quality assured data between the countries.

However, the integration of the procedures provides the greatest opportunity for proactive management towards meeting the needs of the poor and vulnerable in the basin. Integrating the procedures in an IWRM based framework identifies where water is available, or can be made available, to support food production and streamline notification and prior consultation processes to this effect. Pro-poor methods for monitoring water use not only help vulnerable communities monitor and manage their own water resources, but provide the information necessary to support transboundary cooperation towards addressing water, food and energy security. Ultimately, this integrated view of the procedures will help the MRC Member Countries ensure that transboundary water management achieves their mutual vision. Implementation of these procedures is a continual challenge, reflecting the essentials of the challenges of transboundary cooperation.

Source: Mekong River Commission, Transboundary River Basin Management: Addressing Water, Energy and Food Security. Vientiane, Lao PDR 2012, www.mrcmekong.org.

Box 10: Tanzania Water Management Conflicts Mtera Crisis: Hydropower and Irrigation

The Mtera Dam on the Great Ruaha River is the main structure regulating the two hydropower plants on the Rufiji River, which generate nearly 50 percent of the nation's electricity. The Mtera reservoir reached full capacity in 1990, after which the water levels declined, with serious consequences for hydroelectric generation. The consequent reduction in generation caused severe load shedding and rationing of electricity nationwide during 1991–93. The causes of the decline in reservoir level were strongly disputed. The generating authority, TANESCO, blamed uncontrolled and expanding upstream abstractions for irrigation, while the farmers blamed the low rainfall conditions at the time. Others claimed that poor operations of the reservoirs were the problem. Technical studies were conducted to determine the real causes of low storage levels and inflows. They concluded that the primary cause of the low reservoir levels was reduced rainfall and inflow into the dam, precipitated by uncontrolled and expanding irrigation as well as increased demand for electricity, resulting in ad hoc responses leading to poor operations at Mtera Dam. Usangu Plains: Irrigation, Livestock, and Environment

The drying of the Great Ruaha River since 1993 also resulted in intense competition between irrigators and pastoralists for water, particularly during the dry season, in the Usangu Plains upstream of the Mtera reservoir. Farmers believed that increasing numbers of cattle were placing greater demands on water and forage during the dry season. The gradual expansion of areas under irrigation by farmers decreased land that was previously available for grazing and the availability of water for livestock. The Great Ruaha River originates in the Kipengere Mountains and flows through the Ruaha National Park—an important wild life based tourism site—and into the Mtera Dam, that regulates the river for power production at Kidatu. The regular drying of the river during the dry seasons caused the wildlife to move away from the river, affecting the income from tourists. Wetlands on the Usangu Plain have also been affected. The western wetland has almost disappeared and the eastern wetland—which is important for grazing, game animals, and fishing during the wet season—has shrunk substantially.

Pangani Falls Hydropower Station: Hydropower and Irrigation

When the Pangani Falls hydropower station (68MW) was nearing completion in the early 1990s, it was found that inflows into the Nyumba ya Mungu (NYM) regulating reservoir were much lower than predicted because of an increase in the number of uncontrolled upstream abstractions for irrigation. NORAD, the main funder of the power station, had asked the government to put measures in place to manage the water resources before construction commenced. For this reason, the Pangani Basin Water Office was established in 1991. Following the regulation of the river by NYM, the productive fishery in the Kirua Swamp collapsed because the annual flooding of the wetland ceased (IUCN 2007). Decreased flows into the Pangani estuary have also increased saltwater intrusion.

Lower Kihansi Hydropower Plant: Hydropower and Environment

The Lower Kihansi hydroelectric plant (LKHP) was constructed on the Kihansi River at the 900 m Kihansi Falls during the mid- 1990s (Case Study 16). Although the project EIA had concluded that there were no significant environmental issues, it did not consider impacts downstream of the proposed dam. Subsequent ecological monitoring studies conducted during project construction in 1996 found an endemic toad, the Kihansi spray toad (KST), in a rare wetland system in the Kihansi Gorge located downstream from the dam. The toad was dependent on the spray created from the water falls. Operation of the underground hydroelectric plant would abstract over 90 percent of the annual river flow and consequently would drastically reduce the spray in the gorge, adversely impacting the spray wetland. Once discovered, temporary measures were taken to safeguard the ecosystem

Population

As a crosscutting theme, population refers to demographics and factors influencing population growth. It therefore covers a broad range of issues such as population characteristics and dynamics (size, density, age and gender structure, ethnies, life expectancy, internal and international migration, rural/urban migration, etc.), education and health, economic growth and employment as well as agricultural and natural resources. In fact, population is closely linked to the crosscutting themes of poverty, environment, health and gender.

In order to simplify the presentation and minimise repetitions, the SMG considers under population the following key issues: demographic trends, migration and resettlement, changes in natural resources and land management and quality of life.

Gender

Integrating a gender perspective in the environmental and social assessment process implies taking into account gender differences in roles, rights, priorities, opportunities and constraints. These differences are socially and culturally ascribed to men and women, they vary widely within and across cultures and they can change over time.

In order to mainstream gender issues in projects, the SMG cover gender inequalities or differences in the following key areas: division of labour (paid and unpaid work), income-generating activities, access to and control over productive factors, and involvement in societal organisation.

The question, however, is how to apply gender mainstreaming to transboundary waters and istitutional frameworks i.e. move from the local/national level tp the basin-level in which interactions are dominated by large scale water users and the administrative political or eonomic elite(s). This level tends to exclude the weeaker segments of society, the poor, especially women whose multiple water needs for the welfare of their families and household economy are often blatantly overlooked.

Current efforts to create new legal frameworks and new management istitutions at the basin-transboundary level call for genuine representation of all water users' interests. Community based integratede water management insitutions and local water tenure arrangements should

be linked to new basin institutions. Informing women in particular about new water management initiatives from the local to the basin llevel and effectively including them in the design of these new institutions will be crucial. Devising appropriate strategies to guarantee women's participation which take into account cultural and social traditions will be vital in ensuring geniune community participation.

Differences between reparian countries –in terms of socio-economic development, capacity to manage water resources, infrastructure, political orientation and institutional as well as legal contexts- represent challenges for effective and coordinated development as well as to the joint management and protection of transboundary water rsources. At the same time, these differences open up opportunities for capacity development and technical, social, legal and economic cooperation.

Box 11: UGANDA: Mainstreaming Gender into Policy: Examining Uganda's Gender Water

Strategy

Although Uganda is known for having a very gender-sensitive approach to development, in the late 1990s some policy areas still needed improvement, including in the water and sanitation sector. In 1999 the Government had formulated a Water Policy, and in 2003, the Directorate of Water Development (DWD) recognized the need to develop an explicit strategy to introduce gender mainstreaming into its plans and activities. However, the DWD realized there were not any clear guidelines on how to do so, despite the fact that gender cannot be divorced from effective water management and use. This study uses the case of the DWD to examine and analyze how the water sector in Uganda has been able to incorporate gender concerns in their development planning by drafting guidelines for gender mainstreaming.

Best practices

The Water Sector Gender Strategy set out clear aims, rationales and targets.

Goal

The strategy aims to raise awareness of gender issues from the national to community levels, build capacity of sector institutions to recognize and utilize opportunities for gender mainstreaming, increase the number of female professionals in the sector by 30 per cent over a 10 year period, improve organizational culture and support implementing agencies to implement services in a gender responsive manner, leading towards empowerment and sustainable development in the water sector. (DWD, 2003:6). The Strategy is designed .to provide guidelines to water sector stakeholders on how to mainstream gender in their work plans and for the planning and implementation of water and sanitation programmes within the decentralized districts.

Rationale

The primary rationale given for this strategy was that: 1) Water usage in communities is affected by the gender division of labor, which is to a large extent a social construction of each community; and 2) The development objective of the water sector is to improve .living conditions for the population of Uganda through better access to improved and sustainable water and sanitation related services with a special focus on the poorer sections of the

The strategy also takes an explicit empowerment approach and observes that this .will enhance gender equity, participation and access and control to resources in the water sector [and lead] to poverty alleviation. (DWD, 2003:6). The DWD commissioners interviewed confirmed that this goal still remains the guiding principle in its work.

Strategy objectives

The strategy focuses on increasing gender equality as a means of meeting DWD.s overall development objectives, including to: 1) Commit adequate resources to gender activities in the sector (planning, implementation, monitoring); 2) Strengthen planning, monitoring and evaluation systems to design, develop and implement projects using sex-disaggregated data; and 3) Strengthen the capacities of partners and executing bodies to mainstream and support gender balance of staffing in the sector.

The Senior Social Scientist in charge of gender for the DWD noted that all four of the Directorate's Departments have technical staffs who handle .hardware. Activities on water as well as social scientists who handle the .software. Activities. Gender falls under the software activities, while the hardware activities come under engineering and physical infrastructure.

Lessons learned

While it is too soon to measure the Strategy's impact at the community level, given its explicit

empowerment objectives it is anticipated that it will:1) Encourage women to take up leadership positions in their communities; 2) Encourage men to participate in activities related to water, which has been for long considered a woman's domain; and 3) Help to demystify stereotypes of gender roles. Already there are water committees set up and the women have taken up leadership positions in these committees, according to respondents interviewed. The Water Sector Gender Strategy sets a good example of how gender can be strategically.

Mainstreamed into policy and plans at the national level and linked directly with work plans and activities at the decentralized district level. The DWD has developed indicators for monitoring the success of the strategy and plans to continuously review it to avoid any loopholes. The Strategy also encourages collaboration between Ministries and like-minded organizations to mainstream gender into the water sector. This, in turn, has helped the Directorate coordinate and develop a sustainable gender-integrated approach to water-related development activities throughout the country. The development of a national water and gender strategy has also dispelled the misconception that gender mainstreaming only occurs due to donor conditionalities and agendas.

Florence Ebila. (2006).UGANDA: Mainstreaming Gender into Policy: Examining Uganda.s Gender Water Strategy. In UNDESA. Gender, Water and sanitation: Case Studies on Best Practices. New York:88-95.

At the transboundary level, the formation of joint bodies with strong enforcement capacity is fundamental to ensuring cooperation between the various government entities and good management of shared resources. Enforcement can only be achieved if these bodies possess strong mandates and political support from governments. Apart from states, a variety of actors –local stakeholders, NGOs, research institutions, private sector participants and donors, among others- must all be involved. Success can be found in the interaction and cooperation between the different levels and stakeholders. Vertical and horizontal integration is necessary, and the joint bodies are the framework where such integration take place.

