

# **FAO/GOVERNMENT COOPERATIVE PROGRAMME**

**Project of the Governments of Burundi, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, Tanzania and Uganda**

## **PROJECT DOCUMENT**

Project Symbol: GCP/INT/945/ITA

Project Title: Information Products for Decisions on Water Policy and Water Resources Management in the Nile Basin

Donor: Italy

Government Implementing Agency: Ministries responsible for Nile Basin water resources in the participating countries.

Duration: 3.5 years

Estimated starting date: September 2004

### Brief Description

The project is intended to strengthen the ability of the governments of the Nile Basin states to take informed decisions with regard to water resources policy and management in the Nile Basin. This objective will be achieved through the development of information products that integrate technical water resources and water use data with other relevant data, including in particular demographic, socio-economic and environmental data. To this effect, measured or otherwise assessed data, and their derived parameters and indicators, will be assembled in a meaningful way and presented as graphical and cartographic products, widely using geographical information system (GIS) technology already established in the region. The information products will be inserted in the Nile Basin Initiative (NBI) process in order to facilitate analysis of development scenarios and assessment of the consequences of various possible policies. Ultimately, the project contributes to “achieve sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources”, as agreed in 1999 by the Council of Ministers of Water Affairs of the Nile Basin States. The project will be carried out under the umbrella of the NBI and its institutions, and in close coordination and cooperation with other NBI projects under the Shared Vision and the Subsidiary Action Programmes. The project has a secondary direct support component in order to sustain at least a minimum flow of basic hydrological and hydro-meteorological data. In its approach, it maximizes the use of capacity developed in earlier cooperation projects and aims at bringing this capacity to serve in taking informed decisions. In this respect, the project will carry out a substantial part of its activities using the services of

experts from within the region, thus building on earlier efforts aiming at building capacity, and further develop the existing capacity to a level where it can effectively support policy and management decisions. A particular effort will address the project's visibility and the distribution of information and knowledge to a wide spectrum of civil society and stakeholders. The role of women in agricultural production, nutrition and food security and in actual water management is recognized, and the project is intended to promote and take any opportunity for the involvement of women in the elaboration and interpretation of information and in influencing water policy and water management decisions.



**Table 1 - Basic indicators of the Nile Basin states (2001)**

	<b>Area</b> (km <sup>2</sup> )	<b>Population</b> (million)	<b>Area within the Nile</b> km <sup>2</sup>	<b>Percentage</b> %	<b>GDP</b> (million US\$)	<b>GDP per capita</b> US\$	<b>Life expectancy</b> (years)	<b>Infant mortality</b> (per 1000)	<b>Adult illiteracy</b> (%)
<b>Burundi</b>	28,000	6.5	13,000	46	977	150	40	113	51
<b>DR Congo</b>	2,345,000	52.5	22,300	1	4,187	80	52	80	37
<b>Egypt</b>	1,001,000	69.1	307,900	31	81,003	1172	68	42	44
<b>Eritrea</b>	118,000	3.8	25,700	22	672	177	52	83	43
<b>Ethiopia</b>	1,104,000	64.5	366,000	33	7,966	124	44	108	60
<b>Kenya</b>	580,000	31.3	52,100	9	9,971	319	50	60	17
<b>Rwanda</b>	26,000	7.9	20,400	78	2,183	276	41	120	32
<b>Sudan</b>	2,506,000	31.8	1,943,100	78	10,215	321	57	80	41
<b>Tanzania</b>	945,000	36.0	118,400	13	6,812	189	51	75	23
<b>Uganda</b>	241,000	24.0	238,700	99	8,110	338	45	96	32
	Total:	Total:	Total:		Total:	Average:			
	8,894,000	327.4	3,107,600		132,096	403			
Africa	30,061,000	811.6			612,916	755	53	79	38
	%:	%:			%:				
	29.6	40.3			21.6				

Source: African Development Bank (2002), African Development Report 2002, Oxford University Press, and FAO.

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## Abbreviations and Acronyms

APO	Associate Professional Officer
CTA	Chief Technical Advisor
DRC	Democratic Republic of Congo
DSS	Decision Support System
DST	Decision Support Tool
ENSAP	Eastern Nile Subsidiary Action Program
FAO	Food and Agriculture Organization of the United Nations
FAO HQ	FAO headquarters
FPI	Focal Point Institution
GCP	Government Cooperative Programme
GDP	Gross Domestic Product
GEF	Global Environmental Facility (World Bank, UNDP)
GIS	Geographical Information System
IGAD	Inter Governmental Authority on Drought
IT	Information Technology
IWRM	Integrated Water Resources Management
LVFO	Lake Victoria Fisheries Organization
NBI	Nile Basin Initiative
FPI	Focal Point Institution
NC	National Coordinator
NELSAP	Nile Equatorial Lakes Subsidiary Action Program
NGO	Non Governmental Organization
Nile COM	Council of Ministers of Water Affairs of the Nile Basin States
Nile SEC	Nile Basin Initiative Secretariat
Nile TAC	Nile Basin Technical Advisory Committee
PSC	Project Steering Committee
RAF	FAO Regional Office for Africa
SAP	Subsidiary Action Program
SVP	Shared Vision Program
TCP	Technical Cooperation Programme (FAO)
TPR	Tripartite Review
UNDP	United Nations Development Fund

## **PART I: PROJECT AGREEMENT**

1. Within the framework of its agreement with the Government of Italy and upon request from the Council of Ministers of Water Affairs of the Nile Basin States, the Food and Agriculture Organization of the United Nations (FAO) will provide assistance for the execution of the following project once it is accepted by the Donor Government.

Project Title: Information Products for Decisions on Water Policy and Water Resources Management in the Nile Basin (GCP/INT/.../ITA)

Estimated Costs (Plan of Expenditure in Part II, I.B): Donor Government Contribution: US\$5 000 000.

A detailed description of project design, including background, purpose and work plan, is provided in Part II of the present document (attached).

### **FAO OBLIGATIONS:**

2. FAO shall be responsible for the recruitment, international travel, salaries and emoluments of the international staff (except volunteers) shown in Part II (I.B). Appointments of international staff shall be submitted to the Government for clearance. All staff will work under the direction of the Project Manager who, on behalf of FAO, is responsible for the technical execution of the project.

3. FAO will provide the equipment and supplies shown in Part II (I.B) (detailed in Annex III). The equipment will remain the property of FAO for the duration of the project. Its ultimate destination shall be decided by FAO in consultation with the Government.

4. FAO will arrange for yearly supervisory travel visit to the project, to be financed from project costs as shown in Part II (I.B).

5. All FAO's obligations arising under this Project Agreement shall be subject to (i) the decisions of its governing bodies and to its constitutional, financial and budgetary provisions, and (ii) the receipt of the necessary contribution from the donor government. Any obligations assumed by FAO may, at any time, be taken over by the donor government.

6. FAO may, in consultation with the Government, execute part or all of the project by subcontract. The selection of the subcontractors shall be made, after consultation with the Government, in accordance with FAO's procedures.

### **GOVERNMENT OBLIGATIONS**

7. The Governments shall take all necessary measures to facilitate the execution of the project and to assist the FAO staff in obtaining such services and facilities as they may require for fulfilling their tasks. The Governments shall apply to FAO, its property, funds and assets, its officials and to the persons performing services on its behalf, in connection with the project, the provisions of the Convention on Privileges and Immunities of the Specialized Agencies; and the currency exchange rate established with the United Nations.

8. The Governments shall deal with any claims brought by third parties against FAO, its personnel or other persons performing services on its behalf in connection with the project,



except when it is agreed by FAO and the Government that such claims arise from gross negligence or wilful misconduct of such persons.

9. The Governments shall be responsible for the recruitment, salaries and social security measures of the national staff. The Governments shall also provide the facilities and supplies shown in Part II (E), as and when required for the project.

10. The Governments shall grant to the project staff of FAO and of the donor government and to persons acting on their behalf, access to the Project site and to any material or documentation relating to the Project and shall provide any relevant information to such staff or persons.

11. The Governments have undertaken to grant FAO exemption from custom duties on imported project equipment. In addition, the Government is responsible for the handling, storage, and related within-countries expenses of such equipment; its safe custody, maintenance, insurance and replacement, if necessary, after delivery to the national project offices or project sites.

**REPORTING**

12. FAO will report on the project to the Donor and recipient Governments as detailed in Part II (H).

13. Consent of the Governments shall be sought prior to the dissemination of information products. The Governments shall agree to the dissemination of general project information like descriptions of the project and of its objectives and achievements, for the purpose of educating public opinion.

**AMENDMENTS AND TERMINATION**

14. This Project Agreement may be amended or terminated by mutual consent. Termination shall also take effect sixty days after receipt by either party of written notice from the other party. In the event of termination, the obligations already assumed by the governments shall remain in force to the extent necessary to permit orderly withdrawal of the funds and assets of FAO and of personnel performing services on its behalf.

15. This Project Agreement shall enter into force upon signature by both parties.

For the Government of Italy

Date:

For the governments of Burundi, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, Tanzania and Uganda, The Hon. Chairperson of the Council of Ministers of Water Affairs of the Nile Basin States

Date:

For the Food and Agriculture Organization of the United Nations

Date:

## **PART II: PROJECT DESIGN**

### **A. GENERAL BACKGROUND**

#### A1. Geographical and socio-economic characteristics of the project region

##### *Geographical characteristics*

The Nile Basin covers an approximate 3.1 million km<sup>2</sup> (ten percent of the African continent), shared by ten countries: Burundi, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, Tanzania and Uganda. The ten countries together have a territory of nearly nine million km<sup>2</sup>, close to 30 percent of the African continent. The three countries with the largest share of their national territory in the Nile Basin are Uganda, Rwanda and Sudan (Table 1).

The two main tributaries of the Nile are the White Nile, with sources on the Equatorial Plateau of eastern Africa, and the Blue Nile, originating in the Ethiopian highlands. Both major tributaries originate in relatively humid regions, with annual rainfall of 1200 to 1500 mm. Lakes Victoria and Albert and the Sudd wetlands regulate the flow of the White Nile which amounts to 10 – 20 percent of the flow in the lower Nile downstream of Khartoum. The Blue Nile and other tributaries originating in the Ethiopian highlands contribute 80 – 90 percent to the flow of the lower Nile but are strongly seasonal, with a peak in the July to September rainy season. These tributaries also carry a high sediment load. Lake Nasser, a major reservoir on the Sudano-Egyptian border provides inter-annual regulation for Egypt.

The average annual natural discharge in the lower Nile of about 84 km<sup>3</sup> and can be figured as a sheet of water of 30 mm evenly distributed over the entire basin. In reality, the Nile Basin includes large tracts of desert that cannot sustain rainfed agriculture and generate little or no runoff.

##### *Socio-economic characteristics*

In 2002, the total population of the ten Nile countries was close to 330 million people. It can be estimated that 160 to 180 million of these people live within the Nile Basin. The aggregated annual gross domestic product (GDP) of the ten countries was of US\$132 billion in 2001. GDP is unevenly distributed over the basin, with 61 percent generated in Egypt and 39 percent generated in the other nine countries together. GDP per person per year in the Nile Basin is an average US\$400 in the ten countries, way below the African average of US\$755. Clustering the nine poorer countries of the group, their average GDP per person per year is of only US\$200, or roughly US\$0.50 per day. These nine countries are among the poorest in the world and are severely stricken by extreme poverty, malnutrition and lack of basic health and education services, in particular in the rural areas. In the semi-arid central and eastern part of the Basin, including large tracts of Eritrea, Ethiopia, Kenya, Sudan, Tanzania and northern Uganda, recurrent droughts have ravaged the life of farmers and herders. In the past 20 years, armed strife, often rooting in environmental scarcity, has occurred in Burundi, DR Congo, Eritrea, Ethiopia, Rwanda, Sudan, and Uganda. War events contribute to the suffering of people that become refugees or are recruited into the fighting parties.

Continuing a persistent pattern, in 2001 the food supply situation was precarious in Eritrea, Ethiopia, Kenya, Tanzania and Uganda. In Eritrea, large numbers of displaced people are dependent on emergency food assistance. In Ethiopia, persistent drought led to renewed food shortages and the untimely migration of people and their livestock in the pastoral areas of the country. In Kenya, the negative income effects of a sharp decline in maize prices and the drought in the pastoral areas of the north and east of the country more than offset the impact of favourable rains in major cereal producing areas. Food difficulties existed in parts of Tanzania and Uganda due to localized drought conditions and/or insecurity.

The number of people employed in the agriculture sector in the nine poorer countries varies between 60 and 92 percent. The agriculture sector, including fisheries and forestry, holds a key to improve the existing socio-economic situation.

## A2. Strategy for the sector

Extreme poverty in the region impinges on large sectors of the population deprived of access to basic human rights such as the right to food, health, education, employment and, more generally, to life. Improving the existing situation is a basic tenet of the policy of the governments concerned and of international cooperation policy. The targeted population is predominantly rural and its livelihoods depend on agriculture. Owing to desperate situations in the countryside, migration to urban squatter settlements is underway; but the urban centres do not have the resources to provide needed basic services and employment to the migrants and environmental refugees. Nutrition, health and security problems in urban areas result in further misery and reduction of life expectancy.

