ADB

# Report and Recommendation of the President to the Board of Directors

Project Number: 41022
August 2009

# Proposed Asian Development Fund Grant
# Nepal: Second Small Towns Water Supply and Sanitation Sector Project

Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 21 July 2009)

| | | |
|---|---|---|
| Currency Unit | – | Nepalese rupee/s (NRe/NRs) |
| NRe1.00 | = | $0.01295 |
| $1.00 | = | NRs77.22 |

## ABBREVIATIONS

| | | |
|---|---|---|
| ADB | – | Asian Development Bank |
| CHRDU | – | Central Human Resources Development Unit |
| DSC | – | design and supervision consultant |
| DWSS | – | Department of Water Supply and Sewerage |
| EARP | – | environmental assessment and review procedure |
| EIA | – | environmental impact assessment |
| GESI | – | gender equality and social inclusion |
| IEE | – | initial environmental examination |
| ISAC | – | interim service area committee |
| JICA | – | Japan International Cooperation Agency |
| MDG | – | Millennium Development Goal |
| MLD | – | Ministry of Local Development |
| MOF | – | Ministry of Finance |
| MPPW | – | Ministry of Physical Planning and Works |
| NDWQS | – | National Drinking Water Quality Standards |
| NGO | – | nongovernment organization |
| OBA | – | output-based aid |
| O&M | – | operation and maintenance |
| PMC | – | project management consultant |
| PMO | – | project management office |
| PPMS | – | project performance management system |
| SEIU | – | sector efficiency improvement unit |
| SOE | – | statement of expenditure |
| STWSSSP | – | Small Towns Water Supply and Sanitation Sector Project |
| TDF | – | Town Development Fund |
| TPCC | – | town project coordination committee |
| UNDP | – | United Nations Development Programme |
| UNICEF | – | United Nations Children's Fund |
| UWSSSP | – | Urban Water Supply and Sanitation Sector Policy |
| VDC | – | village development committee |
| WHO | – | World Health Organization |
| WSSDO | – | water supply and sanitation divisional or subdivisional office |
| WUSC | – | water users and sanitation committee |

## NOTES

(i) The fiscal year (FY) of the Government of Nepal ends on 15 July. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2008 ends on 15 July 2008.

(ii) In this report, "$" refers to US dollars.

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## GRANT AND PROJECT SUMMARY

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|---|---|
| **Grant Recipient** | Nepal |
| **Classification** | Targeting classification: Targeted intervention—Millennium Development Goals (MDGs).<br>Sector (subsector): Water supply and other municipal infrastructure and services (water supply and sanitation)<br>Themes (subthemes): **Social development** (human development), environmental sustainability (urban environmental improvement), gender equity (gender equity in human capabilities), governance (civil society participation)<br>Climate change: Climate change adaptation<br>Location impact: Urban (high impact), national (low impact) |
| **Environment Assessment** | Category B. Environmental assessment and review procedures and initial environmental examinations for sample subprojects have been prepared.<br><br>Category B for involuntary resettlement and indigenous peoples. Resettlement framework and short resettlement plans for sample subprojects have been prepared. Impacts on indigenous peoples have been addressed in the resettlement framework and gender equality and social inclusion action plan. |
| **Project Description** | The proposed Project has three components. Component 1 will develop an efficient, effective, and accountable urban water supply and sanitation sector by establishing and implementing policies, establishing service standards, and enhancing sector coordination. Component 2 will entail development of safe, accessible, and adequate water supply and sanitation facilities in about 20 small towns. Component 3 will strengthen governance and capacity for project management and operation. |
| **Rationale** | Although Nepal is considered ahead of its Millennium Development Goal (MDG) target of 73% (95% for urban and 72% for rural) in terms of access to an improved water source, the *Nepal Millennium Development Goals: Progress Report* by the United Nations Development Programme (UNDP) published in 2005 cautions against optimism because of serious functionality problems. Based on a survey in 2002, it was reported that water availability was only intermittent in many areas, half of the gravity flow systems in the hills needed major repair, and more than half of the tubewells in the Terai were contaminated. UNDP concludes that Nepal's coverage could be considerably lower if the strict definition of access to safe drinking water were applied. Access to improved sanitation services was estimated to be only 27% in 2006 according to the World Health Organization and United Nations Children's Fund, and the MDG target of 53% (67% for urban and 52% for rural) for sanitation will not be met, if the rate of increase in coverage between 2000 and 2006 is maintained until |

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| | 2015. Currently, 265 towns (153 Terai and 112 hill towns) are classified as small towns in Nepal, with a total population of 3.6 million. These towns are being developed haphazardly, although they are playing an important role in creating economic links between the rural areas and the country's urban economy. Water supply in many small towns is deficient both in terms of coverage and water quality. There is serious and urgent need to improve water supply and sanitation services in small towns. |
| **Impact and Outcome** | The expected impact of the Project is improved health and economic and environmental living conditions of people in small towns in Nepal. The expected outcome of the Project is improved, affordable, and sustainable water supply and sanitation services which are governed and managed by locally accountable representative bodies. |
| **Project Investment Plan** | The investment cost of the Project is estimated at $71.7 million, including taxes and duties of $7.5 million. |
| **Financing Plan** | A grant of $45.1 million will be provided under ADB's Special Funds resources to finance 62.9% of the total project cost. |
| **Allocation and Relending Terms** | The Government will lend a portion of the grant proceeds, estimated to be about $17 million, to the Town Development Fund (TDF) at a proposed interest rate of 2%–3% per annum with no less than 20 years maturity, including a grace period of 5 years. The TDF will onlend the funds to water users and sanitation committees (WUSCs) at an interest rate not exceeding 5% per annum with a maturity of 20 years including a grace period of 5 years. |
| **Period of Utilization** | Until 31 March 2016 |
| **Estimated Project Completion Date** | September 2015 |
| **Executing Agency** | The Ministry of Physical Planning and Works (MPPW), with responsibility for subproject execution delegated to its Department of Water Supply and Sewerage (DWSS). |
| **Implementation Arrangements** | A sector efficiency improvement unit (SEIU) in the MPPW will take the lead in advancing the sector development (component 1). A project management office (PMO) established in the DWSS will be responsible for the overall project planning and management for component 2, including selection of towns, assistance for design, construction supervision and operation and maintenance (O&M), and overseeing safeguard compliance. The water supply and sanitation divisional or subdivisional offices (WSSDOs) of the DWSS, under the guidance of the PMO, will carry out overall management of individual subprojects, such as supporting the feasibility studies and detailed designs, managing the |

performance of design and supervision consultants (DSCs), engaging and supervising the services provided by local nongovernment organizations (NGOs), and providing technical support for O&M. The regional monitoring and supervision offices of the DWSS will supervise and support the WSSDO in the region. WUSCs will be responsible for O&M of the water supply and sanitation facilities constructed.

**Procurement**

All procurement to be financed under an ADB grant will be carried out in accordance with ADB's *Procurement Guidelines* (2007, as amended from time to time). The civil works contract, which will include the technical operation of the system for 1 year after completion of the construction, will be made for each town, combining water supply and sanitation facilities. Civil works contracts valued at more than $1 million equivalent and equipment contracts valued at more than $500,000 will be undertaken through international competitive bidding procedures, while civil works contracts valued at $1 million equivalent or less and equipment contracts valued at $500,000 or less will be procured following national competitive bidding procedures generally in accordance with the Government's *Public Procurement Regulations 2007* and *Public Procurement Act 2007* and acceptable to ADB. Packages valued at $100,000 or less will be procured under shopping procedures.

**Consulting Services**

Consultants will be recruited in line with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). Consulting services will be provided to (i) support sector development; (ii) support project management, monitoring, and evaluation at the central level; (iii) carry out design and construction supervision for individual subprojects, including monitoring for safeguards compliance; and (iv) provide training and capacity development programs for WUSCs and other institutions on financial, technical, and managerial aspects. An estimated 2,170 person-months (56 international and 2,114 national) of consulting services are needed.

