

KYRGYZ REPUBLIC

**DEPARTMENT FOR WATER RESOURCES AND LAND
IMPROVEMENT**

NATIONAL WATER RESOURCES MANAGEMENT PROJECT – PHASE 1

ENVIRONMENTAL MANAGEMENT FRAMEWORK

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1. INTRODUCTION

This Environmental Management Framework (EMF) has been prepared for the Kyrgyz Republic's proposed **National Water Resources Management Project (NWRMP)-Phase 1 (NWRMP-1)**, which will be financed by the Swiss Agency for Development and Cooperation (SDC) through a Recipient-Executed Trust Fund managed by the World Bank (WB). NWRMP-1 is a technical assistance project which would support implementation of the key principles of water resource management – including environmental and social sustainability – enunciated in the Water Code of the KR. The TA will specifically support: (i) the inventory, categorization, and digitization of water resources data in a Water Information system, which will serve as a basis for project support to the development of a National Water Strategy on water resources and to the preparation of preliminary basin plans; (ii), institutional strengthening of the Department of Water Resources and Land Improvement (DWRLI) to take on the role of the State Water Administration and the secretariat for the National Water Council and the National Policy Dialogue; (iii) developing, modernizing and updating procedures for water and wastewater permits and management, operation and maintenance (MOM) of GOKR-run main (off-farm) irrigation and drainage systems; and (iv) capacity building of Water Users Associations (WUAs). The EMF is intended to ensure that the proposed project incorporates sound environmental management principles and practices and thus complies with the environmental policies and laws of the Government of the Kyrgyz Republic (GOKR), as well as with WB environmental safeguard policies.

The NWRMP-1 will provide technical assistance to Basin Councils to develop 5 preliminary Basin Plans for each designated basin. These plans are defined in the Water Code of the Kyrgyz Republic as a “Plan for the Development, Use and Protection of Water Resources within a specified Principal Basin.” As per the Water Code, the content of the Basin Plans is defined as follows:

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1. Each Basin Plan:

- includes an assessment of the risks of water shortages, drought, flood, pollution and dam failure within the Basin and the costs of preventing, reducing or mitigating of such risks;
- identifies areas in which there are particular risks of diffuse source pollution;
- contains the review of existing protection zones;
- identifies the areas at risk from floods and mud floods and the types of activities that should be prohibited or restricted in such areas.

2. In addition a Basin Plan may:

- include an assessment of the quality and quantity of water resources within the Basin;

- contain an identification of current and anticipated future types and quantities of water use;
- contain an evaluation of the quantity of water available for additional use, if any, taking into account of environmental requirements and any obligations under international law;
- identify a need in water for ecological and human needs;
- assess investment and financing requirements together with the identification of possible funding sources;
- set up priorities for water use and possible restrictions for water use among different sectors of economy;
- identify the places where it is necessary to construct of bank protection dams on maintenance of agricultural lands and provide planting of forestry protection plants;
- identify areas where gravel and other materials may be extracted from rivers.

Environmental objectives of the river basins plans are not clearly defined under the Water Code, and therefore, under Phase-1 Basin Plans will be considered preliminary, as it is likely that more information and data on environmental aspects will need to be collected in order to have a meaningful assessment and incorporation of these aspects in the final plans. In addition, the NWRMP-1 will engage in a discussion with government on clarifying the relevant environmental aspects and objectives of the Water Code.

SDC is committed to finance technical assistance to the water sector until end 2019, with a long-term vision of support to and development of the capacity for integrated water resources management. The NWRMP-1 would cover the first phase of these investments, with a focus on building sustainable national institutions and strengthening water management at three levels: (i) at the basin level through transitioning from administrative to basin boundaries for water resources and irrigation systems management, and the establishment of the Water Information System, as specified in the Water Code; (ii) at irrigation system level through enhancing service delivery to water users and improving the performance of individual systems, particularly from the technical and financial perspectives, and (iii) at farm level through interventions to strengthen the capacity of WUAs in irrigation system MOM and farmers' understanding, knowledge and skills in water management and crop production. The detail of the second phase of the program will be formulated during the last 2 years of this project. It will include continued support to the institutional and organizational reforms initiated under Phase 1, continued development of the water resources management information systems and further support to developing the preliminary Basin Plans developed in Phase 1 to more complete Basin Plans, including environmental information, in Phase 2. Continued support will also be required in relation to irrigation system MOM, with measures developed and tested on the advanced/model I&D systems being expanded to other systems in the country.