To be effective, joint bodies should be engaged in coordination and advisory functions, data collection, serve as forum for exchange of information on emerging issues such as planned uses of water and impact of climate change. Policy development and implementation must

include formulating joint policies and strategies to implement the agreement(s). Dispute settlement procedures must be put in place, including monitoring and reporting on imlementation. All these processes are amenable to gender mainstreaming. Table 8 summerizes some of the oprganizational issues for gender mainstreaming at the insitutional transboundary level.

Table 8: **Operational Issues in Gender Mainstreaming**

Category of Inquiry	Issues to Consider	Dteps for organizational Change
Work		
Policy and Action plans	• Is ther a gender policy? • When was it developed and who was involved? • Does it use sex disaggregated data? Is its implementation being monitored?	**- If there is no gender policy but a desire to address inequalities between men and women, then plan to develop such a policy.**
Policy Influencing	• What is the attitude of senior government staff to gender issues? Who are the formal and informal opnion leaders? • What are the decision making bodies?	**-Assess who are the champions for gender equity and equality.** **- Engage all relevant and potential staff and management.** **- Create a participatory and inclusive environment for policy development.**
Financial/time resources	• Is there funding for capacity building on gender? • Is there funding for gennder actions on the ground?	**- Allocate budgets for capacity building and for actions on the ground.** **- Allocate time for actions at the operational level.** **- Develop indicators to monitor progress.**
Systems proceedures and tools	• Is attention to gender included in routine systems and proceedures (information systems, apprasals, planning and monitoring? • Have guidlines been issued on gender mainstreeming?	**- Include gender in systems and governments proceedures.** **-Develop sex-disaggregated information systems.** **- Have indicators for monitoring policy progress in implementing gender.** **-Develop checklists and guidelines.**
Organizational Culture	• How does information flow and to what extent are women and men included in the communication chain? • What are the main shared values? Do they relate to equality? And specifically to gender? • Is decsion making centralized or decentralized?	**- Explicilty satate the dovernments' commitments to gender equality in all policies and programms.** **- Decentralize decision making to allow both men and women a voice in decision making.**

Policy and actions	• **Does the governments have equal opportunity policies? What does the policy cover?** • **How is it promoted and implemented?**	**- Pay attention to equality within the structure, culture and staffing of governments organizations as well as in the programms, policies plans and proceedures.** **- Assess and evaluate continiously using gender sensetive indicators to enable a comprehensive review.**

Participation

As a crosscutting theme, participation refers to the goal of actively involving the policy(s), programsand plans as well as projects stakeholders, particularly those who stand to gain or to lose from them. This goal implies to share information and control over social, political and development initiatives, decisions and/or resources. This crosscutting theme can be mainstreamed by carrying out consultations along the assessment process with the various stakeholders. In particular, it is desired to intensify consultations with civil society organisations (CSOs) to increase the civil society involvement.

Issues of participation are closely linked to other key "cross-cutting" issues. For example, Poverty is not just a lack of physical resources for development. It is also rooted in the inability of poor people to influence forces and decisions that shape their lives. Sustainable **poverty reduction** can only be achieved by empowering poor people to actively participate in (and ideally initiate and control) development interventions designed to better their lives.

Issues of **gender equity** are as well key to participation and vice versa. A fundamental principle of participation is that *all* legitimate stakeholders be heard – in particular, women and other vulnerable groups that have traditionally been excluded. Participatory approaches can contribute to women's empowerment by ensuring that women's views, as distinct from men's, are taken into account and by building the capacity of women's groups and other organizations devoted to gender equity.

Expanded partnership **with civil society organizations** (CSOs) is central to the to implementing participatory approaches. Those non-governmental organizations (NGOs) and community-based organizations (CBOs) that represent poor people and women are particularly important. Participation at the local level frequently takes place via CBOs and is facilitated by local NGOs. Supporting the capacity-building of such groups is an important element of promoting participatory development.

Box 12: Stakeholders Public Participation in Southern Africa

Current-day transboundary co-operation in water management in Southern Africa occurs in the context of an initiative of the Southern African Development Community (SADC). In 1995, a Protocol on Shared Watercourse Systems was signed as part of efforts to implement the SADC Treaty. The protocol came into force in 1998. This protocol referred in many aspects to the 1966 Helsinki Rules. In consideration of new developments, in particular of the 1997 UN Convention on the Law of non-navigational Uses of International Watercourses, the 1995 protocol was revised. The Revised Protocol, which significantly improved provisions relating to the environment, was signed by SADC leaders on August 7, 2000 and entered into force on September 22, 2003.

The 1995 Protocol on Shared Watercourse Systems contains the first provisions relevant to the introduction of public participation in transboundary water management in Southern Africa. It urged Member States to establish appropriate institutions including a Monitoring Unit, River Basin Commissions and River Authorities or Boards in respect to each drainage basin (Art. 3). According to Art. 5 paragraph b) IV), one function of the river basin management institutions shall be "[to stimulate] public awareness and participation in the sound management and development of the environment including human resources development"16. In the Revised Protocol this paragraph has been omitted. In the Regional Indicative Strategic Development Plan (RISDP), however, Chapter 3.3.5, "Water", states that the revised Protocol shall be made operational through a Regional Strategic Action Plan (RSAP) for Integrated Water Resources Management and Development in the SADC Region; this plan includes significant provisions for the strengthening of public participation. Among the seven key priorities are information acquisition, management and dissemination; awareness building; education and training; and public participation. The two case studies of the Okavango and Orange rivers represent encouraging examples of these new approaches to transboundary water management under the light of public involvement.

The Okavango

The Okavango River originates in Angola, runs southeast forming the border between Angola and Namibia, and finally enters Botswana. After 1600 km the river ends up in the Kalahari desert, forming the famous Okavango Delta, home to an astonishing richness of ecosystems and biodiversity. Water requirements in the Okavango basin differs significantly from state to state. To date, domestic water use prevails in Angola; in Namibia it is irrigated agriculture that is the most important user of Okavango water, and in Botswana tourism depends on water for the preservation of the unique Okavango Delta ecosystems. In 1990 a first technical committee was established for the Okavango River Basin. At the time Angola was not included in the committee, but it was involved in the establishment of the Okavango River Basin Commission (OKACOM), founded in 1994 by the governments of Angola, Namibia and Botswana.

Public Participation in the Okavango

In the year 1996 the pressure on the water resources of the Okavango increased. Botswana requested the use of more water for its mining activities, and Namibia required more water for its expanding capital Windhoek. Several NGOs and individuals from the private sector were put on the alert by these developments. They started to form a liaising group, and in 1998 they approached the OKACOM with the request to be involved in water management planning. The Commission agreed to set up a forum with the character of "advisory board" to the Commission. This forum consists of a total of 30 participants, with 10 persons coming from each country. Stakeholders of the forum are mainly representatives of community-based organizations (CBO), small-medium enterprises of the agriculture, tourism and fisheries sectors, as well as representatives of the craft associations and traditional authorities. In addition, representatives from the national ministries, the commissioners, SADC and representatives from other basins also participate in

Initially stakeholders did not understand the need for co-operation. Rivalries arose among the groups; everybody wanted to be the leader. This struggle only ended when a role of coordinator for the establishment of the forum was assigned. The NGO "Every River Has its People", with support of the Swedish International Development Co-operation Agency (SIDA), took over project co ordination. The development of the participation strategy took three years. The work done included extensive grassroots fieldwork in the communities. The interests, the future tasks, and the perspectives of each single NGO and CBO were identified. In addition, three-day workshops were held in each country, which gathered all stakeholder groups for the development of a common vision for the Okavango Basin. As a result of this long process the forum, with 30 participants, was established. By that time OKACOM had realised the value of the forum's input for its own work, and as a result the commission offered an observer-status seat to one representative of the forum.

The case of the Okavango shows that public participation can significantly influence decision-making. It is an example of a grassroots, bottom-up movement which had the good fortune of counting with understanding and acceptance from the River Basin Organization. It is, however, also an example that significant time and financial resources need to be committed in order to achieve results, in addition to the necessary personal commitment required of the people involved.

The Orange

The Orange river basin lies within the territories of South Africa, Lesotho, Namibia and Botswana. It covers an area of about one million square kilometers. The landscapes of the Orange Basin vary from high mountains at its source in the Lesotho Highlands, over pastures and semi-arid savannah grasslands, to the extremely arid deserts near the Atlantic Ocean on the border between Namibia and South Africa. The estuary of the Orange is not formed by a large surface delta; it is however regarded as one of the hotspots for wetlands conservation in Southern Africa and of utmost importance to the region's ecology and biodiversity. While in Lesotho the river is called Senqu; the Orange is also known as the Gariep River. Major tributaries to the Orange are the Vaal, Fish, Caledon, Molopo and Nossob Rivers. Major threats to water resources in the Orange Basin are water scarcity, climate change, pollution and land degradation. Water shortages apply to both surface and groundwater. This is also aggravated by the fact that water distribution networks are not sufficiently developed.

The highly industrialized areas of the Gauteng and the adjacent provinces lead in the past to rapidly increasing water demand, and pollution due to industrial and domestic sewage. The Inter Basin Transfers of the Orange Development Project and Lesotho Highlands Water Project brought about river habitat changes and potential impacts on ecological integrity. In November 2000, the Governments of the Republic of Botswana, the Kingdom of Lesotho, the Republic of Namibia and the Republic of South Africa established the Orange-Senqu River Commission (ORASECOM). The commission was founded in consideration of existing international water law, the Protocol on Shared Watercourses of the Southern African Development Community and in the wish of strengthening co-operation and building up good neighborhood relations. ORASECOM was the first commission to be created within the framework of the Revised SADC Protocol. Before the establishment of ORASECOM, transboundary co-operation in water management was limited to bilateral agreements. Prominent examples for these agreements are the above-mentioned Lesotho Highlands Water Project and the Orange Development Project. To date, the institutional structure of ORASECOM is still under development. While the commissioners have established regular meetings on a bi-annual basis with support of a technical task team, central structures such as a Secretariat are still forthcoming.

There are also close links between participation and **good governance**. Democracy and participatory governance are dependent upon the ability of citizens to express their views and to hold government (at all levels) accountable for its actions. By supporting and strengthening local representative institutions and providing forums whereby diverse stakeholders can make their voices heard, participatory approaches help lay the foundation for good governance at local/ national/regional levels.