**Project Benefits and Beneficiaries**

The Project is expected to provide a high level of water supply services to about 240,000 people in about 20 small towns. Sanitation services—such as on-site sanitation (private latrines), public toilets, wastewater management facilities (if justified), and storm water drainage—will also be provided in the same towns through an integrated approach. About 270,000 people will have access to and use improved sanitation facilities. Supplemented by health and hygiene education programs in these towns, the Project will bring significant health benefits, to be measured by the reduction in the occurrence of waterborne diseases. Time saving for water collection, in particular in hill towns, will be another major benefit expected from the Project, mainly for women and children.

**Risks and Assumptions**

The Government is currently in a transition to a new federal structure. The peace process remains complex and challenging, and the ongoing movement in the Terai region demanding autonomy and adequate representation in key state institutions is likely to continue. This could affect the Government's commitment to sector development as well as the process of decentralization and devolution of functions. However, the Government's commitment to sector efficiency improvement is currently strong and is expected to remain so in the near future, and the direction of federalism being debated is in line with increased roles and functions of local governments and community organizations.

The unstable security situation is likely to continue, in particular in the Terai, and there is a risk of delay in subproject design and construction due to difficulties in fielding the Government staff, consultants, and contractors. The Project implementation schedule has taken into account some potential delay, but experiences in the previous project show that, due to the nature of the Project—which is provision of water supply and sanitation services to communities—risks for disturbance are expected to be much smaller than projects in other sectors.

The Project's financial sustainability assumes an appropriate tariff level to recover at least necessary capital and O&M costs. Awareness raising about tariff payment and use of safe water will be started early in the project preparation stage for water users and WUSC members, and realistic assessment will be made regarding the amount of water to be used, based on which the appropriate tariff level will be proposed. More concessional terms of subloans from the TDF to WUSCs will significantly ease the burden of cost recovery.

# I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed grant to Nepal for the Second Small Towns Water Supply and Sanitation Sector Project. The design and monitoring framework is in Appendix 1.

# II. RATIONALE: SECTOR PERFORMANCE, PROBLEMS, AND OPPORTUNITIES

## A. Performance Indicators and Analysis

2. **Urbanization.** In 2001 Nepal had a relatively low urbanization level, with an urban population of 14%. However, internal migration into urban areas is rapidly increasing and the urban population is expected to reach 24% by 2017. Due to lack of proper planning and haphazard urban development, severe deficiencies in all kinds of urban infrastructure and services have become a major problem for the economic and social development of the country.

3. **Water Supply and Sanitation.** The Government of Nepal, with the assistance of a variety of multilateral and bilateral development partners and nongovernment organizations (NGOs), has made considerable efforts to provide improved water supply and sanitation services to people living in both the urban and rural areas of Nepal. The main resource for domestic supplies in the Terai[1] is groundwater from the shallow and deeper aquifers, whereas in the hills people rely on springs and streams. The quantity and quality of, and therefore access to, water, however, is compromised by population and development pressures, competing uses, lack of infrastructure, and, in some cases, poor water resource management. Shallow groundwater and surface streams are the most vulnerable to contamination, including arsenic in some areas. In addition, there are acute shortages during dry periods.

4. The Three-Year Interim Plan (FY2008–FY2010) of the Government reports that 76.6% of the population had access to basic drinking water services and 45.8% had access to basic sanitation services in 2006. The plan sets the target of 85% for access to basic drinking water services and 60% for access to basic sanitation services by the end of the interim plan period. The most recent World Health Organization (WHO) and United Nations Children's Fund (UNICEF) joint monitoring report[2] indicates even better coverage for water supply, with 94% of the urban population and 88% of the rural population estimated to have access to improved drinking water sources in 2006, although the figures are substantially lower, at 49% in urban areas and 11% in rural areas, in terms of house connections. The WHO and UNICEF joint monitoring report shows that improved sanitation is available to only 27% of the population (45% for urban and 24% for rural) in 2006. Sector analysis is provided in Appendix 2.

5. **Small Towns.** In Nepal, small towns have been emerging due to internal migration caused by inadequate economic opportunities and services and facilities in rural areas and the recent conflict. In order to improve water supply and sanitation services in these small towns, in January 2000 the Government endorsed the 15-year Development Plan for Small Towns Water Supply and Sanitation. It quantified the water supply and sanitation needs of small towns, estimated the cost of providing the improved services, and proposed an institutional framework. Two hundred and nine towns were identified as small towns, with a total population of 2.14 million. In the 8 years to 2008, however, major improvement of water supply services was

[1] The Terai is the southern plain area bordering India.
[2] WHO and UNICEF. 2008. Joint Monitoring Programme for Water Supply and Sanitation. *Progress on Drinking Water and Sanitation: Special Focus on Sanitation*. New York and Geneva.

provided to only 32 towns, out of which 29 were supported by the Asian Development Bank's (ADB's) Small Towns Water Supply and Sanitation Sector Project (STWSSSP-I), and the remaining three by a grant from the Government of Japan.

6. In the technical assistance for preparing the Project,[3] the 15-year development plan has been updated and small towns have been redefined within the framework of the National Urban Policy (2007) as follows: (i) population of 5,000–40,000; (ii) located on a road linked to the strategic road network; and (iii) having at least one secondary school and a health post in addition to grid electricity, basic telecommunications, and banking. Two hundred and sixty five towns (153 Terai towns and 112 hill towns) with a total population of 3.6 million satisfy the criteria. These towns are being developed haphazardly, although they are playing an important role in creating economic links between the rural areas and the country's urban economy. According to the original plan, only 45% of the population in small towns had access to piped water supply, irrespective of the water quality, and the current coverage is likely to be similar. On sanitation, coverage of three towns studied ranged from 36% to 81%. Although there is serious and urgent need, support to improve water supply and sanitation services in small towns from both the Government and from development partners has been severely limited.

## B. Analysis of Key Problems and Opportunities

7. **Service Quality of Water Supply.** Although the access ratio on water supply mentioned above shows that Nepal is ahead of its Millennium Development Goal (MDG) target of 73% (95% for urban and 72% for rural) in 2015, the *Nepal Millennium Development Goals: Progress Report* by the United Nations Development Programme (UNDP)[4] cautions against optimism because of serious functionality problems. Based on a survey conducted in 2002, it was reported that water availability was only intermittent in many areas, half the gravity flow systems in the hills needed major repair, and more than half the tubewells in the Terai were contaminated. Arsenic contamination is also a major issue in some areas in the Terai where water supply depends on shallow wells. UNDP concludes that Nepal's coverage could be considerably lower if the strict definition of access to safe drinking water were applied. Taking into account functionality and water quality, the implication would be that Nepal is seriously behind in achieving its MDG target for water supply.

8. **Sanitation Coverage.** There is strong need to improve sanitation services delivery, particularly in small towns which are similar in terms of rural access figures, in order to meet the MDG target of 53% (67% for urban and 52% for rural). Assuming that the rate of increase in coverage between 2000 and 2006 is maintained until 2015, it appears that the MDG target for sanitation will not be met in either urban or rural areas.

9. **Lessons.** In 2000, ADB provided a loan of $35 million for the STWSSSP-I to assist the Government in providing water supply and sanitation services in 29 small towns. The detailed analysis of phase I is in Supplementary Appendix A. The STWSSSP-I, completed in November 2008, has brought about substantial benefits in terms of (i) successfully introducing community involvement and strong ownership, (ii) introducing the principle of cost sharing to water users even for the capital cost, (iii) significantly reducing the occurrence of waterborne diseases, (iv) greater involvement of women in particular in community mobilization and decision making, and (v) savings in time and labor to fetch water, which is normally the work of women and children.

