Background

As a result of lack of investment, conflict and drought during the last decades, and the very rapid urban growth in recent years, the water supply service in Afghan cities is of very poor quality. Only Kabul (more than three million people) and 13 towns with populations ranging from 1,000,000 to 50,000 have piped water supply systems serving a total of only about 60,000 connections, of which 35,000 in Kabul. Even if the concerted efforts of the Government and the support of several donors have resulted in improvements since 2002, the task ahead is daunting. Current access to piped water infrastructure is among the lowest in the world at around 18%, and because of poor operation and maintenance (O&M) the water service reaches an even lower share of the population. A vast majority of urban dwellers draw small quantities of water from generally unsafe boreholes and open wells, springs or streams. According to the National Risk and Vulnerability Assessment (NRVA) which surveyed about 6,000 households in urban areas in 2005, sources of supply can be broken down as follows: handpumps: 42%; open wells: 34%; piped water: 18%; and springs and surface water: 6%.

A sewerage system serves few apartment complexes in Kabul and covers less than 2% of its population, but wastewater is only partially treated before being discharged off in the Kabul River. Septic tanks and vault latrines are not emptied regularly because of lack of suction trucks; as a result, septage spills over in drains. The vast majority of households rely on pit latrines. A rapidly declining share of the night soil produced is used by farmers. Intermittence of the piped service, inadequate water treatment and contamination of groundwater result in a precarious sanitary situation. Large quantities of solid waste are not collected and often pile up in streets. There is no specific facility to handle hazardous/medical waste.

The Central Authority for Water Supply and Sewerage (CAWSS) under the Ministry of Urban Development and Housing (MUDH) is responsible for the piped water supply and sewerage (WSS) service. CAWSS is a centralized authority, but due to communication difficulties with provincial towns during the period of conflict, its regional operations have acquired a certain degree of autonomy. There is no clear jurisdiction over point water supplies and on-site sanitation and several functional gaps and overlaps exist between CAWSS, and municipalities; the latter usually handle solid waste collection and on-site sanitation through local Department of Sanitation (DOS). Current institutional arrangements do not allow for a clear separation of policy, supervisory and operational roles.

In 2005, CAWSS employed about 700 staff, of which 400 in Kabul. However, because CAWSS salaries cannot compare with that offered by NGOs and the private sector, qualified managers and staff can neither be retained nor be attracted. CAWSS operational, commercial and financial performance is still very poor and most of its branches, including Kabul are not able to cover more than 25% of operations and maintenance (O&M) costs from sales revenues. A tariff increase was recently approved, but collections still remain very low, partly due to the inadequacy of the service provided; however, recent household surveys showed that users would be willing to pay for water service, which often ranked
as their top priority. Under the Afghanistan Reconstruction Trust Fund (ARTF) funded WSS project, a Financial Support to Operations (FSO) was put in place in mid-2005 to help CAWSS complement its collection of user charges to meet current O&M expenditures, allow payment of salaries and energy bills on a more regular basis, and improve overall operational and commercial performance.

The Government is considering urban WSS as a top priority and indeed it is the largest component of the Urban National Priority Program. MUDH has prepared a Short-Term Program (STP - 2005-07) and is finalizing a Medium-Term Program (MTP - 2007-11) to channel efforts by donors who support the sector. The urban WSS sector has also been identified as a priority in the Interim Afghanistan National Development Strategy (I-ANDS) of January 2006 presented at the London Donor conference of February 2006; in particular as part of its effort to meet the Millennium Development Goals (MDG), the Government envisages that 50% of households in Kabul and 30% of households in major urban centers will have access to piped water by 2010. In 2003-2005, a total of about US$50 million have already been invested in the urban WSS sector, mostly financed by the German Development Bank (KfW), IDA and USAID for emergency rehabilitation projects. Despite a difficult working environment, encouraging results are being achieved in Kabul and 12 provincial towns; also, implementation capacities have been built both in MUDH and CAWSS.

In late 2005 and early 2006, the Government took major steps on the policy and institutional fronts with the announcement of its Urban WSS Sector Policy, Urban WSS Sector Institutional Development Plan and the Presidential Decree to corporatize CAWSS. According to the Sector Policy, the Government’s vision for the urban WSS reads: “The urban water supply and sanitation sector shall be reformed and developed to improve the quality of life in all urban communities. By ensuring an equitable provision of potable water and wastewater services at an affordable cost and on a sustainable basis, poverty will be reduced, health generally improved and economic development promoted”.

**Purpose of the Environmental and Social Management Framework (ESMF)**

This environmental and social management framework (ESMF) has been developed for the project to effectively address environmental and social opportunities and concerns. A framework approach has been chosen because, although project interventions have been well-defined, there are uncertainties given the overall post-conflict operational context in Afghanistan, which requires substantial flexibility during implementation. The ESMF builds upon the generic safeguard framework developed for emergency operations in Afghanistan and used for all emergency operations. The ESMF prescribes specific mitigation and enhancement measures to address the social and environmental aspects of project interventions. In addition, safeguards screening guidelines have been provided for possible subsequent variations in project interventions or possible additional investments.

**Project Objectives**

The proposed project objectives will be to initiate actions to: (i) transform CAWSS into a technically viable operation; (ii) establish the financial sustainability of the Afghan Urban Water Supply and Sanitation Company (AUWSSC - CAWSS’ successor); (iii) increase access to and reliability of the water supply service in Kabul; and (iv) prepare a follow-up project under which more substantial institutional and financial objectives could be achieved and coverage further expanded in Kabul and provincial towns.
Project Description

To achieve these objectives, the proposed project will include three main components: (i) institutional development of AUWSSC; (ii) financial support to AUWSSC operations; and (iii) an extension of the Kabul water supply system. The proposed project will be financed in parallel by the German Development Bank KfW, while the German Development Agency GTZ will continue providing technical assistance to AUWSSC.

(i). Institutional Development of AUWSSC.

The project will support the corporatization of CAWSS that the Government is committed to complete by end 2006. During the interim period covered by the project (2007-09), water supply operations will be run by decentralized units of AUWSSC. Each decentralized units will enter into a memorandum of understanding with AUWSSC headquarters to specify the service standards to be achieved by the unit and the financial assistance to be provided by AUWSSC to complement operating revenue and develop infrastructure. The project will also finance various consultancies, audits and training. Consultancies will include (i) specialized support to AUWSSC for procurement, accounting, financial management, commercial activities, social and environmental management and human resources management; (ii) social surveys, tariff and services to the poor studies, consultation and communication; and (iii) technical studies, detailed design and bidding documents for future projects in Kabul (water and wastewater) and other urban centers, including possible future Public-Private Partnerships. Support to MUDH to develop its Urban Water Supply and Environmental Sanitation Department and carry out its policy and regulatory roles is provided under the ARTF financed project until end 2008.

(ii). Financial Support to AUWSSC Operations

The financial support to be provided to AUWSSC operations has been estimated on the basis of commercial and financial data that have started being generated by the ongoing ARTF supported project, realistic targets for key performance indicators and reasonable adjustments of user charges. Between 2007 and 2009, AUWSSC will be entitled to claim the reimbursement of a declining percentage of its operating expenses, within agreed limits, and the reimbursement of salaries and bonuses paid to its management staff, also within agreed limits. External auditors will regularly confirm that expenses are eligible for reimbursement. A review, and if necessary a revision, of the amount and conditions of the financial support to AUWSSC will take place after 6 months of operation, when more reliable operating data are available.

(iii). Extension of the Kabul Water Supply System

The project will support the development of the first phase of the Logar II scheme, identified as a priority in a KfW-financed feasibility study of the expansion of the Kabul water supply system (January 2004). The same scheme had been appraised by IDA in 1978 but its implementation was stopped by the Soviet invasion in 1979. The Logar II project is expected to increase the number of connections from 33,000 in 2005 (serving 0.5 million people or 14 percent of the total population of 3.5 million) to about 70,000 in 2010 (serving 1.1 million people or 24 percent of a total population of 4.5 million). The scheme includes the development and equipment of a well field in the Logar aquifer located South of Kabul, the construction of a transmission line to a main reservoir and the construction of distribution network in a part of the city that is currently not served by CAWSS. IDA will finance the supply and laying of pipes for the production, transmission and distribution facilities and the installation of about 15,000 new connections and meters. KfW will finance the project in parallel and contribute to the drilling of boreholes, the supply and installation of electric and pumping equipment and construction of the reservoir; KfW has confirmed its financial commitment. The KfW-financed engineering consultant responsible for the preparation of detailed designs and bidding documents and for construction
supervision is already in place. Contractors are expected to mobilize early in July 2007 and all construction to be completed by end 2009. The improvement of sanitation in Kabul is the subject of other IDA and ARTF projects under implementation or preparation.

Safeguard issues and applicability of Bank policies

Environmental Assessment

Operational Policy 4.01 “Environmental Assessment” is triggered. Environmental impacts have been identified and addressed in the Environmental Assessments (EA) and Environmental Management Plans (EMP) which were carried out as part of the feasibility studies for the expansion of the Kabul water supply system (funded by KfW) and about 22 provincial towns (funded by IDA and ARTF). Issues of wastewater disposal and treatment have been analyzed under the IDA-funded Strategic Sanitation Plan and Sewerage/Drainage Master Plan for Kabul and the Sanitation Strategy for provincial cities. They will be addressed under the proposed FY07 Urban Waste Management Project (for on-site sanitation) and a possible FY08/09 second Urban Water Sector project (for sewerage). The proposed project will improve existing arrangements for water treatment, water quality monitoring, and importantly the establishment of groundwater protection zones to ensure sustainability of the resource. Issues of security of access to bulk water, inter-sectoral water allocation, conjunctive use of ground and surface water are being addressed through the strategic study on long-term WSS issues for Kabul and follow-up activities in Kabul and other regions.

Social assessment

Social assessment and socio-economic surveys were carried out under ongoing WSS projects as part of the feasibility studies for WSS system expansion. In addition, a qualitative assessment of past experiences in community involvement in WSS in Kabul and other larger cities, e.g. by UN-Habitat, will be carried out, along with a review of the experiences among NGOs/INGOs and UN agencies of WSS-related health-hygiene campaign. Particular attention will be paid to the potential for women’s employment, e.g. as attendants at water kiosks, as well as other jobs related to public water supply and sanitation.

The components of the project will benefit households in general by providing increased level of services including water, sanitation health awareness training. While women and children are not specifically targeted, they will be the primary beneficiaries of the interventions in water and sanitation in terms of health gains (the under-5 mortality rate is currently 25%) and reduced workload in water collection. The realization of these benefits will be ensured through the provision of health education as part of the water and sanitation interventions.

Involuntary Resettlement

Operational Policy 4.12 is triggered. Although no resettlement issues are expected, there will be a need for limited land acquisition for the new pumping station and reservoir envisaged as part of the Logar II sub-project. Furthermore, maintenance of the right-of-way for the transmission line to the reservoir will also require land acquisition as the alignment will cut across a hill which is rapidly turning into a residential area. A survey is being conducted to document and clarify the status of the land involved and to determine the number of people affected.

An abbreviated Resettlement Framework (see Attachment 3(i) of the ESMF) has been developed containing policies and procedures for restoring housing and compensating for loss of land and livelihood of project affected families in a consultative and mutually agreeable manner, compliant with OP 4.12. Private voluntary donations will be documented as required by the Framework, as will compensation
payments made by the community. For government land, documentation will be required that the land is free of encroachments, squatters or other encumbrances, and has been transferred for the project by the authorities. A satisfactory and policy compliant settlement of the land issues is a precondition for project implementation.

No activities will be supported that require involuntary land acquisition or the acquisition of land requiring the resettlement or compensation of more than 200 people. Consequently, no Resettlement Action Plan will be required for the proposed project.

**Cultural Property**

OPN 11.03 is triggered. The proposed project is unlikely to pose a risk of damaging cultural property. The Safeguards Framework includes a negative list that precludes any activity that would significantly damage nonreplicable cultural properties. The framework also includes guidelines for chance-finds of cultural property, so that appropriate procedures are followed.

**Indigenous Peoples**

OP 4.10 is not triggered. There are no groups classified as Indigenous Peoples in Afghanistan and through the planned follow-on social assessments, the project will explore how to ensure greater social equity in outreach through community participation and involvement of women in planning and service delivery.

**Projects on International Waterways**

OP 7.50 is not triggered because the project only supports investments for abstraction of water from locally confined ground water aquifers and hence will not have any measurable impact on international waters.

**Environmental and Social Management Framework (ESMF)**

11. Socio-economic and Environmental Assessments have been completed as part of feasibility studies during project preparation. The ESMF for this project (see additional details in Attachment 1) builds upon the generic safeguard framework developed for emergency operations in Afghanistan and used for all emergency operations, including the ongoing ARTF Urban Water Supply and Sanitation Project with MUDH (see Box below). In addition, the ESMF contains the following guidelines:

- A negative list of characteristics that would make a proposed component ineligible for support, as indicated in Attachment 2;
- Guidelines for resettlement, land and asset acquisition, entitlements, compensation, presented in Attachment 3;
- An Environmental Management Action Plan for project interventions, provided in Attachment 4.
- Procedures for the protection of cultural property, including the chance discovery of archaeological artifacts, and unrecorded graveyards and burial sites, provided in Attachment 5.
- Procedures for Mine Risk Management in Attachment 6
- Codes of Practice for Prevention and Mitigation of Water Quality-related Environmental and Public Health Impacts, in Attachment 7
- Format for a Limited Environmental and Social Assessment (LESA), in Attachment 8
- Generic Terms of Reference for full Environmental and Social Assessments (Attachments 9 and 10)
• A Framework for multi-purpose water resources development of the Upper Kabul River basin for the perspective of Kabul Water Supply (Attachment 11)

**Box: Basic Safeguard Framework for Emergency Operations in Afghanistan**

It is acknowledged that currently social and environmental management in Afghanistan is suffering from critical capacity constraints. Since there is potential for adverse impacts, albeit limited, on the environment due to the proposed activities under emergency operations, their mitigation and management is key to wholesome rehabilitation and development of neighborhoods. Hence, keeping in view the existing social and environmental management capacity, as well as the flexibility required with investments still to be finalized, a framework approach is adopted for emergency operations. It allows the early identification of potential adverse impacts, without the requirement of rigorous analysis through quantification, and also provides broad guidance for their effective mitigation. Consistent with existing national legislation, the objective of the Framework is to help ensure that activities under the project will:

- Protect human health;
- Prevent or compensate any loss of livelihood;
- Prevent environmental degradation as a result of either individual subprojects or their cumulative effects;
- Enhance positive environmental and social outcomes; and,
- Ensure compliance with World Bank safeguard policies.