Health

As with poverty, health is a multidimensional concept that is not limited to the absence of disease and infirmity. In fact it is a complete state of physical, mental, social, and spiritual well-being. Consequently many factors influence people's health, particularly economic opportunities, the social context and the natural environment.

In the SMG, health is distinguished from the Health Sector, which is mainly concerned with cure. Impact assessment focuses primarily on prevention. In order to make this distinction clear, the term Health Outcomes is used to refer to the positive and negative impacts of development policies, programs and plans as well as projects. The spectrum of Health Outcomes to be considered is broad as it includes communicable diseases, non communicable diseases, malnutrition, injuries, psychosocial disorders and well-being. These outcomes result from changes in the determinants of health, which are, themselves, the product of changes in other crosscutting themes.

Box 13: Access to sanitation and Education

The School Sanitation and Hygiene Education (SSHE) campaign, a joint project of UNICEF and the IRC International Water and Sanitation Centre, the Water Supply and Sanitation Collaborative Council (WSSCC) and others, aims to provide water and sanitary facilities in schools to improve health of all pupils and encourage girls to attend school. Research and surveys suggest that separate facilities need to be provided for girls and boys, if girls are not to be discouraged from attending school. The project began in February 2000 in Burkina Faso, Colombia, Nepal, Nicaragua, Viet Nam and Zambia. With an emphasis on local participation, SSHE provides low-cost teaching aids, inexpensive, community developed technology and life-skills hygiene education to primary schools

***Source**: (http://www.unicef.org/wes/index_schools.html).*

In Mozambique, a similar project supported the construction of latrines for boys, girls and teachers, and hand-washing facilities for hygiene practice. Not only have these initiatives provided safer, healthier learning environments, they have also encouraged girls to complete their basic schooling. The improved hygienic conditions have given girls back their books and their dignity (UNICEF 2003a). At a glance: Mozambique.

http://www.unicef.org/infobycountry/mozambique_2231.html (accessed on 15 March 2013).

In Bangladesh, a school sanitation project with separate facilities for boys and girls helped boost girls' school attendance 11 percent per year, on average, from 1992 to 1999

United Nations Children Fund (UNICEF). 2003b. http://www.unicef.org/wes/sanall.pdf (accessed on 15 March 2013).

Climate Change and vulnerabilities

Climate change has highly affected the EN Basin area in many ways. The most obvious way is rain variability, which impacts the population's readiness and ability to benefit from the resources, and sustain it. The population's accumulated knowledge on land cycles and irrigation is often times rendered useless by unexpected changes of climate. Environmentally, the key main regional concerns in the Eastern Nile sub-basins are the following: Deforestation, soil degradation, and loss of agricultural productivity, especially of irrigated land; High sediment load in the river system, which impacts dams and reservoirs operations; Water quality in the river downstream of the Aswan Dam; Degradation of wetlands and increasing flooding; Loss of biodiversity and Droughts.

Socially, the above listed concerns remain very closely linked to social development issues as humans depend on the latter for their health, livelihood and happiness. *Increasing climate change has certainly raised more concerns on questions of not livelihood in the region, but also social equity and cohesion, and the finally the necessity to a more inclusive participation of the stakeholders in the formulation, implementation and management of NBI's development projects.*

ENTRO is formed on the understanding that water resources affect everyone, regardless of village, district, or national political boundaries. As such ENTRO may represent diverse institutions, including government, agriculture, industry, and civil society groups, acting for their mutual benefit. This typically includes establishing a framework for water allocation through plans, policies, national legislation, and other enforceable agreements. It can also

coordinate and communicate with the stakeholders in a given watershed as well as balancing competing needs to ensure the sustainable and equitable use of water resources.

The EN countries are dependent on hydropower, even though their hydropower potential of is still hugely underdeveloped. However, hydropower in the EN is under threat from diminishing stream flow or increased variability in flow associated with climate change, or from competing uses. It is, therefore, important to ensure that both water and energy security are managed in an integrated manner and account for likely impacts of climate change in order to sustain both. Such understanding must exist at the EN basin level as well as the national level, to ensure joint planning for a water and energy secure future.

Integrated development of transboundary river basins can play significant roles in contributing to the socio-economic development of their riparian countries. **However, Climate change is anticipated to bring further spatial and temporal variability to water resources, affecting the availability and reliability of resources. Variability and uncertainty of rainfall patterns may shift the areas that are able to sustain rain-fed agriculture.** More intense rainfall events may increase run-off while reducing infiltration. Increased temperatures and evapotrans piration may reduce the effectiveness of surface storage. Plans to build infrastructure to increase storage capacity should account for predicted flow regimes under climate change scenarios. Rising sea levels, saltwater intrusion, and industrial and municipal pollution may degrade water sources. Transboundary impacts give rise to transboundary solutions.

Several strategies can be adopted to respond to the threat of climate change both at the EN basin as well as the national level. **One such strategy is to Integrate Climate Change into Transboundary Basin Agreements.** Many international and transboundary agreements and institutions were not originally designed to cope with the impacts of climate change. Regular planning and budgeting cycles may be used to integrate the aforementioned climate change issues into transboundary basin management programs, strengthening these institutions and expanding regional cooperation. Amendments could be made to original agreements in order to make current ones climate-smart. The main articles of amendments could focus on flexible rather than fixed water allocation between countries in light of increasingly variable water availability. Working relationships should build on common understanding and goals to guide sustainable allocation of water resources across uses. Inclusion of stakeholders with different agendas but a shared goal in decision-making processes will encourage diverse participation in agreements or strategies.

Another possible strategy that can be promoted is to Harmonize Water Management at National and Transboundary Scales. Water management plans at the national level need to be aligned not only with national development and poverty reduction strategies but also with transnational agreements and objectives. There are multiple approaches for developing diverse climate change resilient water supply sources, such as surface impoundments, groundwater pumping, recycling, treatment, or desalination. Specifically, intense or increased rainfall may shift water storage needs in a basin from groundwater to surface water. Higher temperatures may increase the need for groundwater storage, irrigation, and water transfers. Rising sea levels and saltwater intrusion may require development or blending of alternative sources. All effective water management strategies should strive to maximize the impact of water and conservation. Effective planning requires adequate institutional capacity to provide: (1) appropriate legislation and policy, particularly at the national/subnational level of each of the EN riparian countries, to support transboundary agreements (2) sufficient infrastructure for water storage and flood attenuation, and (3) appropriate technical and managerial capacity.

One of the challenges in climate change adaptation in the EN is the lack of models predicting climate change at a scale that is relevant to management. Management options must be based on scientifically sound information and analysis of possible future

paths and the resulting vulnerabilities and risks. This requires appropriate monitoring systems and transboundary coordination on methodologies for collecting and sharing basic data on climate and water resources, such as river discharge data, flows at diversions, water quality data, weather data, groundwater data, soil moisture data, and extent of irrigated areas served by diversions from shared rivers may need to be shared. Good quality, shared data can be used to drive early warning systems that will improve preparedness of EN basin to natural disasters exacerbated by climate change.

ENTRO should coordinate the needs of stakeholders through an established process as their priorities change. This will improve the resilience of stakeholders' access to water supply as they adapt to climate change. Governments and ENTRO also need to make information available to communities and households, potentially through civil society organizations such as water user associations, to prepare strategies for climate change adaptation. There is a particular need to invest in the training and empowerment of women as key drivers of adaptation at the household level. Gender mainstreaming and understanding the particular vulnerabilities of women should form a key part of all climate change adaptation strategies.

Reference to negative experiences that give way to this Guide

There are ample evidence in the history of the Nile Basin in general, and the EN in particuluar which atests to how lack of attention to social development issues has been one of the main causes of the failure of development interventions in the region. The problems resultant from projects' failure are/were not confined to the mismanagement of public funds only. Rather they extend well beyond that to undermine the livelihoods of sizeable population groups foe extended periods of time at the local, national and regional levels. These projects were or are designed with out taking into account key stakeholders, their local knowledge and exposure, how local communities function, sustain themselves and their environmental resources to mitigate/ eradicate poverty. Despite all the good intentions, such projects, despite have resulted in deepening poverty, increased inequality and aggravated social exclusion, not to speak of wasted valuable, scarce resources. The following are two cases in point which demonstrate negative consequences.

Box 14: How Lack of Social Assessment Resulted in Program Failure:Resettlement Programme in Ethiopia

The resettlement project involving 82,000 people in the Metekel zone of the Abay Basin was implemented following the 1984/85 drought and famine in Ethiopia. The resettled communities were mainly from the northern highlands (Amhara, Tigray and North Shoa) while the host community (Gumuz) are in the western lowlands. The size of the resettled population exceeds the population of the host community.

The concerns and interests of the indigenous host population were not considered. Neither were they consulted about the program ahead of time. The host communities lost their hunting gathering grounds, farmlands and fishing sites, experiencing extreme shock to their livelihoods. This brought the host communities in bloody conflict with the settlers.

The resettlement had also a heavy toll on the environment as little consideration was given to the sustainability of the natural habitat. Massive deforestation took place where 50,000 hectares were cleared. Logging, carpentry and firewood further contributed to the deforestation. This in turn led to substantial loss of vegetation cover and exposed the fragile tropical soil vulnerable to natural forces, leading to declining farm productivity and overall ecosystem degradation.

Social Costs of a DamThe Construction of the Aswan Dam and the Displacement of the Nubians inSudan and Egypt

The Aswan High Dam is a rock-fill dam which constitutes a principal water development project in the Main Nile Basin. Its purposes were to meet the demand for high capacity storage to control and preserve the overflow of water. The dam is the largest artificial lake in the world and has been tremendously important for Egypt in successfully coping with droughts. Despite its benefits, the construction of the dam has also caused serious social and environmental impacts. About 120,000 Nubians from Egypt and Sudan had to be relocated. The displacement has resulted in physiological, psychological and socio cultural shocks to the relocated, indigenous population as they were moved to new, unfamiliar physical and social environments. On the environmental side, the massive deposit of silt which the Nile flood water brought each year are now bank behind the dam contributing to the loss of fertility of the flood plains lying further down. This has led to extensive use of chemical fertilizers that has caused chemical pollution to the environment. The release of silt free water from the structure resulted in maior downstream erosion

Appendix F: Social Impact Assessment in Relation to Project Cycle

Development projects are intended to modify social and natural environments in order to create or enhance the economic, health, educational and other benefits that are valued by society. This goal, however, can be denied by the occurrence of unanticipated or unintended negative impacts that reduce desired benefits or, if severe enough, threaten the sustainability of the project. Environmental assessment provides an opportunity to identify major environmental impacts so that measures can be proposed to avoid or mitigate negative ones and to reinforce positive ones. Good practice also requires acknowledging that the social and environmental impacts are inherently linked. Environmental assessment should also identify the social changes and their connection to environmental impacts, evaluate the social costs of long-term continuation of the project, and formulate strategies to achieve the desired objectives. Information on social processes gained through environmental assessment is likely to be useful in other areas of project design. During either strategic assessment or project specific impact assessment, the social issues identified in the SAM should be considered in combination with the environmental issues, to ensure a rounded and fair approach.