[3] ADB. 2007. *Preparing the Improved Water Quality, Sanitation and Service Delivery Sector Development Program*. Manila.

[4] UNDP. 2005. *Nepal Millennium Development Goals: Progress Report*. New York.

Shortcomings observed are described in the following paragraphs, together with the changes that have been reflected in the design of the Project.

10. **Technical Sustainability.** Some water supply systems constructed under the STWSSSP-I faced problems such as poor construction quality, lack of technical expertise of water users and sanitation committees (WUSCs), and inadequate backup support, which is adversely affecting the effective operation of the system. In the Project, the water supply and sanitation divisional or subdivisional offices (WSSDOs) [5] will, under the guidance and supervision of the project management office (PMO), carry out overall management of individual subprojects from the planning stage, instead of establishing a town project office in each town, which lasts only during the project period. The WSSDOs will also strengthen construction supervision, assisted by design and supervision consultants (DSCs), and will work as a technical backstop agency for WUSCs even after completion of construction. Technical operation of the system in the first year will be entrusted to the contractor, and this is expected to improve the quality of construction work.

11. **Financial Sustainability.** Delay in construction as well as the low number of tap connections is putting a number of WUSCs in the STWSSSP-I towns in a difficult situation in repaying the loan to the Town Development Fund (TDF) on time. In Terai locations, easy availability of groundwater to the households at their premises, though often unsafe due to contamination, seems to be the main reason for the low number of tap connections and low water use. Another significant reason is the high tap connection fee[6] for drinking water supply. To overcome these bottlenecks, subloans from the TDF in the Project will be made more concessional, with a longer grace period (proposed to be 5 years), a longer repayment period (15 years after grace period) and a lower interest rate (proposed to be not exceeding 5% per annum). Output-based aid (OBA)—performance-based grants to be provided primarily to facilitate the connection of poor people's houses to the water supply and to sanitation services—will increase the connection of the poor without compromising financial viability.

12. Fifteen percent in-kind or cash contribution, on top of 5% upfront cash contribution, by WUSCs for the water supply component was reported problematic in the STWSSSP-I.[7] In the Project, WUSCs will be given flexibility, with a choice between increased borrowing from the TDF and its own initial contribution, depending on the willingness and capability of the beneficiaries. The cash contribution will be 5%–15%, including 5% upfront contribution, and the remaining 35%–45% will be a loan from the TDF. A reduced initial cash contribution will enable the connection fee to be lowered, if not eliminated. A 50% contribution from WUSCs is in line with the Urban Water Supply and Sanitation Sector Policy (UWSSSP) that requires communities and/or municipalities to contribute not less than 30%, depending upon the socioeconomic status. Operation and maintenance (O&M) costs will be fully recovered through tariff collection.

13. **Training and Capacity Building.** Under the STWSSSP-I, the TDF, DSC, and national NGOs provided various types of technical, financial, and social training programs to WUSC members. While trainings given by the TDF on financial aspects and by the DSC on technical

[5] Forty two divisional offices, 28 subdivisional offices, and 5 regional monitoring and supervision offices in 75 districts are hereinafter collectively referred to as WSSDOs.

[6] The connection fee was in the range of $100–$150 per household in most towns under the STWSSSP-I. This was separately charged from connection costs of about $60–$70 per household.

[7] In reality, there was little in-kind contribution, and many towns collected high connection fees and connection costs, among other charges, to satisfy the total 20% requirements. Another problem observed was difficult synchronization between the main contractor's work and the community work carried out using the community contribution, which resulted in delay and poor quality.

aspects were generally found effective and appreciated by WUSCs, observations have been made that (i) training programs were not held in a timely manner, (ii) trainings were not frequent enough to create results, and (iii) participants who received training did not remain in the relevant posts. The PMO, its consultants, and the DSC will plan more carefully and implement the capacity building programs for WUSC members and WUSC's employees in accordance with the construction schedule and progress. A monitoring mechanism to measure the effectiveness of training programs will be established by the PMO. The Central Human Resources Development Unit (CHRDU), under the Department of Water Supply and Sewerage (DWSS), will also be brought in and strengthened so that it can help equip WUSCs with more business-oriented management skills, in addition to technical and financial management capabilities, even beyond the Project period.

14. **Policy and Legal Framework.** Development of the legislative and policy framework for Nepal's water and sanitation sector is a relatively recent phenomenon, taking place primarily over the last 10 years to 2009. The policy and legal framework has developed incrementally with separate policies and regulations adopted and enacted for water resources, national sanitation, rural water supply and sanitation, water quality, and urban development. Major acts and regulations relevant to the Project include the Drinking Water Regulation (1998), National Water Supply Sector Policy (1998), Local Self Governance Act (1999), Local Self Governance Regulations (1999), National Water Plan (2005), National Drinking Water Quality Standards (NDWQS) (2005), and National Urban Policy (2007). Some inconsistencies are observed among the acts and regulations, and translating policies and plans into actions in the context of decentralization and community empowerment is a key challenge.

15. The Ministry of Physical Planning and Works (MPPW) has finalized and the Government has subsequently approved the UWSSSP. As a next step, an action plan will be developed to facilitate policy implementation. The Government currently does not have policies and guidelines focused on wastewater management, which will be another priority action of the MPPW. The Government intends to develop an umbrella water supply and sanitation act by consolidating existing acts, although adequate consideration needs to be made with regard to the finalization of Nepal's new political structure and constitution which is anticipated to provide additional powers to local governments under a new federated structure beyond 2010. As a major development partner in the water supply and sanitation sector as well as in the urban sector, it is critical that ADB remains engaged in policy dialogue with the Government and provides necessary support for smooth and effective sector development.

16. **External Assistance.** In recent years, ADB has been the largest development partner in the urban water supply and sanitation sector, followed by the Government of Japan through the Japan International Cooperation Agency (JICA) and German development cooperation through KfW and GTZ. ADB has been chairing the development partners' group for urban development, and assisted the Government in drafting the UWSSSP and updating the 15-year Small Towns Development Plan.[8] External assistance is outlined in Appendix 3. JICA has recently agreed to provide technical cooperation for capacity development on water supply in semi-urban areas, under which the technical support system of the DWSS to WUSCs is to be improved in a few districts. GTZ has been providing support for strengthening the financial and management capacity of the TDF under the Urban Development through Local Efforts program.

[8] Technical assistance was provided through the Preparing the Improved Water Quality, Sanitation and Service Delivery Sector Development Program.

17. **Sector Lending.** The Project will follow a sector lending modality.[9] This is considered appropriate because (i) the Government has prepared the 15-year Development Plan for Small Towns Water Supply and Sanitation (2000–2015) and in May 2009 endorsed the updated 15-year plan that is satisfactory to ADB; (ii) the MPPW and DWSS have the institutional capacity to implement the updated 15-year plan with substantial experience gained through past ADB-assisted water supply and sanitation projects including the STWSSSP-I; and (iii) the MPPW finalized the UWSSSP in May 2009, also satisfactory to ADB, and the Government subsequently approved it in August 2009. The Project will assist the Government in implementing the updated 15-year plan and the UWSSSP.

## III. THE PROPOSED PROJECT

### A. Impact and Outcome

18. The expected impact of the Project is improved health and economic and environmental living conditions of people in small towns in Nepal. The expected outcome of the Project is improved, affordable, and sustainable water supply and sanitation services which are governed and managed by locally accountable representative bodies.

### B. Outputs

19. The Project has three components. Component 1 will develop an efficient, effective, and accountable urban water supply and sanitation sector by establishing and implementing policies, establishing service standards, and enhancing sector coordination. Component 2 will entail development of safe, accessible, and adequate water supply and sanitation facilities in about 20 towns. Component 3 will strengthen governance and capacity for project management and operation.