Recognizing the emergency nature of proposed reconstruction operations, and the related need for providing assistance, while at the same time ensuring due diligence in managing potential environmental and social risks, this Framework is based on the following principles:

- The proposed operations will support multiple subprojects, the detailed designs of which may not be known at appraisal. To ensure the effective application of the World Bank’s safeguard policies, the Framework provides guidance on the approach to be taken during implementation for the selection and design of subprojects, and the planning of mitigation measures;
- All proposed investments will be screened to ensure that the environmental and social risks can be adequately addressed through the application of standardized guidelines;
- Project design and subproject selection will aim to maintain regional balance, and equity between genders, and ethnic and religious groups, considering variations in population density. Employment opportunities within the projects will be available on an equal basis to all, on the basis of professional competence, irrespective of gender, or ethnic or religious group. In all projects which require consultations with local communities or beneficiaries, gender-separated consultations will be conducted to elicit the views of the female population, along with that of the male population; and,
- Consultation and disclosure requirements will be simplified to meet the special needs of these operations. Prior to approval by the World Bank Board, this Environmental and Social Safeguards Framework will be disclosed in Afghanistan in Dari and Pashto, and in the World Bank Infoshop.

**Safeguard Screening**

Although project interventions are reasonably well-defined, there may be variations or additional investments (for well drilling, pumping stations, water treatment facilities, and distribution networks) that require safeguard screening during the project. In this case, the following approach that has been adopted for similar World Bank financed projects in Afghanistan will be used.
The selection, design, contracting, monitoring and evaluation of any subprojects identified later will need to be screened and assessed for environmental and social impacts according to the guidelines contained in the ESMF.

The sub-projects will be screened according to the following criteria to determine if (i) they are ineligible, or (ii) need no additional assessment, or, (iii) need a Limited Environmental and Social Assessment (LESA), or (iv) need full environmental and social assessments. All LESAs and Full Environmental and Social Assessments have to be cleared by the World Bank before implementation of civil works is initiated.

<table>
<thead>
<tr>
<th>Approach</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ineligible</td>
<td>Sub-projects that have characteristics indicated in the negative list (see Attachment 2 of the ESMF)</td>
</tr>
<tr>
<td>No Additional Assessment</td>
<td>Sub-projects which supply less than 500 households and not in the negative list</td>
</tr>
<tr>
<td>Limited Environmental and Social Assessment (LESA) – see Attachment 8 of the ESMF</td>
<td>Sub-projects that supply over 500 households and less than 2000 households and not in the negative list</td>
</tr>
<tr>
<td>Full Environmental Assessment (EIA) and Full Social Assessment – see Attachment 9 &amp; 10 of the ESMF</td>
<td>Sub-projects that supply over 2000 households and not in the negative list</td>
</tr>
</tbody>
</table>

**Responsibilities for Safeguard Screening and Mitigation**

MUDH will have overall monitoring responsibility through its Water Supply and Environmental Sanitation Department. A designated Safeguards Nodal Officer will be identified within AUWSSC with responsibility for overseeing the implementation of the Environmental and Social Safeguards Framework and Management Plan. The KfW-funded Consultant firm that implements the project investment components will have primary responsibility as per the terms of their Contract to ensure adequate social and environmental mitigation and management during design, construction and operation, as shown below:

<table>
<thead>
<tr>
<th>Project Component</th>
<th>Responsibilities for implementation of the safeguards framework</th>
<th>Responsibilities for oversight/monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investments in Kabul</td>
<td>AUWSSC + Consultant</td>
<td>MUDH (WSES Dept.)</td>
</tr>
<tr>
<td>Financial support to AUWSSC</td>
<td>AUWSSC + Consultant</td>
<td>MUDH (WSES Dept.)</td>
</tr>
<tr>
<td>Technical assistance</td>
<td>AUWSSC + Consultant</td>
<td>MUDH (WSES Dept.)</td>
</tr>
</tbody>
</table>

**Capacity Building**

As part of the social and environmental capacity building that will be provided for implementation of IDA-financed operations in Afghanistan, the Safeguards Focal Officer and relevant staff of MUDH, AUWSSC and Consultants will receive training in the application of the Safeguard
Framework. Specialist training modules may be considered after an acceptable level of base knowledge has been established. The capacity building activity will be implemented under the training component of the project and also through a separate Technical Assistance program for Social and Environmental management implemented by the newly created National Environmental Protection Agency (NEPA). During supervision of the project, the World Bank will assess the implementation of the Framework, and if required, will recommend additional strengthening.

Through the implementation process, NGOs will facilitate community mobilization and participation in UWSS activities as well as undertake an extensive health hygiene campaign to increase the benefits of improved water supply and sanitation. Awareness campaigns will be funded by KfW.

**Awareness Raising and Facilitation of Inter-Agency Collaboration**

These activities will include: (i) Environmental awareness improvement (effective use of media, internet, public forums, consultations, newsletters, messages with billing, etc.); (ii) Improving critical inter-agency collaboration; (iii) Provide support to develop and implement an effective Grievance Redressal and communication strategy on environmental and social aspects (including reporting), (iv) Training on Environmental and Social Issues and preparation of detailed codes of practice. In addition, the studies component of the project will cover: (i) the preparation of contract clauses under future PPP and other contracts to ensure effective management of environmental and social issues; (ii) an assessment of issues of long-term sustainability of water supplies for Kabul (issues, threats, opportunities, action plan), and (iii) environmental and social assessments as part of planning and preparation studies.

**Participation Framework**

Participation is a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them. This process will be carried out through the different stages of proposed project i.e. selection of investments, planning, implementation and monitoring for which a strategy will be prepared (by the consultants implementing the project components, notably urban upgrading, as part of inception reports), with the following objectives:

- Understand existing modes of participation to improve the effectiveness of stakeholder participation. Collaborate with government to identify appropriate stakeholders. Recognize customs, beliefs, attitudes and constraints related to participation are gender-specific and stem from the fact that men and women play different roles, have different needs, and face different constraints on a number of different levels.

- Develop a strategy for involving stakeholders as participants and monitoring and evaluating participation and outcomes that involves both quantitative and qualitative tracking of indicators over the life of the project which is done with the direct involvement of the communities whose participation is being monitored.

During the process of consultations with local communities, separate arrangements shall be made to ensure participation by and consultation with women, as they can not be expected to be covered through the general community consultations.
Consultation and Disclosure

The Project’s Environmental and Social Safeguards Framework was developed on the basis of an overall Framework for World Bank-funded reconstruction operations which was prepared in consultation with the principal NGOs and development partners participating in reconstruction activities in Afghanistan. Prior to approval of the project by the World Bank Board, it will be disclosed by the Government in both Dari and Pashto, as well as English, and it will also be made available at the World Bank’s Infoshop.

The project will support feasibility studies for future large urban infrastructure schemes, for which World Bank safeguard policies relating to consultation and disclosure will apply, if they are financed by IDA. In particular, for environmental Category A and B investments (as defined in World Bank Operational Policy 4.01, Environmental Assessment) proposed for future operations, the implementing agency will consult project-affected groups and local non-governmental organizations about the project's environmental and social aspects, and will take their views into account. The executing agency will initiate such consultations as early as possible, and for meaningful consultations, will provide relevant material in a timely manner prior to consultation, in a form and language that are understandable and accessible to the groups being consulted.
Attachment 1

Details of ESMF Mitigation and Enhancement Measures

This section provides additional details (see Table ES1 below for summary) for procedures and guidelines for implementation of ESMF mitigation and enhancement measures.

ENVIRONMENTAL ISSUES

Aquifer Protection

A critical need is to ensure sustainability of the water supplies for Kabul, both for water quality and quantity. This would require a concerted effort to protect the current lifeline aquifers for Kabul, which could remain the cheapest source of water supply for Kabul in any scenario of supply options.

These would entail initiating a zoning for aquifer protection. The environmental assessment has indicated areas that need to be considered as part of aquifer protection zones (see figure below). These areas need to have special consideration, especially in the future, to minimize the chances of irreversible aquifer contamination.
Enforcing zoning for aquifer protection would be difficult for such large areas of Kabul, but it is essential to move seriously in this direction to ensure sustainability of the resource base. This could be facilitated by the following activities that would be supported by the project:

- **Demarcation of Aquifer Protection Zones:** marking the aquifer regions with signboards and maps on ground and improving local awareness and communication with key development approving agencies
- **Annual Aquifer Audit:** This would include a periodic audit of the State of Kabul’s Water Sources that would document the existing situation in the aquifer protection zones, the monitoring of land-use changes, identification of threats, and evolution of a management strategy to address these (e.g. IPM/IPNM for agricultural areas; inform industrial siting/compliance management, waste/effluent management, conflict management, recharge, etc.). This report would be discussed annually in a multi-sectoral workshop for follow-up in collaboration with other agencies. Additional studies would be commissioned as required.

- **Informing siting of new development:** A critical issue is the regulation of new potentially harmful developments. NEPA, MMI, Kabul Municipality and other agencies that would have a say in this regard should help develop strategies to regulate potentially harmful development (e.g. industries/industrial parks with liquid or solid hazardous waste generation and disposal, landfills, etc.) in the aquifer protection zones that could negatively impact the quality and sustainability of the aquifer system. In addition, regional developments (e.g. the new copper mining potential at Aynak and other similar activities upstream in the Logar) should also be examined carefully and adequate protection plans put in place to mitigate any impacts on these aquifers.

### Water Resources and Sustainable Yield

As part of the environment assessment, the sustainable yield of Kabul’s major aquifers was determined. The assessment took into consideration:

- an assessment of groundwater hydraulics carried out in 2003 as part of the feasibility study, and
- earlier studies including: (i) large-scale groundwater explorations by the Soviets in 1962/63, (ii) investigations by the German Water Economy Group from 1964 to 1972 that included hydro-geological investigations and a geo-electrical survey, (iii) a comprehensive study on the principal aquifers of Kabul carried out in the seventies by Proctor & Redfern International Ltd. of Canada, (iv) studies by the UN Food and Agriculture Organisation (FAO)

The potential of the local aquifers has been determined as follows:

<table>
<thead>
<tr>
<th>Aquifer</th>
<th>Potential [Mm³/year]</th>
<th>Installed Pump Capacity [m³/day]</th>
<th>Additional Pump Capacity [m³/day]</th>
<th>Number of additional wells</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Kabul R.</td>
<td>16</td>
<td>24,000</td>
<td>~ 20,000</td>
<td>8 at 2,500 m³/day</td>
</tr>
<tr>
<td>Logar R.</td>
<td>25</td>
<td>43,000</td>
<td>~ 25,000</td>
<td>8 at 3,500 m³/day</td>
</tr>
<tr>
<td>Paghman R.</td>
<td>&lt;6</td>
<td>~ 19,000</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Lower Kabul R.</td>
<td>&lt;6</td>
<td>~ 15,000</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>&lt;53</td>
<td>101,000</td>
<td>~ 45,000</td>
<td>16</td>
</tr>
</tbody>
</table>

*Note: “day” is average day at 20h pumping time*

According to the environment assessment, the Upper Kabul River aquifer (UKRA) and the Logar River aquifer are the only aquifers with a potential for extension of the already existing wellfields. The Lower Kabul river aquifer (LOKRA) has limits both in quantity and quality parameters; the Paghman river aquifer has a high storage capacity but very limited recharge because of the small catchment area of
the river. Its capacity needs to be downgraded. Possibilities to extend the UKRA exist mainly south of the Allaudin weels, preferably on the left bank of the Kabul River. The Logar aquifer has the potential to sustain a substantial additional number of wells. Future well drilling should concentrate on the left bank of the Logar River to the East and West of the village of Shewaki, i.e. the former investigation zone II. Small-scale geophysical investigations and test drilling are required in both aquifers before final well siting. Further consideration of artificial recharge of the aquifers should be based on experience with the operation of existing and future wells and must be compatible with overall basin development (see Attachment 11).

Water Quality and Public Health

During the environmental assessment as part of the feasibility study, water quality in the proposed well fields was tested. The German Federal Institute for Geo-Sciences and Natural Resources carried out the groundwater survey of the Kabul aquifers. They analyzed water from many shallow wells, and from 9 of CAWSS’s deep wells. Except for a slightly elevated concentration of Borondioxide, which is not hazardous to man, only one well (OY3) has shown a significant exceedance of the WHO limit of 50mg/l nitrate. It has been suggested that this water be mixed prior to distribution.