To steady and improve the sustainability of rural livelihoods, agricultural productivity must be increased and the impact of agricultural hazards reduced. In many local situation, improved access to water, combined with other measures such as use of agricultural technologies formerly not accessible, better access to markets and reduction of post-harvest losses, can transform a situation of stagnation and growing poverty into one of socio-economic growth and security.

Good technology is an asset, but it is also clear that water resources projects conducted with a narrow technological approach bear a risk of failure, or of causing more harm than good, for a wide range of unforeseen circumstances. These include uneven distribution of benefits and charges among water users, or among men and women; unaccounted damage to life-sustaining environment on which the same or other communities depend; introduction of water-related diseases such as malaria or bilharzias, and many other. Such risks can be identified and sorted out through integrated water resources management (IWRM) approaches. IWRM is therefore a core element in the design of the project.

Development interventions concerning transboundary water resources bear a risk of hurting the interests of other users of the same resource. International water law requires that water development should not cause appreciable harm to other users. The arguments around the application of this principle have for a long time prevented useful and needed water development in the Nile Basin. A breakthrough was achieved in 1999 when the Council of Ministers of Water Affairs of the Nile Basin States agreed on establishing a Nile Basin Initiative (NBI) having as a shared vision “to achieve sustainable socio-economic development through the equitable utilization of, and benefits from, the common Nile Basin water resources”. The present GCP project will be carried out under the umbrella of the Nile Basin Initiative (NBI) established by the Nile riparian states.

The states participating in the project, in particular those characterized by very low income, have limited resources on which to draw for development. Resources scarcity concerns not only financial resources, but also institutional and human resources able to cope with increasingly complex issues, and depleting natural resources under growing stress caused by human appropriation. An important element in the project's strategy is therefore strengthening of national capacity to deal with national and regional water policy and development issues.

The project strategies are supported by a participatory approach applied to project planning and management. The project will strive to extend the participatory approach to secure the necessary inputs from stakeholders and civil society.

### A3. Completed and on-going assistance

#### *Assistance projects implemented with the support of FAO*

The complex of questions concerning use of the common Nile water resources for economic development was addressed in earlier projects supported by FAO. From 1990 to 2004, FAO supported the Nile Basin countries through six projects funded through trust funds provided by Italy and Japan, and from its own Technical Cooperation Programme (TCP) resources, for a rounded total of US\$ 15 million. These projects included:

TCP/RAF/8969 "Monitoring, Forecasting and Simulation of the River Nile Basin for Agricultural Production" implemented in 1990 – 1991. It supported co-ordination and development of co-operation in the Nile region and identified a number of possible cooperative projects. It also identified the existence of fundamental issues that could only be addressed in a wider framework.

TCP/RAF/2365 "Water Resources Management Policy and Institutions in the Lake Victoria Region" implemented in 1993 – 1995. It aimed at developing and strengthening regionally harmonized national water resources policy, including legal and institutional aspects, in the Lake Victoria catchment. The project raised the level of awareness but fell short of establishing permanent coordination arrangements for lake management.

TCP/RAF/2371 "Water Hyacinth Control in East Africa" implemented in 1993 – 1995. It aimed at establishing technically sound systems for waterweed control and effectively contributed to developing knowledge and capacity in this field by establishing biological methods of water hyacinth control.

GCP/RAF/304/JPN "Information System for Water Resources Monitoring and Planning in the Lake Victoria Region" implemented in 1995 – 1999. It followed on the findings of TCP/RAF/2365 and supported data and information management on water resources and water demand. It was co-ordinated with the GEF-funded "Lake Victoria Environmental Management Project". Lake Victoria data were used as inputs to a decision support system and management capacity in this aspect was strengthened. No progress was achieved in establishing permanent coordination arrangements for co-ordinated lake management. However, the Lake Victoria countries established the Lake Victoria Fisheries Organisation (LVFO) as a permanent arrangement for fisheries management, thus addressing the most severe gap in lake management.

GCP/RAF/286/ITA “Operational Remote Sensing Information System for Water Resources Monitoring in the Nile Basin Countries” implemented in 1993 – 1999. This project aimed at establishing the information base that would provide objective support to negotiations concerning sharing and development of common water resources. The project obtained support and participation from countries that had previously stayed on the sidelines, and built a framework for cooperation that proved successful. The Internet-based communication system established under this project became a pillar for further Nile cooperation. A breakthrough in cooperation was achieved in 1999 when the Nile countries agreed on a shared vision to achieve sustainable socio-economic development through the utilization of the common Nile Basin water resources.

GCP/INT/752/ITA “Capacity Building for Nile Water Resources Management” implemented in 1999 – 2004.

The project strived at creating a common knowledge base and equal level of technical capacity as a prerequisite for equitable and sustainable utilization of the shared Nile waters. Project implementation was focused on four main areas:

The projects have focused on four main areas: (i) establishment of a trans-boundary hydro-meteorological monitoring network; (ii) establishment of national geo-referenced databases and spatial layers including hydro-meteorological parameters, water use information, containing hydro-graphic features, land use, land cover, and soils types; (iii) development of a Nile Decision Support Tool (Nile DST) that models the entire Nile system and assesses the trade-offs and consequences of various development scenarios; (iv) improving capacity in setting out the needs of institutional basis for co-operation and to promote stakeholder involvement.

The project made significant progress in the above areas and contributed to the establishment of a common knowledge base. However, it fell short of implementing case studies for further understanding of the complex water resources issues. The new project will build directly upon the achievements of this project.

Other relevant projects implemented through FAO aimed at related objectives and assembling relevant information, but not explicitly addressing Nile issues, were:

GCP/RAF/256/ITA “IGAD Early Warning and Food Information System” implemented in 1990 – 1993. It aimed at strengthening food security in the horn of Africa region that includes a number of Nile countries. The project established the bases for a more effective regional flow of information on food security questions.

GCP/RAF/231/JPN and GCP/RAF/232/JPN “Remote Sensing for an Early Warning System in Eastern and Southern Africa” implemented from 1993 to 1999. These projects strengthened the early warning system for food security through satellite remote sensing capabilities for the monitoring of precipitation and vegetation in Eastern and Southern Africa.

GCP/RAF/287/ITA “Land Cover Mapping of East Africa Based on Satellite Remote Sensing” implemented since 1996. The project provides land cover analysis and mapping tools and has concentrated on institutional capacity building and training of nationals from institutes in the region.

### *The Nile Basin Initiative*

The Nile Basin Initiative (NBI) was launched in 1999 with the support of the World Bank, UNDP and other agencies and bilateral donors. It is temporary until countries agree on a definitive institutional and legal framework for cooperation.

It has a Shared Vision Program (SVP) and a Subsidiary Action Programs (SAP) component. The Council of Ministers of Water Affairs of the Nile Basin Countries (Nile – COM) endorsed a set of SVP projects as follows:

- Nile Transboundary Environmental Action
- Nile Basin Regional Power Trade
- Efficient Water Use for Agricultural Production
- Water Resources Planning and Management
- Confidence-Building and Stakeholder Involvement
- Applied Training
- Socio-Economic Development and Benefit-Sharing

In addition, one SVP project aims at overall coordination.

Two NBI SAPs address investment opportunities at the sub-basin level. These are:

- Eastern Nile SAP (ENSAP) (Egypt, Ethiopia and Sudan)
- Nile Equatorial Lakes SAP (NELSAP) (Burundi, DRC, Egypt, Kenya, Rwanda, Sudan, Tanzania and Uganda)

Some of these projects are in the initial stage of implementation.

#### A4. Institutional framework

The Nile Basin Initiative (NBI) provides the overall institutional framework for the project. The governing body is the Council of Ministers of Water Affairs of the Nile Basin Countries (Nile-COM). The Nile-COM is advised by a Technical Advisory Committee (Nile-TAC) and supported by a Secretariat (Nile-SEC) established in Entebbe, Uganda. The project has its own Project Steering Committee (PSC) whose members are nominated by the participating governments. The PSC reports to the Nile-TAC and the Nile-COM.

The project has been designed to create and promote synergies with the other activities under the NBI program. The project will pursue full collaboration and coordination with other activities under the NBI program. This concerns in particular the SVP projects “Water Resources Planning and Management” and “Efficient Water Use for Agricultural Production”. As such, the project will take fully part in all NBI information sharing arrangements. This intensive cooperation, coordination, and exchange of project outputs aims to ensure that other related activities under the NBI program can directly benefit from project results, and vice versa.

## **B. PROJECT RATIONALE AND JUSTIFICATION**

### **B1. Specific problems**

- Governments unable to secure access to food for their people risk losing legitimacy and control of the state. It is imperative and urgent to improve the capacity to understand the full relevant implications of water development plans and water management policies for generation of income and improvement of the desperate situation of many millions of people stricken by extreme poverty and hunger. Integrated water resources management principles and techniques are new and largely unknown and not applied in the region. The capacity to apply such techniques so as to offer the full picture of water development to stakeholders and decision-makers requires a major capacity-building effort. Unavailability of basin-wide studies means also that examining policy alternatives and tradeoffs at national and transboundary level is not supported by properly elaborated information. The ability to elaborate and assemble data in a meaningful way into useful information is generally not available. As a consequence, water resources decision-makers are not adequately supported and stakeholders as well as the public are left in the dark about what is going on. Lack of government capacity raises the risk of not reaping the full benefits from the Nile Basin Initiative process.
- The relevant government institutions have in recent years recorded good progress in achieving a comparable level of capacity to deal with Nile Basin matters in all Nile countries, based on results achieved by previous projects (GCP/INT/286/ITA, GCP/INT/752/ITA specifically). However, in some countries, additional training in data collection and limited equipment supply for the hydro meteorological network is still required. Generally, more capacity in data quality control procedures is required, as well the use of decision support tools has yet not been internalised. The existing decision support tool for river simulation and reservoir operation requires that nodes representing new reservoirs and abstraction points be added and the corresponding calibrations carried out. Confidence building activities and training in legal and institutional aspects, and in conflict resolution approaches and techniques should be extended to wider audience of stakeholders.
- The spirit of Nile cooperation established among leaders has not yet reached the base because of weak dissemination of public information providing knowledge and building confidence in the public.

### **B2. Situation at the end of project activities**

- Equalization of capacity among Nile countries will have progressed significantly and national water policies will have a good objective foundation, in harmony with general government purposes. Reasonably complete, quality-checked data sets will be available to national and regional users and will have been used for integration of information in case studies and scenarios. Capacity to use IWRM processes in project planning and management will be established. For certain projects, decision support tools will have been used in ascertaining tradeoffs in a spirit of confidence and trust among the negotiation partners, based on reasonably full understanding of the implications of various options. Case studies and scenarios will have been assembled, scrutinized and widely discussed, used for training and confidence building and

published. Problematic situations will be tackled using local resources and drawing on local, regional and international human network resources. Linkages will have been created with national academic and policy institutes to provide inputs for informed decision making.

- The project's aim of strengthening governmental capacity; confidence and self-reliance through a participatory approach will also strengthen resilience in the case of unforeseeable negative developments. The present development situation of the countries, and the size of the difficulties concerned, requires long-term commitment of external support. The project favours identification and preliminary analysis of investment opportunities that may be realized in due course. The practice of regular interaction with institutions of higher education will have contributed to the sustainability of the capacity created in the government sector.

### B3. Beneficiaries

Direct recipients of project benefits are human resources in the government sector responsible for water development and management. The ultimate beneficiaries are as yet unidentified rural populations in areas prone to be impacted, in one way or another, by water development projects in the Nile Basin, either because the benefits of investment are geared to improve their situation, or because negative externalities of such investments are averted.

### B4. Other possible approaches

In a classical approach, the project could rely on the extended services of international expatriate experts to impart IWRM knowledge. It is thought however that involvement of professionals from within the region and links with local institutes of higher education provides a more sustainable environment and a better level of confidence.

### B5. Institutional framework

Reflecting its aim of strengthening government capacity to deal with Nile issues, the project reports through its Chief Technical Advisor (CTA) to a Project Steering Committee (PSC) composed of representatives nominated by participating governments. Each country has two PSC members, usually representing complementary areas of responsibility in the respective government (i.e. technical and legal). The leading representative belongs to the national Focal Point Institutions (FPIs) for the project and ensures the necessary supervision, coordination and liaison activities within each country. The PSC reports to the Nile-TAC. It meets once a year to examine progress in project implementation and to approve the detailed work plan for the following period. Project headquarters are based in Entebbe, Uganda, within the premises of the Uganda Directorate of Water Development and adjacent to the premises of the Nile-SEC. This physical location allows for day-to-day coordination with the NBI and easy consultation with the FPI for Uganda. Functional email communication with the other nine FPIs is essential for project implementation.