1.1 Background: The World Bank has a long history of financing projects in the water management and irrigation sector in the Kyrgyz Republic. More than a decade ago, the

Irrigation Rehabilitation Project (IRP, 1998-2005) undertook rehabilitation of off-farm irrigation infrastructure serving about 270,000 ha as well as four dams commanding over 400,000 ha. The IRP was then followed by the **On-Farm Irrigation Project** (OIP-1, 2003-2008) and the **Second On-Farm Irrigation Project** and its Additional Financing (OIP-2 AF, closing December 2015), which support the formation and institutionalization of Water User Associations (WUAs) and Federations of WUAs (FWUAs) and rehabilitation of on-farm irrigation and drainage systems of well-performing WUAs. In August 2006 the **Water Management Improvement Project** (WMIP, 2006-2013) began implementation with one of the objectives of supporting the GOKR in operationalizing the Water Code, through strengthening the water resources management capability within the Department of Water Resources (DWRLI). The WMIP is part of a broader World Bank-financed portfolio in the water resources sector. This now includes the **Agriculture Productivity and Nutrition Improvement Project** (APNIP, starting in 2013), which provides financing for investments both in infrastructure and institutional development.

Environmental conditions in the Kyrgyz Republic and World Bank engagement in the water resources sector over the last decade and a half have raised GOKR awareness with respect to questions of environmental sustainability and impacts of climate change. In fact, in its proposal for the APNIP, the GOKR explicitly recognized the importance of environmental sustainability and climate change adaptation to the country's sustainable economic development, improved water resources management and increased agricultural production. This EMF will help integrate these environmental sustainability and climate change considerations in the various technical assistance activities to be financed by the **NWRMP**.

1.2 Objective

This EMF is designed to ensure that sustainable environmental management principles and practices are integral part of the technical assistance to be financed by the **NWRMP-1** (see details in project description below). The EMF aims to establish a process to implement key principles of environmental sustainability in water resource management, identify and assess potential environmental and social impacts and incorporate measures that ensure compliance with both GOKR and IDA safeguards and maximize environmental benefits. Specifically, under the NWRMP-1 financed preliminary basin plans, protection of aquatic ecosystems will be an objective.

1.3 World Bank Safeguard Policies

The Integrated Safeguards Data Sheets (ISDS) prepared for the **NWRMP-1** classified the technical assistance project as Category "B", triggering the WB safeguard policy for environmental assessment.

Environmental Assessment (OP 4.01). The potential environmental impacts resulting from the technical assistance activities (e.g. for the preparation of the National Water Strategy, institutional strengthening, basin planning, update of the procedures for MOM and irrigation service delivery, etc.) in the NWRMP-1 trigger this safeguard policy. Potential impacts are anticipated to be positive rather than negative in nature and any potential adverse impacts will be prevented or reduced through appropriate screening procedures and technical assistance. This EMF ensures that principles and approaches of environmental and social sustainability are applied in the process of implementation of the technical assistance to satisfy this safeguard policy.

2. POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

2.1 Policy Context

The national environmental policy of the Kyrgyz Republic is articulated in a number of national strategies and action plans adopted in the 1990s. The best statement of national environmental policy objectives is the **National Environmental Action Plan (NEAP)**, which was adopted in 1995. Taking a long-term perspective, the NEAP recognizes that the country's primary objectives are to ensure sustainable economic growth and reduce poverty but emphasizes that environmental protection is both a tool and a condition for achieving these long-term economic goals. To this end, the NEAP contains objectives for improving management of renewable and non-renewable natural resources and protecting public health. Among the actions planned to achieve these objectives are investments into water and sanitation infrastructure and support for rural natural resource-based activities in order to achieve economic development while conserving the natural resource base. Other policy documents containing national environmental policy objectives are the **Strategy for Sustainable Human Development**, approved by Presidential Decree in 1996, and the **Ecological Safety Concept** prepared subsequently by the then Ministry of Environmental Protection. Taken together, these documents identify the following environmental objectives of relevance to **NWRMP**:

- Using water resources efficiently and economically;
- Protecting arable lands from degradation; and
- Improving the environmental monitoring system.