#### 1. Component 1: Developing an Efficient, Effective, and Accountable Urban Water Supply and Sanitation Sector

20. The output of component 1 is developing an efficient, effective, and accountable urban water supply and sanitation sector. The Project will support sector development spearheaded by the MPPW, in particular the sector efficiency improvement unit (SEIU) established in July 2009.[10]

21. While the legal and policy framework of the water supply and sanitation sector has gradually been developed over the last 10 years to 2009, the sector needs further improvement in terms of efficiency, effectiveness, and accountability. Initial tasks of the SEIU will include (i) supporting the implementation of the UWSSSP, with its clear monitoring and evaluation mechanism put in place; (ii) establishing water supply and sanitation service standards and measuring and monitoring performance of service levels provided by all utilities (including local governments and WUSCs); (iii) enhancing sector coordination; and (iv) assisting the formulation of new laws, policies, and guidelines that fall under the responsibility of the MPPW, including the umbrella water supply and sanitation act and national technical standards for sewerage and wastewater management. This component will cover incremental recurrent costs in the SEIU, equipment, and consultancy support to the SEIU.

[9] The term used in the ADB's *Operations Manual* (OM Section D3) was followed, although the Project is funded on a grant basis.

[10] Monitoring and Evaluation Unit for rural water supply and sanitation in the MPPW will be integrated into the SEIU.

22. **Performance Monitoring and Improvement.** The SEIU will establish service standards for water supply and sanitation services, performance indicators and targets, and a performance evaluation system, followed by actual collection and compilation of indicators, performance evaluation for improvement of the services in the medium-to-long term, and documentation and publication of the assessment results. In addition, the SEIU will review the governance structure of WUSCs and other water supply and sanitation service providers and provide guidelines for improved governance in the context of decentralization and devolution. As needed, the roles and functions of central government agencies, including the DWSS, will be redefined to focus more on policy implementation, sector planning and monitoring, and establishment of regulation and technical standards. Promotion of private sector participation, including as an operator for service delivery, will be examined.

### 2. Component 2: Developing Water Supply and Sanitation Facilities

23. The output of component 2 is developing safe, accessible, and adequate water supply and sanitation facilities in about 20 towns, with an average population of 16,000 per town. This component will be implemented in two batches, with each batch consisting of about 10 towns.[11] The criteria for selecting small towns and subprojects are in Appendix 4.

24. **Water Supply.** Water supply in many small towns is deficient in terms of both coverage and quality. Coverage needs to be expanded with augmented water supply from surface water sources (normally in the hills) or from groundwater sources (normally in the Terai). Even in areas where water is supplied through a piped system or shallow tubewells, current water supply is usually intermittent, limited in quantity, and the quality is not suitable for drinking. The Project will support the development of additional water sources, construction of water treatment facilities [12] and storage tanks, and rehabilitation and/or expansion of transmission and distribution systems in about 20 small towns. It is intended that the piped water supply system will achieve the following service level:[13] (i) increased per capita water supply (90–100 liters per capita per day for private house connections), (ii) 24-hour water supply with adequate residual pressure, (iii) at least 90% coverage of the service area after 5 years of operation, (iv) treated water satisfying the NDWQS, and (v) predominantly private house connections. Public–private partnerships, through such options as service or management contracts, will be piloted in a few towns.

25. **Sanitation.** Addressing sanitation and wastewater management is essential, particularly as water supply will be augmented. In Nepal, wastewater management is still in its infancy and currently implemented only in a small number of large towns. In order to maximize the Project benefits in terms of improving the health of beneficiaries, an integrated water supply and sanitation subproject[14] will be planned and implemented in all towns under the Project. Local NGOs will be engaged in each town for public awareness raising and health and hygiene education. The Project will support construction of sanitation facilities, such as public toilets and

[11] For batch 1, towns that have completed at least feasibility studies will be selected. Currently the detailed design is available for 12 towns, and the feasibility study is available for 11 more towns (including 3 sample subprojects studied under the project preparatory technical assistance).

[12] Depending on the raw water quality, expected water treatment could include sedimentation, filtration, and disinfection (chlorination) to satisfy the NDWQS.

[13] There is a minor difference from the high level of services defined in the UWSSSP which has the following criteria: (i) more than 100 liters per capita per day of water supply, (ii) quality meeting NDWQS, (iii) fully plumbed within the house, (iv) 24 hours supply, and (v) 12 months continuity. The level of services provided under the Project is also considered high as the difference is minor and the Project takes account of the situation in small towns in terms of water demand.

[14] In each town, a subproject is referred to as a town project.

sludge drying beds for septic tank sludge disposal, in about 20 small towns. Where population density is high and investment is economically justified, wastewater management systems will be introduced as pilot projects in several towns. The type of treatment to be used largely depends on the available funds and the land, but natural treatment systems such as waste stabilization ponds or the reed bed treatment method are generally preferred due to the relatively small operation costs and past experiences. Each household is principally responsible for on-site sanitation (private latrines), but grants through the OBA approach will be provided to households to facilitate construction of private latrines, in association with awareness raising activities.

26. Storm water drainage is a major problem in most of the Terai towns. The Project will support construction of drainage systems in the core areas of the project towns. Solid-waste management will be included to ensure effective operation of sanitation facilities, with focus on community 3R (reduce, reuse, and recycle) activities.

27. **Output-Based Aid**.[15] The Project proposes a strategy for using explicit performance-based grants to deliver water supply and sanitation services primarily to the poor and vulnerable groups. Under the OBA, grants will be given to service providers, i.e., WUSCs, after delivery of the household connections has been verified by an independent verification agent. Grants will be provided to carefully selected households[16] for water supply and sanitation services, the details of which will be determined by each WUSC. This will enhance service delivery without compromising financial viability. The framework of the OBA is in Appendix 5.

28. This component will include civil works and equipment in about 20 towns, OBA, and project planning and implementation support from the DSC and local NGOs. To ensure more effective and long-term involvement, local NGOs will be engaged in each town to promote community awareness and implement a gender equality and social inclusion (GESI) action plan (by contrast, national NGOs were used in the STWSSSP-I).

### 3. Component 3: Strengthening Governance and Capacity for Project Management and Operation

29. This component will support smooth and effective Project implementation and operation. Adequate training and capacity building programs will be provided to WUSCs, WSSDOs, and regional monitoring and supervision office by the PMC, DSC, TDF, CHRDU, and local NGOs. The PMO in DWSS, with the support from the PMC, will manage and monitor overall project implementation through the project performance management system (PPMS) to be developed for the Project. This component will cover the PMC, equipment, and incremental recurrent costs in the PMO and WSSDOs. To assist WUSCs in getting proactively involved in construction management and in taking over the system smoothly, the administrative cost for engaging management staff to be retained by WUSCs (who will take operational responsibility for the system), will be partially paid from this component.[17] The PMO, assisted by the PMC, will ensure that five regional water quality and meter calibration laboratories[18] become fully

[15] The UWSSSP addresses the OBA to facilitate the access of poor people to water supply and sanitation services. Specific guidelines will be prepared by the SEIU.

[16] It is intended that the poor will be targeted and selected for the water supply connection, while even non-poor may be eligible for grants for the construction of private latrines.

[17] It is proposed that 50% of the recurrent cost for engaging up to two technical and/or financial managers will be paid by the Project for a maximum of 2 years, if not later than 1 year after the completion of construction.

[18] Necessary equipment has been provided under STWSSSP-I, but staff recruitment is still in progress. It is expected that meters to be procured in the Project will have to be certified in these laboratories.

operational so that these laboratories conduct water quality testing and meter calibration services for WUSCs.