The designated FPIs for the project, represented in the PSC, are the following:

**Burundi:** Ministère de l'aménagement du territoire et de l'environnement, Institut géographique du Burundi, responsible for mapping and for collecting, processing and publishing meteorological and hydrological data and information. Under the same Ministry is the Direction générale de l'aménagement du territoire et de l'environnement, responsible for



coordination of activities related to monitoring the state of the environment and water resources, the Direction des eaux et forêts et de l'irrigation, responsible for soil conservation, irrigation and drainage, and the Institut national pour l'environnement et la conservation de la nature, responsible for monitoring and management of environmental matters.

**DR Congo:** Ministère de l'environnement, conservation de la nature, pêche et forêts, with has overall responsibility for water. Under the same Ministry is the Direction des établissements humains et protection de l'environnement, responsible for environmental monitoring, the Direction du programme national d'assainissement, responsible for sanitation, water supply and disease vector control, and the Direction des ressources en eau et pêche, responsible for water resources monitoring, including water quality and pollution control.

**Egypt:** Ministry of Water Resources and Irrigation Nile Water Sector, responsible for cooperation with other Nile Basin countries. It monitors Nile flows and receives Nile flow data from Sudan and Uganda. Under the same Ministry are the Planning Sector, responsible for water resources planning and management, which operates the Nile Monitoring and Forecasting System; the Irrigation Department, responsible for construction, management and maintenance of irrigation infrastructure, monitoring of water flow in the irrigation systems, and water allocation to users; the Authority for Drainage Projects, responsible for design, operation and maintenance of drainage systems; the Water Research Centre, which carries out research on surface and groundwater, hydraulics, and irrigation and drainage systems, among other subjects; the Authority for the Aswan Dam, responsible for operation and maintenance of the Aswan Dam and Lake Nasser; and the Survey Authority, which is responsible for annual surveys of the main crop areas.

**Eritrea:** Ministry of Land, Water and Environment, Water Resources Department, responsible for water resources assessment, planning and management. It is responsible for field data collection and database development, as well as for water quality and acts as a national resources information centre. Its mandate further includes legislation, and establishing a system of water rights and obligations.

**Ethiopia:** Ministry of Water Resources, responsible for allocation and utilization of federal waters and for management and international agreements regarding transboundary rivers, deals with hydrology, planning and projects, meteorological services, river basin master plan preparation, hydropower, and irrigation design and study. The Regional Agriculture Bureaus are responsible for irrigation management and soils and water conservation; while the Regional Water, Mines and Energy Bureaus is responsible for design, construction and operation of water supply schemes. The Environment Protection Agency carries responsibility for environmental impact assessment.

**Kenya:** Ministry of Water Resources Management and Development, responsible for planning and management of water resources. It has a leading role in water policy and is responsible for field data collection on surface water, groundwater and water quality. It maintains a national water resources database and is responsible for data processing.

**Rwanda:** Ministère de l'énergie, de l'eau et des ressources naturelles. It is the focal point for water resources management in the country. Under the same Ministry is the Direction de la planification, responsible for investment in the water sector; the Direction de l'eau et de l'assainissement, which provides drinking water and sanitation, and also maintains the hydrometric network and databases, carries out water resources assessments, monitors water

quality, and allocates water to users; the Direction de l'énergie, responsible for hydropower; and the Direction des mines et de la géologie, which carries out hydrogeological research.

**Sudan:** Ministry of Irrigation and Water Resources, Technical Organ for Water Resources, responsible for water resources policies, legislation and regulations, bilateral and multilateral agreements and plans and measures relating to Nile waters as well as groundwater. In the same Ministry are the Nile Water Directorate, responsible for monitoring, processing and distribution of information concerning Nile waters, and the Groundwater and Wadis Directorate, responsible for data and information concerning non-Nile surface water and groundwater.

**Tanzania:** Ministry of Water, responsible for water resources development and management, including water quality and effluent standards and water policy development. In the same Ministry is the Central Water Board, responsible for legislation concerning water pollution, and the River Basin Water Offices, responsible for the development of guidelines on integrated water resources management.

**Uganda:** The Directorate of Water Development in the Ministry of Water, Lands and Environment, responsible for management, development and protection of water resources and in charge of policy development. Under the same Ministry are: the National Environmental Management Authority, responsible for environmental management, including impact studies; the Meteorological Department, responsible for meteorological data collection and processing; the National Water and Sewerage Corporation, which provides water and sewerage services in the major cities; and the Wetlands Division, responsible for management of wetlands.

With one possible exception, all these institutions have limited capacity to cope with the demands placed on them by their assigned duties and, in addition, by the NBI process. In this respect, the project aims at strengthening existing government structures and their capacity to cope with the solicitations and opportunities that are raised. These should not be lost to inaction, neither should they override the government's policies with regard to reducing poverty and providing indispensable basic services to its population.

#### B6. Reasons for external assistance

The project is of strategic nature and requires drawing from FAO's broad spectrum of expertise. The governments do not have the financial capacity to obtain the support needed.

#### B7. Special considerations

FAO will provide technical inputs and expertise from various divisions in order to support the project activities, as formulated by the participating countries. Moreover, FAO's technical support service will play a catalyst role in orienting the information products for policy and water resources management. In order to ensure long-term sustainability, the project will also solicit technical support from Italian Institutions where appropriate, and draw the services of experts, NGOs and academic institutions from within the Nile region. The project will further seek to gain visibility by distributing information and knowledge to wide spectrum civil society and stakeholders.

## **C. DEVELOPMENT OBJECTIVES**

The long-term development objectives of the project are to empower Nile Basin countries to develop water resources of the Nile in a sustainable and equitable way, to ensure efficient water management, cooperation and joint action between the riparian countries, and to target poverty eradication, economic integration seeking win-win situations for the prosperity, security and peace of all its people. Such development objectives are at the core of the strategic action programme of the Nile Basin Initiative launched in 1999 by the Council of Ministers of Water Affairs of the Nile Basin Countries. Specifically, the project will draw on FAO expertise to develop the capacity and ability to take informed decisions for cooperative action concerning planning, development and use of the waters of the Nile.

## **D. IMMEDIATE OBJECTIVES, OUTPUT AND ACTIVITIES**

### **1. Immediate objective 1: Integrated data products used for making informed water resources management decisions**

To be achieved through the acquisition of data from various sources and their integration into accessible and useful information, to facilitate (a) assessment of the consequences of possible water resources policies and (b) taking informed decisions in water resources planning and management.

#### 1.1 Output 1

Hydrological and hydro-meteorological time-dependent field data are acquired on a continued basis, quality-controlled and entered into databases in accordance with regional standards. The steady flow of reliable data, relevant to the project, is maintained.

#### Activities:

1.1.1 Undertake a limited extension of monitoring network of a transboundary nature, to provide data of immediate use for informed decision-making.

1.1.2 Establish and operate Internet forum and user groups for hydro-meteorological network operation.

1.1.3 Provide training in field data acquisition, data processing and quality control where still required.

1.1.4 Operate and maintain transboundary monitoring hydrological and hydro-meteorological network.

#### 1.2 Output 2

Geographically referenced data obtained from various national and international sources, as well as hydrological and hydro-meteorological time-dependent data collected in the past through other sources are assessed with regard to quality, reliability and usability and included in standard databases for current and future use.

Activities:

1.2.1 Undertake a continuous inventory of national and international data to be used for informed decision-making.

1.2.2 Continue updating the hydrological and hydro-meteorological database and carry out routine quality control.

1.2.3 Carry out training in the use of Internet to acquire relevant data and to find solutions to identified problems.

1.3 Output 3

Decision Support Tool (DST) software tailored for the Nile Basin countries consolidated and internalised. The DST is already developed and tentatively calibrated, but not yet fully owned, confidently used, and modified by local engineers to respond to changing requirements. In implementation of this output, co-ordination and synergy with the NBI SVP “Water Resources Planning and Management Project” DSS component will be pursued.

Activities:

1.3.1 Establish Nile DST Task Force to ascertain usability of the system in its present state and evaluate the effectiveness of the current hosting arrangements, and report. The Project Steering Committee will establish the detailed Terms of Reference of the Task Force. The findings of the Task Force, which is perceived as a temporary body, will be shared with all interested parties under the NBI program, in particular the PMU of the SVP Water Resources Planning and Management Project.

1.3.2 Identify and involve national academic institutions that are qualified and interested to utilize the Nile DST

1.3.3 Complete river simulation and reservoir operation modules.

1.3.4 Document source codes, including flow charts and block diagrams.

1.3.5 Undertake training in Nile DST methodology and application, in collaboration with the relevant NBI Shared Vision Programme. The training will be planned in collaboration with the PMU of the SVP Water Resources Planning and Management Project.

1.4 Output 4

GIS information products integrating physical and socio-economic data are available and used to support policy analysis, decision-making and implementation of case studies. In implementation of this output, co-ordination and synergy with the NBI SVP “Water Resources Planning and Management Project” and “Socio-Economic Development and Benefit Sharing “ projects will be pursued.

Activities:

1.4.1 Assess status of equipment and upgrade hardware and software according to new requirements.

1.4.2 Identify and develop relevant data products as a function of the identified case studies.

1.4.3 Produce graphic outputs, as required, to illustrate policy analysis, decision-making and case studies.

1.4.4 Document the methods used for the production of outputs.

1.4.5 Undertake training in the assembly and use of GIS tools for relevant applications.

### 1.5 Output 5

Communication facilities, in particular Internet communication, are improved, used for data acquisition from Internet sources and for exchange of raw and integrated data and information among project partners.

Activities:

1.5.1. Assess viable options for improved communication and prepare specifications.

1.5.2 Procure and establish communications facilities and use for data acquisition, data exchange and training.

## **2. Immediate objective 2: Strengthen the ability to carry out surveys, case studies and benefit-sharing scenarios.**

Relevant surveys, case studies and scenarios are developed, and in the process it is ensured that trained, capable and experienced local human resources is available for future work in the Nile. Particular attention will be paid to shed light on the links and implications of water management options concerning rural poverty, food insecurity, nutrition and health.

The outputs under this immediate objective will make extensive use of the specific experience and expertise residing at FAO HQ, or qualified research institutes in Italy or elsewhere, in agricultural water use, water productivity, rural livelihoods, and other related subjects. Technical specialists, as and where needed, will assist the project in developing the methodology, providing technical support in implementing the survey and case studies, integrating study results, and preparing the associated publications and dissemination materials.

For each survey or case study, a team of national specialists will be formed headed by a regional team leader. The latter will be based at the project office in Entebbe.

### 2.1 Output 1

A basin-wide survey of current and potential water use and water productivity in irrigated and rainfed agricultural production in support of sustainable rural livelihoods. The survey will look at all aspects of rural water use, including water productivity in irrigation, supplementary irrigation, water harvesting for crop production and domestic use, water use for fisheries, health and sanitation, including firewood and energy production, land use and generally all

aspects that are relevant to reduction of rural poverty and hunger and to the creation of gainful employment. In implementation of this output, co-ordination and synergy with the NBI SVP “Efficient Water Use for Agricultural Production” project will be pursued.

Activities:

2.1.1 Organize regional workshop on a survey of rural water use and productivity (outcome: methodology and road map).

2.1.2 Establish national teams to plan and implement the activities for the study.

2.1.3 Integrate and present survey results to various types of stakeholders, using adequate tools

2.1.4 Prepare, present and publish report.

## 2.2 Output 2

Case study on analysis and improvement of water productivity through crop management. Water productivity in the agricultural sector refers to the value or benefit from water use for crops, fisheries, forestry and livestock. At basin level, it takes into consideration multiple uses of water, also from non-agricultural sectors, including the environment. Water productivity can be expressed in yield, in monetary terms, or in other benefits, such as employment. In planning and implementation of the study, co-ordination and synergy with the NBI SVP “Efficient Water Use for Agricultural Production” will be pursued.

Activities:

2.2.1 Organize regional workshop on the water productivity concept and establish methodology.

2.2.2 Establish national teams to plan and implement the activities and produce the study.

2.2.3 Integrate and present survey results to various types of stakeholders, using adequate tools

2.2.4 Training workshop on how water productivity can be used in sharing benefits from water use (results).

## 2.3 Output 3

Case study on integrated water resources management (IWRM). The IWRM concept is generally accepted as the most useful approach to water management but is poorly understood by water managers. This case study should apply to a physically and socially complex situation that would include the identification of water-related questions and their ramifications and evaluation of various policy and decision options. Water quality and groundwater should be relevant questions in the selected case. The case study should further examine links between rural livelihoods and local water resources management practices. The Project Steering Committee will select the case study area. The implementation of this case

study will be closely coordinated with related activities in the SVP Water Resources Planning and Management project.

Activities:

2.3.1 Organize a regional workshop on the IWRM concept and identify case study area.

2.3.2 Prepare a methodology and work plan for preparation of the case study.

2.3.3 Establish regional team to implement study, plan and implement activities.

2.3.4 Present study results to various types of stakeholders, and prepare report as well as presentation material.

2.3.5 Organize training workshop on how an IWRM frame could be applied to support national policy and for the improvement of the quality of life of rural people (results).

#### 2.4 Output 4

Case study focused on legal, institutional and confidence building aspects of water resources management. The study, while applying IWRM approaches, examines closely the questions related to the application of official law, indigenous law and other conflict resolution techniques in local water management.