<table>
<thead>
<tr>
<th>Nr</th>
<th>Location</th>
<th>WFK n°</th>
<th>BO2 mg/l</th>
<th>NO3 mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>216</td>
<td>Allaudin pu st AL01</td>
<td>3.36</td>
<td>30.3</td>
<td></td>
</tr>
<tr>
<td>217</td>
<td>Soviet Embassy AL03</td>
<td>3.58</td>
<td>22.5</td>
<td></td>
</tr>
<tr>
<td>218</td>
<td>Elmufarnang Dekmazang OY03</td>
<td>3.33</td>
<td>80.1</td>
<td></td>
</tr>
<tr>
<td>227</td>
<td>District 5, Khoshal Khan Mena KM01</td>
<td>1.48</td>
<td>40.2</td>
<td></td>
</tr>
<tr>
<td>228</td>
<td>District 5, Fazil Big Afshar Well #9 AF09</td>
<td>0.28</td>
<td>13.7</td>
<td></td>
</tr>
<tr>
<td>229</td>
<td>District 5 Fazil BigAfshar Well #8 AF08</td>
<td>0.36</td>
<td>11.7</td>
<td></td>
</tr>
<tr>
<td>230</td>
<td>District 13 Sharak Safa Afshar Well# 5 AF05</td>
<td>0.44</td>
<td>13.5</td>
<td></td>
</tr>
<tr>
<td>232</td>
<td>Bagrame Village Logar Wellfield We # 3 LG03</td>
<td>3.7</td>
<td>8.6</td>
<td></td>
</tr>
<tr>
<td>233</td>
<td>Bagrame Village Logar Wellfield We # 10 LG10</td>
<td>5.29</td>
<td>12.5</td>
<td></td>
</tr>
</tbody>
</table>

Monitoring of water quality

The water quality will be monitored on a periodical basis to ensure that any threats to public health are identified in a timely manner. At a minimum, this will include:

1) Testing water quality at source bore-wells and reservoir (daily for pH, weekly for bacteriological plate counts and nitrates, monthly for BOD, COD, annually for complete chemical analysis, including for toxic metals and pesticides)
2) Testing for a sample of households (100 representative households every six months for residual chlorine, bacteriological plate counts, and pH)

This information will be collected and analyzed using standard sampling and analysis protocols, with proper labeling and logging of information. The information will be computerized, compared with past data and trends and reported to the CAWSS/AUWSSC, MUDH and Kabul Municipality. Appropriate mitigation measures (e.g. switching/blending sources, additional treatment, public advisories, etc.) will be undertaken as required by the water quality results. Based on the first few months of operation, standard operating protocols would be developed with technical assistance from this project.
Appropriate mechanisms for communication of these reports (at periodic intervals and during crises) to the general public will also be evolved during project implementation.

Additional codes of practice for prevention and mitigation of water quality-related public health impacts are provided in Attachment 7 of the ESMF.

Construction-related impacts

27. There are a number of construction-related environmental and social impacts that need to be considered as part of the UWSS project. These include, among others, the issues of:

- Resettlement & Rehabilitation
- Silt disposal
- Excavated area/Borrow area rehabilitation
- Labor camp environment
- Contract clauses for chance finds (cultural property)
- Mining (UXO) protection

28. In order to minimize the potential adverse impacts of construction, standard bidding documents will have the following environmental precautionary clauses:

- The natural landscape should be preserved to the extent possible by conducting operations in a manner that will prevent unnecessary destruction or scarring of natural surroundings. Except where required for permanent works, quarries, borrow pits, staging and processing areas, dumps, and camps, all trees, saplings, and shrubbery should be protected from unnecessary damage by project related activities. After unavoidable damage and to restore quasi-original conditions were appropriate;

- Contractor's operations should be so performed as to prevent accidental spillage of contaminants, debris, or other pollutants, especially into streams or underground water resources. Such pollutants include untreated sewage and sanitary waste, tailings, petroleum products, chemical, biocides, mineral salts, and thermal pollution;

- Wastewater, including those from aggregate processing and concrete batching, must not enter streams without settling ponds, grade I filters, or other process, so as not to impair water quality or harm aquatic life;

- The contractor should ensure proper disposal of waste materials and rubbish. If disposal by burial or fire, it should not cause negative impact to either the air, soil nor ground water supplies;

- The contractor should minimize air and water pollution emissions. Dust from the handling or transporting of aggregates, cement, etc., should be minimized by sprinkling or other methods. Materials, brush or trees should only be burned when the owners permits, under favorable weather conditions;

- The contractor's facilities, such as warehouse, labor camps, and storage areas, should be planned in advance to decide what the area will look like upon completion of construction. These facilities should be located so as to preserve the natural environment (such as trees and other vegetation) to the maximum extent possible;

- After project construction, camps and building should either serve as permanent residences and form future communities, if such use can be foreseen and approved, or be torn down and the area restored to its quasi-original condition in order to avoid deterioration into shanty towns;
• Borrow pits should be landscaped and planted accordingly to an ecological design to provide some substitute area for lost natural landscapes and habitats.

A detailed Environmental Management Action Plan listing the environmental issues and the specific mitigation measures for addressing them at the pre-construction, construction and operations stages of the project interventions is provided in Attachment 4 of the ESMF.

**Cultural Property**

Specific guidelines and procedures for protection of chance finds of cultural significance will be followed, as provided in Attachment 5 of the ESMF. In addition, the negative list (Attachment 2 of the ESMF) prohibits activities that will destroy non-replicable cultural property at the sites mentioned therein.

**Mine Hazards**

Specific procedures have been designed to respond to the risk caused by the presence of mines in Afghanistan. These procedures, presented in Attachment 6 of the ESMF, will be followed during the course of all construction activities funded by the project.

**SOCIAL ISSUES**

**Land Acquisition**

All physical investments must conform to the Guidelines for land and asset acquisition, entitlements and compensation, which are detailed in Attachment 3 of the ESMF. Proposals that require more than minor expansion, along rights of way, demolishing houses or acquiring productive land should be carefully reviewed to minimize or avoid their impacts through alternative alignments. No land or asset acquisition may take place outside of these guidelines. An Abbreviated Resettlement Framework defining rules and procedures is attached as Attachment 3(i) and a format for Land Acquisition Assessment is attached as Attachment 3(ii) of the ESMF.

These guidelines provide principles and instructions to compensate affected persons to ensure that all such persons negatively affected, regardless of their land tenure/tenancy status, will be assisted to improve, or at least to restore, their living standards, income earning or production capacity to pre-project levels.

**Community Management of Informal Services**

It will be many years before Kabul and other large towns will be covered by formal provision of services in the WSS sector. The alternative is community management of informal service provision which needs to be officially acknowledged and the potential for community participation strengthened to ensure greater involvement of and responsiveness to local demand and to ensure better downward accountability, particularly in face of local-level corruption. Furthermore, government institutions need to increase their capacity to work with civil society organizations and to coordinate and regulate initiatives by non-governmental actors.
Explorative work and Pilots are required to develop an inclusive and community managed system of supply and maintenance of public water sources (stand pipes, wells and water takers) in areas which will not be covered by the domestic connections for the foreseeable future. Experiences from Mazar indicate that community management functions best when the community contracts specific work functions or services out to individuals. Specialized intermediation may be required to facilitate the formation of effective user groups in the urban context, where individual connections are not affordable and shared connections, or public wells or tanker service, are provided instead.

Another important set of intermediary services relates to customer awareness and education. While beneficiary consultation is mandatory, it may be necessary to involve NGO facilitation in the consultation and information of the urban customers to ensure that they are fully aware of what arrangements are being made on their behalf, what types of services they will have access to, and what kind of assistance they can request – and what are their options and need for organizing themselves in effective user groups.

Gender

Piped water is not available on a 24-hour basis anywhere in Afghanistan, and both in rural and urban areas women and children play a major role in collecting and storing water for domestic use. The cooking and cleaning of the household are almost entirely female chores across all wealth groups, and so is child care and training of children in personal hygiene.

The health indicators for Afghanistan are among the worst in the world, with under-five mortality around 25%. The prevalence of water-borne diseases is high, and seven out of nine of the most common diseases are related to poor water quality and sanitation, plus poor personal hygiene practices. Hygiene education is thus needed to ensure that people get the full benefits that improved water supply and sanitation offer. It is already common to find NGOs providing education and awareness building in the rural and urban water supply sector.

Women and girls are key actors in water and sanitation activities, both as ‘water handlers’, consumers and as the main ‘hygiene instructors’ of the households. This fact needs to be fully realized and incorporated in any water and sanitation strategy which aims at introducing behavioral changes and improved health as an outcome of increased supply and access to water and sanitation services.

Due to the social and cultural restrictions put on women’s mobility and participation in public life, community consultations regarding water supply and sanitation need to be conducted with men and women separately, and the same applies to face-to-face instruction in health education. Exploratory work and Pilots need to be conducted to develop models for women’s active involvement in community managed public water sources (public stand pipes, public wells), which could possibly offer income opportunities for vulnerable households (e.g. very poor, disabled, widows).
Table ES1: Summary ESMF for Project Interventions

<table>
<thead>
<tr>
<th>Investments</th>
<th>Environmental and Social Issues (Opportunities/Risks)</th>
<th>Mitigation/Enhancement Measures and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investments in Kabul under a first investment phase (STP) financed by ARTF and KfW:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>① Drilling of 17 new wells in the Upper Kabul River (UKR) Logar wellfields, access and fencing</td>
<td>③ Sustainability of groundwater resources (quantity and quality)</td>
<td>① Monitor and manage extraction, water quality, and explore ways to enhance recharge</td>
</tr>
<tr>
<td>② Upper Kabul wellfield, collector</td>
<td>④ Land acquisition</td>
<td>③ Identification and improved management of groundwater protection zones</td>
</tr>
<tr>
<td>③ ME-Equipment wells, suction tank and pumping station of UKR well field (extension of Allaudin pumping station)</td>
<td>⑤ Construction-related impacts (construction camps, excavation area/soil disposal, borrow area management, choice of construction materials, local construction-related environmental impacts, chance finds – cultural property, mine hazards)</td>
<td>③ Implement land acquisition guidelines</td>
</tr>
<tr>
<td>④ ME-Equipment Bagrami pumping station (extension of Bagrami pumping station)</td>
<td>⑥ Water quality and public health</td>
<td>③ Adequate environmental management of construction camps, rehabilitation of excavation and borrow areas, safe disposal of soil and debris, use of local construction materials wherever possible, protection of cultural property, mine safety measures, etc.</td>
</tr>
<tr>
<td>⑤ Replacement of trunk main Allaudin to reservoir A and rehabilitation works at reservoir A</td>
<td></td>
<td>① Ensure treatment (chlorination) of water supply to ensure safe water at tap.</td>
</tr>
<tr>
<td>⑥ Replacement of part of trunk main Bagrami to reservoir O and rehabilitation works at reservoir O</td>
<td></td>
<td></td>
</tr>
<tr>
<td>⑦ Construction of trunk main Allaudin to reservoir F and minor modifications at reservoir F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>⑧ Distribution networks Deh Naw, Parwan 3, Khosal Mena</td>
<td></td>
<td></td>
</tr>
<tr>
<td>⑨ Distribution networks at extension at Rahman Mena</td>
<td></td>
<td></td>
</tr>
<tr>
<td>⑩ Kabul Utility’s HQ</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>In addition, a second investment phase (MTP/I), financed by IDA and KfW will include:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>① Logar II wellfield, collector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>② ME-Equipment wells, suction tank and pumping station Logar II, incl. stand-by power</td>
<td></td>
<td></td>
</tr>
<tr>
<td>③ Construction of trunk main Logar II to reservoir E in Wazi Akbar Khan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>④ Construction of reservoir E on Bibi Mehro Hill in Wazi Akbar Khan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>⑤ Distribution networks in service are reservoir E (Wazir Akbar Khan, Shar-e-Naw, Wazir Abad, Teomany etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>⑥ Remaining distribution networks in service area reservoir A (Karte Char, Jamal Mena, Dabory)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Institutional Development and Technical Assistance</strong></td>
<td><strong>Environmental and Social Issues (Opportunities and Risks)</strong></td>
<td><strong>Mitigation/Enhancement Measures and Responsibilities (see ESMF for details)</strong></td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>-----------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Technical assistance including</td>
<td>③ Capacity building of AUWSSC to adequately manage</td>
<td>③ Monitoring of water quality</td>
</tr>
<tr>
<td>(i) institutional and operational support to the</td>
<td>environmental and social aspects (including appropriate</td>
<td>　○ Water quality testing, analysis, reporting and dissemination</td>
</tr>
<tr>
<td>Company before and after its establishment,</td>
<td>staff skills, information management, institutional</td>
<td>　○ Groundwater protection (with MMI)</td>
</tr>
<tr>
<td>(ii) engineering support for the implementation of</td>
<td>arrangements, accountability, mainstreaming environmental</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>investments financed under the project,</td>
<td>and social aspects in planning, design, operations,</td>
<td>③ Awareness raising and facilitation of inter-agency collaboration</td>
</tr>
<tr>
<td>(iii) preparation of future Public-Private Partnerships (PPP), and</td>
<td>monitoring, etc.)</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>(iv) technical support for the preparation of future</td>
<td>③ Public awareness on environmental and social aspects</td>
<td>③ Contract clauses to ensure effective management of environmental and</td>
</tr>
<tr>
<td>investments in the sector, including bulk water</td>
<td>③ Grievance redressal and communication strategy for</td>
<td>social issues in PPPs</td>
</tr>
<tr>
<td>supply and sewerage for Kabul</td>
<td>AUWSSC on environmental and social aspects</td>
<td>③ Study for long-term sustainability of water supplies for Kabul</td>
</tr>
<tr>
<td></td>
<td>③ Ensuring accountability on environmental and social</td>
<td>(issues, threats, opportunities, action plan)</td>
</tr>
<tr>
<td></td>
<td>issues in PPP arrangements</td>
<td>③ Environmental and social assessments as part of planning and</td>
</tr>
<tr>
<td></td>
<td>③ Uncertainty on long-term sustainable water supply</td>
<td>preparation studies</td>
</tr>
<tr>
<td></td>
<td>source possibilities for Kabul city</td>
<td></td>
</tr>
<tr>
<td></td>
<td>③ Adequate consideration of environmental and social</td>
<td></td>
</tr>
<tr>
<td></td>
<td>issues in water supply and sewerage planning and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>preparation studies</td>
<td></td>
</tr>
</tbody>
</table>
### Attachment 2

#### Negative List of Subproject Attributes

Subprojects with any of the attributes listed below will be ineligible for support under the proposed project.