The consensus now is to associate cetain tools and techniques with each of the stages of the project cycle. Figure 4 shows the project cycle adopted by the World Bank.

Figure 4: The Project Cycle
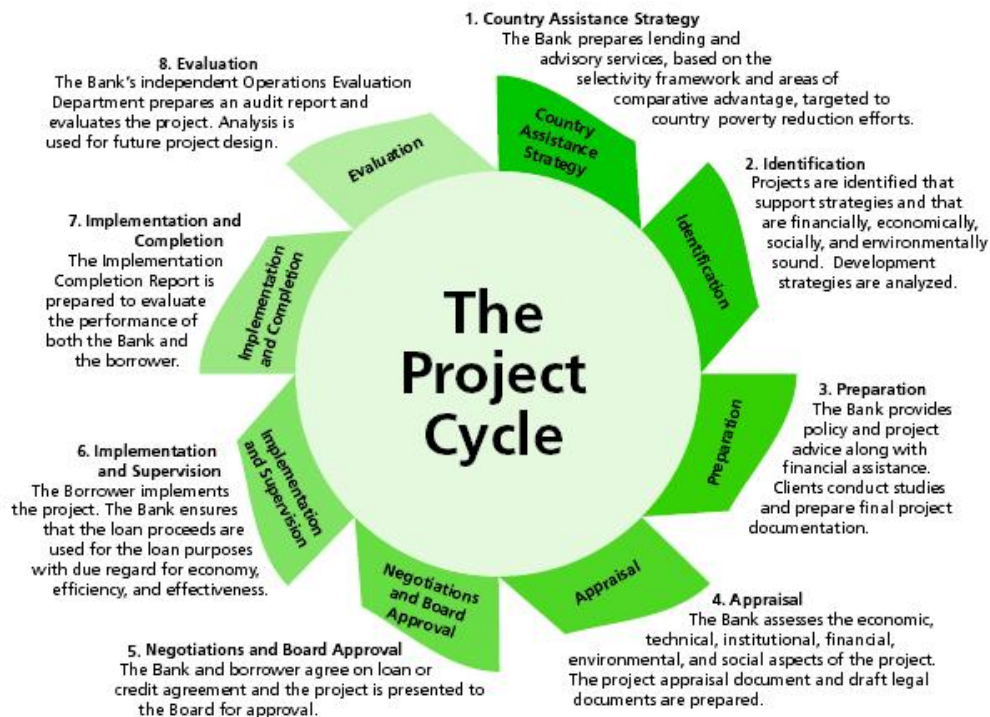
Associated with each stages of the project cycle is certain process such as screening, scoping, preparation of social assessment studies, studies review and approval, monitoring etc… the Following Figure 5 give a detailed visual representation of the linkages between project cycle and these processes.

Figure 5: Main Steps along Social Assessment and Project Cycle

Social Assessment Process	Main Steps				Project Cycle
Assessment Background	Development and Update of Country policy specific				Country Policy, Programs and Plans
Screening	Project Brief and Initial Social				Identification
	Category 1	Category 2	Category 3 No Further Action	Category 4 See Annex	
Scoping	Social Scoping	Social Scoping			
Social Assessment Studies	SIA TOR preparation TOR Review SIA preparation selected Pre-Approved	Social Management plan TOR preparation TOR Review ESMP TOR Review			Preparation
Social Assessment Studies and Approval	SIA Report Review SMP Preparation SIA Summary preparation Clearance and	SMP Review SMP Summary Preparation and Release			Appraisal
Loan Conditions and Constraints	Preparation of loan conditions and covenants Integration of SMP in loans agreements	Preparation of loan conditions and covenants Integration of SMP in			Loan Negotiations Board Presentation Loan Signature
Monitoring	SMP Implementation Monitoring	SMP Implementation Monitoring			
Reporting	Reporting on SMP implementation modification if necessary,	Reporting on SMP implementation modification if			Implementation and Supervision
Compliance Auditing	Selected Compliance	Selecting Compliance			
Compliance	Selected Compliance Auditing	Selected Compliance			Completion
Post-Evaluation	Post-Evaluation	Post-Evaluation			

(CONSULTATION shown along the central vertical axis)

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Appendix G: NBI Public Participation and Consultation

Transboundary waters (watercourses that traverse different states) are challenging to manage. States' interests differ according to their national requirements, and the needs of groups of people within those states can also diverge. These conflicting interests could lead to violence, which could be avoided if states and other basin users cooperatively manage the resource. The Nile Basin Initiative (NBI), which brings together the countries that share the basin, offers some unique lessons on the role of stakeholder participation in encouraging cooperation and preventing conflict.

The NBI was developed at a very high political level; building a cooperative framework in a multi-state environment is a fragile process, easily threatened by mistrust, so only national governments were directly involved in the NBI's development. However, since the inhabitants of a river basin play a critical role in the success of any internationally negotiated management arrangement, interstate negotiations should also include stakeholders beyond the national governments. Basin users' competing needs should be managed by using local level mechanisms and nationally devised principles, and by eliminating legal and policy conflicts between different states. The Nile Basin Discourse, established by a group of civil society organizations across the basin, seeks to do this by:

- Promoting a broad-based, open dialogue on development in the Nile Basin;
- Developing a database of stakeholders;
- Facilitating interaction between stakeholders;
- Catalysing national discourses in the 10 riparian countries;
- Creating space for national discourse on the status of people dependent on the Nile; and
- Capturing the voices of all stakeholders at national and subnational levels, especially local residents, community-based organizations, and others concerned with poverty, food security, economic and social human rights, and the threats posed by accelerating environmental degradation.

Increasing stakeholder participation through the Nile Basin Discourse will improve the NBI's effectiveness, but establishing the discourse has not been easy. Governments are still wary of engaging civil society due to the fragile state of cooperation in the basin. Open stakeholder participation raises significant questions; for example, given the open nature of the dialogue and the diverse entities involved, how does one establish an agenda that is not dominated by the interests of powerful groups? Stakeholder participation in the management of transboundary water must be examined in the context of procedural rights, such as those outlined in Principle 10 of the Rio Declaration:
- Access to information by all;
- Public participation in decision-making;
- Freedom of association; and
- Access to justice.

Engendering stakeholder participation in transboundary water management is not a smooth process; it is essentially political and easily captured by interest groups. A management regime must endeavour to engage all stakeholders equally – however expensive that may be – to guarantee success.

All management activities should be based on a strong participatory approach. Participation shall be undertaken following the NBI public participation and consultation model developed by the NBI Confidence building and stakeholder involvement project. This model is based on best practices in stakeholder participation and consultations through informing, consulting, engaging, collaborating and empowering stakeholders. The PCUs together with the

implementing agencies shall be responsible for consulting relevant stakeholders (including the affected communities and NGOs).

The Nile Basin Discourse is a network of over 300 civil society organizations from the 10 countries of the Nile Basin that seeks to achieve positive influence over the development projects and programs of the NBI. This network is an extremely valuable resource for the dissemination of ninformation and inclusion of various parts of society in the development cycle. It should be utilized for the purposes of consultation, and also as a forum for complaints and grievances (see Table 9).

Table 9: NBI Participation Model for Public Participation and Consultation

INFORM		
Goal	**Commitment**	**Tactics/ Techniques**
Promote stakeholder understanding of issues, problems alternatives, opportunities and solutions through balanced and objective information	"We will keep you informed."	**Fact Sheets** **Websites** **Open Houses** **Briefings**
Consult		
Goal	**Commitment**	**Tactics/Techniques**
Obtain feedback on analysis, alternatives, and decisions.	"As we keep you informed, we will listen and acknowledge your concerns and aspirations"	**Public comment** **Focus groups** **Surveys** **Public meetings**
ENGAGE		
Goal	**Commitment**	**Tactics/Techniques**
Work directly with stakeholders to ensure that their concerns and aspirations are understood and considered.	"We will work with you to ensure that your concerns/aspirations are directly reflected in the developed alternatives and Will provide feedback on how your input influenced the decision."	**Workshops** **Deliberate polling**
COLLABORATE		
Goal	**Commitment**	**Tactics/Techniques**
Stakeholders become partners in each aspect of the decision, including development of alternatives and identification of preferred solution.	"We will look to you for direct advice and innovation in devising solutions and incorporate your advice and recommendations to the maximum extent."	**Citizen Advisory Committees** **Consensus-building Participatory decision Making.**
EMPOWER		
Goal	**Commitment**	**Tactics/Techniques**
Final decision-making in the hands of stakeholders.	**"We will implement what you decide."**	**Citizen juries** **Ballots** **Delegated decisions**

Appendix H: Contents of Resettlement Action Plan and World Bank Safeguards

1. Contents of Resettlement Action Plan

Many large scale interventions are designed as part of national goals or programs aimed to benefit a society at large. It is often considered unfortunate but unavoidable that certain parties may at the same time be negatively affected by aspects of the intervention, such as acquisition of land or changes in access to assets, resources, and livelihoods. These situations require some form of compensation, particularly when forced resettlement of residents is a necessary part of project implementation. Resettlement programs may be designed to address negative social impacts which are incurred by any peoples displaced or affected by project activities. It is essential that consideration of all of the key social concerns identified in the SAM be included in the assessment of resettlement programs. Resettlement Policy Frameworks (RPFs) and Resettlement Action Plans (RAPs) are the tools used to deal with such situations.

A RAP applies in the event of involuntary resettlement as the consequence of the acquisition of land or other assets (relocation/ loss of shelter; loss of assets or restricted access to assets; loss of source of income).