Activities:

2.4.1 Organize a training workshop on negotiation skills on sharing of transboundary resources.

2.4.2 Organize a workshop on national and indigenous water law and identification of the case study area.

2.4.3 Prepare a methodology and work plan for preparation of the case study.

2.4.4 Establish the regional team to implement study, plan and implement activities.

2.4.5 Present results of the study and prepare report and material for various categories of stakeholders.

#### 2.5 Output 5

Nile Basin benefit-sharing scenarios explored. On the basis of the previous outputs (survey on water use and water productivity, and the specific understanding of the water productivity and IWRM concepts, as well as of legal aspects), benefit-sharing scenarios will be explored and presented to decision-makers for a feedback and further action. In planning and implementing the study, coordination and synergies will be pursued with the SVP projects “Water Resources Planning and Management “ and “Efficient Water Use for Agricultural Production”.

Activities:

2.5.1 Organize a regional workshop, with participation of FAO and PSC, to present the methodology to develop scenarios.

2.5.2 Elaborate methodology to develop scenarios, and identify sample scenarios.

2.5.3 Assemble data and carry out the selected case studies

2.5.4 Organize workshop with Nile TAC & COM to present sample

2.5.5 Follow up according to guidance provided by COM

2.5.6 Consolidate scenarios and consolidate report.

### 2.6 Output 6

Two additional studies developed, implemented and used for training. These studies of immediate relevance for strengthening of government capacity will be identified at the time of the Mid-term project review. Focus subjects could be: lake management, water quality assessment, and sediment assessments, and any other, as will be decided by the PSC. (Output 2.6. Workshop Case Study 4)

Activities:

2.6.1 Identify case studies and propose to Mid-term review.

2.6.2 Develop and implement case studies.

## **3. Immediate objective 3: Dissemination of information and knowledge**

The spirit of Nile cooperation established among leaders has not yet reached the base because of weak dissemination of public information providing knowledge and building confidence in the public. The project's overall objective relates to the development of capacity and confidence to deal in a constructive manner with complex, potentially conflictive water management situations. To foster confidence building, project outputs and results should be disseminated to a wider spectrum of stakeholders. Appropriate links will be sought with the relevant NBI information sharing and dissemination mechanisms and initiatives.

### 3.1 Output 1

Information on all project activities is processed in an adequate way for dissemination and public information through Internet, the NBI Web hub, international Nile conferences, involvement of a wider community at technical and university level, involvement of civil society and other forms of publication, including pamphlets and posters. Where appropriate, community and political leaders will be given extended briefings on project results.



Activities:

3.1.1 Create links to stakeholders and civil society and present the results of relevant project activities in the appropriate format.

3.1.2 Obtain feedback, consolidate in relevant report, and present to PSC.

## **E. INPUTS**

### E1. Inputs provided by the host country.

The Government of Uganda will provide secure premises for the project headquarters, located in Entebbe in the immediate vicinity of the Nile Basin Initiative Secretariat.

### E2. Inputs provided by participating countries

The participating countries will provide qualified staff time for the implementation of project activities in the respective country. They will also provide national project offices.

### E3. Inputs provided by the Donor.

The Donor provides inputs through FAO. These include:

#### *Project staff*

The project foresees the local recruitment of staff for project office (Administrative Assistant/Accountant, Network and Information Specialist, Secretary/Receptionist and a Driver) for a total of 168 work/month.

#### *International experts*

International staff assigned to the project includes a resident Chief Technical Adviser with overall responsibility for project implementation in the field, for a total of 42 work/month.

#### *Consultants*

The project will make extensive use of the services of experts recruited within the project region, for a total of 144 work/month. The project foresees to engage the services of national experts and consultants based in their respective countries, for a total of 149 work/month. The project also foresees an input of 18 work/month of international consultant services.

#### *Contracts and Letters of Agreements*

The project foresees an input of US\$150 000 for international contractual services.

#### *Duty travel and mission costs*

The duty travel and mission cost allocation covers the needs of Project Steering Committee meetings, the travel of the project's CTA, travel of regional and international experts, and official travel from headquarters staff, for a total of US\$309 979.

### *Training*

The training allocation totals US\$473 000. The total number of course attendees and workshop participants events is estimated at 722.

### *Equipment*

#### *Expendable equipment*

The expendable equipment allocation amounts to US\$94 000, including brochures and materials for dissemination of knowledge and information. The project headquarters premises will be refurnished for a total budget of US\$15 900.

#### *Non- expendable equipment*

The non-expendable equipment provision totalises US\$735 000, of which US\$685 000 allocated to equipment needed in the participating countries and US\$50 000 to equipment that will be based at project headquarters.

### *Technical Support Services*

US\$380 000 is earmarked for specialist technical support in conducting the survey, case studies, and benefit sharing analysis. These services will be conducted by HQ staff or, whenever necessary, by consultants appointed and supervised by HQ staff.

NB: Subject to availability through other FAO sources and not included in the budget, the project foresees recruitment of three Associate Professional Officers (APO), in the following fields: Agro-Economy, Socio-Economic Development, and Computer Science and Decision Support Systems

## **F. RISKS**

Trained staff turnover could become faster than training can be provided, so that the project cannot use their expertise.

The project takes this risk into account through a significant training/capacity building component.

The Focal Point Institutions meet major difficulties in involving the various fields of expertise and local knowledge required to carry out IWRM.

The project plan was elaborated in consultation with national experts who examined this risk. A great deal of flexibility is left in the project document to adjust IWRM activities to those that will prove realistic.

The necessary coordination with the Nile Basin Initiative Shared Vision and Subsidiary Action programmes is not achieved.

This matter has been considered carefully and with the national stakeholders, and any difficulties that could have appeared in this aspect have been lifted.

## **G. PRIOR OBLIGATIONS AND PREREQUISITES**

The project builds on an already existing arrangement that has proved sustainable. There are no new prior obligations and prerequisites.

## **H. PROJECT REPORTING, REVIEWS AND EVALUATION**

### H1. Reports

#### *Six-Monthly Progress Reports*

The project management will prepare every six months a project Progress Report, using the FAO format and containing:

- (i) actual implementation of activities compared to those planned in the workplan;
- (ii) identification of problems and constraints (technical, human, financial, etc.) in implementation;
- (iii) recommendations for corrective measures;
- (iv) detailed workplan for the following reporting period.

Progress reports will be submitted to both the Project Steering Committee members and FAO headquarters.

FAO will then forward the Progress Report to the Donor Government with its comments.

#### *Technical Reports*

The project management will submit Technical Reports to the FAO Headquarters for review and finalization. The project management will distribute the approved reports to the PSC. FAO may, at discretion, submit the reports to the respective governments through its channels.

#### *Terminal reports*

Not later than six months before the end of the project, the project management will prepare and send to FAO Headquarters a draft Terminal Report for technical clearance, finalization and submission to both the recipient and donor governments/agencies at least 4 months in advance for consideration at the terminal tripartite review meeting.

The report will assess, in a concise manner, the extent to which the project's scheduled activities have been carried out, its outputs produced, and progress towards achievement of immediate objectives and related development objective. It will also present recommendations for any future follow-up action arising out of the project.

### H2. Reviews

Representatives of the participating countries (normally the Chairperson of the PSC), the donor, and FAO, will jointly examine project progress once a year, and midway of the project through a Mid-term review. A terminal tripartite review meeting should also be included to

examine project achievements and decide on eventual follow-up. The organization, terms of reference, and exact timing and place of the review will be decided in consultation between the participating countries, the donor, and FAO.

Annual technical reviews may be undertaken if deemed necessary.

### H3. Evaluation

Representatives of the participating countries, the donor, and FAO will jointly evaluate the project. The terms of reference, exact timing and place will be decided in consultation among the three parties concerned. Any party may call for evaluation at any stage of the project if deemed necessary.

### I: PROJECT BUDGET (DONOR CONTRIBUTION)

Code	Description	Unit Costs [\$000]	YEAR 1 wm/unit	[\$000]	YEAR 2 wm/unit	[\$000]	YEAR 3 wm/unit	[\$000]	YEAR 4 wm/unit	[\$000]	wm/unit	TOTAL [\$000]
5011	<b>Professional Staff</b>			132		132		132		66		462
	Chief Technical Advisor (P5)	11	12	132	12	132	12	132	6	66	42	462
5012	<b>Admin Support Personnel</b>			73.2		73.2		73.2		36.6		256.2
	Administrative Assistant/Accountant (G5/G6)	2.5	12	30	12	30	12	30	6	15	42	105
	Network & Information Specialist (G2)	1.2	12	14.4	12	14.4	12	14.4	6	7.2	42	50.4
	Secretary (G2)	1.2	12	14.4	12	14.4	12	14.4	6	7.2	42	50.4
	Driver (G2)	1.2	12	14.4	12	14.4	12	14.4	6	7.2	42	50.4
5013	<b>International Consultants</b>			60		60		50		20		190
	International Csts in support of output activities (18 w/n)	10	5	50	6	60	5	50	2	20	18	180
	International Consultant Negotiation Skills	20	0.5	10							0.5	10
5013	<b>Regional Experts &amp; Consultants (locally recruited)</b>			140.8		131.7		156.4		21.3		450.2
5543	Regional GIS Expertise consultant	3.6	9	32.4	12	43.2	12	43.2	3	10.8	36	129.6
5543	Regional DST Expertise cst (when-actually-required)	3.6	9	32.4			7	25.2			16	57.6
5543	Reg/nat Monitoring Consultant (when-actually-required)	1	10	10							10	10
5543	Reg/nat GIS/DB Consultant (when-actually required)	1	10	10							10	10
5543	Team Leader Output 2.1 (water use survey)	3.5	11	38.5							11	38.5
5543	Team Leader Output 2.2 (case study water productivity)	3.5	5	17.5	6	21					11	38.5
5543	Team Leader Output 2.3 (case study IWRM)	3.5			11	38.5					11	38.5
5543	Team Leader Output 2.4 (legal aspects & conflict resolu	3.5			6	21	5	17.5			11	38.5
5543	Team Leader Output 2.5 (scenarios)	3.5					8	28	3	10.5	11	38.5
5543	Team Leader Output 2.6 (case study 4)	3.5					11	38.5			11	38.5
5543	Regional Editor (when actually required)	2			2	4					2	4
5543	Regional Translator (when actually required)	2			2	4	2	4			4	8

I: PROJECT BUDGET (DONOR CONTRIBUTION, CONTINUATION 1)

Code	Description	Unit Costs [\$000]	YEAR 1 wm/unit	[\$000]	YEAR 2 wm/unit	[\$000]	YEAR 3 wm/unit	[\$000]	YEAR 4 wm/unit	[\$000]	wm/unit	TOTAL [\$000]
5013	National Experts and Consultants			132.5		145		160		45		482.5
5543	Web / Internet Expert (when actually required)	2.5	4	10	4	10	4	10	2	5	14	35
5543	Communication Consultant (when actually required)	2.5	3	7.5	4	10	4	10	2	5	13	32.5
5550	National Coordinator Support (Burundi)	0.5	12	6	12	6	12	6	6	3	42	21
5550	National Coordinator Support (DRC)	0.5	12	6	12	6	12	6	6	3	42	21
5550	National Coordinator Support (Egypt)	0.5	12	6	12	6	12	6	6	3	42	21
5550	National Coordinator Support (Eritrea)	0.5	12	6	12	6	12	6	6	3	42	21
5550	National Coordinator Support (Ethiopia)	0.5	12	6	12	6	12	6	6	3	42	21
5550	National Coordinator Support (Kenya)	0.5	12	6	12	6	12	6	6	3	42	21
5550	National Coordinator Support (Rwanda)	0.5	12	6	12	6	12	6	6	3	42	21
5550	National Coordinator Support (Sudan)	0.5	12	6	12	6	12	6	6	3	42	21
5550	National Coordinator Support (Tanzania)	0.5	12	6	12	6	12	6	6	3	42	21
5550	National Coordinator Support (Uganda)	0.5	12	6	12	6	12	6	6	3	42	21
5543	National Database Experts (output 1.1 & 1.2)	3.5	1.5	15	1	10	1	10			10	35
5543	National GIS Experts (output 1.2 & 1.4)	3.5	1	10	1.5	15	1	10			10	35
5543	National Modelers (output 1.3)	2	1	10			1	10			10	20
5543	National Water User & Productivity Expert (2.1 & 2.2)	3	2	20	1	10					10	30
5543	National IWRM Experts (output 2.3)	2			2	20					10	20
5543	National Legal Experts (output 2.4)	2.5			1	10	1.5	15			10	25
5543	National Scenario Experts (output 2.5)	2					1.5	15	0.5	5	10	20
5543	National Experts Case Study 4 (output 2.6)	2					2	20			10	20
5014	Contracts			100		50		0		0		150
5571	DST software update and upgrade (LOA)			100		50						150
5021	Travel			97		77		77		59		310
5698	Project Steering Committee Meetings	45	1	45	1	45	1	45	1	45	4	180
5661	Official travel			32		32		32		14		110
5698	Travels reg/nat monitoring consultants	1		10							10	10
5698	Travels reg/nat GIS-DB consultants	1		10							10	10