<table>
<thead>
<tr>
<th>Attributes of Ineligible Subprojects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involves the significant conversion or degradation of critical natural habitats. Including, but not limited to, any activity within:</td>
</tr>
<tr>
<td>- Ab-i-Estada Waterfowl Sanctuary;</td>
</tr>
<tr>
<td>- Ajar Valley (Proposed) Wildlife Reserve;</td>
</tr>
<tr>
<td>- Dashte-Nawar Waterfowl Sanctuary;</td>
</tr>
<tr>
<td>- Pamir-Buzurg (Proposed) Wildlife Sanctuary;</td>
</tr>
<tr>
<td>- Bande Amir National Park;</td>
</tr>
<tr>
<td>- Kole Hashmat Khan (Proposed) Waterfowl Sanctuary.</td>
</tr>
</tbody>
</table>

| Will significantly damage non-replicable cultural property, including but not limited to any activities that affect the following sites: |
| - monuments of Herat (including the Friday Mosque, ceramic tile workshop, Musallah complex, Fifth Minaret, Gawhar Shah mausoleum, mausoleum of Ali Sher Navaii, and the Shah Zadehah mausoleum complex); |
| - monuments of Bamiyan Valley (including Fuladi, Kakrak, Shar-I Ghulghular and Shahr-i Zuhak); |
| - archaeological site of Ai Khanum; |
| - site and monuments of Ghazni; |
| - minaret of Jam; |
| - mosque of Haji Piyada/Nu Gunbad, Balkh province; |
| - stupa and monastery of Guldarra; |
| - site and monuments of Lashkar-i Bazar, Bost; |
| - archaeological site of Surkh Kotal. |

| Requires pesticides that fall in WHO classes IA, IB, or II. |

| Requires involuntary acquisition of land, or the resettlement or compensation of more than 200 people. |
Attachment 3

Guidelines for Land and Asset Acquisition, Entitlements and Compensation

I. Objectives

Proposals that require more than minor expansion, along rights of way, demolishing houses or acquiring productive land should be carefully reviewed to minimize or avoid their impacts through alternative alignments. No land or asset acquisition may take place outside of these guidelines. An Abbreviated Resettlement Framework defining rules and procedures is attached as Attachment 3(i) and a format for Land Acquisition Assessment is attached as Attachment 3(ii).

These guidelines provide principles and instructions to compensate affected persons to ensure that all such persons negatively affected, regardless of their land tenure/tenancy status, will be assisted to improve, or at least to restore, their living standards, income earning or production capacity to pre-project levels.

II. Eligibility

Project Affected Persons (PAPs) are identified as persons whose livelihood is directly or indirectly affected by the project. PAPs deemed eligible for compensation are:

1. those who have formal legal rights to land, water resources or structures/buildings, including recognized customary and traditional rights;
2. those who do not have such formal legal rights but have a claim to usufruct right rooted in customary law;
3. those whose claim to land and water resources or building/structures do not fall within (1) and (2) above, are eligible to assistance to restore their livelihood.

Acquisition of Productive Assets and Compensation

PAPs are eligible for replacement costs for lost assets as described below:

a. Voluntary contributions. In accordance with traditional practices, individuals may elect to voluntarily contribute land or assets and/or relocate temporarily or permanently from their land without compensation.

b. Contributions against compensation. A contributor/asset loser considered "affected" will be eligible for compensation from the local community or alternatively from the Government. A PAP shall lodge his/her claim for compensation to the local community representatives/shura head and it shall be verified by the implementing agency. The claim shall be lodged within 2 weeks of completion of the consultations with the concerned community, and before project implementation begins.

Voluntary contribution, or contribution against compensation, should be documented. The documentation should specify that the land is free of any squatters, encroachers or other claims. A format
is attached in Attachment 3(ii), which includes a Schedule to be followed to assess any compensation claimed and the agreement reached.

III. Compensation Principles

The project implementing agencies shall ensure that any of the following means of compensation are provided in a timely manner to affected persons:

(1) Project affected persons losing access to a portion of their land or other productive assets with the remaining assets being economically viable are entitled to compensation at replacement cost for that portion of land or assets lost to them. Compensation for the lost assets will be according to following principles:

a. replacement land with an equally productive plot, cash or other equivalent productive assets;

b. materials and assistance to fully replace solid structures that will be demolished;

c. replacement of damaged or lost crops and trees, at market value;

d. other acceptable in-kind compensation;

e. in case of cash compensation, the delivery of compensation should be made in public, i.e. at the Community Meeting.

(2) Project affected persons losing access to a portion of their land or other economic assets rendering the remainder economically non-viable, will have the options of compensation for the entire asset by provision of alternative land, cash or equivalent productive asset, according to the principles in (1) a-d above.

(3) Owners, whose lands are affected by land trespassing rights for trunk pipeline alignment, will as an "easement" receive a one-time payment to compensate for the inconvenience amounting to 5% of the current value of the affected land area.

Consultation Process

The implementing agencies will ensure that all occupants of land and owners of assets located in a proposed subproject area are consulted. There will be gender-separate community meetings for each affected mantiqqa/gozar (urban infrastructure) or village (other projects) to inform the local population about their rights to compensation and options available in accordance with these Guidelines. The Minutes of the community meetings shall reflect the discussions held, agreements reached, and include details of the agreement, based on the format provided in Attachment 3(iii).

The implementing agency shall provide a copy of the Minutes to affected persons and confirm in discussions with each of them their requests and preferences for compensation, agreements reached, and any eventual complaint. Copies will be recorded in the posted project documentation and be available for inspection during supervision.

Subproject Approval

In the event that a subproject involves acquisition against compensation, the implementing agency shall:
a. not approve the subproject unless a satisfactory compensation has been agreed between the affected person and the local community;
b. not allow works to start until the compensation has been delivered in a satisfactory manner to the affected persons;
c. if more than 200 persons are affected and require compensation, the subproject shall be deemed ineligible for support under the emergency reconstruction operations.

Complaints and Grievances

All complaints should first be negotiated to reach an agreement at the local community/village level. If this fails, complaints and grievances about these Guidelines, implementation of the agreements recorded in the Community Meeting Minutes or any alleged irregularity in carrying out the project can also be addressed by the affected persons or their representative at the municipal or district level. If this also fails, the complaint may be submitted to the relevant implementing agency for a decision.

Verification

The Community Meeting Minutes, including agreements of compensation and evidence of compensation having been made shall be provided to the Municipality/district, to the supervising engineers, who will maintain a record hereof, and to auditors and socio-economic monitors when they undertake reviews and post-project assessment. This process shall be specified in all relevant project documents, including details of the relevant authority for complaints at municipal/district or implementing agency level.
Attachment 3(i)

Abbreviated Resettlement Framework,

In compliance of the Bank’s Operational Policy 4.12, in case of less than 200 Project Affected People (PAPs), the following abbreviated Resettlement Framework shall be followed in order to restore housing and issue economic compensation for loss of land and livelihood through a consultative and mutually agreeable process.

Principles

- all land should be surveyed and mapped and agreement reached with government on explicit eligibility cut-off date.
- where land is disputed or land ownership is not clear, the land will be surveyed and a map hereof issued to the affected families. In case of land disputes, attempts should be made to settle disputes prior to project start.
- customary and collective rights, e.g. to grazing land and commons, should be verified and documented through community-level consultations and local authorities. Customary and collective rights are also subject to compensation.
- compensation for land, housing and assets are based on principles of replacement cost and mutually agreeable solutions based on consultative approach with PAPs.
- where affected land provide income, the equivalent to the value of the crop lost will be given in compensation, based on the value of the harvests lost until the replacement crop (e.g. fruit tress) come into full production.
- if land forms basis for other income, the value of the income hereof will be subject to third party assessment
- if PAPs are squatters/informal settlers on the land, they will receive economic/material compensation to re-establish themselves elsewhere (e.g. on government land) without suffering damage to their livelihood or living standard.

Process

1. Survey of land and assets & census of Project Affected Peoples, including squatters and informal settlers:
   - the surveyed land and assets should be identified, marked and photographed, and by the defined eligibility cut-off date the areas should be secured against encroachers.
   - the Project Affected People should be identified and registered with full data and photographs
   - a compensation package should be developed (categories of impacts and appropriate entitlements to formal and informal settlers landholders and squatters), and
   - initial consultations should be conducted to identify any salient issues or concerns impacting on affected people. Gender separate consultations should be conducted in order to properly ascertain the views of the women.

2. Calculation of individual entitlements. There should be continued consultations with the affected people regarding the project, land acquisition and compensation package in order to reach mutually agreeable solution to land/asset acquisition and/or shifting of house. In case any PAP refuses to shift, an abbreviated Resettlement Plan, compliant to OP 4.12, should be developed.
3. The compensation package and abbreviated Resettlement Plan should be submitted to the Bank for approval, using the formats included in the Safeguards Framework (Attachment 3 (ii-iv))

4. The acquisition process is only completed with the actual payment of compensation to Project Affected People and settlement of any grievances they may hold.
Attachment 3(ii)

Land Acquisition Assessment Data Sheet
(To be used to record information on all land to be acquired)

1. Quantities of land/structures/other assets required:

2. Date to be acquired:

3. Sketch of project land plot, identifying:

<table>
<thead>
<tr>
<th>Location and area of each individual piece of land/structure involved:</th>
<th>Category of land (private/communal/government etc) and Owner(s)*</th>
<th>Current uses</th>
<th>Users</th>
<th>Multiple claimants/users Yes/No</th>
<th>Method of acquisition**</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Provide documentary proof, where available.
** Donation/Acquisition against Compensation/Purchase. This should be determined following consultations with PAPs

In case of Multiple customary claimants/users, specify for each individual piece of land involved:

- Number of Customary claimants:
- Number of Squatters:
- Number of Encroacher:
- Number of Owners:
- Number of Tenants:
- Others (specify): Number:

4. Transfer of title:

- Ensure these lands/structures/other assets free of claims or encumbrances.
- Written proof must be obtained (notarized or witnessed statements) of the voluntary donation, or acceptance of the prices paid, from those affected, together with proof of title being vested in the community, or guarantee of public access, by the title-holder.

5. Describe grievance mechanisms available:
Attachment 3(iii)

Format to Document Contribution of Assets

The following agreement has been made on............................ day of...................………
between………………………………resident of ..................................................(the Owner)
and ............................................(the Recipient).

1. That the Owner holds the transferable right of ........................…………………jerib of
land/structure/asset in...............................................................

2. That the Owner testifies that the land/structure is free of squatters or encroachers and not subject to
other claims.

3. That the Owner hereby grants to the Recipient this asset for the construction and development of
………………………for the benefit of the villagers and the public at large.

(Either, in case of donation:)

4. That the Owner will not claim any compensation against the grant of this asset.

(Or, in case of compensation:)

4. That the Owner will receive compensation against the grant of this asset as per the attached Schedule.

5. That the Recipient agrees to accept this grant of asset for the purposes mentioned.

6. That the Recipient shall construct and develop the………………and take all possible precautions
to avoid damage to adjacent land/structure/other assets.

7. That both the parties agree that the……………………so constructed/developed shall be public
premises.

8. That the provisions of this agreement will come into force from the date of signing of this deed.

__________________________________________        ________________________________
Signature of the Owner:         Signature of the Recipient:

Witnesses:
1.__________________________________________
2.__________________________________________
(Signature, name and address)

(Attestation by District/Province Judge, Date)
### Schedule of Compensation of Asset Requisition

<table>
<thead>
<tr>
<th>Summary of affected unit/item</th>
<th>Units to be Compensated</th>
<th>Agreed Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Urban/agricultural land (jerib):</td>
<td>_____________________</td>
<td>___________________</td>
</tr>
<tr>
<td>b. Houses/structures to be demolished (units/jerib):</td>
<td>_____________________</td>
<td>___________________</td>
</tr>
<tr>
<td>c. Type of structure to be demolished (e.g. mud, brick, etc.):</td>
<td>_____________________</td>
<td>Not Applicable.</td>
</tr>
<tr>
<td>d. Trees or crops affected (units/jerib):</td>
<td>_____________________</td>
<td>___________________</td>
</tr>
<tr>
<td>e. Water sources affected:</td>
<td>_____________________</td>
<td>___________________</td>
</tr>
</tbody>
</table>

Signatures of PAP signifying his/her agreement:

Signatures of local community representatives, shura head:

Include record of any complaints raised by affected persons:

Map attached (showing affected areas and replacement areas):

_______________________________________  
(Attestation by District/Province Judge, Date)
Attachment 3(iv)

Assessment Data Sheet for Inconvenience Compensation

(To be used to record information on all land/assets affected)

1. Quantities of land/structures/other assets:

2. Locations:

3. Owners:

4. Current uses:

5. How land/structures/other assets will be affected:

6. The form of one time inconvenience compensation:
   
   • Ensure these lands/structures/other assets free of claims or encumbrances.
   • Written proof must be obtained (notarized or witnessed statements) of the declination of compensation, or acceptance of the inconvenience compensation paid, from the titleholder(s), together with proof of title being vested in the owner(s), and guarantee of public access, by the title-holder.