Instruments

Full Resettlement Action Plan (FRAP): For projects that impact 200 people or more. Disclose the FRAP summary as an attachment of the ESIA summary (Category 1 projects), 120 days before submission to the Board.

Abbreviated Resettlement Action Plan (ARAP): For projects that impact fewer than 200 people. Disclose the complete ARAP as part of the ESMP, 120 days (Category 1 projects) or 30 days (Category 2 projects) before submission to the Board. Pay special attention to disadvantaged groups: people living below the poverty line; the landless or those without legal title; the elderly; women and children (especially female-headed households and infants); and ethnic, religious and linguistic minorities. In what follows is a brief description of the contents and proceedures to be followed in developing RAP.

Full Resettlement Action Plan

• **Background:** Describe the project, the project area and the project's zone of influence.

• **Potential impacts:** Name project activities that would trigger resettlement. Establish the zone of impact and describe alternatives that would avoid or minimise resettlement.

• **Organizational responsibility:** In the project preparation phase, evaluate institutional capacity and commitment to carry out the FRAP and any capacity-building actions. Include a timetable and a budget.

• **Community participation:** Describe the displaced and host communities' participation i consultations. Summarize their views and how the RAP took them into account. Review resettlement alternatives and describe procedures for the redress of grievances.

• **Integration with host communities:** Describe consultations with host communities and local governments, arrangements for the payment of land or other assets, means of addressing conflict that could arise between resettlers and host communities, and measures to augment public services in host communities.

• **Socioeconomic studies:** Discuss the findings of a survey covering the number of residents of the affected area, household organization, the assets of displaced households, the magnitude of expected losses, and the extent of physical and economic displacement. Describe land tenure systems and public infrastructure and list social services that will be affected.

• **Legal framework:** Discuss mechanisms for the resolution of conflicts and for appeals, the legal steps necessary to implement resettlement activities, and normal processing times for the foregoing. Also discuss the process for recognizing legal rights to land.

• **Institutional framework:** Identify agencies responsible for resettlement activities and nongovernmental organisations (NGOs) that may play a role in project implementation, and assess their institutional capacity.

• **Eligibility:** Define displaced persons and state criteria for determining their eligibility for compensation. Specify cut-off dates.

• **Valuation of and compensation for losses:** State the methodology to be used to value losses and determine replacement costs. Propose types and levels of compensation under local practices, and describe compensation packages.

• **Sites selection, preparation, and relocation.** Describe institutional and technical arrangements for identifying and preparing relocation sites; procedures for physical relocation, including timetables for site preparation and transfers; any measures to prevent the influx of ineligible persons; and legal arrangements for regularising tenure and transferring titles to resettlers.

• **Shelter, infrastructure, and social services:** Explain plans to provide or finance housing, infrastructure (roads, water supply, etc.), and social services (schools, health services). Explain plans to ensure comparable services for host populations and develop sites if necessary.

• **Environmental protection:** Assess the environmental impacts of the proposed resettlement and describe measures to mitigate and manage them.

• **Implementation schedules:** Provide an implementation schedule for all activities. Include target dates.

• **Costs and budget:** Provide tables breaking down cost estimates for all resettlement activities. Specify a timetable for expenditures, the source of funds, and arrangements for the timely flow of funds.

• **Monitoring and evaluation:** State how the implementing agency will monitor resettlement activities. Name performance monitoring indicators with inputs, outputs, and outcomes, and arrange for impacts to be evaluated a reasonable time after resettlement activities are complete.

Abbreviated Resettlement Plan

• Carry out a census of the expected number of displaced persons and their socioeconomic status. Value displaced persons' assets and other sources of livelihood.

• Consult the displaced and the host populations about project alternatives and inform them of how the project might affect them.

• Describe compensation options that will be offered and other resettlement assistance that will be provided. It is preferable to involve local NGOs.

• Assign institutional responsibilities for implementing the resettlement plan and state NGOs' role in monitoring the plan.

• Agree upon schedules, budget and sources of funds with the executing agency.

National law and rights to land

Domestic law does not recognize the rights to land for all people, which participates in their exclusion from the benefits of the development projects and perpetuates social structure of inequalities.

National law and Gender

▪ In terms of employment and wages: Some countries have not mainstreamed gender policies into all their projects and bodies. This means that their legal bodies continue to be discriminatory towards women.
▪ In terms of education: Women education in certain countries deprives them from completely participating and benefiting from development water-related projects.

National law and marginalized groups or people

▪ National Law in respective countries needs to efficiently and effectively <u>define</u> marginalized groups,
▪ National Law in respective countries also needs to <u>establish</u> protective policies to shield the latter from adverse effects of development projects,
▪ National Law in respective countries needs to <u>formulate</u> a national framework for the "de-marginalization" of these groups.

2. World Bank Safeguards

The World Bank's Social Development Unit strives to improve the quality of life of underserved populations in Latin America and the Caribbean through economic development and social inclusion. To this end, the Bank has steadily increased the percentage of its projects that involve the participation of Indigenous Peoples over the past ten years. Current social development projects aim to promote the participation and inclusion of over 40 million indigenous people, and span a wide spectrum of sectors, including the environment, agriculture, and education. The Social Development Strategy dovetails well with Millennium Development Goals in its efforts to reduce gender disparity, strengthen partnerships for development, and eliminate poverty. The following framework encapsulates the Bank's effort to ensure that excluded populations are accounted for in development programs across the Latin America and Caribbean region:

(1) Increasing **social sustainability** by encouraging traditionally-excluded individuals to participate and exercise their rights, as well as strengthening social capital, technical capacity, and democratic processes.
(2) Championing **social equity** by promoting equal access to information, opportunities, and assets, particularly for women and youth.
(3) Supporting **social inclusion** through public policies and programs that take into account the multi-cultural, multi-racial character of Latin American and Caribbean societies.
(4) Promoting **social and economic development** in order to reduce poverty and trigger sustainable growth.Given this framework, the Social Development Unit focuses on the over-arching goal of poverty reduction and social inclusion through six thematic areas:

(5) **Social Safeguard Policies & Quality Assurance –** Not only do social development team members review Bank-financed projects to ensure that they meet social safeguard standards, but they also provide training in safeguard policies, revise policy, and facilitate the dissemination of best practices.

(6) **Participation & Civic Engagement –** The Bank's Social Development Unit has collaborated with NGOs and civil society organizations to gain a better understanding of excluded social groups, as well as to promote civic engagement in collaborative efforts to reduce poverty and increase social inclusion.

(7) **Capacity Building –** Bank programs strive to strengthen the capacity of Indigenous Peoples and Afro-descendant populations and organizations in order to enable these groups to independently manage development initiatives successfully.

(8) **Conflict, Crime and Violence -** The Social Development team recognizes that these are key issues of concern for public policy makers and citizens and develops programs that focus on these matters.

(9) **Youth & Social Development –** As youth enter adulthood prematurely; they often join the labor force with inadequate qualifications. The end result is that these youth miss important social, economic, and educational opportunities. The Bank develops programs to help at-risk youth avoid such exclusion.

(10) **Social Dimensions of Natural Resource Management –** The proper management of natural resources not only sustains the environment, but also involves the local community. Social development experts work to ensure that conservation efforts go hand-in-hand with community-based development and natural resources planning, particularly in indigenous areas. Such efforts support the larger Millennium Development Goal of ensuring environmental sustainability.

World Bank Involuntary Settlement Policy

The World Bank experience indicates that involuntary resettlement under development projects, if unmitigated, often gives rise to severe economic, social, and environmental risks: production systems are dismantled; people face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished or lost. This policy includes safeguards to address and mitigate these impoverishment risks.

Policy Objectives

Involuntary resettlement may cause severe long-term hardship, impoverishment, and environmental damage unless appropriate measures are carefully planned and carried out. For these reasons, the overall objectives of the Bank's policy on involuntary resettlement are the following:a) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.

(b) Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.

(c) Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher

Impacts Covered

This policy covers direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by
(a) the involuntary taking of land resulting in
(i) relocation or loss of shelter;
(ii) lost of assets or access to assets; or
(iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or
(b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.
This policy applies to all components of the project that result in involuntary resettlement, regardless of the source of financing. It also applies to other activities resulting in involuntary resettlement, that in the judgment of the Bank, are:
(a) directly and significantly related to the Bank-assisted project,
(b) necessary to achieve its objectives as set forth in the project documents; and
(c) carried out, or planned to be carried out, contemporaneously with the project.
Requests for guidance on the application and scope of this policy should be addressed to the Resettlement Committee (see BP 4.12, para. 7).

Required Measures

To address the impacts covered under para. 3 (a) of this policy, the borrower prepares a resettlement plan or a resettlement policy framework (see paras. 25-30) that covers the following:
(a) The resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are:
(i) informed about their options and rights pertaining to resettlement;
(ii) consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives; and
(iii) provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project.
(b) If the impacts include physical relocation, the resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are
(i) provided assistance (such as moving allowances) during relocation; and
(ii) provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the old site.

(c) Where necessary to achieve the objectives of the policy, the resettlement plan or resettlement policy framework also include measures to ensure that displaced persons are
(i) offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living; and
(ii) provided with development assistance in addition to compensation measures described in paragraph 6(a);
(iii) such as land preparation, credit facilities, training, or job opportunities.

In projects involving involuntary restriction of access to legally designated parks and protected areas (see para. 3(b)), the nature of restrictions, as well as the type of measures necessary to mitigate adverse impacts, is determined with the participation of the displaced persons during the design and implementation of the project. In such cases, the borrower prepares a process framework acceptable to the Bank, describing the participatory process by which:
(a) specific components of the project will be prepared and implemented;

(b) the criteria for eligibility of displaced persons will be determined;

(c) measures to assist the displaced persons in their efforts to improve their livelihoods, or at least to restore them, in real terms, while maintaining the sustainability of the park or protected area, will be identified; and

(d) potential conflicts involving displaced persons will be resolved.

The process framework also includes a description of the arrangements for implementing and monitoring the process.

To achieve the objectives of this policy, particular attention is paid to the needs of vulnerable groups among those displaced, especially those below the poverty line, the landless, the elderly, women and children, indigenous peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation.

Bank experience has shown that resettlement of indigenous peoples with traditional land-based modes of production is particularly complex and may have significant adverse impacts on their identity and cultural survival. For this reason, the Bank satisfies itself that the borrower has explored all viable alternative project designs to avoid physical displacement of these groups. When it is not feasible to avoid such displacement, preference is given to land-based resettlement strategies for these groups (see para. 11) that are compatible with their cultural preferences and are prepared in consultation with them (see Annex A, para. 11).