I: PROJECT BUDGET (DONOR CONTRIBUTION, CONTINUATION 2)

Code	Description	Unit Costs [\$000]	YEAR 1 wm/unit	[\$000]	YEAR 2 wm/unit	[\$000]	YEAR 3 wm/unit	[\$000]	YEAR 4 wm/unit	[\$000]	wm/unit	TOTAL [\$000]
<b>5023</b>	<b>Training</b>			<b>189</b>		<b>148.5</b>		<b>88.5</b>		<b>47</b>		<b>473</b>
	Nat. Workshops (DST, and to diss. case study results)	0.5	20	10	15	7.5	15	7.5	10	5	60	30
	Regional Workshop Internet Data & Solutions (1 week)	1	1	25							25	25
	Regional GIS-Data workshop (2 weeks)	1			1	35					35	35
	Regional DST training (2 weeks)	1	1	45							45	45
	Support to DST Thesis National Universities	2		10		10					10	20
	Internet GIS Training Courses	0.1	100	10	100	10					200	20
	IT training at national institutes	3		10		10		10			10	30
	Negotiation Skills Workshop (1 week)	1		30							30	30
	Output 2.1 Workshop 1 (water use survey)	1	1	22							22	22
	Output 2.2 Workshop 1 (water productivity, methodology)	1	1	22							22	22
	Output 2.2 Workshop 2 (water productivity, results)	1			1	22					22	22
	Output 2.3 Workshop 1 (IWRM, concept)	1			1	22					22	22
	Output 2.3 Workshop 2 (IWRM, results)	1					1	22			22	22
	Output 2.4 Workshop 1 (national & indigenous law)	1			1	22					22	22
	Output 2.5 Workshop 1 (Scenarios, methodology)	1					1	22			22	22
	Output 2.5 Workshop 2 (Scenarios, presentation)	1							1	42	42	42
	Output 2.6 Workshop Case Study 4	1					1	22			22	22
	Presentation of case study papers at NBI conference	5				5		5			2	10
	Technical reference material	1		5		5					10	10
<b>5024</b>	<b>Expendable Equipment</b>			<b>27.9</b>		<b>48</b>		<b>20</b>		<b>14</b>		<b>109.9</b>
	project expendable equipment	1	12	12	12	12	12	12	6	6	42	42
	project brochure	1			1	20					20	20
	dissemination results water use survey	1			1	8					8	8
	dissemination results water productivity study	1			1	4					4	4
	dissemination results GIS data products	1			1	4					4	4
	dissemination results IWRM study	1					1	4			4	4
	dissemination results Legal case study	1					1	4			4	4
	dissemination results Scenario development	1							1	4	4	4
	dissemination results case study 4	1							1	4	4	4
	limited refurbishment of office			15.9								15.9
<b>5025</b>	<b>Non Expendable Equipment</b>			<b>735</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>735</b>
	at FPIs			670								670
	at Project Office			50								50
	10 PCs for training workshops			15								15

I: PROJECT BUDGET (DONOR CONTRIBUTION, CONTINUATION 3)

Code	Description	Unit Costs [\$000]	YEAR 1 wm/unit	[\$000]	YEAR 2 wm/unit	[\$000]	YEAR 3 wm/unit	[\$000]	YEAR 4 wm/unit	[\$000]	wm/unit	TOTAL [\$000]
5027	Technical Support Services			95		145		120		20		380
6121	TSS Supervisory of Tech. Support for survey & studies			15		15		15		5		50
6121	TSS Supervisory of Specialists Water Use Survey			45		15						60
6121	TSS Supervisory of Specialists Water Productivity			20		30						50
6121	TSS Supervisory of Specialists IWRM					40		10				50
6120	TSS Advisory of Specialists Legal Case Study					20		25				45
6120	TSS Advisory of Specialists Benefit Sharing Scenarios							45		5		50
6121	TSS Operational support for survey & case studies			10		12.5		12.5		5		40
6121	TSS Miscellaneous (graphic design, translation, edit.)			5		12.5		12.5		5		35
5028	General Operating Expenses			126		126		126		48		426
	FPI Operating Expenses	5	12	60	12	60	12	60	6	30	42	210
	Project Operating Expenses	3	12	36	12	36	12	36	6	18	42	126
	Monitoring Network Operation	0.5	12	6	12	6	12	6			36	18
	Internet Facilities Expenses	2	12	24	12	24	12	24			36	72
	SUB TOTAL			1908.4	0	1136.4	0	1003.1	0	376.9	0	4424.8
6130	Project Servicing Costs (13%)			248.1		147.7		130.4		49.0		575.2
	TOTAL			2156.5		1284.1		1133.5		425.9		5000



## Annexes

ANNEX 1: WORKPLAN

ANNEX 2: TRAINING PROGRAMME

ANNEX 3: EQUIPMENT AND SUPPLIES

ANNEX 4: JOB DESCRIPTIONS

ANNEX 5: LOGICAL FRAMEWORK ANALYSIS

ANNEX 6: TERMS OF REFERENCE FOR PROJECT STEERING COMMITTEE AND  
TRIPARTITE REVIEW

Annex I: WORKPLAN

NR.	OUTPUT DESCRIPTION	2004 S + Q4	2005 Q1	Q2	Q3	Q4	2006 Q1	Q2	Q3	Q4	2007 Q1	Q2	Q3	Q4	2008 Q1
	<b>PROJECT COORDINATION</b> CTA														
1.1	<b>CONSOLIDATE MONITORING NETW.</b> reg. / nat. monitoring consultant nat. database experts	--- ---	--- ---	--- ---	--- ---	---									
1.2	<b>CONSOLIDATE DATABASES</b> reg. / nat. database & GIS consultant nat. database experts	--- ---	--- ---	--- ---	--- ---	---	---								
1.3	<b>CONSOLIDATE NILE DST</b> int. DST consultant (through contract) reg. DST expert nat. modelers	----- -----	----- -----	----- -----	----- -----							----- -----	----- -----		
1.4	<b>DEVELOP GIS DATA PRODUCTS</b> int. integrated data products consult. reg. GIS expert nat. dabase experts nat. GIS experts	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---	--- ---		
1.5	<b>IMPROVE COMMUNICATION FAC.</b> CTA national coordinators	----- -----													
2.1	<b>BASIN WIDE WATER USE SURVEY</b> FAO HQ specialists team leader output 2.1 int. integrated data products consult. reg. GIS expert nat. water use experts	--- -----	--- -----	--- -----	--- -----	--- -----									

Annex I: WORKPLAN (CONTINUATION 1)

NR.	OUTPUT DESCRIPTION	2004 S + Q4	2005 Q1	Q2	Q3	Q4	2006 Q1	Q2	Q3	Q4	2007 Q1	Q2	Q3	Q4	2008 Q1
2.2	<b>CASE STUDY WATER PRODUCTIVITY</b> FAO HQ specialists team leader output 2.2 int. integrated data products consult. reg. GIS expert nat. water productivity experts nat. GIS experts				-----	-----	-----	-----							
2.3	<b>CASE STUDY ON IWRM</b> FAO HQ specialists team leader output 2.3 int. integrated data products consult. reg. DST expert reg. GIS expert nat. IWRM experts nat. GIS experts						-----	-----	-----	-----					
2.4	<b>CASE STUDY ON LEGAL ISSUES</b> FAO HQ specialists int. negotiation skills trainer team leader output 2.4 nat. legal consultants	== ==					-----	-----	-----	-----					
2.5	<b>IDENT. OF BENEFIT SHARING SCEN.</b> FAO HQ specialists team leader output 2.5 reg. GIS expert nat. scenario development experts nat. GIS experts nat. database experts Nile DST expert (covered in 1.3)										-----	-----	-----	-----	-----

Annex I: WORKPLAN (CONTINUATION 2)

NR.	OUTPUT DESCRIPTION	2004 S + Q4	2005 Q1	Q2	Q3	Q4	2006 Q1	Q2	Q3	Q4	2007 Q1	Q2	Q3	Q4	2008 Q5
2.6	<b>IDENT. &amp; DEV. 2 ADD. CASE STUDIES</b> CTA & NCs (identification & select.) FAO HQ specialists team leader reg. GIS experts nat. GIS experts					—			---	---	---	---			
3.1	<b>OUTPUT DISSEMINATION</b> CTA web / internet consult. (as needed) communication consult. (as needed) reg. Editor reg. Translator		---	---	---	---	---	---	---	---	---	---	---	---	---

## Annex II: TRAINING PROGRAM

Training Activity 1, in support of output 1.1	
Title:	National Workshop on Information Systems and DST
Nature:	National workshop at the Focal Point Institution. Workshop topics cover monitoring activities, database development, Nile-DST, and the various methodologies developed for the case studies. Actual topics are determined by the direct need of the FPI. Workshops are facilitated by a regional consultant from a Nile Basin country, or by national experts. Trainees are FPI staff and technicians at national field offices.
Objective:	Broaden knowledge and user base for the various technologies introduced, and strengthen the capacity at FPI level for all activities related to water resources assessment, planning, and management
Duration:	1 week
Nr. of participants:	Between 5 and 10
Nr. of workshops:	As the need arises, with a maximum of 6 workshops per country

Training Activity 2, in support of output 1.4, and in indirect support of outputs 2.1 to 2.6	
Title:	Regional Workshop Internet Data & Solutions
Nature:	Regional workshop at the project office in Entebbe, Uganda
Objective:	Identify, access, and use internet data and solutions that can be used for developing meaningful data products for informed decision making.
Duration:	1 week
Nr. of participants:	2 each per participating country

Training Activity 3, in support of output 1.4, and in indirect support of outputs 2.1 to 2.6	
Title:	Regional GIS-Data Product Workshop
Nature:	Regional workshop at the project office in Entebbe, Uganda
Objective:	Hands-on training in developing meaningful data products for informed decision-making using available national databases and internet data. Methodologies presented are related to the surveys, case studies, and scenarios developed by the project. Train trainers.
Duration:	2 weeks
Nr. of participants:	2 each per participating country

Training Activity 4, in support of output 1.3	
Title:	Regional DST Workshop
Nature:	Regional hands-on training workshop at the project office in Entebbe, Uganda, facilitated by the DST developer
Objective:	Consolidate Nile-DST application and broaden the Nile DST user base by training trainers. Make DST technology resident in the Nile basin. Build confidence in DST outputs by recalibration exercises.
Duration:	2 weeks
Nr. of participants:	2 each per participating country

Training Activity 5, in support of output 1.3	
Title:	Support for students at National Universities
Nature:	Limited support to students at national universities who are conducting their research on water resources issues using the Nile-DST, or on other relevant areas.
Objective:	Establishing links with national universities. Broaden Nile-DST user base and making DST knowledge resident in the Nile countries.
Duration:	1 year, with limited project input
Nr. of participants:	A lump sum budget of \$2,000 is allocated per country. The NC determines the number of students to support, which would preferably be between 4 and 8 per participating country. The participating students shall be nominated by the NC.

Training Activity 6, in support of output 1.4	
Title:	Internet GIS Courses
Nature:	Training in GIS application and methodology using the virtual campus operated by the GIS software provider. Trainees can study at their own pace and location through the internet. Project output 1.5 (improve communication facilities) is in direct support of this training.
Objective:	Build basic and intermediate GIS skills. Broaden GIS user base.
Duration:	Total course duration is approximately 20 hours, distributed in time by the trainee according to his/her time availability.
Nr. of participants:	20 courses each per participating country

Training Activity 7, in support of output 1.4, and in indirect support of outputs 2.1 to 2.7	
Title:	Information Technology Training at Qualified National Institutes
Nature:	Basic and intermediary IT training in standard software through regular and specialist courses at qualified local computer training centers. Program will be designed according to the specific needs of the national focal point institutions. Participants cover all levels of the FPI.
Objective:	Strengthening IT skills for database operation, preparing GIS data products, and for internalizing the Nile DST
Duration:	Variable
Nr. of participants:	Estimated at 10 individuals per participating country

Training Activity 8, in support of output 2.4	
Title:	Regional Negotiation Skills Workshop
Nature:	Regional workshop for decision and policy makers facilitated by an international consultant, organized in Entebbe, Uganda
Objective:	Strengthen negotiation skills of high-level government officials in support of the ongoing efforts to develop a negotiation framework for sharing benefits from the common Nile resource.
Duration:	1 week
Nr. of participants:	3 each per participating country

Training Activity 9, in support of output 2.1	
Title:	Workshop on Water Use Survey
Nature:	Workshop organized back-to-back to a Project Steering Committee meeting, for PSC members and one additional participant per country.
Objective:	To provide structured information on the methodology to implement a basin wide survey of current and potential water use in agriculture.
Duration:	1 day
Nr. of participants:	3 each per participating country