9. Describe grievance mechanisms available:
## Schedule of Compensation of Asset Requisition

<table>
<thead>
<tr>
<th>Summary of affected unit/item</th>
<th>Units to be Compensated</th>
<th>Agreed Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Urban/agricultural land (jerib):</td>
<td>_____________________</td>
<td>___________________</td>
</tr>
<tr>
<td>b. Houses/structures to be demolished (units/jerib):</td>
<td>_____________________</td>
<td>___________________</td>
</tr>
<tr>
<td>c. Type of structure to be demolished (e.g. mud, brick, etc.)</td>
<td>_____________________</td>
<td>Not Applicable.</td>
</tr>
<tr>
<td>d. Trees or crops affected:</td>
<td>_____________________</td>
<td>___________________</td>
</tr>
<tr>
<td>e. Water sources affected:</td>
<td>_____________________</td>
<td>___________________</td>
</tr>
</tbody>
</table>

Signature of PAP signifying his/her agreement:

Signatures of local community representatives, shura head:

Include record of any complaints raised by affected persons:

Map attached (showing affected areas and replacement areas):

__________________________________________

(Attestation by District/Province Judge, Date)
# Schedule of Inconvenience Compensation

## Summary of affected unit/item

<table>
<thead>
<tr>
<th>Units to be Compensated</th>
<th>Agreed Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Urban/agricultural land (jerib):</td>
<td></td>
</tr>
<tr>
<td>b. Houses/structures (units/jerib):</td>
<td></td>
</tr>
<tr>
<td>c. Type of structure (e.g. mud, brick, etc.)</td>
<td></td>
</tr>
<tr>
<td>d. Trees or crops affected:</td>
<td>_</td>
</tr>
<tr>
<td>e. Water sources affected:</td>
<td></td>
</tr>
</tbody>
</table>

Signature of PAP signifying his/her agreement:

Signatures of local community representatives, shura head:

Include record of any complaints raised by affected persons:

Map attached (showing affected areas):
### Attachment 4

**Environmental Management Action Plan**

<table>
<thead>
<tr>
<th>Environmental Issue</th>
<th>Mitigation Measures</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRE-CONSTRUCTION STAGE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>P. 1 Tree Cutting (Throughout the Project area)</strong></td>
<td>Required permission from the nodal agency like Forest Department will be obtained by the contractor, if required. Disposal of the trees will be done in a safe manner, in consultation with Independent Engineer and CAWSS officials.</td>
<td>Contractor, Independent Engineer and CAWSS Officials</td>
</tr>
<tr>
<td><strong>P. 2 Relocation of Community utilities</strong></td>
<td>All community utilities i.e., Transformers, Low Tension line, High Tension lines, telecommunication lines, and electric poles which exist at overhead and ground level reservoir locations and pipeline routes which are going to be effected due to this project will be shifted prior to the commencement of the work. All these structures will be relocated with prior approval of the concerned agencies before construction starts. The contractor will relocate these properties in consultation and agreement with the concerned agencies under the supervision of Independent Engineer.</td>
<td>Contractor, Independent Engineer and CAWSS Officials</td>
</tr>
<tr>
<td><strong>P. 3 Other Construction Vehicles, Equipment and Machinery</strong></td>
<td>All vehicles, equipment and machinery to be procured for construction will confirm to the relevant local norms. Any discharge standards promulgated under by NEPA will be strictly adhered to. Noise limits for construction equipments will not exceed 75 dB (A), measured at one meter from the edge of the equipment in free area.</td>
<td>Contractor</td>
</tr>
<tr>
<td><strong>P. 4. Disposal of excavation debris and surplus earth, if any</strong></td>
<td>Contractor will make all efforts to use excess earth generated due to excavation of pipeline trenches for refilling the trench. However, if additional soil is required for filling it will be done by excavation from burrow areas. Contractor to identify area for disposal of surplus earth and burrow area for filling and will obtain approval of Independent Engineer before commencement of work.</td>
<td>Contractor</td>
</tr>
</tbody>
</table>
### Environmental Issue

<table>
<thead>
<tr>
<th>Mitigation Measures</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>The asphalt debris generated due to the excavation of road top to open the pipeline (water as well as sewer) will be disposed off to the municipality disposal ground or may be used by the contractor elsewhere or GOA may use it in the solid wastes dumping ground for haul road construction.</td>
<td>Implementation Supervision</td>
</tr>
</tbody>
</table>

### CONSTRUCTION STAGE

#### Construction Stage Activities by Contractor

<table>
<thead>
<tr>
<th>C.1 Construction Wastes Disposal</th>
<th>The pre-identified dump locations will be a part of comprehensive solid waste management plan to be prepared by the Contractor in consultation with Independent Engineer. Location of disposal site will be finalized prior to commencement of the excavation on any section of the project location. The Independent Engineer will approve the disposal site. If wastes are to be disposed to municipality solid waste ground then, prior permission need to be taken from competent authorities. Contractor will ensure that any spoils of material unsuitable will not be disposed off in any roadside municipality waste disposal place along the project area.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.2. Planning for Traffic Diversions and Detours</td>
<td>While laying the pipe lines through the road temporary traffic diversions will be arranged with the approval of the Independent Engineer. Detailed Traffic Control Plans will be prepared and submitted to the Independent Engineer for approval. The necessary permission required from local traffic police and the contractor will obtain local municipal authorities. The traffic control plans shall contain details of temporary diversions, details of arrangements for construction under traffic, details of traffic arrangement after cessation of work each day, safety measures for transport of hazardous materials and arrangement of flagmen. Public would be inform through sign boards and local press five days prior to commencement of work regarding traffic diversion. The Contractor will ensure that the diversion/detour is always maintained in running condition to avoid disruption to traffic flow. The contractor will also inform of changes to traffic routes, conditions and pedestrian access arrangements. The</td>
</tr>
<tr>
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<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Environmental Issue</td>
<td>Mitigation Measures</td>
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<tr>
<td></td>
<td>temporary traffic detours will be kept free of dust by frequent sprinkling of water. The contractor will take all necessary measures for the safety of traffic during construction work i.e. laying pipeline on the road and provide, erect and maintain barricades, including signs, marking, flags, lights, fluorescent construction site marking tapes and flagmen as may be required by the Independent Engineer for the information and protection of traffic approaching or passing through the section of any existing cross roads. The contractor will ensure that all signs, barricades, pavement markings are provided.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>C.3 Procurement of Construction Materials</td>
<td></td>
</tr>
<tr>
<td>C.3.1 Transporting Construction Materials and Haul Road Management</td>
<td>Contractor</td>
</tr>
<tr>
<td></td>
<td>Contractor will maintain all roads (existing or built for the project), which are used for transporting construction materials, equipment and machineries. All vehicles delivering construction materials to the site will be covered to avoid spillage of materials thus preventing pollution of environment. All existing highways and roads used by vehicles of the contractor, or any of his sub-contractor or suppliers of materials and similarly roads, which are part of the works, will be kept clean and clear of all dust/mud or other extraneous materials dropped by such vehicles. Contractor will arrange for regular water sprinkling at least twice a day (i.e., morning, and evening) for dust suppression of the construction sites. The unloading of materials at construction sites close to settlements will be restricted to daytime only.</td>
</tr>
<tr>
<td></td>
<td>Contractor. Independent Engineer and CAWSS</td>
</tr>
<tr>
<td>C.3.2 Construction Water</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Contractor will arrange adequate supply and storage of water for the whole construction period at his own costs. The contractor will identify source of water for construction and seek permission from Independent Engineer before finalization. He will be also responsible for</td>
</tr>
<tr>
<td></td>
<td>Contractor. Independent Engineer and CAWSS</td>
</tr>
<tr>
<td>Environmental Issue</td>
<td>Mitigation Measures</td>
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<tr>
<td>---------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>taking permission from statutory agency, if required. The contractor will take all precaution to minimize the wastage of water in the construction process.</td>
<td></td>
</tr>
<tr>
<td>C.4 Construction work</td>
<td>Contractor will take all necessary measures to prevent the leakage of water from pipe line or sewer line under construction (rehabilitation). Contractor is required to provide cross drainage pipes of appropriate capacity that would be approved by Independent Engineer wherever transmission line are laid on embankment above ground. This will be required to provide smooth passage to drainage. In addition to the design requirements, the contractor will take all required measures as directed by the Independent Engineer to prevent flooding of the site or any adjacent area.</td>
</tr>
<tr>
<td>C. 5 Pollution</td>
<td>The Contractor will take all precautionary measures to prevent the wastewater during construction to accumulate anywhere. All waste arising from the project is to be disposed off in the manner that is acceptable to the Independent Engineer and conforming to local norms.</td>
</tr>
<tr>
<td>C.5.1 Water Pollution</td>
<td>The contractor will take every precaution to reduce the level of dust at all construction sites due to various construction activities by frequent sprinkling of water. Contractor will use dust screens around the construction site, i.e., opening excavation of trenches for laying pipeline or reopning the pipeline.</td>
</tr>
<tr>
<td>C.5.2 Air and Noise Pollution</td>
<td>Contractor will ensure that all vehicles, equipment and machinery used for construction are regularly maintained and confirm that pollution emission levels comply with the relevant requirements of NEPA as they emerge. The Independent Engineer will be required to inspect regularly to ensure the compliance.</td>
</tr>
<tr>
<td>C5.2.4 Noise Pollution:</td>
<td>The Contractor will conform the following:</td>
</tr>
<tr>
<td>Environmental Issue</td>
<td>Mitigation Measures</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Noise from Vehicles, Plants and Equipments      | All plants and equipment used in construction shall strictly conform to any NEPA noise standards that may be promulgated.  
|                                                 | All vehicles and equipment used in construction will be fitted with exhaust silencers.  
|                                                 | Servicing of all construction vehicles and machinery will be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced. | CAWSS          |
| C. 6 Safety                                     |                                                                                      |                |
| **C.6.1 Personal Safety Measures for Labour**   | Contractor will provide:  
|                                                 | Protective footwear, and gloves to all workers employed for the work on mixing, cement, lime mortars, concrete etc. and opening water pipeline/sewer line  
|                                                 | welder’s protective eye-shields to workers who are engaged in welding works  
|                                                 | Earplugs to workers exposed to loud noise, and workers working in crushing, compaction, or concrete mixing operation.  
|                                                 | Safety belts to the labours working at higher platforms like over head reservoirs etc.  
|                                                 | The contractor will strictly follow the statutory child labour act.  
|                                                 | The contractor will also ensure that no paint containing lead or lead products is used except in the form of paste or readymade paint.  
|                                                 | Contractor will provide facemasks for use to the workers when paint is applied in the form of spray. | Contractor     |
| **C.6.2 Precautionary / Safety Measures during Construction** | The contractor will comply with all the precautions as required for the safety of the workmen as per the International Labour Organization (ILO) Convention No. 62 as far as those are applicable to this contract.  
<p>|                                                 | The contractor will make sure that during the construction work: | Contractor     |
|                                                 |                                                                                      | Independent Engineer and CAWSS |</p>
<table>
<thead>
<tr>
<th>Environmental Issue</th>
<th>Mitigation Measures</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All relevant provisions of local laws of the land will be adhered to.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adequate safety measures for workers during handling of materials at site will be taken up.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The contractor will comply with all regulations regarding safe scaffolding, ladders, working platforms, gangway, stairwells, excavations, and safe means of entry and exit.</td>
<td></td>
</tr>
<tr>
<td>C.6.3 Risk from Electrical Equipment</td>
<td>The contractor will comply the relevant industrial electrical safety legislations. The Contractor will take adequate precautions to prevent danger from electrical equipment i.e., no material will be so stacked or placed as to cause danger or inconvenience to any person or the public. All necessary fencing and lights will be provided to protect the public. All machines to be used in the construction will conform to the relevant Afghanistan codes, will be free from patent defect, will be kept in good working order, will be regularly inspected and properly maintained as per IS provision and to the satisfaction of the Independent Engineer.</td>
<td>Contractor Independent Engineer and CAWSS</td>
</tr>
<tr>
<td>C.6.4 First Aid</td>
<td>The contractor will arrange for a readily available first aid kit including an adequate supply of sterilized dressing materials and appliances as per local guidelines at every workplace. Suitable transport to take injured or sick person(s) to the nearest hospital.</td>
<td>Contractor Independent Engineer and CAWSS</td>
</tr>
<tr>
<td>C.5.5 Informatory Signs and Hoardings</td>
<td>The contractor will provide, erect and maintain informatory/safety signs, hoardings written in Pashtu, Dari and English wherever required or as suggested by the Independent Engineer.</td>
<td>Contractor Independent Engineer and CAWSS</td>
</tr>
<tr>
<td>C.7 Plantation/Preservation/Conservation Measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.7.1 Flora Protection</td>
<td>The contractor will take reasonable precaution to prevent his workmen and employees from removing and damaging any flora (plant/vegetation) from the project area.</td>
<td>Contractor Independent Engineer and CAWSS</td>
</tr>
<tr>
<td>C.7.2 Chance Found</td>
<td>All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on any project location during the construction.</td>
<td>Contractor Independent Engineer and CAWSS</td>
</tr>
<tr>
<td>Environmental Issue</td>
<td>Mitigation Measures</td>
<td>Responsibility</td>
</tr>
<tr>
<td>---------------------</td>
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</tr>
</tbody>
</table>
| Archaeological Property | excavation/ construction shall be the property of the Government, and shall be dealt with as per provisions of the relevant legislation.  

The contractor will take reasonable precaution to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Independent Engineer of such discovery and carry out the Independent Engineer’s instructions for dealing with the same, till then all work shall be stopped.  

CAWSS will seek direction from the local competent authority on Archaeology before instructing the Contractor to recommence the work in the same site. | CAWSS |

**Construction activities by Environmental Cell**

| Con.1 Tree Plantation | Trees should be planted wherever space is available at the reservoir/ pump sites so as to compensate the trees lost by cutting the road side trees due to the opening the sewage/ water line.  

The contractor will do the plantation wherever space is available around the water pumping stations/ sewage pumping stations/ reservoirs. Minimum 80 percent survival rate of the saplings will be acceptable otherwise the contractor will replace died plants at own cost. The contractor will maintain the plantation till they handover the project site to CAWSS.  

The Independent Engineer will inspect regularly the survivability of the plants. | CAWSS |

**Operations Stage**

**Operation stage activities by Environmental cell**

<table>
<thead>
<tr>
<th>O.1 Pollution Monitoring</th>
<th>The periodic monitoring of the ambient noise levels, water (ground water) quality, soil pollution/ contamination in the select location that would be suggested in pollution monitoring plan in EMP.</th>
<th>CAWSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>O.1.1 Atmospheric Pollution</td>
<td>Accidental Chlorine emission into air should be checked and proper safety measures should be taken.</td>
<td>CAWSS</td>
</tr>
<tr>
<td>O.1.2 Noise</td>
<td>Noise pollution will be monitored as per monitoring plan that would be suggested in pollution monitoring plan in EMP.</td>
<td>CAWSS</td>
</tr>
</tbody>
</table>
### Environmental Issue

<table>
<thead>
<tr>
<th>Environmental Issue</th>
<th>Mitigation Measures</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollution</td>
<td>EMP in each pumping stations.</td>
<td>Monitoring Agency appointed by CAWSS.</td>
</tr>
</tbody>
</table>

### O.3 Other Activities

| Orientation of Implementing Agency and Contractors | The CAWSS shall organize orientation sessions during all stages of the project. The orientation session shall involve all staff of Environmental Cell, field level implementation staff of CAWSS, Independent Engineer and Contractor. | CAWSS       | CAWSS       |
Protection of Cultural Property

Physical culture includes monuments, structures, works of art, or sites of "outstanding universal value" from the historical, aesthetic, scientific, ethnological, or anthropological point of view, including unrecorded graveyards and burial sites. Within this broader definition, cultural property is defined as sites and structures having archaeological, paleontological, historical, architectural, or religious significance, and natural sites with cultural values.