30. The PMO, its consultants, and the DSC will plan and implement the capacity building programs for WUSC members and employees in accordance with the construction schedule and progress.[19] A monitoring mechanism to measure the effectiveness of training programs will be established by the PMO as part of the PPMS. The CHRDU, under the DWSS, will be brought in and strengthened so that it can help equip WUSC members and/or employees with business-oriented management skills, in addition to technical and financial management capabilities, even beyond the Project period.

## C. Special Features

31. **Introduction of Output-Based Aid.** OBA, a strategy for using explicit performance-based grants to deliver basic services such as water supply and sanitation where policy concerns would justify public funding to complement or replace user contribution, will be applied to facilitate connection of mainly poor people's houses to water supply and sanitation services. OBA, as an approach to help improve aid effectiveness, is increasingly being utilized by other development partners such as the World Bank. In the Project, WUSCs will pre-finance a part of the connection costs for those eligible for OBA grants, mainly through membership fees and/or initial contributions from the non-poor, and ensure the connection of poor people's houses to the water supply and the construction of private latrines with appropriate designs. WUSCs will be reimbursed the grant amounts by the Government after the intended outputs have been confirmed by local NGOs working as verification agents. As this is the first attempt of its kind, specific guidelines for OBA will be prepared by the SEIU, with assistance from the SEIU consultants.

32. **Construction and First-Year Operation Contract.** Smooth start-up of the operation is considered a key to the success of the Project. Inclusion of technical operation of facilities in the first year in the main civil works contract, in particular incorporating operational performance in payment conditions, is expected to (i) speed up the construction, (ii) ensure good quality of construction work, and (iii) ensure smooth operation of the facilities. During the first year of operation, management staff to be engaged by WUSCs taking operational responsibility for the system will receive full on-the-job training from the contractors to ensure the seamless transition after the first year of operation.

## D. Project Investment Plan

33. The Project investment cost is estimated at $71.7 million, including taxes and duties of $7.5 million. Detailed cost estimates are in Appendix 6.

[19] Capacity building programs would include members and/or employees of WUSCs in the STWSSSP-I towns.

**Table 1: Project Investment Plan**

($ million)

| Item | | Amount |
|---|---|---|
| **A.** | **Base Cost**[a] | |
| | 1. Developing an Efficient, Effective, and Accountable Urban Water Supply and Sanitation Sector | 1.4 |
| | 2. Developing Water Supply and Sanitation Facilities | 52.2 |
| | 3. Strengthening Governance and Capacity for Project Management and Operation | 4.1 |
| | 4. Taxes and Duties | 7.5 |
| | **Subtotal (A)** | **65.2** |
| **B.** | **Contingencies**[b] | **6.5** |
| | **Total (A+B)** | **71.7** |

[a] Exchange rate of NRs68.57 = $1 has been used. Base costs are as of July 2008.

[b] Physical contingencies are estimated at 0%–10%. Price contingencies are computed at 0.4%–6.8% on foreign exchange costs and at 6.8%–7.4% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Source: Asian Development Bank estimates.

## E. Financing Plan

34. The Government has requested a grant of $45.1 million from ADB's Special Funds resources to help finance the Project. The provision of grant assistance is justified by (i) the nature of the Project, which is to satisfy basic needs of water supply and sanitation; (ii) the fact that it has pro-poor orientation; and (iii) the country's tight fiscal position. The grant will cover 62.9% of the total project cost. The Government will provide $20.5 million equivalent to cover (i) taxes and duties, (ii) a part of civil works costs, (iii) a part of OBA grants, and (iv) a part of incremental recurrent Government staff costs. WUSCs (beneficiaries) and local governments will contribute $6.1 million equivalent.

**Table 2: Financing Plan**

| Source | Amount ($ million) | Share of Total (%) |
|---|---|---|
| Asian Development Bank | 45.1 | 62.9 |
| Government | 20.5 | 28.6 |
| Beneficiaries and Local Governments | 6.1 | 8.5 |
| **Total** | **71.7** | **100.0** |

Source: Asian Development Bank estimates.

35. The Government will lend a portion of the grant proceeds, estimated to be about $17 million,[20] to the TDF at a proposed interest rate of 2%–3% per annum with no less than 20 years maturity, including a grace period of 5 years. Final lending terms and conditions between the Government and the TDF will be mutually agreed upon. All payments received from the TDF under the subsidiary loan agreement will be used for country poverty reduction programs. It has been proposed that the TDF will onlend the funds to WUSCs at an interest rate not exceeding

[20] Assumed to be 40% of the civil works and equipment cost, excluding the cost for private latrine construction.

5% per annum with a maturity of 20 years including a grace period of 5 years. While reducing the interest rates from the TDF to WUSCs from the level in the STWSSSP-I, the introduction of a late payment charge will be examined to provide incentives for on-time payment. The balance of the grant amount (about $28 million) will be channeled through the Government as a grant portion, to be used for subproject investment costs, consulting services, and other costs in respect of the Project.

36. In each project town, water supply systems will be financed by WUSCs (50%) and the Government (50%). The initial cash contribution of WUSCs may range between 5% and 15% of the civil works contract, including a 5% upfront cash contribution,[21] depending upon its willingness and capability, with the remaining 35%–45% to be borrowed from the TDF.[22] Increasing the proportion of TDF borrowing, compared to the STWSSSP-I, will ease the burden of collection of initial contribution, and enable gradual recovery through tariff collection. Moreover, the payment method will be changed to alleviate the financial burden during the initial years.[23] Public sanitation facilities[24]—which include public toilets, sludge drying beds, storm water drainage, and wastewater management (if justified)— will be financed by WUSCs and local governments[25] (15% in total[26]) and the Government (85%).[27] On-site sanitation will be the responsibility of individual households, but grants through the OBA approach will be provided to households to facilitate construction of private latrines. All other related costs—including consulting services, NGO services, training, capacity building, and incremental administrative expenses—will be financed by the Government using Project funds.

37. O&M costs for water supply will be fully recovered by WUSCs, while those for sanitation services (sludge management, off-site sanitation, and drainage) will be paid for by WUSCs and local governments through a mutual agreement.

## F. Implementation Arrangements

### 1. Project Management

38. The MPPW will be the executing agency, with responsibility for subproject execution delegated to the DWSS. The SEIU established in the MPPW will take the lead in advancing the sector development (component 1), with support from SEIU consultants. The SEIU will be

[21] In the STWSSSP-I, an upfront 5% cash contribution and additional 15% contribution (in-kind or cash) were required. In reality, there was little in-kind contribution, and many towns collected high connection fees ($100–$150 per household) and connection costs ($60–$70 per household), among others, to satisfy the requirements. This created problems, such as difficult synchronization between the main contractor's work and the community work (using the 15% contribution) resulting in delay and poor quality, and less connection by the poor due to high initial costs. Subproject costs that will not be included in the civil works contract, such as compensation for land acquisition and resettlement, if any, will be separately collected and paid by WUSCs. It is expected that 5%–15% initial contribution will be made mainly through collection of connection costs.

[22] This will be repaid from tariffs to be collected by WUSCs.

[23] An alternative payment method, under which the sum of principal repayment and interest payment will be equal in each installment throughout the repayment period, may be adopted by WUSCs, which is different from the equal principal repayment method. These changes will enable the tariff level for recovering payment or repayment to the TDF and full O&M expenditure to be set at an affordable level of less than 3% of income even for low-income households in three sample subprojects studied under the project preparatory technical assistance.

[24] No cash contribution is expected from WUSCs and local governments for solid-waste management, as the scope is mostly focused on awareness raising and community mobilization for 3R activities.

[25] "Local governments" refers to municipalities and village development committees (VDCs).

[26] Share between WUSC and local government will be agreed upon in each town before the commencement of detailed design. WUSC may borrow from the TDF a part of its share.