2.2 Legal/Regulatory Framework for Environmental Assessment/Management

The **Constitution** of the Kyrgyz Republic, adopted in 2010, contains provisions addressing environmental protection and management of the country's natural resources. Article 12, for example, provides that the lands, air, waters, and forests are the unique property of the Kyrgyz Republic and are used to preserve a unified ecological systems as the basis for life and the

activities of the Kyrgyzstan's people and that these are granted special protection by the State. The **Constitution** further recognizes the right of every Kyrgyz citizen to a favorable and healthy environment and to compensation for damage to health and property caused by misuse of natural resources. This right is accompanied by the duty of each citizen to use the environment and natural resources of the country with care in order to protect these resources for the generations to come.

Pursuant to these constitutional provisions, the Kyrgyz Republic has adopted a solid legal framework for environmental management. The principal environmental laws and codes of relevance to **NWRMP** are the **Water Code**, adopted in 2005 (with amendments of 2010), the **Law on Environmental Protection**, enacted in 1999, and the **Law on Ecological Expertise**, also adopted in 1999. A brief description of these principal environmental measures and their relevance to the **NWRMP** follows.

Water Code The promulgation of the **Water Code** in 2005 marked a significant change in the country's policy and institutional framework with respect to management of water resources. The new **Water Code** established the basin approach as the overriding principle of water resources management (WRM) in the country for the first time. It established the national institutional framework for WRM, determining the duties and responsibilities of state bodies, reforming some of the existing state bodies and creating some new state institutions. Among the duties and responsibilities it specifies are:

- monitoring of water resources (both quantity and quality);
- protection of water resources from pollution and depletion;
- economic mechanisms for water use;
- regulation of abstraction and use of surface and groundwater, oversight of water exploitation;
- regulation of economic activities that involve water resources, such as irrigation;
- regulation of water supply contracts;
- management of emergency situations and dam safety issues; and
- international cooperation on water resources.

The Water Code specifies that the management of water resources is based on the following principles:

- Participatory Principle – All interested stakeholders should participate in planning and decision-making processes;
- Sustainability Principle – Decision making on the use and protection of water resources should take into account the needs of both present and future generations;

- Principle of the Economic Value of Water Resources – The economic value of water resources should be taken into account in the planning, decision making and realization of activity on the use and protection of water resources;
- The Polluter Pays Principle – A person who pollutes water resources should be responsible for paying for the damage done to the natural environment;
- The Precautionary Principle - The absence of full scientific information must not be used as a reason for postponing or failing to take effective action where there are risks of serious harm to water resources, the environment or human life;
- Principles of real guarantees – Real guarantees are provided that respect the rights of water users and their legal defense;
- Principle of Openness – Information on the condition and use of water bodies and water resources should be accessible to the public.

Environmental considerations are covered under each of these principles, but are further specified in the Water Code, most notably on the issue of determining ecological flows as well as the establishment of protection zones. The Water Code (Chapter 9, Article 64), specifically mentions that water resources management and planning should maintain the minimum ecological flow:

“On the basis of a joint proposal from the authorized State Environmental Protection Body¹ and the State Water Administration the Government of the Kyrgyz Republic specifies minimum ecological flow requirements for specified rivers and water bodies that are necessary to maintain the health of fish stocks and aquatic ecosystems.”

Chapter 9 of the Code has an extensive section on the protection of water resources from pollution and depletion, whereas Chapter 10 provide details on various types of environmental protection zones which should be established. Most notably, it is specified throughout the Water Code that the basin plans should include the ecological flow and protection zones in the water resources planning. The different type of protection zones relevant to water resources include the following: (i) Zones of Sanitary Protection (around potable water abstraction and supply points); (ii) Zones of Stock Formation (upstream river reaches serving as fish spawning areas; (iii) Groundwater Protection Zones; (iv) General Water Protection Zones, where polluting industries cannot discharge to water bodies; and (v) Zones of emergency ecological situations and ecological disasters, as declared by the Prime Minister.

In its list of protection zones, the Water Code does not make explicit mention of the protection of aquatic ecosystems other than zones of stock formation. Therefore, as part of the NWRMP-1

¹ Currently named the State Agency for Environment Protection and Forestry

this issue will be reviewed in the preparation of preliminary basin plans, and as part of the broader discussion on the Water Code, the project will engage in a discussion with government on clarifying the relevant environmental aspects and objectives of the Water Code in order to ensure that all elements of environmental management and the protection of aquatic ecosystems are taken into account.

The Water Code also stipulated that a State Water Inspectorate for detecting violations and enforcing water legislation and a Single Water Information System for disseminating public information on water resources management issues is to be established. This inspectorate currently has been established under the general State Inspectorate Agency, and will be a main beneficiary of the Water Information System developed under the project.