The proposed emergency reconstruction operations are unlikely to pose a risk of damaging cultural property, as the sub-projects will largely consist of small investments in community infrastructure and income generating activities, reconstruction of existing structures, and minor urban public works. Further, the negative list of attributes, which would make a subproject ineligible for support (Attachment 2), includes any activity that would significantly damage non-replicable cultural property. Nevertheless, the following procedures for identification, protection from theft, and treatment of chance finds should be followed and included in standard bid documents.

Chance Find Procedures

Chance find procedures are defined in the law on Maintenance of Historical and Cultural Monuments (Official Gazette, December 21, 1980), specifying the authorities and responsibilities of cultural heritage agencies if sites or materials are discovered in the course of project implementation. This law establishes that all moveable and immovable historical and cultural artifacts are state property, and further:

1. The responsibility for preservation, maintenance and assessment of historical and cultural monuments rests with the Archaeological Committee under the Ministry of Information and Culture, which has representation at provincial level.

2. Whenever chance finds of cultural or historical artifacts (moveable and immovable) are made the Archaeological Committee should be informed. Should the continuation of work endanger the historical and cultural artifacts, the project work should be suspended until a solution is found for the preservation of these artifacts.

3. If a moveable or immovable historical or cultural artifact is found in the countryside of a province, the provincial governor (wali) or district-in-charge (woluswal) should be informed within two weeks, and they should inform the Archaeological Committee. In case the immovable historical or cultural artifact is found in a city, the provincial branch of the Department of Maintenance of Historical Values of the Ministry of Information and Culture should be informed within two weeks (art. 18). If the find is made within the center, the Archaeological Committee must be informed directly within one week (art. 25).

4. Failure to report a chance find within the stipulated time limit will be punished with a fine or imprisonment for a period of one week or up to one month (art. 72).
5. If someone intentionally damages a historical or cultural artifact, the culprit shall pay compensation in accordance with the value of the artifact plus be imprisoned for a period of one month to ten years depending on the gravity of the crime (art. 71).

In case of a chance find of moveable or immovable historical or cultural artifact, the implementing agency is responsible for securing the artifact from theft, pilferage and damage until the responsibility has been taken over by the relevant authorities as specified above.

These procedures must be referred to as standard provisions in construction contracts, when applicable. During project supervision, the Site Engineer shall monitor that the above regulations relating to the treatment of any chance find encountered are observed.

Relevant findings will be recorded in World Bank Project Supervision Reports (PSRs), and Implementation Completion Reports (ICRs) will assess the overall effectiveness of the project’s cultural resources mitigation, management, and capacity building activities, as appropriate.
Attachment 6

Procedures for Mine Risk Management in World Bank-Funded Projects in Afghanistan

Background:

The following procedures are designed to respond to the risks caused by the presence of mines in Afghanistan, in the context of:

- **Community rehabilitation / construction works** to be identified and implemented by the communities themselves (for small projects of up to $100,000 each);
- **Small and medium-size works** to be identified by local authorities and implemented by local contractors (for projects up to $5m each);
- **Works to be implemented directly by Government departments/agencies**, without use of contractors;
- **Large works** to be implemented by contractors (for projects above $5m);

General comment applying to all following procedures: All risk assessment and clearance tasks shall be implemented in coordination with the Mine Action Center for Afghanistan (MACA). These procedures may need to be amended in the future depending on evolving circumstances.

Procedure for Community-Managed Works

**Applicability:** This procedure applies to community rehabilitation / construction works to be identified and implemented by the communities themselves (for small projects of up to $100,000 each).

**Overall approach:** The communities should be responsible for making sure that the projects they propose are not in mine-contaminated areas, or have been cleared by MACA (or a mine action organization accredited by MACA).

**Rationale:** Communities are best placed to know about mined areas in their vicinity, and have a strong incentive to report them accurately as they will carry out the works themselves.

**Procedure:**

1. Communities are required to submit a reply to a questionnaire regarding the suspected presence of mines in the area where Bank-funded community-managed projects will be implemented. This questionnaire should be formally endorsed by the Mine Action Program for Afghanistan (MAPA). It will be a mandatory attachment to the project submission by the communities and should be signed by community representatives and the external project facilitator. External project facilitators will receive training from MAPA. Financing agreements with the communities should make clear that communities are solely liable in case of a mine-related accident.

2. If the community certifies that there is no known mine contamination in the area, the ministry responsible for the selection of projects should check with MACA whether any different observation is reported on MACA’s data base.
o If MACA’s information is the same, the project can go ahead for selection. The community takes the full responsibility for the assessment, and external organizations cannot be made liable in case of an accident.

o If MACA’s information is different, the project should not go ahead for selection as long as MACA’s and community’s statements have not been reconciled.

3. If the community suspects mine contamination in the area,

o If the community has included an assessment / clearance task in the project agreed to be implemented by MACA (or by a mine action organization accredited by MACA), the project can go ahead for selection.

o If the community has not included an assessment / clearance task in the project, the project should not go ahead for selection as long as this has not been corrected.

o Mine clearance tasks must be implemented by MACA or by a mine action organization accredited by MACA. Communities will be penalized (subsequent funding by World-Bank funded projects shall be reduced or cancelled) if they elect to clear mines on their own.

Procedure for Small and Medium-size Works Contracted Out

Applicability: This procedure applies to small- and medium-size works to be identified by local authorities and implemented by local contractors (for projects up to $5m each).

Overall approach: MACA (or a mine action organization accredited by MACA) should provide detailed information on the mine-related risks (either based on previously done and updated general survey or on a new general survey) before projects are considered for selection. Only project sites assessed to have a nil-to-low risk would be eligible for selection, unless they have been demined by MACA or by a mine action organization accredited by MACA.

Rationale: Neither local authorities nor local contractors have the capacity to assess the mine-related risks in a systematic way, while they may have incentives to underestimate them.

Procedure:

1. Prior to putting up a project for selection, a general survey should be carried out by MACA (or a mine action organization accredited by MACA) to assess mine-related risks in the area of the project (this should include checking information available in the MACA data base).

2. If MACA provides information suggesting a nil-to-low risk in the proposed project area, the project can go ahead for selection.

3. The contract between the responsible ministry and the contractor will include a clause stating that in case of an accident, legal liability would be fully and solely borne by the contractor.

4. If MACA assesses a potentially high risk in the area (whether due to the presence of mines or uncertainty),
If the project includes an assessment / clearance task agreed to be implemented by MACA (or by a mine action organization accredited by MACA), it can go ahead for selection based on agreed funding modalities (clearance may be funded either under a contract with a Bank-funded project or under existing donor agreements with the mine action organization);

o If the project does not included an assessment / clearance task, it should not go ahead for selection as long as this has not been corrected.

Procedure for Works to be implemented directly by Government Departments/Agencies, without use of contractors

Applicability: This procedure applies to works to be implemented directly by Government departments/agencies, without use of contractors.

Overall approach: MACA (or a mine action organization accredited by MACA) should provide detailed information on the mine-related risks (either based on previously done and updated general survey or on a new general survey) before works or installation of goods/materials are carried out in any given area. Work would only be allowed to proceed in areas assessed to have a nil-to-low risk, unless they have been demined by a mine action organization accredited by MACA.

Rationale: Government departments and agencies responsible for providing services currently do not have the capacity to assess the mine-related risks in a systematic way, and currently follow a process of consulting with MACA prior to carrying out activities.

Procedure:

1. Prior to carrying out work, the Government department/agency will consult with MACA to assess mine-related risks in the area (this should include checking information available in the MACA data base). If not already done, a general survey should be carried out by MACA (or by a mine action organization accredited by MACA) to assess mine-related risks in the area.

2. If MACA provides detailed information on mine-related risks which suggest a nil-to-low risk in the proposed area, the work can proceed. The Government would be solely liable in case of a mine-related accident.

3. If information provided by MACA cannot support the assessment of a nil-to-low risk in the proposed area (whether due to the presence of mines or uncertainty), works should not go ahead before MACA (or a mine action organization accredited by MACA) carries out the necessary further assessment and/or clearance for risks to be downgraded to nil-to-low, based on agreed funding modalities (clearance may be funded either under a contract with a Bank-funded project or under existing donor agreements with the mine action organization).

Procedure for Large Works Using Contractors

Applicability: This procedure applies to large works to be implemented by large contractors (projects above $5m).
Overall approach: The main contractor should be responsible for dealing with mine-related risks, in coordination with the UN Mine Action Center.

Procedure:

1. As part of the preparation of the bidding documents, a general survey should be carried out by MACA (or a mine action organization accredited by MACA) on all the areas where contractors may have to work (broadly defined). This survey should provide detailed information on mine-related risks in the various areas allowing for an un-ambiguous identification of areas that have a nil-to-low risk of mine/UXO contamination and areas where the risk is either higher or unknown. The survey should be financed out of the preparation costs of the bidding documents.

2. All survey information should be communicated to the bidders (with sufficient legal caveats so that it does not entail any liability), as information for the planning of their activities (e.g., location of campsites, access roads to quarries).

3. Depending on the nature and location of the project and on the available risk assessment, two different options can be used.

Option 1 – Mine-clearance activities are part of the general contract

a. Based on the general survey results, a specific budget provision for mine action during construction is set aside as a separate provisional sum in the tender documents for the general contract.

b. As a separately identified item in their bid, the bidders include a provision for a further detailed mine assessment and clearance during construction.

c. On the instruction of the Supervision Engineer and drawing on the specific provisional sum for mine action in the contract, the contractor uses one of several nominated sub-contractors (or a mine action organization accredited by MACA) to be rapidly available on call, to carry out assessment prior to initiation of physical works in potentially contaminated areas, and to conduct clearance tasks as he finds may be needed. The Contractor may also hire an international specialist to assist him in preparing and supervising these tasks. The Contractor is free to chose which of the accredited sub-contractors to use, and he is fully responsible for the quality of the works and is solely liable in case of accident after an area has been demined.

d. To avoid an “over-use” of the budget provision, the Contractor is required to inform the Supervision Engineer in writing (with a clear justification of the works to be carried out) well in advance of mobilizing the mine-clearing team. The Supervision Engineer has the capacity to object to such works.

Option 2 – Mine-clearance activities are carried out under a separate contract

a. Specific, separately-awarded contracts are issued for further surveying and/or clearing of areas with a not-nil-to-low risk (under the supervision of the Engineer) by specialized contractors (or a mine action organization accredited by MACA). The definition of the areas to be further surveyed / cleared should be limited to those areas where any contractor would have to work, and should not include areas such as camp sites and quarries/material sites which are to be identified by the Contractor during and after bidding of the works. As a
result of these further surveys and possibly clearance works, mine-related risk in the entire contract area is downgraded to nil-to-low.

b. The contract with the general Contractor specifies the extent of the portion of the construction site of which the Contractor is to be given possession from time to time, clearly indicating restrictions of access to areas where the mine risk is not nil-to-low. It also indicates the target dates at which these areas will be accessible. Following receipt of the notice to commence works from the Engineer, the Contractor can start work in all other areas.

c. The general Contractor is invited to include in its bid an amount for mine-security, to cover any additional survey / clearance he may feel necessary to undertake the works.

4. In case of an accident, a Board of Inquiry is assembled by MACA to investigate on the causes of the accident and determine liabilities. Large penalties should be applied on the Contractor if the Board determines that the accident resulted from a breach of safety rules.

5. All parties involved in this process are required to closely coordinate with MACA and to provide the Government, local communities, MACA, as well as any interested party the full available information on mine-related risks that may reasonably be required (e.g., maps of identified minefields, assessments for specific areas).
## Codes of Practice for Prevention and Mitigation of Water Quality-related Environmental and Public Health Impacts

### Potential Impacts

<table>
<thead>
<tr>
<th>Disease caused by poor water quality:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• contamination by seepage from latrines, municipal waste or agricultural areas.</td>
</tr>
<tr>
<td>• high mineral concentrations.</td>
</tr>
<tr>
<td>• creation of stagnant pools of water.</td>
</tr>
</tbody>
</table>

### Water Supply

<table>
<thead>
<tr>
<th>Prevention and Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Prioritize leak detection and repair of pipe networks.</td>
</tr>
<tr>
<td>• Chemical and bacteriological testing of water quality from adjacent comparable sources prior to installation of new sources.</td>
</tr>
<tr>
<td>• Redesign to prevent contamination if adjacent comparable sources are found to be contaminated.</td>
</tr>
<tr>
<td>• Subsequent monitoring of installed or rehabilitated sources.</td>
</tr>
<tr>
<td>• Appropriate location, apron and drainage around tubewells and dug wells to prevent formation of stagnant pools.</td>
</tr>
<tr>
<td>• Provision of cover and hand-pump to prevent contamination of dug wells.</td>
</tr>
<tr>
<td>• Where pit latrines are used they should be located more than 10m from any water source. The base should be sealed and separated by at least 2m of sand or loamy soil from the groundwater table.</td>
</tr>
<tr>
<td>• Where nightsoil latrines or septic tanks are built they should be sealed. Outflows should drain either to a soakaway located at least 10m from any water source or be connected to a working drain.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contamination of water supplies:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• contamination of groundwater because of seepage.</td>
</tr>
<tr>
<td>• contamination of surface waters due to flooding or over-flowing.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prevention and Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Where pit latrines are used they should be located more than 10m from any water source. The base should be sealed and separated vertically by not less than 2m of sand or loamy soil from the ground water table.</td>
</tr>
<tr>
<td>• Where nightsoil latrines or septic tanks are built they should be sealed. Outflows should drain either to a soakaway located at least 10m from any water source or be connected to a working drain.</td>
</tr>
<tr>
<td>• Maintenance training to be delivered along with new latrines.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contamination of water supplies:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• lateral seepage into surface waters.</td>
</tr>
<tr>
<td>• seepage of contaminants into aquifers.</td>
</tr>
<tr>
<td>• contamination from clandestine dumping.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prevention and Mitigation Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Site transfer stations should have sealed base and be located at least 15m away from water sources with the base separated vertically by not less than 2m of sand or loamy soil from the ground water table.</td>
</tr>
<tr>
<td>• Assess requirement for additional investment in final disposal site to protect water sources.</td>
</tr>
<tr>
<td>• Monitoring of site to prevent illegal dumping.</td>
</tr>
</tbody>
</table>
Attachment 8

Format for
Limited Environmental and Social Assessment (LESA)

Context of LEAs

Limited Environmental Assessments (LEAs) guide the process of assessing the potential impacts and examining candidate mitigation measures for each environmental concern. This format is a guide to the reporting of the assessment carried out as per those matrices. It will provide documentary evidence of environmental considerations in decision-making at the sub-project level and streamline the processing of the schemes during implementation. It will also act as a reference for executing mitigation and management measures selected during the assessment.