The implementation of resettlement activities is linked to the implementation of the investment component of the project to ensure that displacement or restriction of access does not occur before necessary measures for resettlement are in place. For impacts covered in para. 3(a) of this policy, these measures include provision of compensation and of other assistance required for relocation, prior to displacement, and preparation and provision of resettlement sites with adequate facilities, where required. In particular, taking of land and related assets may take place only after compensation has been paid and, where applicable, resettlement sites and moving allowances have been provided to the displaced persons. For impacts covered in para. 3(b) of this policy, the measures to assist the displaced persons are implemented in accordance with the plan of action as part of the project (see para. 30).

Preference should be given to land-based resettlement strategies for displaced persons whose livelihoods are land-based. These strategies may include resettlement on public land (see footnote 1 above), or on private land acquired or purchased for resettlement. Whenever replacement land is offered, resettlers are provided with land for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the land taken. If land is not the preferred option of the displaced persons, the provision of land would adversely affect the sustainability of a park or protected area or sufficient land is not available at a reasonable price, non-land-based options built around opportunities for employment or self-employment should be provided in addition to cash compensation for land and other assets lost. The lack of adequate land must be demonstrated and documented to the satisfaction of the Bank.

Payment of cash compensation for lost assets may be appropriate where (a) livelihoods are land-based but the land taken for the project is a small fraction of the affected asset and the residual is economically viable; (b) active markets for land, housing, and labor exist, displaced persons use such markets, and there is sufficient supply of land and housing; or (c) livelihoods are not land-based. Cash compensation levels should be sufficient to replace the lost land and other assets at full replacement cost in local markets.

For impacts covered under para. 3(a) of this policy, the Bank also requires the following:

(a) Displaced persons and their communities, and any host communities receiving them, are provided timely and relevant information, consulted on resettlement options, and offered

opportunities to participate in planning, implementing, and monitoring resettlement. Appropriate and accessible grievance mechanisms are established for these groups.

(b) In new resettlement sites or host communities, infrastructure and public services are provided as necessary to improve, restore, or maintain accessibility and levels of service for the displaced persons and host communities. Alternative or similar resources are provided to compensate for the loss of access to community resources (such as fishing areas, grazing areas, fuel, or fodder).

(c) Patterns of community organization appropriate to the new circumstances are based on choices made by the displaced persons. To the extent possible, the existing social and cultural institutions of resettlers and any host communities are preserved and resettlers' preferences with respect to relocating in preexisting communities and groups are honored.

Eligibility for Benefits

Upon identification of the need for involuntary resettlement in a project, the borrower carries out a census to identify the persons who will be affected by the project (see the Annex A, para. 6(a)), to determine who will be eligible for assistance, and to discourage inflow of people ineligible for assistance. The borrower also develops a procedure, satisfactory to the Bank, for establishing the criteria by which displaced persons will be deemed eligible for compensation and other resettlement assistance. The procedure includes provisions for meaningful consultations with affected persons and communities, local authorities, and, as appropriate, nongovernmental organizations (NGOs), and it specifies grievance mechanisms.

Criteria for Eligibility. Displaced persons may be classified in one of the following three groups:

(a) those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country);

(b) those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets--provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement plan (see Annex A, para. 7(f)); and

(c) those who have no recognizable legal right or claim to the land they are occupying.

Persons covered under para. 15(a) and (b) are provided compensation for the land they lose, and other assistance in accordance with para. 6. Persons covered under para. 15(c) are provided resettlement assistance in lieu of compensation for the land they occupy, and other assistance, as necessary, to achieve the objectives set out in this policy, if they occupy the project area prior to a cut-off date established by the borrower and acceptable to the Bank. Persons who encroach on the area after the cut-off date are not entitled to compensation or any other form of resettlement assistance. All persons included in para. 15(a), (b), or (c) are provided compensation for loss of assets other than land.

Resettlement Planning, Implementation, and Monitoring

To achieve the objectives of this policy, different planning instruments are used, depending on the type of project:

(a) a resettlement plan or abbreviated resettlement plan is required for all operations that entail involuntary resettlement unless otherwise specified (see para. 25 and Annex A);

(b) a resettlement policy framework is required for operations referred to in paras. 26-30 that may entail involuntary resettlement, unless otherwise specified (see Annex A; and

(c) a process framework is prepared for projects involving restriction of access in accordance with para. 3(b) (see para. 31).

The borrower is responsible for preparing, implementing, and monitoring a resettlement plan, a resettlement policy framework, or a process framework (the "resettlement instruments"), as appropriate, that conform to this policy. The resettlement instrument presents a strategy for achieving the objectives of the policy and covers all aspects of the proposed resettlement. Borrower commitment to, and capacity for, undertaking successful resettlement is a key determinant of Bank involvement in a project.

Resettlement planning includes early screening, scoping of key issues, the choice of resettlement instrument, and the information required to prepare the resettlement component or subcomponent. The scope and level of detail of the resettlement instruments vary with the magnitude and complexity of resettlement. In preparing the resettlement component, the borrower draws on appropriate social, technical, and legal expertise and on relevant community-based organizations and NGOs. The borrower informs potentially displaced persons at an early stage about the resettlement aspects of the project and takes their views into account in project design.

The full costs of resettlement activities necessary to achieve the objectives of the project are included in the total costs of the project. The costs of resettlement, like the costs of other project activities, are treated as a charge against the economic benefits of the project; and any net benefits to resettlers (as compared to the "without-project" circumstances) are added to the benefits stream of the project. Resettlement components or free-standing resettlement projects need not be economically viable on their own, but they should be cost-effective.

The borrower ensures that the Project Implementation Plan is fully consistent with the resettlement instrument. As a condition of appraisal of projects involving resettlement, the borrower provides the Bank with the relevant draft resettlement instrument which conforms to this policy, and makes it available at a place accessible to displaced persons and local NGOs, in a form, manner, and language that are understandable to them. Once the Bank accepts this instrument as providing an adequate basis for project appraisal, the Bank makes it available to the public through its InfoShop. After the Bank has approved the final resettlement instrument, the Bank and the borrower disclose it again in the same manner.

The borrower's obligations to carry out the resettlement instrument and to keep the Bank informed of implementation progress are provided for in the legal agreements for the project. The borrower is responsible for adequate monitoring and evaluation of the activities set forth in the resettlement instrument. The Bank regularly supervises resettlement implementation to determine compliance with the resettlement instrument. Upon completion of the project, the borrower undertakes an assessment to determine whether the objectives of the resettlement instrument have been achieved. The assessment takes into account the baseline conditions and the results of resettlement monitoring. If the assessment reveals that these objectives may not be realized, the borrower should propose follow-up measures that may serve as the basis for continued Bank supervision, as the Bank deems appropriate (see also BP 4.12, para. 16).

Resettlement Instruments

Resettlement Plan

A draft resettlement plan that conforms to this policy is a condition of appraisal (see Annex A, paras. 2-21) for projects referred to in para. 17(a) above. However, where impacts on the entire displaced population are minor, or fewer than 200 people are displaced, an abbreviated resettlement plan may be agreed with the borrower (see Annex A, para. 22). The information disclosure procedures set forth in para. 22 apply.

Resettlement Policy Framework

For sector investment operations that may involve involuntary resettlement, the Bank requires that the project implementing agency screen subprojects to be financed by the Bank to ensure their consistency with this OP. For these operations, the borrower submits, prior to appraisal, a resettlement policy framework that conforms to this policy (see Annex A, paras. 23-25). The framework also estimates, to the extent feasible, the total population to be displaced and the overall resettlement costs.

For financial intermediary operations that may involve involuntary resettlement, the Bank requires that the financial intermediary (FI) screen subprojects to be financed by the Bank to ensure their consistency with this OP. For these operations, the Bank requires that before appraisal the borrower or the FI submit to the Bank a resettlement policy framework conforming to this policy (see Annex A, paras. 23-25). In addition, the framework includes an assessment of the institutional capacity and procedures of each of the FIs that will be responsible for subproject financing. When, in the assessment of the Bank, no resettlement is envisaged in the subprojects to be financed by the FI, a resettlement policy framework is not required. Instead, the legal agreements specify the obligation of the FIs to obtain from the potential subborrowers a resettlement plan consistent with this policy if a subproject gives rise to resettlement. For all subprojects involving resettlement, the resettlement plan is provided to the Bank for approval before the subproject is accepted for Bank financing.

For other Bank-assisted project with multiple subprojects that may involve involuntary resettlement, the Bank requires that a draft resettlement plan conforming to this policy be submitted to the Bank before appraisal of the project unless, because of the nature and design of the project or of a specific subproject or subprojects (a) the zone of impact of subprojects cannot be determined, or (b) the zone of impact is known but precise sitting alignments cannot be determined. In such cases, the borrower submits a resettlement policy framework consistent with this policy prior to appraisal (see Annex A, paras. 23-25). For other subprojects that do not fall within the above criteria, a resettlement plan conforming to this policy is required prior to appraisal.

For each subproject included in a project described in para. 26, 27, or 28 that may involve resettlement, the Bank requires that a satisfactory resettlement plan or an abbreviated resettlement plan that is consistent with the provisions of the policy framework be submitted to the Bank for approval before the subproject is accepted for Bank financing.

For projects described in paras. 26-28 above, the Bank may agree, in writing, that subproject resettlement plans may be approved by the project implementing agency or a responsible government agency or financial intermediary without prior Bank review, if that agency has demonstrated adequate institutional capacity to review resettlement plans and ensure their consistency with this policy. Any such delegation, and appropriate remedies for the entity's approval of resettlement plans found not to be in compliance with Bank policy, are provided for in the legal agreements for the project. In all such cases, implementation of the resettlement plans is subject to ex post review by the Bank.

Process Framework

For projects involving restriction of access in accordance with para. 3(b) above, the borrower provides the Bank with a draft process framework that conforms to the relevant provisions of this policy as a condition of appraisal. In addition, during project implementation and before to enforcing of the restriction, the borrower prepares a plan of action, acceptable to the Bank, describing the specific measures to be undertaken to assist the displaced persons and the arrangements for their implementation. The plan of action could take the form of a natural resources management plan prepared for the project.