[27] Sanitation will require a higher contribution from the Government as there are limited demands from the public due to fear of high investment costs, but inclusion in the system will bring significant public health benefits.

headed by the joint secretary of the water supply and sanitation division and consist of dedicated staff including one at undersecretary level. The PMO established in the DWSS will be responsible for the overall project planning and management for component 2, including selection of towns; recruitment of PMC and DSC; procurement of civil works contractors; assistance for design, construction supervision, and O&M; and overseeing safeguard compliance. The PMO will be headed by an experienced full-time project director, supported by two full-time deputy project directors. The WSSDO of the DWSS, under the guidance of the PMO, will carry out overall management of individual subprojects, such as supporting the feasibility studies and detailed designs, managing the performance of the DSCs, recruiting and supervising local NGOs, and providing technical support for O&M. For each subproject, a dedicated core group headed by a qualified engineer under the supervision of the WSSDO head will undertake day-to-day project management. The regional monitoring and supervision office of the DWSS will supervise and support WSSDO in the region. The implementation arrangement is in Appendix 7.

39. **Functions of Water Users and Sanitation Committees.**[28] WUSCs will be responsible for O&M of the water supply and sanitation facilities constructed. When a WUSC does not exist initially, an interim service area committee (ISAC) will be first established in the feasibility stage by representing potential consumers. The ISAC will assist the DSC in undertaking a feasibility study, make inputs into and agree with the technical proposals, and decide on the boundaries of the service areas. WUSCs will be developed from ISACs at the detailed design stage, and will be responsible for (i) working with the DSC in finalizing the detailed design; (ii) land acquisition and resettlement, if any; (iii) participating in the bidding evaluation process and signing the contact with the main civil works contractor as a witness; (iv) fulfilling required contribution; (v) concluding a subsidiary loan agreement with the TDF; (vi) supervising the construction work and endorsing the payment; (vii) setting water tariffs at a level to cover necessary payment or repayment to the TDF, O&M expenditures, and replacement and future expansion in accordance with the UWSSSP; and (viii) ensuring smooth house connections. After the construction completion, WUSCs will be responsible for (i) operating and maintaining the system, and expanding the system, when appropriate; (ii) collecting the tariff; and (iii) repaying the debt to the TDF. WUSCs normally consist of nine executive members, at least three of whom are women. An operation or supervision unit is to be established under the WUSC before the construction completion, and this unit will operate the system or supervise the operator, if outsourced. After the first year of technical operation by the contractor, WUSCs will be given options as to whether they (i) continue to engage the same operator with agreed fees, (ii) engage a separate operator through competitive bidding, or (iii) operate the system through the unit.

40. **Local Governments.** Local governments, i.e., village development committees (VDCs) and municipalities, are responsible for ensuring effective and efficient operation of the system by WUSCs, and will facilitate the access of WUSCs to a TDF loan as well as the loan recovery from the WUSC to the TDF. They will also contribute a part of investment and O&M expenditures for off-site sanitation facilities, in agreement with WUSCs. The following agreements will be concluded for subproject implementation: (i) a general agreement among local governments, WUSCs, PMO, and TDF specifying, among other things, (a) the proportion of cost sharing both for water supply and sanitation systems; and (b) the principle of integrated water supply and sanitation, tariff collection, and the OBA, before the commencement of

[28] WUSCs are to be registered with the district water resources committee as a user association under the Water Resources Act (1992).

detailed design work;[29] (ii) an agreement among the same four parties specifying, among other things, (a) the amount of contribution from each party; (b) the proposed level of tariff to be collected by WUSCs; (c) the commitment of WUSCs to recover payment and repayment, O&M expenditures, replacement, and future expansion in accordance with the UWSSSP; and (d) the target and level of grant to be given under the OBA, before the contract award; and (iii) a subsidiary loan agreement between the TDF and WUSC before the contract award.

41. **Town Development Fund.** The TDF is a Government-owned autonomous body that provides financial, technical, and institutional support to the institutions engaged in town development. The TDF has been strengthened by gaining experiences from KfW grants and the STWSSSP-I. The TDF will be responsible for the financial sustainability of subprojects, and it will (i) examine the subproject costs in connection with the repayment capabilities of the WUSCs in coordination with the DSCs and PMO; (ii) recommend and monitor tariffs to cover O&M expenditures, debt service payment, and replacement and future expansion in accordance with the UWSSSP; (iii) provide training in tariff setting, bookkeeping, accounting, and financial management to members and/or employees of WUSCs; and (iv) disburse and collect loans. The TDF may, in consultation with the DWSS, send the records of payment and/or repayment from WUSCs and the performance of local governments as a facilitator to the Ministry of Local Development (MLD) to seek necessary support from the ministry. Assessment of the TDF is in Supplementary Appendix B.

42. **Central Human Resources Development Unit.** The CHRDU was established in 1987 within the DWSS to work as the center for human resource development for water supply and sanitation services. The CHRDU will provide training on technical matters and management skills such as business plan development, management of outsourcing, and customer relationships. The PMO will support strengthening functions of the CHRDU through development of appropriate programs and training of resource persons.

43. **Coordination Committees.** At the central level, a project coordination committee will be set up with the secretary of the MPPW as the chair and the joint secretary of the MPPW as the alternate chair. The committee will comprise the director general of the DWSS, the executive director of the TDF, and senior representatives from the Ministry of Finance (MOF), MLD, the Ministry of Health and Population, the Ministry of Law and Justice, and the National Planning Commission. The PMO director will serve as member-secretary. The project coordination committee will meet at least twice a year to review the overall progress and discuss key issues to be addressed at the central level. In each town, a town project coordination committee (TPCC) will be established. If a subproject is implemented in a municipality, the TPCC will be chaired by the mayor[30] of the municipality, and represented by the executive officer of the municipality, WSSDO, and WUSC. If it is located in a VDC, the TPCC will be chaired by the head of the WSSDO, and represented by the WUSC and the VDC, until political leadership[31] is in place in the VDC, after which time the VDC chair will co-chair the TPCC. Representatives of education and health units of local governments will also be members of the TPCC, to ensure the sustained efforts for health and hygiene education beyond the construction period. Representatives from the district development committee, PMO, regional monitoring and supervision office, TDF, the contractor, DSC, and local NGO will also be invited when needed. TPCCs will meet quarterly, or as often as necessary, to oversee the subproject progress and

[29] This will mean the commencement of detailed design review for towns where the detailed design is already available.
[30] Until the mayor is elected, the chief executive officer deputed from the MLD, acting as mayor, will chair the TPCC.
[31] Political leadership refers to either the elected chair, or the chair selected via consensus among political parties.

effectiveness of all relevant activities and discuss any issues to ensure smooth implementation and operation.

### 2. Implementation Period

44. The Project will be implemented over 6 years and is expected to end in September 2015. Start-up activities will include establishing the PMO and SEIU, recruiting consultants and project staff, and selecting towns under batch 1. Component 2 will be implemented in two batches, each consisting of about 10 towns, and the construction period is expected to be from July 2011 to June 2013 for batch 1 and from July 2012 to June 2014 for batch 2. The Project implementation schedule is in Appendix 8.

### 3. Procurement

45. All procurement to be financed under an ADB grant will be carried out in accordance with ADB's *Procurement Guidelines* (2007, as amended from time to time). The civil works contract, which will include the technical operation of the system for 1 year after completion of the construction, will be made for each town, combining water supply and sanitation facilities. Civil works contracts valued at more than $1 million equivalent and equipment contracts valued at more than $500,000 will be undertaken through international competitive bidding procedures, while civil works contracts valued at $1 million equivalent or less and equipment contracts valued at $500,000 or less will be procured following national competitive bidding procedures generally in accordance with the Government's *Public Procurement Regulations 2007* and *Public Procurement Act 2007* and acceptable to ADB. Packages valued at $100,000 or less will be procured under shopping procedures. The procurement plan is in Appendix 9, and the procurement capacity assessment report and recommendations are in Supplementary Appendix C.