Outline of an LEA

Description of the project area

This section will include concise description of the project area, its inhabitants, their current condition, existing urban infrastructure, etc. Describe current practices with respect to water supply, sanitation, solid waste, drainage etc.

Project Interventions

This will include various improvements considered under the project. It will include a rationale for selection of a particular treatment over others (if alternatives were considered). A concise overview of the benefits will also be provided.

Existing Environmental Scenario (draw on site visits and secondary sources)

Biophysical Environment
   Topography – slope
   Soil – Structure, Salinity
   Water – quality and quantity
   Flora and Fauna within the study area (include terrestrial and aquatic)

Socio-Economic Environment
   Income levels
   Amenities available – water supply, etc.
   Health and Hygiene
   Role of Women

Impacts Anticipated (draw on site visits, secondary sources)

Biophysical Environment
   Topography changes – landform, erosion
   Soil structure – moisture retention capacity, stability, increased salinity
   Water – qualitative changes due to increased salinity, use of chemicals
   Flora and fauna – loss of habitat, impeding migration
Socio-economic Impacts

- Changes in income – distribution and timing
- Changes in amenities – impact of construction period increased population, long-term Demographic changes due to improved urban services
- Health and Hygiene – risk of increased spread of disease, etc.

Mitigation Measures and Implementation Responsibilities

<table>
<thead>
<tr>
<th>Stage of the project</th>
<th>Anticipated Impact Environmental attribute</th>
<th>Selected Mitigation Measure</th>
<th>Implementation Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Budgetary Estimates

<table>
<thead>
<tr>
<th>Stage of the project</th>
<th>Mitigation measure</th>
<th>Quantity / Time input</th>
<th>Amount</th>
</tr>
</thead>
</table>
Attachment 9

Generic Terms of Reference for a full Environmental Assessment

Introduction
Since the Loya Jirga in 2002, a new Afghanistan is being built by the concerted efforts of the Afghan people. The Government of Afghanistan (GoA) intends to upgrade and expand its urban infrastructure to enhance the quality of life and promote the economic development potential of its urban centers. For achieving this objective, it has decided to take up several large urban infrastructure projects. GoA wants that the proposed development occurs with due regard for the environmental and social concerns associated with such development. The Ministry of Urban Development and Housing (MUDH) wishes to engage the services of a consultant to carry out the Environmental Impact Assessment of large / new schemes during the project preparation stage to ensure that these key concerns are addressed early in project development. While the MUDH is the nodal ministry for the project, inputs are also expected from the Municipalities of ___ and urban sector institutions such as ___.

Project Background
The Government of Afghanistan is to avail IDA credit for the rehabilitation and expansion of its urban infrastructure. The proposed multi-component Emergency Urban Reconstruction Project (EURP) aims to improve urban infrastructure, including water supply, sanitation, solid waste, drainage, urban roads, housing etc.. One component of this project is also financing preparation of feasibility studies for large urban infrastructure schemes which may be taken up in the future. As part of the EURP, detailed Environmental Impact Assessments are to be carried out for candidate large/new projects identified, to feed into the overall project preparation. The XYZ project is being prepared as part of this component. (Provide a plan of the area that will be affected either indirectly or directly. Basic data should be given on existing and proposed urban infrastructure in the area and the area characteristics, if available.)

Objectives
This study is being carried out to ensure that environmental implications of the proposed XYZ project have been identified, analyzed and clearly communicated to the decision makers. In order to achieve this target, the following objectives have been set:
  a. To prepare inventory of the biophysical and socio-economic environmental attributes in the study area;
  b. To involve the local population in project preparation through active consultations which could also assist in identifying the attributes important to them;
  c. To identify and assess the magnitude and significance of impacts due to the proposed activities on the attributes identified;
  d. To consider a range of proposals should be considered and if so whether they would be less environmentally damaging;
  e. To propose avoidance, mitigation and enhancement measures for adverse and positive impacts;
  f. To assess the current capacity for environmental management to develop institutional arrangements for this and subsequent (like) projects; and
g. To prepare an environmental management plan to ensure implementation of the management measures selected from the ones proposed, along with budgetary allocation (to feed into the overall project cost estimates) and institutional responsibility.

Environmental Assessment Requirements

The Environmental Assessment shall be guided by the requirements of OP4.01 and other relevant safeguard policies of the World Bank such as OP4.04, etc.

Scope of Work

The current information has led to the development of the following tasks, which may be modified with consent of the MUDH if new information comes to light during the course of the study (e.g. the presence of sensitive receptors not known when the ToR is finalized).

Task 1. Description of the Proposed Project. General design and extent of urban infrastructure works, size and specifics of project area; operation and maintenance of urban infrastructure works.

Task 2. Description of the Environment. Assemble, evaluate and present baseline data on the relevant environmental characteristics of the study area. Include information on any changes anticipated before the project commences.

(a) Physical environment: geology; topography; soils; climate and meteorology; ambient air quality; surface and ground- water hydrology; existing sources of air emissions; existing water pollution discharges; and receiving water quality.

(b) Biological environment: flora; fauna; rare or endangered species; sensitive habitats, including parks or preserves, significant natural sites, etc.; species of commercial importance; and species with potential to become nuisances, vectors or dangerous.

(c) Socio-cultural environment: land use (including current crops and cropping patterns); land tenure and land titling; present water supply and water uses, control over allocation of resource use rights.

Task 3. Legislative and Regulatory Considerations. Describe the pertinent regulations and standards governing environmental quality, health and safety, protection of sensitive areas, protection of endangered species, siting, land use control, etc., at international, national, if any.

Task 4. Determination of the Potential Impacts of the Proposed Project. Potential impacts to be assessed include:

(a) Project location: resettlement of people; loss of forest land; loss of agricultural land (cropping and grazing); impact on flora and fauna; impact on historic and cultural sites; effects on water resources outside and inside command area.

(b) Project Design: disruption of hydrology; drainage problems; design of urban structures; crossings for people and animals.

(c) Construction Works: soil erosion; construction spoils (disposal of); sanitary conditions and health risks associated with construction camp and workers coming into area; social and cultural conflicts between imported workers and local people.
(d) Project Operation: water and air pollution; impacts on soils; changes in ground water levels inside and outside command area; changes in surface water quality and risks of eutrophication; incidence of water-borne and water-related diseases, water quality testing and monitoring.

(e) Cumulative and long-term effects

Task 5. Analysis of Alternatives to the Proposed Project. Describe alternatives that were examined in the course of developing the proposed project and identify other alternatives which would achieve the same objectives. The concept of alternatives extends to siting, design, technology selection, construction techniques and phasing, and operating and maintenance procedures. Compare alternatives in terms of potential environmental impacts; capital and operating costs; suitability under local conditions; and institutional, training, and monitoring requirements. When describing the impacts, indicate which are irreversible or unavoidable and which can be mitigated. To the extent possible, quantify the costs and benefits of each alternative, incorporating the estimated costs of any associated mitigating measures. Include the alternative of not constructing the project, in order to demonstrate environmental conditions without it.

Task 6. Development of Environmental Management Plan, with focus on three generic areas: Mitigation measures, institutional strengthening and training, and monitoring. The emphasis on each of these areas depends on the needs in the specific project context, as identified by the EA itself.

- Mitigation of environmental impact: Recommend feasible and cost-effective measures to prevent or reduce significant negative impacts to acceptable levels. Estimate the impacts and costs of those measures. Consider compensation to affected parties for impacts which cannot be mitigated. The plan should include proposed work programs, budget estimates, schedules, staffing and training requirements, and other necessary support services to implement the mitigating measures.

- Institutional strengthening and training: Identification of institutional needs to implement environmental assessment recommendations. Review the authority and capability of institutions at local, provincial/regional, and national levels and recommend steps to strengthen or expand them so that the management and monitoring plans in the environmental assessment can be implemented. The recommendations may extend to new laws and regulations, new agencies or agency functions, intersectoral arrangements, management procedures and training, staffing, operation and maintenance training, budgeting, and financial support.

- Monitoring: Prepare detailed arrangements for monitoring implementation of mitigating measures and the impacts of the project during construction and operation. Include in the plan an estimate of capital and operating costs and a description of other inputs (such as training and institutional strengthening) needed to carry it out.

Task 7. Assist in Inter-Agency Coordination and Public/NGO Participation. Assist in coordinating the environmental assessment with other government agencies, in obtaining the views of local NGO’s and affected groups, and in keeping records of meetings and other activities, communications, and comments and their disposition.

Reporting Requirements

(I) Inception Report: The Consultant will submit an Inception report confirming the methodology to be adopted for the study, the deployment schedule of personnel, a schedule of site visits to be carried out and a reporting schedule, within a fixed time from
the date of beginning of the assignment. The consultant may want to carry out a reconnaissance survey before submitting the inception report.

(II) Environmental Impact Assessment: The EA report should include the following items (not necessarily in the order shown):

(a) *Executive summary.* Concisely discusses significant findings and recommended actions.

(b) *Policy, legal, and administrative framework.* Discusses the policy, legal, and administrative framework within which the EA is carried out. Explains the environmental requirements of any co-financiers. Identifies relevant international environmental agreements to which the country is a party.

(c) *Project description.* Concisely describes the proposed project and its geographic, ecological, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power plants, water supply, housing, and raw material and product storage facilities). Indicates the need for any resettlement plan or indigenous peoples development plan (see also subpara. (h)(v) below). Normally includes a map showing the project site and the project’s area of influence.

(d) *Baseline data.* Assesses the dimensions of the study area and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences. Also takes into account current and proposed development activities within the project area but not directly connected to the project. Data should be relevant to decisions about project location, design, operation, or mitigatory measures. The section indicates the accuracy, reliability, and sources of the data.

(e) *Environmental impacts.* Predicts and assesses the project’s likely positive and negative impacts, in quantitative terms to the extent possible. Identifies mitigation measures and any residual negative impacts that cannot be mitigated. Explores opportunities for environmental enhancement. Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions, and specifies topics that do not require further attention.

(f) *Analysis of alternatives.* Systematically compares feasible alternatives to the proposed project site, technology, design, and operation—including the "without project" situation—in terms of their potential environmental impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements. For each of the alternatives, quantifies the environmental impacts to the extent possible, and attaches economic values where feasible. States the basis for selecting the particular project design proposed and justifies recommended emission levels and approaches to pollution prevention and abatement.

(g) *Environmental management plan (EMP).* Covers mitigation measures, monitoring, and institutional strengthening; see outline (in III) below.

(h) *Appendixes*

(i) List of EA report preparers—individuals and organizations.
(ii) References—written materials both published and unpublished, used in study preparation.

(iii) Record of interagency and consultation meetings, including consultations for obtaining the informed views of the affected people and local nongovernmental organizations (NGOs). The record specifies any means other than consultations (e.g., surveys) that were used to obtain the views of affected groups and local NGOs.

(iv) Tables presenting the relevant data referred to or summarized in the main text.

(v) List of associated reports (e.g., resettlement plan or indigenous peoples development plan).

(III) Environmental Management Plan: The consultant will submit an environmental management plan (in line with Annex C of OP4.01) which will include the following components.

(a) **Mitigation** The EMP identifies feasible and cost-effective measures that may reduce potentially significant adverse environmental impacts to acceptable levels. The plan includes compensatory measures if mitigation measures are not feasible, cost-effective, or sufficient.

(b) **Monitoring** Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the environmental impacts of the project and the effectiveness of mitigation measures. Such information enables the borrower and the Bank to evaluate the success of mitigation as part of project supervision, and allows corrective action to be taken when needed. Therefore, the EMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the EA report and the mitigation measures described in the EMP.

(c) **Capacity Development and Training** To support timely and effective implementation of environmental project components and mitigation measures, the EMP draws on the EA’s assessment of the existence, role, and capability of environmental units on site or at the agency and ministry level. If necessary, the EMP recommends the establishment or expansion of such units, and the training of staff, to allow implementation of EA recommendations. Specifically, the EMP provides a specific description of institutional arrangements—who is responsible for carrying out the mitigatory and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training). To strengthen environmental management capability in the agencies responsible for implementation, most EMPs cover one or more of the following additional topics: (a) technical assistance programs, (b) procurement of equipment and supplies, and (c) organizational changes.