Assistance to the Borrower

In furtherance of the objectives of this policy, the Bank may at a borrower's request support the borrower and other concerned entities by providing:
(a) assistance to assess and strengthen resettlement policies, strategies, legal frameworks, and specific plans at a country, regional, or sectoral level;
(b) financing of technical assistance to strengthen the capacities of agencies responsible for resettlement, or of affected people to participate more effectively in resettlement operations;
(c) financing of technical assistance for developing resettlement policies, strategies, and specific plans, and for implementation, monitoring, and evaluation of resettlement activities; and(d) financing of the investment costs of resettlement.

The Bank may finance either a component of the main investment causing displacement and requiring resettlement, or a free-standing resettlement project with appropriate cross-conditionalities, processed and implemented in parallel with the investment that causes the displacement. The Bank may finance resettlement even though it is not financing the main investment that makes resettlement necessary.

Supplementary Appendices

Appendix I: International Agreements on Water:

A. IWRM: the Dublin Principles

Scarcity and misuse of fresh water pose a serious and growing threat to sustainable development and protection of the environment. Human health and welfare, food security, industrial development and the ecosystems on which they depend, are all at risk, unless water and land resources are managed more effectively in the present decade and beyond than they have been in the past.

Five hundred participants, including government-designated experts from a hundred countries and representatives of eighty international, intergovernmental and non-governmental organizations attended the International Conference on Water and the Environment (ICWE) in Dublin, Ireland, on 26-31 January 1992. The experts saw the emerging global water resources picture as critical. At its closing session, the Conference adopted this Dublin Statement and the Conference Report. The problems highlighted are not speculative in nature; nor are they likely to affect our planet only in the distant future. They are here and they affect humanity now. The future survival of many millions of people demands immediate and effective action.

The Conference participants call for fundamental new approaches to the assessment, development and management of freshwater resources, which can only be brought about through political commitment and involvement from the highest levels of government to the smallest communities. Commitment will need to be backed by substantial and immediate investments, public awareness campaigns, legislative and institutional changes, technology development, and capacity building programmes. Underlying all these must be a greater recognition of the interdependence of all peoples, and of their place in the natural world.
In commending this Dublin Statement to the world leaders assembled at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in June 1992, the Conference participants urge all governments to study carefully the specific activities and means of implementation recommended in the Conference Report, and to translate those recommendations into urgent action programmes for water and sustainable development.

GUIDING PRINCIPLES

Concerted action is needed to reverse the present trends of overconsumption, pollution, and rising threats from drought and floods. The Conference Report sets out recommendations for action at local, national and international levels, based on four guiding principles.

Principle No. 1 - Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment

Since water sustains life, effective management of water resources demands a holistic approach, linking social and economic development with protection of natural ecosystems. Effective management links land and water uses across the whole of a catchment area or groundwater aquifer.

Principle No. 2 - Water development and management should be based on a participatory approach, involving users, planners and policy-makers at all levels

The participatory approach involves raising awareness of the importance of water among policy-makers and the general public. It means that decisions are taken at the lowest appropriate level, with full public consultation and involvement of users in the planning and implementation of water projects.

Principle No. 3 - Women play a central part in the provision, management and safeguarding of water

This pivotal role of women as providers and users of water and guardians of the living environment has seldom been reflected in institutional arrangements for the development and management of water resources. Acceptance and implementation of this principle requires positive policies to address women's specific needs and to equip and empower women to participate at all levels in water resources programmes, including decision-making and implementation, in ways defined by them.

Principle No. 4 - Water has an economic value in all its competing uses and should be recognized as an economic good

Within this principle, it is vital to recognize first the basic right of all human beings to have access to clean water and sanitation at an affordable price. Past failure to recognize the economic value of water has led to wasteful and environmentally damaging uses of the resource. Managing water as an economic good is an important way of achieving efficient and equitable use, and of encouraging conservation and protection of water resources.

THE ACTION AGENDA

Based on these four guiding principles, the Conference participants developed recommendations which enable countries to tackle their water resources problems on a wide range of fronts. The major benefits to come from implementation of the Dublin recommendations will be:

Alleviation of poverty and disease

At the start of the 1990s, more than a quarter of the world's population still lack the basic human needs of enough food to eat, a clean water supply and hygienic means of sanitation. The Conference recommends that priority be given in water resources development and management to the accelerated provision of food, water and sanitation to these unserved millions.

Protection against natural disasters

Lack of preparedness, often aggravated by lack of data, means that droughts and floods take a huge toll in deaths, misery and economic loss. Economic losses from natural disasters, including floods and droughts, increased three-fold between the 1960s and the 1980s. Development is being set back for years in some developing countries, because investments have not been made in basic data collection and disaster preparedness. Projected climate change and rising sea-levels will intensify the risk for some, while also threatening the apparent security of existing water resources.

Damages and loss of life from floods and droughts can be drastically reduced by the disaster preparedness actions recommended in the Dublin Conference Report.

Water conservation and reuse

Current patterns of water use involve excessive waste. There is great scope for water savings in agriculture, in industry and in domestic water supplies. Irrigated agriculture accounts for about 80% of water withdrawals in the world. In many irrigation schemes, up to 60% of this water is lost on its way from the source to the plant. More efficient irrigation practices will lead to substantial freshwater savings.

Recycling could reduce the consumption of many industrial consumers by 50% or more, with the additional benefit of reduced pollution. Application of the "polluter pays" principle and realistic water pricing will encourage conservation and reuse. On average, 36% of the water produced by urban water utilities in developing countries is "unaccounted for". Better management could reduce these costly losses.

Combined savings in agriculture, industry and domestic water supplies could significantly defer investment in costly new water-resource development and have enormous impact on the sustainability of future supplies. More savings will come from multiple use of water. Compliance with effective discharge standards, based on new water protection objectives, will enable successive downstream consumers to reuse water which presently is too contaminated after the first use.

Sustainable urban development

The sustainability of urban growth is threatened by curtailment of the copious supplies of cheap water, as a result of the depletion and degradation caused by past profligacy. After a generation or more of excessive water use and reckless discharge of municipal and industrial wastes, the situation in the majority of the world's major cities is appalling and getting worse. As water scarcity and pollution force development of ever more distant sources, marginal costs of meeting fresh demands are growing rapidly. Future guaranteed supplies must be based on appropriate water charges and discharge controls. Residual contamination of land and water can no longer be seen as a reasonable trade-off for the jobs and prosperity brought by industrial growth.

Agricultural production and rural water supply

Achieving food security is a high priority in many countries, and agriculture must not only provide food for rising populations, but also save water for other uses. The challenge is to develop and apply water-saving technology and management methods, and, through capacity building, enables communities to introduce institutions and incentives for the rural population to adopt new approaches, for both rainfed and irrigated agriculture. The rural population must also have better access to a potable water supply and to sanitation services. It is an immense task, but not an impossible one, provided appropriate policies and programmes are adopted at all levels: local, national and international.

Protecting aquatic ecosystems

Water is a vital part of the environment and a home for many forms of life on which the well-being of humans ultimately depends. Disruption of flows has reduced the productivity of many such ecosystems, devastated fisheries, agriculture and grazing, and marginalized the rural communities which rely on these. Various kinds of pollution, including transboundary pollution, exacerbate these problems, degrade water supplies, require more expensive water treatment, destroy aquatic fauna, and deny recreation opportunities. Integrated management of

river basins provides the opportunity to safeguard aquatic ecosystems, and make their benefits available to society on a sustainable basis.

Resolving water conflicts

The most appropriate geographical entity for the planning and management of water resources is the river basin, including surface and groundwater. Ideally, the effective integrated planning and development of transboundary river or lake basins has similar institutional requirements to a basin entirely within one country. The essential function of existing international basin organizations is one of reconciling and harmonizing the interests of riparian countries, monitoring water quantity and quality, development of concerted action programmes, exchange of information, and enforcing agreements.

In the coming decades, management of international watersheds will greatly increase in importance. A high priority should therefore be given to the preparation and implementation of integrated management plans, endorsed by all affected governments and backed by international agreements.

The enabling environment

Implementation of action programmes for water and sustainable development will require a substantial investment, not only in the capital projects concerned, but, crucially, in building the capacity of people and institutions to plan and implement those projects.

The knowledge base

Measurement of components of the water cycle, in quantity and quality, and of other characteristics of the environment affecting water is an essential basis for undertaking effective water management. Research and analysis techniques, applied on an interdisciplinary basis, permit the understanding of these data and their application to many uses.

With the threat of global warming due to increasing greenhouse gas concentrations in the atmosphere, the need for measurements and data exchange on the hydrological cycle on a global scale is evident. The data are required to understand both the world's climate system and the potential impacts on water resources of climate change and sea level rise. All countries must participate and, where necessary, be assisted to take part in the global monitoring, the study of the effects and the development of appropriate response strategies.

Capacity building

All actions identified in the Dublin Conference Report require well-trained and qualified personnel. Countries should identify, as part of national development plans, training needs for water-resources assessment and management, and take steps internally and, if necessary with technical co-operation agencies, to provide the required training, and working conditions which help to retain the trained personnel.

Governments must also assess their capacity to equip their water and other specialists to implement the full range of activities for integrated water-resources management. This requires provision of an enabling environment in terms of institutional and legal arrangements, including those for effective water-demand management.

Awareness raising is a vital part of a participatory approach to water resources management. Information, education and communication support programmes must be an integral part of the development process.

FOLLOW-UP

Experience has shown that progress towards implementing the actions and achieving the goals of water programmes requires follow-up mechanisms for periodic assessments at national and international levels.

In the framework of the follow-up procedures developed by UNCED for Agenda 21, all Governments should initiate periodic assessments of progress. At the international level, United Nations institutions concerned with water should be strengthened to undertake the assessment and follow-up process. In addition, to involve private institutions, regional and non-governmental organizations along with all interested governments in the assessment and follow-up, the Conference proposes, for consideration by UNCED, a world water forum or council to which all such groups could adhere.

It is proposed that the first full assessment on implementation of the recommended programme should be undertaken by the year 2000.

UNCED is urged to consider the financial requirements for water-related programmes, in accordance with the above principles, in the funding for implementation of Agenda 21. Such considerations must include realistic targets for the timeframe for implementation of the programmes, the internal and external resources needed, and the means of mobilizing these.