The **Law on Environmental Protection** is the fundamental law governing environmental protection and management of natural resources. This law establishes the country's basic principles of environmental protection and provides the legal authority for setting standards of environmental quality, designating specially protected areas, promulgating rules and procedures for use of natural resources, establishing a system of environmental monitoring and control and setting procedures for handling emergency situations. Among the norms and standards of environmental quality authorized under the law are the following of relevance to the **NWRMP-1**:

- Norms of maximum safe concentrations of hazardous substances in air, water, soil and subsoil;
- Norms of maximum safe use of chemicals in agriculture;
- Standards on natural resource use; and
- Norms of maximum safe levels of noise, vibration and other hazardous physical impacts.

Finally, the law establishes requirements for the environmental examination (environmental assessment) of planned economic and other activities in order to prevent possible harmful environmental impacts. Furthermore, it prohibits financing and implementing projects associated with use of natural resources without positive conclusions of the State environmental examination.

The **Law on Ecological Expertise** is the basic legislation dealing with environmental assessment. Its goals are to prevent negative impacts on human health and the environment from economic and other activities and to assure compliance of such activities with the country's ecological requirements. The law applies broadly to "development projects" that may have an impact on the environment.

Under the law the initiator of a project is responsible for submitting the necessary documentation on the project and its ecological impacts for State Ecological Expertise (SEE). Review of the

documentation submitted for SEE is performed by an expert commission established by the State Agency for Environment Protection and Forestry (SAEPF) for that purpose. A positive statement of state ecological expertise is required before the project can be financed or implemented. A negative statement prohibits the project from being implemented. The details of the requirements for the SEE process are set out in the **Instructions for Ecological Expertise** promulgated in 1997.

2.3 Institutional Framework for Environmental Management

A number of state institutions share environmental management responsibilities in the Kyrgyz Republic. The primary state institution, now called the **State Agency for Environment Protection and Forestry (SAEPF)**, has the general mandate to implement the **Laws on Environmental Protection and Ecological Expertise** mentioned above. Its responsibilities include setting national environmental policy, promulgating environmental quality norms and standards, designating specially protected areas, establishing an environmental monitoring network, and conducting ecological expertise reviews of development projects and economic activities. Responsibility for management of water resources rests with the **Department of Water Resources and Land Improvement (DWRLI)** which primary responsibility for managing the country's water resources. Table 1 below provides an overview of these primary institutions with responsibilities relevant to the **NWRMP**.

Table 1: Primary State Environmental Institutions

Institution	Relevant Responsibilities
State Agency for Environment Protection and Forestry (SAEPF)	Management of environmental protection activities; Monitoring of the state of the environment in general and the water bodies in particular; Reviewing Ecological Expertise of diverse projects; Monitoring wastes from economic activities.
Department of Water Resources and Land Improvement (DWRLI), future SWA.	Development of necessary off-farm infrastructure for use of water for irrigation purposes; Operating and maintaining the off-farm irrigation infrastructure; Assisting the water users in organizing into WUAs; Training WUAs in operating and maintaining the infrastructure they manage.
State Agency for Environment Protection and Forestry and the State Water Administration	Develop proposals for minimum ecological flow requirements for specified rivers and water bodies that are necessary to maintain the health of fish stocks and aquatic ecosystems.

Institution	Relevant Responsibilities
GOKR	Specify minimum ecological flow requirements.

3. DESCRIPTION OF PROJECT

3.1 Project Objective

The proposed Project Development Objective for the **NWRMP-1** is to improve water resources management capability and irrigation service delivery for the benefit of water users and the nation as a whole.

3.2 NWRMP-1, Environmental Sustainability, and Climate Change

The proposed Project will support GOKR in implementing principles of environmental sustainability as outlined in the Water Code (Chapter 1, Article 6). At the initial stage of the technical assistance project, the NWRMP-1 will support the DWRLI in establishing the Water Information System based on the current available data, and will support a collaborative effort of the DWRLI/SWA and the State Environmental Protection Body to develop a methodology for determining the measures for the protection of aquatic ecosystems and the minimum ecological flow, identify data and knowledge gaps, and areas for priority funding for data collection and analysis which could be funded under Phase 2. The NWRMP-1 will also develop with the SWA and BWA the methodology for basin planning, taking account environmentally sustainable basin water management (ecological flows and environmental protection zones as per the Water Code, Chapter 10, Articles 65-70), based on the available data and knowledge, and develop preliminary basin plans for the river basins in Kyrgyzstan. Data collection requirements will be analyzed in order to standardize baseline data sets necessary for basin level water resource management. This will include a review of the current methodology for assessing flows and protection zones within basin plans, and providing recommendations for incremental improvements. Based on the outcomes of the NWRMP-1, additional data on environmental issues and more advanced planning can be incorporated in the second phase of the NWRMP, which would be scheduled for the years 2017-2020.