46. **Advance Contracting and Retroactive Financing.** ADB has approved the Government's request of advance contracting for engaging the PMC, DSC, SEIU consultants and local NGOs, and retroactive financing for (i) the services to be provided by the consultants and NGOs, and (ii) the operation of the PMO and SEIU. Retroactive financing will be up to 20% of the total ADB grant amount for eligible expenditures incurred prior to grant effectiveness but not earlier than 12 months prior to the signing of the grant agreement and in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time) for the recruitment of PMC, DSC, SEIU consultants, and local NGOs. The Government has been advised that ADB's approval of advance contracting and retroactive financing would not commit ADB to subsequently approve and finance the Project.

### 4. Consulting Services

47. Consultants will be recruited in line with ADB's *Guidelines on the Use of Consultants*. Consulting services will be provided to (i) support project management, monitoring, and evaluation at the central level; (ii) support sector development; (iii) carry out design and construction supervision for individual subprojects, including monitoring for safeguards compliance; and (iv) provide training and capacity development programs for WUSCs and other institutions on financial, technical, and managerial aspects.[32] The PMC, to be recruited by the PMO, will require 24 person-months of international expertise and 308 person-months of

[32] Training may include overseas field visits for government officials, including project staff, for issues such as service level benchmarking, water safety, and wastewater management.

national expertise. The SEIU will recruit the SEIU consultant, which will require 32 person-months of international expertise and 120 person-months of national expertise. Three DSCs will be engaged in each batch, all to be recruited by the PMO, with each contract covering 3–4 towns. In total, all contracts for the DSCs will require 1,686 person-months of national expertise. The proposed outline terms of reference are in Supplementary Appendixes D, E, and F. All consulting firms will be selected using the quality and cost-based selection method with a standard quality–cost ratio of 80:20.

48. Local NGOs will be engaged for each town by the WSSDO to (i) inform communities and assist with the formulation of ISACs and/or WUSCs, (ii) conduct socioeconomic surveys and identify those eligible for OBA grants, (iii) provide health and hygiene education, (iv) implement the GESI action plan, (v) support the implementation of house connections under the OBA, and (vi) assist with the implementation of resettlement plans. Local NGOs will also act as an independent verification agent under the OBA framework to verify that agreed outputs have actually been delivered. The WSSDO will engage local NGOs using selection criteria including (i) experience relevant to the project objectives, (ii) ties with the project town, (iii) financial integrity, and (iv) record of proven competence in group formation. The proposed outline terms of reference are in Supplementary Appendix G.

### 5. Anticorruption Policy

49. ADB's *Anticorruption Policy* (1998, as amended to date) was explained to and discussed with the Government. Consistent with its commitment to good governance, accountability, and transparency, ADB reserves the right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to the Project. To support these efforts, relevant provisions of ADB's *Anticorruption Policy* are included in the grant regulations and the bidding documents for the Project. In particular, all contracts financed by ADB in connection with the Project shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all contractors, suppliers, consultants, and other service providers as they relate to the Project.

50. **Transparency.** The Project intends to maximize transparency. The DWSS will set up a website within 2 months from the grant effectiveness and disclose all key project-related information, including the main framework of the Project, criteria for selecting small towns and subprojects, results of town selection, project safeguard reports such as initial environmental examination (IEE) and resettlement plans, and project progress such as procurement and contract award. WUSCs will also fully disclose town project-related information—such as subproject cost, cost-sharing arrangement, progress of construction, connection cost and fee, financial status, available grant scheme (OBA), and the endorsed list of those eligible for OBA—through public briefings, bulletin boards, or at the general assembly of the WUSC. Full information disclosure and participatory monitoring are expected to be effective in reducing the risk of corruption and improving governance at central and local levels. Grievances regarding subprojects will be first addressed at WUSCs, but if not completely redressed, they will then be discussed at the TPCC.

### 6. Disbursement Arrangements

51. Grant disbursements will be made in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time) and detailed arrangements between the Government and ADB. To ensure the timely release of grant proceeds and to expedite project implementation, the Government will, immediately after grant effectiveness, establish an imprest

account at the Nepal Rastra Bank for the Project for the MPPW. The initial and maximum amount to be deposited into the imprest account will not exceed estimated ADB-financed expenditures for the next 6 months, or 10% of the grant, whichever is less.

52. The imprest account will be established, maintained, audited, and liquidated in accordance with ADB's *Loan Disbursement Handbook* and detailed arrangements between the Government and ADB. The statement of expenditure (SOE) procedure will be adopted to reimburse eligible expenditures or liquidate advances provided into the imprest account. Any individual payment to be reimbursed or liquidated under SOE procedure will not exceed the equivalent of $100,000.

### 7. Accounting, Auditing, and Reporting

53. The DWSS will provide ADB with quarterly progress reports on project implementation. It will prepare information on the Project's physical progress and status of project management (components 2 and 3), and consolidate them with other issues (mainly component 1) and submit a combined report to ADB within 1 month of the end of the applicable period. Within 6 months of physical completion of the Project, the DWSS will submit to ADB a project completion report.

54. Financial management assessment undertaken for the DWSS and TDF has revealed that they have satisfactory financial management arrangements and project accounting systems in place, gained through experience of working on ADB projects in the past. The DWSS will maintain separate project accounts and records to facilitate identification of all goods and services financed by the grant proceeds and counterpart funds. The PMO will be staffed with an adequate number of suitably qualified accounting personnel. Consolidated project accounts and related financial statements will be audited annually by the auditor general. The Government will submit to ADB, within 9 months after the end of each fiscal year, audited reports and related financial statements, which include a separate audit opinion on the use of the imprest account and SOE procedure. The TDF will be subject to annual audit by auditors acceptable to ADB, and will submit to ADB a copy of the audited statements of project accounts and financial statements within 9 months after the end of each fiscal year. Furthermore, ADB reserves the right to verify the financial accounts of the DWSS and TDF to confirm that the share of ADB’s financing is used in accordance with ADB’s policies and procedures. Financial management capacity of WUSCs needs to be strengthened, and the TDF and consultants will provide support for their capacity development.

### 8. Project Performance Monitoring and Evaluation

55. The PMO will establish a PPMS, with the support of the PMC, in line with ADB's PPMS framework. The system will ensure that the project components are managed efficiently and benefits are maximized. The PPMS developed by the DWSS in the STWSSSP-I will be improved in terms of better collection of baseline data—such as incidence of water-related diseases and quality and quantity of water supply services available, and the level of on-site sanitation facilities—disaggregated by income levels, sex, caste, and ethnicity. Under the guidance of the SEIU, the PMO will conduct a benchmark survey for batch 1 towns and submit for ADB's review and concurrence an implementation plan for monitoring performance and preparing benchmark information within 9 months of grant effectiveness. These baseline surveys will be conducted in accordance with the design and monitoring framework and provide the basis for preparing the benchmark information and targets. After the initial survey, the PMO

will submit annual benefit monitoring and evaluation reports to ADB throughout project implementation, and a comprehensive completion survey.

### 9. Project Review

56. The Government and ADB will jointly review the Project at least twice a year. This includes (i) the performance of the SEIU, DWSS, TDF, PMO, regional monitoring and supervision offices, WSSDOs, WUSCs, consultants, NGOs, and contractors; (ii) progress of sector development, physical progress of subprojects, and capacity building; (iii) inclusion of poor and vulnerable groups in subproject planning and implementation; (iv) compliance with grant assurances; and (v) assessment of subproject sustainability in technical and financial terms. In addition to the regular reviews, the Government and ADB will undertake a comprehensive midterm review in the third year of project implementation to identify problems and constraints encountered and suggest measures to address them. Specific items to be reviewed will include (i) appropriateness of scope, design, implementation arrangements, and schedule of activities, including the OBA; (ii) assessment of implementation pace against project indicators; (iii) effectiveness of training and capacity building; (iv) evaluation of the policy implementation, establishment, and monitoring of service standards and sector coordination for effective and efficient sector development; (v) compliance with safeguard measures; (vi) extent to which the GESI is being met in subprojects; (vii) lessons learned, good practices, and potential for replication; and (viii) changes recommended.