Training Activity 10, in support of output 2.2	
Title:	Workshop on Water Productivity
Nature:	Workshop organized back-to-back to a Project Steering Committee meeting, for PSC members and one additional participant per country.
Objective:	To provide structured information on analyzing and improving water productivity through crop management. Determine the scope and methodology of a water productivity case study in the Nile basin.
Duration:	1 day
Nr. of participants:	3 each per participating country

Training Activity 11, in support of output 2.2	
Title:	Workshop on the Results of the Water Productivity Case Study
Nature:	Workshop organized back-to-back to a Project Steering Committee meeting, for PSC members and one additional participant per country.
Objective:	Present the results of the water productivity case study, and illustrate how water productivity can be used to share benefits from water use.
Duration:	1 day
Nr. of participants:	3 each per participating country

Training Activity 12, in support of output 2.3	
Title:	Workshop on the IWRM Concept
Nature:	Workshop organized back-to-back to a Project Steering Committee meeting, for PSC members and one additional participant per country.
Objective:	Provide structured information on the Integrated Water Resources Management concept for water management.
Duration:	1 day
Nr. of participants:	3 each per participating country

Training Activity 13, in support of output 2.3	
Title:	Workshop on the Results of the IWRM Case Study
Nature:	Workshop organized back-to-back to a Project Steering Committee meeting, for PSC members and one additional participant per country.
Objective:	Present the results of the IWRM case study, and illustrate how IWRM can be used to the improvement of life quality of rural people.
Duration:	1 day
Nr. of participants:	3 each per participating country

Training Activity 14, in support of output 2.4	
Title:	Workshop on National and Indigenous Water Law
Nature:	Workshop organized back-to-back to a Project Steering Committee meeting, for PSC members and one additional participant per country.
Objective:	Provide structured information on questions related to the application of official law, indigenous law and other conflict resolution techniques in local water management
Duration:	1 day
Nr. of participants:	3 each per participating country

Training Activity 15, in support of output 2.5	
Title:	Workshop on Scenario Development
Nature:	Workshop organized back-to-back to a Project Steering Committee meeting, for PSC members and one additional participant per country.
Objective:	Provide structured information on the development of Nile Basin benefit sharing scenarios.
Duration:	1 day
Nr. of participants:	3 each per participating country

Training Activity 16, in support of output 2.5	
Title:	Workshop on Sample Scenario of Nile Basin Benefit Sharing
Nature:	Workshop organized back-to-back to a Project Steering Committee meeting, for PSC members and two additional participants per country.
Objective:	Present the results of the development of a sample scenario for Nile Basin benefit sharing.
Duration:	1 day
Nr. of participants:	4 each per participating country



Training Activity 17, in support of output 2.6	
Title:	Workshop on Case Study 4
Nature:	Workshop organized back-to-back to a Project Steering Committee meeting, for PSC members and one additional participant per country.
Objective:	Provide structured information on the subject related to case study 4, which will be identified in PSC4
Duration:	1 day
Nr. of participants:	3 each per participating country

### Annex III: EQUIPMENT AND SUPPLIES

FOR THE 10 NATIONAL FOCAL POINT INSTITUTIONS	Unit Costs	Quantity	Cost in US\$	Approx. Delivery Date
NATURE AND SPECIFICATION	[US\$ 000]	[ - ]	[US\$ 000]	
Satellite Internet access hardware, one per country	5	10	50	1-Nov-04
Car, one per country	22	10	220	1-Dec-04
ArcView 8 GIS software including spatial analyst	3	10	30	1-Dec-04
PCs, mid end, two per country	1.5	20	30	1-Jul-05
laser printer, mid end, one per country	1.5	10	15	1-Jul-05
GIS plotter, mid end, one per country	4	10	40	1-Jul-05
Cartridges and paper for plotter	1.5	10	15	1-Jul-05
various hydrometric equipment (1)	27	10	270	1-Jul-05
<b>TOTAL 10 NATIONAL FOCAL POINT INSTITUTIONS:</b>			<b>670</b>	

(1) Detailed list of hydrometric equipment will be specified after an in-country assessment that will be completed by 1 March 2005

FOR THE PROJECT OFFICE	Unit Costs	Quantity	Costs in US\$	Approx. Delivery Date
NATURE AND SPECIFICATION	[US\$ 000]	[ - ]	[US\$ 000]	
Car	17	1	17	1-Dec-04
ArcView 8 GIS software including spatial analyst	3	2	6	1-Dec-04
PCs, mid end	1.5	2	3	1-Dec-04
PCs, mid end, for training facilities	1.5	10	15	1-Dec-04
Laptop PC, mid end	2	1	2	1-Jul-05
beamer, for training facilities	4	1	4	1-Oct-04
photo copier, mid end	5	1	5	1-Oct-04
GIS plotter, mid end	4	1	4	1-Dec-04
cartridges and paper for plotter	1.5	1	1.5	1-Dec-04
Laser printer, high end, high production	2.5	1	2.5	1-Oct-04
various office furniture	5	1	5	1-Oct-04
<b>TOTAL PROJECT OFFICE:</b>			<b>65</b>	

## **Annex IV: JOB DESCRIPTIONS**

### **Title: Chief Technical Adviser (42 months)**

#### Qualifications:

The Chief Technical Adviser (CTA) should have a post-graduate degree in river basin management or a directly related field, and not less than 10 years relevant experience in transboundary water issues. Familiarity with the Nile issues, and practical experience in the Nile region involving both fieldwork and in dealing with governments on technical and administrative matters in a participatory approach is highly desirable. Knowledge of decision support technology and practical experience with database development is an asset. An excellent command of the English language, with the ability to communicate in French is necessary. The incumbent should have documented organizational skills and relevant experience of project management, from regional projects. Knowledge of management of FAO-UN projects is desirable. The ability to use computer equipment for word processing, data processing and graphical applications is an advantage.

#### Duties:

Under the general supervision of the Chief of the FAO Water Resources, Development and Management Service (AGLW), and in close cooperation with the project's designated national coordinators and other project staff, the Chief Technical Adviser will operate/execute the following duties:

1. Attend to responsibilities and functions as resident international water resources specialist, and in particular, manage the project, its international, regional and national experts and supporting staff; attend to project management matters, including financial and administrative management, procurement and reporting, as required.
2. Facilitate co-operative working and communications among the participating countries, and assist in identification and evaluation of consultants and sub-contractors.
3. Ensure close cooperation, coordination, and exchange of project results with the Nile SEC and other related activities of the NBI program, and vice versa.
4. Facilitate and support the work of the Project Steering Committee, provide relevant information to this project body, and secure all required clearance for recruitment, agreements and subcontracts.
5. Contribute to the technical work under the project both as a manager and a technical expert within his/her particular field of experience.
6. Carry out other work as required under the project, as may be requested by FAO and the Project Steering Committee.

Duty station: Entebbe (Uganda) with extensive travel within the Nile Basin region.

## Job description

**Title: International Consultant - Water Resources Data Products/In support of output activities (18 months, as and when required)**

## Qualifications:

The International Consultant on Water Resources Data Products should have a post-graduate degree in engineering or physical geography with specialization in water resources, and not less than 8 years experience in the application of remote sensing and GIS techniques to water resources planning and management. Familiarity with web based data sources and their application for informed decision-making is essential. Practical knowledge of the field in the Nile Basin is an advantage. The ability to communicate in English and French is required.

## Duties:

Under the general supervision of the Chief of AGLW and the Chief Technical Adviser of the project, and in close cooperation with the project's international, regional and local staff, the International Consultant on Water Resources Data Products will carry out the following duties:

1. Provide guidance and advice on water resources data products integrating information from various sources and their applicability under the conditions and requirements of the Nile Basin countries.
2. Provide technical inputs, training, support and advice to workshops and meetings under the project.
3. Facilitate interaction between relevant actors and institutions with the aim of developing water management support products that are realistic with regard to the required inputs and useful with regard to outputs.
4. Carry out other duties within his/her field of competence, as directed by the Chief Technical Advisor.

Duty station: Entebbe (Uganda), with travel within the Nile Basin region, as required.

## Job description

### **Title: International Consultant on Negotiation Skills (0.5 months)**

#### Qualifications:

The International Consultant on Negotiation Skills should have an advance degree in engineering or the social sciences with a good background in the theory of negotiations and the practice of negotiating shared natural resources, including water and other time-dependent resources. Previous knowledge of the Nile Basin issues is an advantage. The ability to communicate in English and French is required.

#### Duties:

Under the general supervision of the Chief Technical Adviser of the project, and in close cooperation with the project's international, regional and local staff, the International Consultant on Negotiating Skill will support, as the key consultant, activities concerning development and sharpening of negotiation skills around equitable sharing the common resources of the Nile Basin.

Duty station: To be determined, within the Nile Basin.

## Job description

**Title: Regional GIS Expertise (36 months)**

## Qualifications:

The Regional GIS Expert will hold a relevant university degree and a proven track record in the practical application of geographical information system techniques to the development of water resources data products. The ability to communicate in English is required.

## Duties:

Under the general supervision of the Chief Technical Adviser of the project, and in close cooperation with the project's international, regional and local staff, the Regional GIS Expert will carry out the following duties:

1. Develop and implement data products integrating geographically referenced and time dependent data.
2. Provide support in the organization and implementation of training activities calling upon his/her expertise, including hands-on instruction.
3. Provide technical and practical support to the work of the national GIS/DB experts and the Team Leaders of the water use survey, the benefit sharing scenarios and the various case studies.
4. Carry out other duties within his/her field of competence, as directed by the Chief Technical Advisor.

Duty station: Entebbe (Uganda), with travel within the Nile Basin.

Job description

**Title: Regional DST Expertise (16 months, as and when required)**

Qualifications:

The Regional DST Expert will hold a relevant university degree in engineering and a proven track record in the practical and creative application of decision support tools to the evaluation of water resources development and management alternatives.

Duties:

Under the general supervision of the Chief Technical Adviser of the project, and in close cooperation with the project's international, regional and local staff, the Regional DST Expert will carry out the following duties:

1. Support and contribute to the evaluation of the usability, in the conditions of the Nile Basin, of DST products available to the project, and advice on further steps in this respect.
2. Provide technical and practical support to the work of the national DST experts in the application of existing DST tools, including the Internet Nile DST forum.
3. Provide support in the organization and implementation of training activities calling upon his/her expertise, including hands-on instruction.
4. Carry out other duties within his/her field of competence, as directed by the Chief Technical Advisor.

Duty station: Entebbe (Uganda), with travel within the Nile Basin.

Job description

**Title: Regional Water Resources Monitoring Consultant (10 months, as and when required)**

Qualifications:

The Regional Water Resources Monitoring Consultant will have a proven track record in the installation, use and maintenance of water resources gauging, monitoring and data transmission equipment. Expertise in the proper use of the Acoustic Doppler Current Profiler is required in particular.

Duties:

Under the general supervision of the Chief Technical Adviser of the project, and in close cooperation with the project's international, regional and local staff, the Regional Water Resources Monitoring Consultant will carry out the following duties:

1. Provide advice and support in the construction/rehabilitation of gauging stations and hydro-meteorological stations.
2. Provide advice and support for relevant equipment repair and maintenance in the field and in the workshop.
3. Provide instruction in the proper use of river gauging instruments and related material.
4. Provide advice on efficient hydrological and hydro-meteorological fieldwork organization.
5. Carry out training and other duties within his/her field of expertise, as directed by the Chief Technical Advisor.

Duty station: To be determined (within the Nile Basin)



Job description

**Title: Regional GIS/Database Consultant (10 months, as and when required)**

Qualifications:

The Regional GIS/Database Consultant will have a proven track record in the installation, operation and maintenance of water resource database systems used in the Nile Basin. The ability to use the relevant database programming languages is required in particular.

Duties:

Under the general supervision of the Chief Technical Adviser of the project, and in close cooperation with the project's international, regional and local staff, the Regional GIS/Database Consultant will carry out the following duties:

1. Restoring, rescuing, debugging or replacing failing water resources database systems.
2. Developing and implementing database applications to extract specified datasets and present in a suitable form.
3. Provide instruction in database use and application development.
4. Provide advice on efficient organization of the data handling process.
5. Carry out training and other duties within his/her field of expertise, as directed by the Chief Technical Advisor.

Duty station: To be determined (within the Nile Basin)

## Job description

**Title: Team Leader, Water Use Survey (11 months, when required) – output 2.1**

## Qualifications:

The Team Leader of the Water Use Survey will be an engineers specializing in hydrology and water resources, with a proven track record in irrigation management. Familiarity with rural water uses other than irrigation is most desirable. English language is required, and the ability to communicate in French is an advantage.

## Duties:

Under the general supervision of the Chief Technical Adviser of the project, in close cooperation with the project's international, regional and local staff and with the national correspondents of the Water Use Survey, the Team Leader will carry out the following duties:

1. Work out the Survey implementation methodology and verify its viability and acceptance with all parties concerned.
2. Develop questionnaires, form sheets and guidance material to be used for the Survey, and ensure that all parties concerned internalize the methods and procedures..
3. Organize the Survey, monitor progress and support the work of the national correspondents.
4. Assemble the Survey data, process, evaluate and devise the form of presentation of the results.
5. Produce the Survey report and present the data integrated in tabular, graphical and geographically distributed form.
6. Prepare a paper on the work carried out and the findings, for presentation at an international conference.
7. Carry out training and other duties within his/her field of expertise, as directed by the Chief Technical Advisor.