Capacity assessment of key actors (i.e. State Environmental Protection Body and the State Water Administration the Government of the Kyrgyz Republic) will be undertaken at the early stages to identify gaps and develop institutional strengthening programs on both environmental and social sustainability aspects to be implemented at the later stages of the NWRMP.

With regard to Climate Change and adaptation theme the NWRMP-1: (a) will make sure that the climate change projections from the GOKR communications to the UNPCC are considered in basin plans, (b) will review to what extent CC projections can be downscaled and used in

hydrologic modeling of the river basins; and (c) will support establishment of a robust information system on water resource management and climate open to various stakeholders active in adaptation theme.

3.3 Project Components

The NWRMP-1 will finance technical assistance to various GOKR institutions in the water sector until 2020 with a focus on management of water resources in the irrigation and drainage sub-sector, which accounts for 90 percent of water use in the Kyrgyz Republic. The project will have four components:

- **Component 1:** Strengthening national water management capacity and implementation of the Water Code. This component will strengthen the capacity of the Water Resources Management Division of the DWRLI for water resources planning and management and for implementing key elements of the Water Code, including: (i) preparation of basin water plans; (ii) development of a National Water Strategy on water resources; (iii) developing and implementing procedures for water and wastewater permits; (iv) strengthen the secretariat for the National Water Council, the main GOKR body to provide policy oversight; and (v) strengthen the secretariat for the National Policy Dialogue as the main platform of GOKR and development partners for coordinating externally-financed water sector projects.
- **Component 2:** Improving irrigation service delivery. This component focuses on improving the management, operation and maintenance (MOM) of GOKR-run main (off-farm) irrigation and drainage systems, through modernizing and updating the procedures for identification, costing and implementation of system maintenance, and modernization of MOM procedures. Six main systems covering a total of approximately 60,000 ha will be selected on a pilot basis in order to implement advanced MOM planning and procedures centered on performance-based management of the IDM division of the DWRLI, working in partnership with WUAs and other water users' organizations.
- **Component 3:** Supporting water users' organizations. This component focuses on further strengthening of WUAs, FWUAs and other water users' organizations, including Basin Water Councils and the National Union of WUAs. Approximately 460 WUAs were initially established under the OIP-1, and an additional 21 WUAs were established and further supported under the OIP-2 and its AF, while the establishment and strengthening of a selected set of FWUAs was supported under the WMIP.
- **Component 4:** Project management. This component will provide the technical assistance, capacity building and day-to-day management, including administration, coordination of the project, procurement, financial management and monitoring and evaluation in line with the procedures of the World Bank. The DWRLI will be the

implementing agency of the project, and the PIU currently managing the OIP-2 and its AF will be expanded to manage the OIP-2, the APNIP and the proposed project.

The technical assistance project will be implemented nationwide, covering all river basins, government-run off-farm irrigation systems and WUAs, with localized initiatives to test and develop specific processes and procedures.

4. INTEGRATION OF ENVIRONMENTAL AND SOCIAL ASPECTS IN TECHNICAL ASSISTANCE ACTIVITIES

The NWRMP-1 is primarily a technical assistance project which will finance the establishment of a Water Information System and technical assistance to start the transition to integrated water management, first with the DWR/SWA, and in the follow-up Phase 2 with other institutional stakeholders. This is a long-term endeavor, which in the initial stage of NWRMP-1 will focus on improving existing work processes based on the available data and knowledge, to be followed by additional data collection and analysis, and further capacity building in Phase 2, implemented after NWRMP-1. Although any potential environmental and social impacts from the technical assistance financed by the **NWRMP-1** are expected to be positive rather than negative, the project will support integration of environmental and social sustainability aspects into the technical assistance activities.