The International Conference on Water and the Environment began with a Water Ceremony in which children from all parts of the world made a moving plea to the assembled experts to play their part in preserving precious water resources for future generations. In transmitting this Dublin Statement to a world audience, the Conference participants urge all those involved in the development and management of our water resources to allow the message of those children to direct their future actions.

B. The Equator Principles

The Equator Principles (EPs) is a credit risk management framework for determining, assessing and managing environmental and social risk in Project Finance transactions. Project Finance is often used to fund the development and construction of major infrastructure and industrial projects.

The EPs are adopted by financial institutions and are applied where total project capital costs exceed US$10 million. The EPs are primarily intended to provide a minimum standard for due diligence to support responsible risk decision-making. The EPs are based on the International Finance Corporation Performance Standards on social and environmental sustainability and on the World Bank Group Environmental, Health, and Safety Guidelines (EHS Guidelines). Equator Principles Financial Institutions (EPFIs) commit to not providing loans to projects where the borrower will not or is unable to comply with their respective social and environmental policies and procedures.

In addition, while the EPs are not intended to be applied retroactively, EPFIs apply them to all Project Finance transactions covering expansion or upgrade of an existing facility where changes in scale or scope may create significant environmental and/or social impacts, or significantly change the nature or degree of an existing impact. The EPs have become the industry standard for environmental sustainability.

Appendix J: Emergence of Regional Law Agreements

A. The European Water Charter

1. There is no life without water. It is a treasure indispensable to all human activity
2. Fresh water resources are not inexhaustible. It is essential to conserve, control, and wherever possible, to increase them.
3. To pollute water is to harm man and other living creatures which are dependent on water.
4. The quality of water must be maintained at levels suitable for the use to be made of it and, in particular, must meet appropriate public health standards s.
5. When used water is returned to a common source it must not impair the further uses, both public and private, to which the common source will be put.
6. The maintenance of an adequate vegetation cover, preferably forestland, is imperative for the conservation of water resources.
7. Water resources must be assessed..
8. The wise husbandry of water resources must be planned by the appropriate authorities.
9. Conservation of water calls for intensified scientific research, training of specialists and public information services.
10. Water is a common heritage, the value of which must be recognized by all. Everyone has the duty to use water carefully and economically.
11. The management of water resources should be based on their natural basins rather than on political and administrative boundaries.
12. Water knows no frontiers: as a common resource it demands international co-operation.

B. Southern African Development Community Water Charter

The **Southern African Development Community** (**SADC**) is an inter-governmental organization. The overall objective of the Fundamental Social rights in SADC Charter is to facilitate through close and active consultations amongst social partners, a spirit conducive to harmonious labor relations within the region.

SADC Charter promotes the formulation and harmonization of legal, economic and social policies and programmes, which contribute to the creation of productive employment and opportunities and generation on incomes in Member States. It further promotes labor policies, practices and measures which facilitate labor mobility in labor markets; enhance industrial harmony and increase productivity.

The Charter provides a framework for regional cooperation in the collection and dissemination of labor market information, promotes the establishment and harmonization of social security standards and health and safety standards at workplaces across the Region. It also promotes the development of institutional capacities as well as vocational technical skills in the region.

The objective of this Charter is to facilitate, through close and active consultations among social partners and in a spirit conducive to harmonious labor relations, the accomplishment of the following objectives:

a)   Ensure the retention of the tripartite structure of the three social partners, namely: governments, organization of employers and organization of workers;
b)   Promote the formulation and harmonization of legal, economic and social policies and programs, which contribute to the creation of productive employment opportunities and generation of incomes, in member states;

c)   Promote labor policies, practices and measures which facilitate labor mobility. Remove distortions in labor markets and enhance industrial harmony and increase productivity, in member states;

d)   Provide a framework for regional co-operation in the collection and dissemination of labor market information;

e)   E) Promote the establishment and harmonization of social security schemes;

f)   f) Harmonize regulations relating to health and safety standards at work places across the region; and

g)   g) Promote the development of institutional capacities as well as vocational and technical skills in the region.

The Charter states that it is the responsibilities of the governments to create enabling environment in order that the above stated objectives are realized.

WATER ISSUES in SADC

Review of Current Policies and Strategies The overall goal of the Water Sector is the attainment of sustainable, integrated planning, development, utilization and management of water resources that contribute to the overall SADC objective of an integrated regional economy on the basis of balance, equity and mutual benefit for all Member States.

The SADC Protocol on Shared Watercourse Systems was signed in August 1995 and came into force in September 1998 after receiving the required number of ratifications. A process of amending the Protocol was initiated in 1996 to bring it in line with new international conventions and attend to queries of other Member States on the original Protocol. The revision of the Protocol was successfully completed in 1999 and it was signed by 13 Member States in August 2000. As of February 2003, eight Member States had ratified the revised Protocol. The Protocol which provides the legal and broad policy framework for cooperation on water issues in the region, aims at promoting and facilitating sustainable, equitable and reasonable utilization of the shared watercourses through the establishment of shared watercourse agreements and institutions; harmonization and monitoring of legislation and policies; research, technology development, information exchange, capacity building, and the application of appropriate technologies in shared watercourses management.

Although there is no long-term policy and strategy for the development and management of water resources, the Protocol is being operationalised through a Regional Strategic Action Plan (RSAP) for Integrated Water Resources Management and Development in the SADC Region covering the period 1999-2004. The RSAP has identified seven key priorities to be addressed in order to enhance the region's ability to move towards a more integrated approach to the management and development of water resources. These are: improving the legal and regulatory framework; institutional strengthening; sustainable development policies; information acquisition, management and dissemination; awareness building, education and training; public participation; and infrastructure development.

In collaboration with the Global Water Partnership, a "Southern African Vision for Water, Life and the Environment in the 21st Century " was developed and formed the basis of the Africa Vision. It also shaped quite substantially the global vision on water adopted at the 2nd World Water Forum held at The Hague, Netherlands in March 2000. The vision of "Equitable and sustainable utilisation of water for social, environmental justice, and economic benefits for present and future generations" is supported by and made much more explicit by sub-visions. These are: social and economic development; equitable access to water of an acceptable quantity and quality; proper sanitation for all and safe waste management; food security for all; energy security; sustainable environment; security from disasters; and integrated water resources development and management.

The Protocol, which aims at the sustainable management, development and utilisation of the region's water resources, and their equitable sharing for the mutual benefit of all, and for the upliftment of the quality of life, is consistent with the broader SADC objectives and Common Agenda. The emphasis on equitable sharing is consistent with the objectives of peace and security, and the strategic priority of conflict prevention.

The RSAP whose aim is to promote the adoption of an integrated approach to water resources development and management, recognises the role of water as a source of life and its use for a variety of purposes including agriculture, hydro-electric power generation, domestic and industrial requirements, as well as the maintenance of ecosystems.The RSAP, therefore, addresses the SADC strategic priorities that are targeted at industrialisation, the promotion of economic and social infrastructure, developing agriculture, and poverty eradication. Other strategic priorities that are addressed are those that relate to gender sensitivity, human resources development, and improving social welfare.

Overall, although the provisions of the Protocol have not been fully implemented, some promising initiatives are already underway. These include the full development of project concept notes into project documents to address the seven priority areas of the RSAP, and the progress being made in the establishment of River Basin Management Organisations (RBOs).

Challenges in Current Policies and Strategies

One of the most pressing challenges is the development of a policy and strategy that will not only provide a longer-term perspective for the development and management of the Region's water resources, but also guide and give strategic direction to short-medium term interventions such as the RSAP. The Southern African Vision for Water, Life and the Environment, together with its sub-visions should form the basis for the development of the long-term water policy and strategy document. Other issues to be tackled are the inclusion of research and technology development as an additional area of priority; the formulation of strategic regional infrastructure projects/programmes for water storage, transfers, irrigation, drought mitigation and flood control; and the practical operationalisation of the integrated water resources management approach. The recent development in the global arena that elevated water high on the development agenda, poses new challenges that should address the new targets agreed to at various for a such as the WSSD, the Millennium Development Goals on water supply and sanitation.

Subsequent actions

In its 25th meeting, ENCOM instructed ENSAPT/ENTRO to: Initiate JMPI identification and preparation in the Blue-Main Nile system by identifying the scope and sequence of specific projects, prepare identified projects, ensuring technical, economic and financial soundness and social and environmental good practice, develop and implement a strategic communications and consultation program to ensure stakeholder engagement and awareness including dissemination of all studies related to the JMP.

Prioritization of Actions

The main criterion to be used in the prioritization of action is the extent of vulnerability. However, there is no single set of standard practice to militate against vulnerabilities, because a given country sector and policy context as well as that of project(s) is likely to impose constraints on the possible solutions. Furthermore, even when the issue is one, governance or gender for example, there are some sector specific issues and characteristics that need to be

addressed differently despite the fact that an issue like governance and/or gender are a crosscutting ones. However, it appears that there are certain issues are pressing.

First, there is the issue of data availability and quality. In all of the three EN countries access to information for stakeholders is problematic. There are legal severe restrictions on accessing official records and information and when that is possible, the data might either not address the concerned issue or is of low quality and unreliable. A strong data base is thus required to back up strategic decisions related to social issues and policy development.

Second, Given that ENSAP deals mainly with projects in the water resources sector. There is a need to develop guideline for conducting social assessments of similar ENSAP activities. Detailed sector specific guidelines should be developed, first for WRD activities, and later for other sectors as the need arises.

Third, There is a need to understand how government policies in the three countries favor developmental and political objectives over economic/business ones. In other words, we need to understand the sociial forces at play in shaping public policy at large and water policy in particular. Further, we need to understand how these policies my obstruct potential cooperation in transboundary water resource management between the three counties that share the Eastern Nile.

Fourth, with regard to access and rights to services we need to focus attention on how existing policies, plans and programs targeted at improving services do not benefit the poor whereby only elites have access to infrastructure. In this fore, gender and minorities issues need to assume central attention.

Fifth, Governance issues, especially those related to transparency in public contracts need to be addressed.

Sixth, there is a need to engage in capacity building in water resources institutions in three countries to ensure they can on the one hand, carry out adequately manage public-private partnerships. This requires a detailed review of business environment risks and work with the governments to develop policies for risk sharing approach to encourage private sector investment in the water sector.

Finally, there is a need to engage in capacity building in social assessment in water resources institutions in three countries to ensure they can on the one hand, carry out adequately their mandates.

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ONE RIVER ONE PEOPLE ONE VISION

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