(d) **Implementation Schedule and Cost Estimates** For all three aspects (mitigation, monitoring, and capacity development), the EMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the EMP. These figures are also integrated into the total project cost tables.
Integration of EMP with Project

The borrower's decision to proceed with a project, and the Bank's decision to support it, are predicated in part on the expectation that the EMP will be executed effectively. Consequently, the Bank expects the plan to be specific in its description of the individual mitigation and monitoring measures and its assignment of institutional responsibilities, and it must be integrated into the project's overall planning, design, budget, and implementation. Such integration is achieved by establishing the EMP within the project/contract documents so that the plan will receive funding and supervision along with the other components.
1. Introduction

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The Government of Afghanistan is to avail IDA credit for the rehabilitation and expansion of its urban infrastructure. The proposed multi-component Emergency Urban Reconstruction Project (EURP) aims to improve urban infrastructure, including water supply, sanitation, solid waste, drainage, urban roads, housing etc. One component of this project is also financing preparation of feasibility studies for large urban infrastructure schemes which may be taken up in the future. As part of the EURP, detailed Environmental Impact Assessments are to be carried out for candidate large/new projects identified, to feed into the overall project preparation. The XYZ project is being prepared as part of this component. {Provide a plan of the area that will be affected either indirectly or directly. Basic data should be given on existing and proposed urban infrastructure in the area and the area characteristics, if available.}

3. Objectives

Social Assessment (SA) through participatory planning has specific functions to assess the social issues and impacts on affected populations which helps to design mitigation plans in order to improve their quality of life and a strategy for participatory implementation. This study is being carried out to ensure that social implications of the proposed XYZ project have been identified, analyzed and clearly communicated to the decision makers. In order to achieve this target, the broad objective is to identify, develop and incorporate social measures into project planning, preparation, implementation and monitoring as a means of identifying and addressing direct and indirect social outcomes through all aspects of project execution. This process needs to be carried out at each stage of project preparation namely feasibility and detailed project report (DPR) stage. To carry out the detailed assessments at various stages a detailed work-plan needs to be provided as part of the inception report. The following provides specifies objectives, activities and outputs to complete the SA process:
4. Specific Objectives

SA is an approach for incorporating social analyses and participatory processes into project design and implementation. The specific objectives of the SA are:

(a) To carry out a socio-economic, cultural and political/institutional analysis to identify potential social impacts of the proposed projects;

(b) To identify principal stakeholders and develop consultation framework for participatory implementation;

(c) To screen social development issues and scope SA activities for feasibility and design stage ;

(d) To ensure that results of the SA provide inputs to the monitoring of project impacts during implementation and to the evaluation of project outcomes at completion;

(e) To provide inputs to the project design at the feasibility and detailed design stage including specific recommendations in selection of design alternatives (identification of areas that may require adjustments in project designs) and preparing social policy framework;

(f) Develop a Resettlement Action Plan (RAP) that includes comprehensive mitigation measures to ensure that the affected and displaced persons are appropriately resettled and rehabilitated i.e. to assist them to improve their livelihoods and standards of living or at least to restore them, in real terms.

(g) Assess the current capacity for management of social impacts, develop institutional arrangements for this and subsequent (like) projects and formulate a training and capacity building plan.

Scope of Work

(i) Stage I - Feasibility Stage:
To determine the magnitude of potential impacts and ensure mainstreaming of social considerations in selection and design of proposed projects.

(a) Social screening and preliminary assessment will be carried out to determine nature, magnitude of adverse social impacts and specific of social issues to scope out social issues for detailed assessment.

(b) To inform, consult and carry out dialogues with stakeholders on matters regarding project design alternatives, implementation of social mitigation measures and provide specific recommendations with high social risks, including, presence of significant common property that may require adjustments in project design.

(c) Assess the capacity of institutions and mechanism for implementing social risk management instruments and recommend capacity building.

(d) Develop monitoring and evaluation mechanism to assess social development outcomes.

(e) Develop broad mitigative measures and prepare preliminary budget estimates.
SA Methods and Tools:

(a) For socio-economic, cultural and political/institutional analysis combine multiple tools and employ a variety of methods for collecting and analyzing data, including both quantitative and qualitative methods (expert and key informant interviews, focus group discussions, beneficiary assessments, rapid and participatory rural appraisal, gender analysis).

(b) Develop scoping techniques, interview schedules, field survey instruments and checklist for data collection and discussions.

(c) Screen and scope to prioritize social issues through different techniques such as ranking and composite index.

(d) The selection of SA methodology should emphasize consultation and participation of project affected persons (PAPs), project implementing and executing agencies and other stakeholders. The discussions with the relevant government officials, other institutions and organizations in the civil society, should be participatory and broad-based, leading to the identification, selection and agreement on project options.

Outputs:

The expected output will be a Social Screening report and findings integrated in the feasibility report, including

(a) Findings of analysis and consultation framework for project.

(b) Outline of social risk management instruments as required.

(c) Recommendation for adjustments in designs during feasibility and detailed design stage.

(d) Scope of social impact assessment to define the universe of social issues for detailed analysis for DPR.

(e) Guidelines for resettlement and rehabilitation measures.

(ii) Stage II – Detailed Project Report:

The social impact assessment will cover the directly affected populations to formulate development strategies in order to assist in determining project impacts on the social, economic, cultural, and livelihood activities of affected communities. This will establish a social baseline against which changes resulting from the intervention can be measured in the future. The social surveys will be carried out after demarcation of zone of impact.

(a) A census and socio-economic survey, including a detailed inventory of affected assets would however, need to be carried out for all PAPs to establish a cut-off date, loss of fixed assets such as structures and trees, livelihood or access to community resources and categorise each type of losses as a result of project implementation.

(b) Assess local tenure and property rights arrangements which may include usufruct or customary rights to the land or other resources taken for the project including common property resources.

(c) Analysis of baseline information and its processing will include adequate measures to compensate and assist the people to restore and improve their livelihood.

(d) Carry out market survey and focus group consultation with different social groups
including women to prepare socially, technically and economically feasible income
generations schemes including skill upgradation plans.

(e) Identify the land and prepare a plan for relocation in consultation with the project
displaced people with different social groups including women and local administration.

(f) Finalize estimate of land required that will be affected by zone of impact, resettlement
and economic rehabilitation and review land transfer procedure adopted in project area
for all types of activities related to project such as back water effect, distributary network,
approach roads and other civil works.

(g) Carry out meaningful public consultation (separate consultations with women) with
project affected people and other stakeholders on the types of social risk management
measures to ensure 1) that the proposed mitigation measures are feasible to assist people
to improve their livelihoods and 2) provide opportunities and a plan to participate in
planning and implementing resettlement. Setting out mechanisms for community
participation to develop priorities and to ensure consultation with project affected people
and dialogues with government officials from various departments, to make
recommendations on measures necessary to mitigate adverse impacts and enhance social
outcomes.

(h) Determine, in consultation with government officials, the current replacement cost rates
for all types of affected assets and prepare detailed cost estimates for all types of affected
assets and for other assistance and allowances.

(i) For all those who are affected including ethnic minorities, the social and economic
benefits they receive should be consistent with their cultural preferences and decided in
consultation with affected communities.

(j) The assessment will incorporate all measures necessary to ensure compensation for assets
acquired at replacement cost, assistance to facilitate shifting of structures out of the
impact zone, and mitigation measures for loss of livelihood, or reduction in incomes for
PAPs. RAP is intended to be action-oriented and time-bound document. As such it should
be as precise and affirmative as possible, to facilitate approval by project authorities and
the WB. Clarifying the parameters of the RAPs during the early stages will ensure that
the RAP is a document focused on practical steps for implementation of R&R measures.

(k) Prepare the draft R & R framework in close coordination with the borrower and the
project affected people, based on type of losses expected, which describes entitlements
and mitigation measures needed to assist affected people, specially for the vulnerable in
accordance with World Bank guidelines.

(l) Assess institutional capacity and propose the institutional arrangement for
implementation of RAP, addressing grievances, and ensuring gender equity, and identify
the roles and responsibilities of each agency and develop a training program on R & R,
based on the assessment of the capacity of the implementing agency.

(m) To develop a time schedule to implement the action plan that synchronizes with civil
works.

(n) Conduct risk assessment for proposed mitigation measures and develop a risk assessment
framework.

(o) Develop user friendly software package for database on Project Affected Households and
families to enable monitoring.
Methods & Tools:

(a) Conduct census and baseline survey with the help of interview schedules and prepare linear maps at appropriate scales showing each affected property to identify all project affected households and assets.

(b) Conduct land surveys in project area with the assistance of government officials for preparing land plan schedules.

(c) Conduct focus group discussions to discuss adjustment in designs.

(d) Conduct consultations with affected people, and district level workshops with communities and executing organizations to finalize the implementation mechanism and for informed decision making.

Output:

The following shall be the outputs:

(a) Final R&R policy.

(b) Final Resettlement Action Plan (RAP) including a capacity building & training plan for project partners.

(c) Final data base of the socio-economic surveys.

5. Reporting Requirements

(a) Inception Report: The Consultant will submit an Inception report confirming the methodology to be adopted for the study, the deployment schedule of personnel, a schedule of site visits to be carried out and a reporting schedule, within a fixed time from the date of beginning of the assignment. The consultant may need to carry out a reconnaissance survey before submitting the inception report.

(b) Social Screening report: The expected output will be a Social Screening report and findings integrated in the feasibility report, including findings of analysis and consultation framework for project; outline of safeguard instruments as required; recommendation for adjustments in designs during feasibility and detailed design stage; scope of social impact assessment to define the universe of social issues for detailed analysis for DPR; and guidelines for resettlement and rehabilitation measures.

(c) Resettlement Action Plan: Project description; method of study; analysis of alternatives; minimization of adverse impacts; analyses of land tenure systems, land acquisition or transfer mechanism and R&R polices; project area profile and Impact analyses of the project on affected and displaced people with disaggregated data analyses of men and women; impact on land and other assets vis-à-vis the total asset including impact on occupation (formal and informal) and income (formal and informal sources) with disaggregated data analyses of both men and women; relocation plan with alternate sites, selection of preferred sites in consultation with the affected people, and planning for development of alternative sites; livelihood restoration plan with training plan for skill upgradation, employment and credit; community participation and integration with host population; restoration and relocation plan for cultural/common properties; institutional arrangement specified with roles and responsibilities, and training plan for capacity building; implementation schedule; monitoring, and evaluation plan, including indicators and reporting
formats; risk assessment; cost estimates including rate analysis, quantities for civil work items and detailed budget.

Other Information

The consultant are advised to refer to the following World Bank policies in addition to any other resources that they may deem fit:

1. OP 4.12 Involuntary Resettlement
2. OPN 11.03 Cultural property
3. Involuntary Resettlement Sourcebook

In addition, the consultant may refer to www.worldbank.org/socialanalysissourcebook.
Scoping Strategic Options for Kabul Water Supply: A Multi-Sector Decision Support System Approach

Introduction

1. The Bank Netherlands Water Partnership Program (BNWPP) has supported a study to systematically examine the key attributes of the various water projects that are planned in the Upper Kabul river basin from the perspective of Kabul’s water supply, taking into account the technical, economic, financial, social and environmental constraints, and for developing a decision support framework for development of water resources of the Kabul region. This work also included the development of a long-term action plan for creating capacity and institutional mechanisms for integrating water resources management in the Kabul region.

Objectives

2. The objective of this study was to analyze the medium and long-term options for expansion of water supply to the City of Kabul in the context of the optimum multi-purpose development and use of the water resources of the Upper Kabul River basin (see below detailed schematic).
3. A second objective of this study was to assemble what is known about the Upper Kabul River basin and existing and potential development of its water resources into a simple and readily used Decision Support System (DSS) that would facilitate and enable the joint multi-sector analysis of development options in the basin by the concerned ministries and their development partners.

Approach

4. The approach of this study was to develop a Decision Support System (DSS) for the Upper Kabul River basin and to use the DSS to analyze and assess the various options based on their cost, economic impacts, and long-term consistency with development goals and trends in various sectors. The DSS consists of two major components: an economic optimization model, and a knowledge base. The knowledge base includes data on water demand in Kabul, current and potential developments in various sectors throughout the Upper Kabul River basin, the characteristics of current and potential future infrastructure, and hydrologic and climatic data.

Implications

5. The implications of the approach developed indicate that it is possible to organize even patchy, scattered information on projects and from various sectoral masterplans to help consider water resources management and development options in an integrated manner. This kind of planning is essential for the sustainable development of the water resources of Afghanistan. This work has to be under the broad policy direction of the new Inter-ministerial Water Board and coordinated by its Technical Secretariat. The actual work should be done in Afghanistan by a multi-disciplinary team of technical specialists drawn from the “best and brightest” in Afghanistan. It is critical that basin plans be developed, facilitated by such tools and adequate consultation. However, it should also be noted that such plans would not be like “masterplans” developed in the past; rather they would involve systems for decision support that would be periodically re-assessed based on an evolving knowledge base and stakeholder opinions.

Benefits and Limitations

6. The benefits of this approach are many. These include: (i) integrated basin approach (taking into account various supply, multi-sectoral demands and development/management options); (ii) focal point for multiple stakeholders in developing shared vision of basin development; (iii) determine trade-offs and synergies explicitly; (iv) make best use of available data; (v) visual, flexible, readily expandable, and easy to use. Limitations include (i) problems with data quality and coverage; (ii) currently only optimized over single year but system needs to be studied with long flow sequences; and (iii) framework is intended for Planning not System Operations.

Institutional Arrangements

7. The institutional arrangements for water planning in Afghanistan, and hence for the use of such water planning tools, are expected to evolve over time (see figure below). A good beginning has been made with the setting up of an Inter-Ministerial Council for Water (or National Water Board). It is expected that this would have a technical secretariat to support its activities and also to take on an interim central role for basin planning in Afghanistan. This role could then eventually be devolved to basin entities as they emerge. There could be many options for the exact structure and roles of basin entities, but it is inevitable that such entities (or the central technical secretariat before them) would need to develop and use decision support tools for short, medium and long term planning of the water resources of the nation. This would be important in regional, national and inter-national contexts.
Next Steps

8. Critical next steps in the further development and use of this system for decision support for Kabul Water Supply include:

- Activate Institutional Arrangements for Multi-Sectoral Basin Planning
  - National Water Board
  - Technical Secretariat (including interim Basin Planning)
- Prepare Upper Kabul Basin Development Plan (Technical Secretariat)
  - Develop and Enhance Analytical Framework
  - Improve knowledge base (bring data up-to-date), elaborate options (and investigate unexplored options) and enhance modeling
  - Facilitate Consultation Processes
- Adopt the Upper KRB Plan (National Water Board)
- Design, Finance and Implement Investments (Line Ministries)