Duty station: Entebbe (Uganda), with travel within the Nile Basin.

## Job description

**Title: Team Leader, Case Study on Water Productivity (11 months, when required) – output 2.2**

## Qualifications:

The Team Leader of the Case Study on Water Productivity will be an engineers specializing in hydrology and water resources, with a proven track record in irrigation management. Familiarity with rural water uses other than irrigation is most desirable. English language is required, and the ability to communicate in French is an advantage.

## Duties:

Under the general supervision of the Chief Technical Adviser of the project, in close cooperation with the project's international, regional and local staff and with the national correspondents of the Case Study on Water Productivity, the Team Leader will carry out the following duties:

1. Work out the Case Study on Water Productivity implementation methodology and verify its viability and acceptance with all parties concerned, taking into account also the characteristics of the area selected for the Case Study area and the basic information available.
2. Develop questionnaires, form sheets and guidance material to be used for the Case Study, and ensure that all parties concerned internalize the methods and procedures.
3. Organize the Case Study activities, monitor progress and support the work of the national correspondents. Where useful and possible within the time and means available, carry out measurements in the field.
4. Assemble the Case Study data, process, evaluate and devise the form of presentation of the results.
5. Produce the Case Study report and present the data integrated in tabular, graphical and geographically distributed form.
6. Prepare a paper on the work carried out and the findings, for presentation at an international conference.
7. Carry out training and other duties within his/her field of expertise, as directed by the Chief Technical Advisor.

Duty station: Entebbe (Uganda), with travel within the Nile Basin.

## Job description

**Title: Team Leader, Case Study on Integrated Water Resources Management (11 months, when required) – output 2.3**

## Qualifications:

The Team Leader of the Case Study on Integrated Water Resources Management will be an engineer specializing in hydrology and water resources, with a proven track record in irrigation management. Familiarity with rural water uses other than irrigation is most desirable. English language is required, and the ability to communicate in French is an advantage.

## Duties:

Under the general supervision of the Chief Technical Adviser of the project, in close cooperation with the project's international, regional and local staff and with the national correspondents of the Case Study on Integrated Water Resources Management, the Team Leader will carry out the following duties:

1. Work out the Case Study on Integrated Water Resources Management implementation methodology and verify its viability and acceptance with all parties concerned, taking into account also the characteristics of the area selected for the Case Study area and the basic information available.
2. Develop questionnaires, form sheets and guidance material to be used for the Case Study, and ensure that all parties concerned internalize the methods and procedures.
3. Organize the Case Study activities, monitor progress and support the work of the national correspondents. Where useful and possible within the time and means available, carry out measurements in the field.
4. Assemble the Case Study data, process, evaluate and devise the form of presentation of the results.
5. Produce the Case Study report and present the data integrated in tabular, graphical and geographically distributed form.
6. Prepare a paper on the work carried out and the findings, for presentation at an international conference.
7. Carry out training and other duties within his/her field of expertise, as directed by the Chief Technical Advisor.

Duty station: Entebbe (Uganda), with travel within the Nile Basin.

## Job description

**Title: Team Leader, Case Study on Legal Aspects, Conflict Resolution techniques and Confidence Building Mechanisms in Local Water Management (11 months, when required) – output 2.4**

## Qualifications:

The Team Leader of the Case Study on Legal Aspects will be a lawyer or social scientist specializing in conflict resolution with particular regard to conflicts arising from the application of “official” and traditional law to the use of water. Familiarity with rural environment in the Nile Basin is most desirable. English language is required, and the ability to communicate in French is an advantage.

## Duties:

Under the general supervision of the Chief Technical Adviser of the project, in close cooperation with the project’s international, regional and local staff and with the national correspondents of the Case Study on Legal Aspects, the Team Leader will carry out the following duties:

1. Work out the Case Study on Legal Aspects implementation methodology and verify its viability and acceptance with all parties concerned, taking into account also the characteristics of the area selected for the Case Study area and the basic information available.
2. Develop questionnaires, form sheets and guidance material to be used for the Case Study, and ensure that all parties concerned internalize the methods and procedures.
3. Organize the Case Study activities, monitor progress and support the work of the national correspondents. Where useful and possible within the time and means available, carry out measurements in the field.
4. Assemble the Case Study data, process, evaluate and devise the form of presentation of the results.
5. Produce the Case Study report and present the data integrated in tabular, graphical and geographically distributed form.
6. Prepare a paper on the work carried out and the findings, for presentation at an international conference.
7. Carry out training and other duties within his/her field of expertise, as directed by the Chief Technical Advisor.

Duty station: Entebbe (Uganda), with travel within the Nile Basin.

## Job description

**Title: Team Leader, Case Study on Benefit Sharing Scenarios (11 months, when required) – output 2.5**

## Qualifications:

The Team Leader of the Case Study on Benefit Sharing Scenarios will be an engineers specializing in water resources economy, with a proven track record in irrigation management. Familiarity with rural water uses other than irrigation is most desirable. English language is required, and the ability to communicate in French is an advantage.

## Duties:

Under the general supervision of the Chief Technical Adviser of the project, in close cooperation with the project's international, regional and local staff and with the national correspondents of the Case Study on Benefit Sharing Scenarios, the Team Leader will carry out the following duties:

1. Work out the Case Study on Benefit Sharing Scenarios implementation methodology and verify its viability and acceptance with all parties concerned, taking into account also the characteristics of the area selected for the Case Study area and the basic information available.
2. Develop questionnaires, form sheets and guidance material to be used for the Case Study, and ensure that all parties concerned internalize the methods and procedures.
3. Organize the Case Study activities, monitor progress and support the work of the national correspondents. Where useful and possible within the time and means available, carry out measurements in the field.
4. Assemble the Case Study data, process, evaluate and devise the form of presentation of the results.
5. Produce the Case Study report and present the data integrated in tabular, graphical and geographically distributed form.
6. Prepare a paper on the work carried out and the findings, for presentation at an international conference.
7. Carry out training and other duties within his/her field of expertise, as directed by the Chief Technical Advisor.

Duty station: Entebbe (Uganda), with travel within the Nile Basin.

Job description

**Title: Editor (2 months, as and when required)**

Qualifications:

The Editor will have a proven track record in reviewing technical documents related to water resources and casting these into the editorial form required for publication with a good standard. Working language English or French (to be specified).

Duties:

Under the general supervision of the Chief Technical Adviser of the project, and in close cooperation with the project's international, regional and local staff, the Editor will:

1. Revise the language of the text to a good standard.
2. Cast the text into the format required for printing.

Duty station: Work to be carried out at home and delivered via Internet.

Job description

**Title: Translator (4 months, as and when required)**

Qualifications:

The Translator will have a proven track record in translating technical document on water resources from English to French and from French to English.

Duties:

Under the general supervision of the Chief Technical Adviser of the project, and in close cooperation with the project's international, regional and local staff, the Editor will translate the text provided to a good standard.

N.B. Certain documents will be translated into Arabic and Swahili

Duty station: Work to be carried out at home and delivered via Internet.



## Job description

**Title: Administrative/Operations Assistant & Accountant (42 months)**

## Qualifications:

The Administrative/Operations Assistant & Accountant will hold a relevant capacity degree in accounting from a good institute and a proven track record in office management, including financial and personnel management. English language required, the ability to communicate in French is an advantage.

## Duties:

Under the supervision of the Chief Technical Adviser of the project, and in close cooperation with the project's international, regional and local staff, the local FAO Representative Office, the FAO Representative Offices in the other Nile countries, and the backstopping officer at FAO headquarters, the Administrative/Operations Assistant & Accountant will carry out the following duties:

1. Keep the project's accounting up to date according to accepted accounting rules, both at the project office and at the national focal point institutions, and prepare monthly accounting reports.
2. Arrange for procurement and customs clearance of equipment, in consultation, as appropriate, with FAO HQ and FAO Representation offices.
3. Keep track of all project equipment, both at the project office and at the national focal point institutions.
4. Carry out all organizational, logistic, and travel arrangements for national and international project meetings, workshops, training events, and project missions.
5. Supervise use of project vehicles, the petrol and oil inputs, and vehicle maintenance and repair.
6. Supervise the stock of consumables and the availability of reasonable reserves.
7. Arrange for and supervise the maintenance of the project's premises in Entebbe.
8. Carry out other duties within his/her field of competence, as directed by the Chief Technical Adviser.

Duty station: Entebbe (Uganda).

Job description

**Title: Computer Network and Information Specialist (42 months)**

Qualifications:

The Computer Network and Information Specialist will prove through examination his/her ability to manage the project headquarters computer network and communication system.

Duties:

Under the general supervision of the CTA and more specifically of the Administrative/ Operations Assistant & Accountant of the project, the Computer Network and Information Specialist will carry out the following duties:

1. Ensure that the computer network and computer equipment, including printers, scanners and projectors, are maintained in good working conditions.
2. Ensure that software virus and spy-ware protection routines are updated and implemented.
3. Prepare regular back-ups of project files on all office PCs.
4. Assist with the set-up, installation, and operation of computer equipment, as required, for project training events.
5. Supervise and coordinate the systematic database quality control exercise and the ongoing data entry efforts in the participating countries.
6. Coordinate the preparation of regular basin-wide inventories of the national hydro-meteorological databases.
7. Assist in database training activities.
8. Carry out other duties within his/her field of competence, as directed by the Administrative/ Operations Assistant & Accountant.

Duty station: Entebbe (Uganda).

Job description

**Title: Secretary/Receptionist (42 months)**

Qualifications:

The Secretary/Receptionist will prove through examination his/her ability to manage the project headquarters computer network and communication system.

Duties:

Under the supervision of the Administrative/Operations Assistant & Accountant of the project, the Secretary/Receptionist will carry out the following duties:

1. Be available to receive and guide visitors.
2. Carry out typing and photocopying jobs, and assemble documents, as required.
3. Organize and carry out filing of all project documents and correspondence.
4. Ensure timely dispatch of correspondence.
5. Establish telephone connection with project counterparts, partners, and suppliers, as required.
6. Assist in the preparation and conduct of national and regional project training events and meetings.
7. Carry out other duties within his/her field of competence, as directed by the Administrative/Operations Assistant & Accountant.

Duty station: Entebbe (Uganda).

Job description

**Title: Driver (42 months)**

Qualifications:

The Driver should possess a valid driving permit and at least five years proven work experience from a recognized organization.

Duties:

Under the supervision of the Administrative/Operations Assistant & Accountant of the project, the Driver will carry out the following duties:

1. Drive project vehicle to the destinations assigned by the CTA of the project and/or the Administrative/Operations Assistant & Accountant.
2. Take responsibility of maintenance of all project vehicles.
3. Carry out other duties within his/her field of competence, as directed by the Administrative/Operations Assistant & Accountant.

Duty station: Entebbe (Uganda).

## Job description

**Title: Associate Professional Officer (APO) Computer Science and Decision Support Systems**

## General Information:

Title: Computer Science and Decision Support System Specialist  
 Sector: Information Management, Decision Support Tool, Database  
 Location: FAO HQ, Rome, Italy  
 Languages: Working knowledge (Level C) of English and limited knowledge of French  
 Duration: 36 months

## Supervision:

The APO will be under the general supervision of the Chief AGLW and the project CTA, and under the direct supervision of the appropriate technical officers at AGLW.

## Duties:

Under the general supervision of the Chief AGLW and the project CTA, and under the direct supervision of the appropriate technical officers at AGLW, and in close coordination with the DST contractor, the National Modelers, and the Nile DST Taskforce, the APO will:

- Review the system architecture of the various components and modules of the Nile Decision Support Tool (Nile-DST)
- Prepare detailed and illustrated documentation of the system architecture of the Nile-DST
- Assist the Nile-DST Taskforce to assess the functionality of the various components and modules of the Nile Decision Support Tool
- Assist in the recalibration of Nile DST modules for which new data have become available
- Assist in Nile-DST capacity building exercises and in the preparation of associated training material
- Assist in the operation of the Nile-DST internet forum
- Provide a focal point for Nile-DST users regarding Nile-DST system management, maintenance issues, and application
- Carry out other duties within his/her competence as directed by the Chief AGLW or the Chief Technical Advisor

## Qualifications:

- Advanced degree in computer science and system engineering
- Strong background in Relational Database Management Systems and Geographic Information Systems (GIS)
- Good understanding of integrated water resources management
- Knowledge of Visual Basic, Fortran, Arcview, MapObjects and other relevant programming languages
- Fluent in English and knowledge of French
- Excellent verbal and written communication skills

## Job Description

**Title: Associate Professional Officer (APO) Agro-economist**

## General Information:

Title: Agro-economist  
Sector: Water productivity, agricultural water use survey, scenario development  
Location: FAO HQ, Rome, Italy  
Language: Working knowledge (Level C) of English and limited knowledge of French  
Duration: 36 months

## Supervision:

The APO will be under the general supervision of the Chief AGLW and the project CTA, and under the direct supervision of the appropriate technical officers at AGLW.