4.1 The Process of Integration of Environmental and Social Aspects

To ensure that technical assistance activities financed under the **NWRMP-1** reflect sound principles of environmental management and social sustainability, the project would aim to integrate - to maximum extent possible - principles and approaches towards environmental and social sustainability into formulation of the technical assistance TORs, tasks of the multi-disciplinary working groups and expert teams, work of specialists and representatives of local authorities and community representatives broadly. For this purpose, the Project Implementation Unit (PIU) within the DWRLI will contract environmental/social expertise in order to ensure these environmental and social sustainability aspects are integrated. The process will have two stages. During the first stage, the TORs for specific TA tasks will be reviewed and, if necessary, modified to ensure their compliance with principles of environmental sustainability (Water Code of Kyrgyz Republic, Chapter 1, Article 6), minimum ecological flow requirements (Water Code of Kyrgyz Republic, Chapter 9, Article 64), pollution prevention (Chapter 9) and protection zones (Chapter 10). In addition to ensure social sustainability, the TORs will also be reviewed to ensure they comply with the Water Code's Participatory Principle to ensure all interested stakeholders will have the opportunity participate in planning and decision-making processes. In case of non-compliance with above principles, the TORs will have to be revised. Later on the draft TA outputs (strategies, plans, regulations, and recommendations) will be reviewed and, if

needed, revised to ensure that the above integration of environmental and social sustainability aspect has in fact been done effectively.

The same review process will be applied to the preliminary basin plans and the National Water Strategy. Draft plans and the National Water Strategy will also be assessed to ensure they have undertaken adequate participation and consultation with communities in accordance with the Water Code's participatory principle. Implementation of investments identified in preliminary basin plans is not supported under this project, and therefore the basin plans will explicitly mention any additional data and analysis on environmental aspects which are required before basin plans are finalized and before proceeding with any specific investment planning.

5. CAPACITY BUILDING FOR ENVIRONMENTAL SCREENING, ASSESSMENT AND MANAGEMENT

The **NWRMP-1** will provide national and international expertise to deliver capacity building and training to PIU management and staff and DWRLI field staff to build capacity for effective environmental management under the project, including environmental screening, assessment, and mitigation of potential negative impacts that may result from implementation of TA (recommendations, action plans, investment programs, etc.). Such capacity building will cover environmental policy and regulations, and participatory training on the specific environmental issues and mitigation measures identified by the screening. Technical assistance specifically will be provided to the DWRLI/SWA and the State Agency for Environment Protection and Forestry on the methodology for determining minimum ecological flows and identification and demarcation of protection zones.

6. MONITORING AND EVALUATION OF ENVIRONMENTAL MANAGEMENT

Just as the Monitoring and Evaluation (M&E) Unit will monitor implementation of **NWRMP-1** activities, it also will assume responsibility for monitoring compliance with environmental screening requirements and implementation of any recommendations for technical assistance activities. Furthermore, the M&E Unit will periodically monitor specified indicators of environmental impacts of the **NWRMP-1**. This environmental monitoring will be incorporated into the overall **NWRMP-1** monitoring plan required as part of project performance by the World Bank. The results of such monitoring will be recorded and reported in the PIU's bi-annual progress reports to the Bank and will be reviewed by Bank supervision missions.

7. DISCLOSURE AND CONSULTATIONS

Disclosure and consultation procedures will apply to planning documents as defined in the Water Code, which are the basin plans and the national water strategy, which outline options for water

allocation and detail pre-investment planning. For these documents, two public consultations will be organized: first - at the start of drafting basin plan/national water strategy in order make an inventory of potential environmental issues of public interest which should be taken into account, and a second consultation on the draft basin plan and on the national water strategy in order to assess to what extent these interest have been adequately addressed.

Also, the draft EMF will be published prior to project appraisal for comments and consultation, to be incorporated in a final EMF which also will be published.

8. IMPLEMENTATION ARRANGEMENTS

Implementation of the EMF will be done by the PIU established within the Department of Water Resources. The PIU has overall responsibility for implementation of the **NWRMP-1** and will ensure that the EMF is fully integrated into implementation of the project. In order to ensure integration of potential environmental and social sustainability aspects into the expected project outputs, the PIU will contract environmental and social expertise to undertake (i) reviewing TORs and draft TA outputs with regard to their compliance with principles of environmental and social sustainability; (ii) review of basin plans and the national water strategy for compliance with environmental and social aspects; and (ii) deliver target support and training to the DWRLI and State Body for Environmental Protection on methodologies for determining minimum ecological flows. The PIU on behalf of the DWRLI will be responsible to conduct the screening process, disclosure of documents, training and other activities related to maximizing environmental benefits of the project.