## Duties:

Under the general supervision of the Chief AGLW and the project CTA, and under the direct supervision of the appropriate technical officers at AGLW, and in close coordination with the appropriate Team Leaders at the project office, the APO will:

- Assist in the development of the methodology and implementation of the basin wide agricultural water use survey, and in the publication of the survey results
- Assist in the development the implementation of the agricultural production case study, and in the preparation of publications and training material associated with the dissemination of the study results
- Assist in the development of benefit sharing scenarios, and in the preparation of associated training and dissemination material
- Carry out other duties within his/her competence as directed by the Chief AGLW or the Chief Technical Advisor

## Qualifications:

- Advanced degree in agricultural economics
- Good understanding of the water productivity concept
- Experience with softwares for dataprocessing & programming
- Fluent in English and knowledge of French
- Excellent verbal and written communication skills

## Job Description

### **Title: Associate Professional Officer Socio-Economic Development**

#### General Information:

Title: APO Socio-Economic Development  
 Sector: IWRM, Rural Livelihoods, Benefit Sharing Scenario Development  
 Location: Entebbe, Uganda  
 Language: Working knowledge (Level C) of English and limited knowledge of French  
 Duration: 36 months

#### Supervision:

The APO will be under the general supervision of the Chief AGLW and under the direct supervision of the project CTA.

#### Duties:

Under the general supervision of the Chief AGLW, and under the direct supervision of the Project CTA, and in close coordination with the appropriate Team Leaders at the project office, the APO will:

- Review the available socio-economic information in the Nile Basin countries from national and international sources, and prepare and update a detailed inventory of socio-economic data and their possible application.
- Assist in the development of GIS data products for informed decisions in water resources management and policy development.
- Organize and manage the compilation of national socio-economic databases for producing the developed GIS data products
- Assist in the design and implementation of Integrated Water Resources Management case study by analysing the link between rural development and rural livelihoods and water resources management in the case study area.
- Assist in the development of the benefit sharing scenarios, and preparation of associated dissemination material
- Assist in the implementation of capacity building activities where appropriate
- Assist in disseminating project results to a broad range of Nile Basin stakeholders
- Carry out other duties within his/her competence as directed by the Chief AGLW or the Chief Technical Advisor

#### Qualifications:

- Post graduate degree in socio-economics or development studies
- Good understanding of rural development and rural livelihood issues
- Experience with softwares for dataprocessing & programming
- Fluent in English and knowledge of French
- Excellent verbal and written communication skills

Terms of reference for the following specialities will be prepared during the course of the project implementation.

National Web/Internet Expertise cst (14 work/month)

National communication cst (13 w/m)

National database exper (output 1.1 & 1.2) (10 w/m)

National GIS exper (output 1.2 & 1.4) (10 w/m)

National Modelers output 1.3 (10 w/m)

National Water User & Produc. expertise (10 w/m)

National IWRM expertise (10 w/m)

National legal expertise (10 w/m)

National scenario expertise (10 w/m)

National expertise case study 4 (10 w/m)



## Annex V: LOGICAL FRAMEWORK MATRIX

Intervention Logic		Indicators of Performance	Means of Verification	Remarks and Assumptions
<b>Immediate Objective 1:</b> Integrated data products used for making informed water resources management decisions				
<b>Output 1.1:</b> Hydrological and hydro-meteorological field data are acquired on a continuous basis, quality controlled, and entered into databases in accordance with regional standards.				
A 1.1.1	Operate and maintain transboundary monitoring network	New data acquired	List of operational stations	Limited financial contribution
A 1.1.2	Establish and operate Internet forum and user groups for network operation	User groups operational and linked through internet forum	Traffic on internet forum	Adequate internet access and language skills
A 1.1.3	Provide training in field data acquisition, data processing and quality control where required	New data processed and included in databases	Inventory of processed data	Based on manuals prepared in previous project
A 1.1.4	Undertake limited extension of monitoring network of transboundary nature, to provide data of immediate use for informed decision making	New stations established and operational	List	
<b>Output 1.2:</b> Data obtained from various national sources and through Internet assessed with regard to quality, reliability and usability, and included in standard databases for current and future use				
A 1.2.1	Undertake a continuous inventory of national and international data to be used for informed decision making	Data sources identified and used	Updated inventory published	
A 1.2.2	Complete the hydro-meteorological database and quality control	Historic data processed and included in databases	Inventory of added historic data	
A 1.2.3	Carry out training in the use of Internet to acquire relevant data and to find solutions to identified problems.	Completed exercises; solutions applied; data used	Program, material and list of trainees	

Intervention Logic		Indicators of Performance	Means of Verification	Assumptions
<b>Output 1.3:</b> Nile Decision Support Tool (Nile-DST) consolidated and internalized				
A 1.3.1	Establish Nile-DST Task Force to ascertain usability of the system, and effectiveness of current hosting arrangements; report	Team established and study conducted	Report published	
A 1.3.2	Identify and involve national academic institutions that could utilize the Nile-DST	Institutions, students, and academicians involved	List and publications and students involved	
A 1.3.3	Complete River Simulation and Reservoir Operation module	New nodes included, DST database updated	List of nodes, inventory of database	Data and facility characteristics available
A 1.3.4	Document source code, including flow charts and block diagrams	Number of documentation lines	Report	
A 1.3.5	Undertake training in Nile DST-methodology and application, in collaboration with the relevant NBI Shared Vision Program	Completed exercises, and trainee studies	Program, material and list of trainees	
<b>Output 1.4:</b> GIS information products integrating physical and socio-economic data are available and used to support policy analysis, decision making, and implementation of case studies				
A 1.4.1	Assess status of GIS equipment and upgrade hardware and software to new requirements	Software and equipment acquired	List	
A 1.4.2	Identify and develop relevant data products as a function of identified case studies	GIS data products developed and produced	List and atlas	Using averaged data, no detailed modeling
A 1.4.3	Produce graphic outputs as required, to illustrate policy analysis, decision making, and case studies	Graphic products produced	List and atlas	
A 1.4.4	Documents the methods used for the production of outputs	Methodology documented	Manual	
A 1.4.5	Undertake training in the assembly and use of GIS tools for relevant applications	Reg. & nat. workshops conducted	Program, material and list of trainees	

Intervention Logic		Indicators of Performance	Means of Verification	Assumptions
<b>Output 1.5:</b> Communication facilities, in particular Internet, are improved, used for data acquisition from Internet sources, and for exchange of raw and integrated data and information among project partners				
A 1.5.1	Assess viable options for improved communication and prepare specifications	Assessment conducted	Report	
A 1.5.2	Procure and establish communication facilities and use for data acquisition, data exchange, and training.	Improved facilities operational	Report	Communication facilities available
<b>Immediate Objective 2:</b> Establish the ability to carry out surveys, case studies, and benefit sharing scenarios				
<b>Output 2.1:</b> A basin-wide survey of current and potential water use and water productivity in irrigated and rainfed agricultural production in support of sustainable rural livelihoods				
A 2.1.1	Organize regional workshop on a survey of rural water use and productivity and establish methodology	Documented methodology	Detailed manual, workshop report	
A 2.1.2	Establish regional team to plan and implement the activities for the study	National surveys produced	National Reports	
A 2.1.3	Integrate and present survey results to various types of stakeholders, using adequate tools	Regional survey produced	Report	
A 2.1.4	Prepare, present and publish report	Publication prepared	Publication and dissemination material	

Intervention Logic		Indicators of Performance	Means of Verification	Assumptions
<b>Output 2.2:</b> Case study on analysis and improvement of water productivity through crop management				
A 2.2.1	Organize regional workshop on the water productivity concept and establish methodology	Documented methodology	Detailed manual, workshop report	
A 2.2.2	Establish regional team to plan and implement the activities and produce the study	National productivity analysis	National reports	
A 2.2.3	Integrate and present survey results to various types of stakeholders, using adequate tools	Regional productivity analysis	Dissemination material and publication	
A 2.2.4	Training workshop on how water productivity can be used in sharing benefits from water use	Material prepared and workshop organized	Program and list of participants	
<b>Output 2.3:</b> Case study on Integrated Water Resources Management				
A 2.3.1	Organize a regional workshop on the IWRM concept and identify case study area, and establish the methodology and work plan for preparation of the case study	Documented methodology	Detailed manual	With focus on sustainable rural livelihoods
A 2.3.2	Establish regional team to implement study, plan and implement activities	Relevant data products and analysis results & causal stories	Atlas and report	
A 2.3.3	Present study results to various types of stakeholders, and prepare report as well as presentation material	Dissemination program implemented and material prepared	Program and list of material	
A 2.3.4	Organize training workshop on how an IWRM frame could be applied to support national policy and for the improvement of the quality of life of rural people	Material prepared and workshop organized	Program and list of participants	

Intervention Logic		Indicators of Performance	Means of Verification	Assumptions
<b>Output 2.4:</b> Case study on legal, institutional and confidence building aspects of water resources management. The study examines closely the questions related to the application of official law, indigenous law and other conflict resolution techniques in local water management				
A 2.4.1	Organize a training workshop on negotiation skills on sharing of trans-boundary resources	Workshop organized	Program and list of participants	
A 2.4.2	Organize a workshop on national and indigenous water law and identification of the case study area	Study area and scope identified	Report	With focus on local water management
A 2.4.3	Prepare a methodology and work plan for preparation of the case study	Documented methodology	Detailed manual	
A 2.4.4	Establish the regional team to implement study, plan and implement activities	Data products and analysis results	Report	
A 2.4.5	Present results of the study and prepare report and material for various categories of stakeholders.	Dissemination program implemented and material prepared	Program and list of material	
<b>Output 2.5:</b> Nile Basin benefit scenarios explored, building on the surveys of water use and productivity, and taking into account the specific understanding of water productivity and IWRM.				
A 2.5.1	Workshop with PSC to present methodology	Workshop organized	Program and list of participants	
A 2.5.2	Develop methodology to develop scenarios, and identify sample scenarios	Documented methodology	Detailed manual	
A 2.5.3	Assemble data and carry out the selected case studies	Documented scenarios	Report	
A 2.5.4	Organize workshop with Nile TAC & COM to present sample	Workshop organized	Program and list of participants	
A 2.5.5	Follow up according to guidance provided by COM; Consolidate scenarios and consolidate report	Documented scenarios	Report	

Intervention Logic		Indicators of Performance	Means of Verification	Assumptions
<b>Immediate Objective 3:</b> Dissemination of information and knowledge				
<b>Output 3.1:</b> Information on all project activities is processed in an adequate way for dissemination and public information.				
A 3.1.1	Create links to stakeholders and civil society and present the results of relevant project activities in the appropriate format	Network created and dissemination material prepared	List of distribution of material	
A 3.1.2	Obtain feedback, consolidate in relevant report, and present to PSC	Documented stakeholder feedback	Report	

## **Annex VI:**

### **Terms of Reference for Project Steering Committee and Tripartite Review**

#### Annex VI-1: Terms of Reference for Project Steering Committee (PSC)

1. The Project Steering Committee shall be comprised of two members nominated by each of the participating countries, two representatives from the Donor, and two representatives from FAO HQ. The Executive Director of the Nile Secretariat will be invited to participate in the PSC meetings as observer. The CTA, who is not a member, will act as secretary to the PSC. The CTA will prepare draft workplans, summary reports, and other project management documents, as required.
2. The PSC, among other responsibilities, directs project implementation, reviews and endorses project workplans, and monitors project progress. The PSC further provides regular advice and recommendation to FAO, as executing agency, on project implementation and all project related matters.
3. The PSC will take responsibility that appropriate mechanisms are in place to ensure close cooperation, coordination, and exchange of project results with other related activities of the NBI program, and vice versa.
4. The PSC will report regularly to the Nile Council of Ministers of Water Affairs (Nile COM) through the Nile Technical Advisory Committee (Nile TAC) on all project matters, including progress, outputs, and coordination issues.
5. The PSC makes recommendations on all project matters to the Tripartite Review.
6. The PSC shall meet annually on a regular basis. Ad hoc PSC meetings will be organized as needed. These extraordinary meetings should, to the largest extent possible, coincide with project regional workshops or other regional meetings in the Nile basin.

#### Annex VI-2: Terms of Reference of Tripartite Review (TPR)

1. The Tripartite Review is composed of three members, as representative from each of the three parties representing: 1) the participating countries, 2) the Donor, and 3) FAO. The Chairman of the PSC shall represent the participating countries.
2. The TPR shall meet annually on a regular basis, back-to-back to a Project Steering Committee meeting.
3. The Tripartite Review has the following responsibilities:
  - to assess project progress on behalf of the three parties, and provide guidance in problem areas;
  - to evaluate project progress and achievements;
  - to decide on fielding project evaluation missions, including mid-term review and end-of-project evaluation;
  - to review, assess, and initiate executive action by FAO based on recommendations of the PSC and the evaluation conclusions of project evaluation missions;
  - to consider, and decide on adjustments in basic project setup and approaches, as necessary.