## IV. PROJECT BENEFITS, IMPACTS, ASSUMPTIONS, AND RISKS

### A. Expected Benefits and Impacts

57. The Project is expected to provide a high level of water supply services to about 240,000 people in about 20 small towns by the end of the Project. Sanitation services, such as on-site sanitation (private latrines), public toilets, wastewater management facilities (if justified), and storm water drainage, will also be provided in the same towns through an integrated approach. About 270,000 people will have access to and use improved sanitation facilities by the end of the Project. Supplemented by health and hygiene education programs in these towns, the Project will bring significant health benefits, to be measured by the reduction in the occurrence of waterborne diseases. Time savings for water collection, particularly in hill towns, will be another major benefit expected from the Project, and this will mainly benefit women and children.

58. Water supply and sanitation subprojects will bring significant economic benefits, although health and environmental benefits in particular from sanitation subprojects are hard to quantify due to the lack of area-specific data. The economic analysis of subprojects has been conducted for the three sample subprojects, and these subprojects have been found to be economically viable (Supplementary Appendix H), with economic internal rates of return ranging from 15.6% to 20.9%. These subprojects have also been found to be financially sustainable (Supplementary Appendix I). The financial analysis found that the tariff level to cover O&M costs and loan repayments throughout the project period would be within 3% of the monthly income, even for poor households.

59. **Gender Equality and Social Inclusion.** The Project will implement the GESI Action Plan (Appendix 10) to address different impacts on, and needs of, women, the poor, and vulnerable groups. Gender mainstreaming in overall project planning, implementation, and monitoring and evaluation processes will be effectively applied for gender-responsive service

delivery. Women will directly benefit from the Project in terms of their participation in WUSCs and in decision-making processes. It is expected that the piped water system will lead to time and labor savings for collecting water—especially for women and children—thereby increasing the possibility of women's engagement in productive economic, social, and capacity development activities.

60. The Project will directly benefit socially and economically vulnerable caste and indigenous groups. *Dalits,*[33] indigenous peoples, Muslims, and other minorities will be given due attention to equally benefit from improved water supply and sanitation systems. The OBA approach will ensure that the poor among these groups are adequately included and connected to water supply and sanitation services. Social mobilization through local NGOs will help raise awareness among these groups and facilitate their effective participation in WUSCs. The summary poverty reduction and social strategy is in Appendix 11.

## B. Environmental and Social Safeguards

61. **Environmental Safeguards.** The Project is classified category B in accordance with ADB's *Environment Policy* (2002) and *Environmental Assessment Guidelines* (2003). The DWSS has prepared IEEs for three sample subprojects (Supplementary Appendix J) as part of the feasibility study, and an environmental assessment and review procedure (EARP). The EARP has specified the requirements for project screening and classification, environmental criteria for selection of subprojects, information disclosure and consultation with the affected people including the establishment of grievance redress committees, environmental assessment, and development of an environmental management plan. Following the EARP, the DSC will prepare an IEE or an environmental impact assessment (EIA) and monitor the implementation of the environmental management plan, with guidance from the WSSDO and PMO. IEEs will be approved by the MPPW, while EIAs (if needed) will be approved by the Ministry of the Environment. EIA reports of category A and IEE reports of category B-sensitive subprojects (if any) will also be submitted to ADB for review and concurrence. The PMO will be responsible for ensuring that mitigation measures and monitoring plans will be implemented to meet the Government laws and regulations and ADB's *Environment Policy*.

62. The summary environmental assessment of the Project is in Appendix 12 and the full EARP is in Supplementary Appendix K. The IEE reports found that the planned subprojects would have only small and localized adverse impacts on the environment and these can be mitigated. Mitigation measures and monitoring plans have been proposed in the IEE. Because of the small size of the subprojects and scattered location of towns to be selected, cumulative and long-term negative environmental impacts are not anticipated. Improvement in sanitation and solid-waste management, together with wastewater management in a few pilot towns, will have significant positive impacts on community hygiene and sanitary conditions.

63. **Social Safeguards.** The Project's category for involuntary resettlement is B in accordance with ADB's *Involuntary Resettlement Policy* (1995). Out of three sample subprojects studied, two require small-scale land acquisition for water and/or wastewater treatment plants and reservoir tanks, and thus short resettlement plans have been prepared (Supplementary Appendix L). To ensure compliance with the Government's and ADB's policy requirements, a resettlement framework to guide the preparation and implementation of subprojects has been formulated by the DWSS. Its summary is in Appendix 13 and the full resettlement framework is in Supplementary Appendix M. If any subprojects require land acquisition and/or resettlement, a

[33] Dalit refers to the lowest caste ("untouchable") in the Hindu caste system.

resettlement plan will be prepared based on the resettlement framework. WUSCs will be responsible for the implementation of the resettlement plan, and the DWSS will ensure that WUSCs comply with the resettlement framework and the resettlement plan. Local NGOs will undertake the external monitoring for the resettlement plan implementation. Subprojects that will cause significant resettlement impacts will not be selected, although such impacts are not anticipated because of their nature and scale.[34] Special compensation measures for vulnerable groups, including indigenous people, are also included in the resettlement framework.

64. The Project's category for indigenous people is B in accordance with ADB's *Policy on Indigenous Peoples* (1998). The Government has recognized 59 different ethnic groups as indigenous people, and they comprise 37% of the total population. All three sample subprojects identified indigenous people in the subproject areas, and the same is likely for most subprojects. With water supply and sanitation services improvement, subprojects are expected to result in improved health and time savings benefits for indigenous people. Some indigenous people maintain distinct social and cultural traditions, but most indigenous people in subproject areas are economically and politically integrated into the mainstream society. Considering the nature and scale of these subprojects, impacts are considered minor and specific actions favorable to indigenous people will be a part of the integrated GESI action plan.

## C. Major Assumptions and Risks

65. **Political Stability and Commitment.** The Government is in transition to a new federal structure, with the new constitution expected to be finalized and approved in 2010. The peace process remains complex and challenging, and the ongoing movement in the Terai region demanding autonomy and adequate representation in key state institutions is likely to continue. This could affect the Government's commitment to sector development as well as the process of decentralization and devolution of functions. However, the Government's commitment to sector efficiency improvement is strong and is expected to remain so in the near future, and the direction of federalism being debated is in line with increased roles and functions of local governments and community organizations.

66. **Security in the Terai.** The unstable security situation is likely to continue, particularly in the Terai, and there is a risk of delay in subproject design and construction due to difficulties in fielding the Government staff, consultants, and contractors. The Project implementation schedule has taken into account some potential delay, but experiences in the STWSSSP-I show that, due to the nature of the Project—which is provision of water supply and sanitation services to communities—risks for disturbance are expected to be much smaller than projects in other sectors.

67. Problems of intimidation and collusion in procurement are reportedly widespread, and the extent appears to be greater in the Terai. It is reported that change in the bid submission venue from districts to Kathmandu would considerably reduce such risks. Accordingly, the bid submission venue for the Project will be Kathmandu, as contractors are centrally procured. An international procurement and contract management specialist will be engaged in the initial period of the Project, to ensure that risks of collusion and intimidation in procurement are minimized. The Government, led by the Ministry of Finance, has also taken this issue seriously

[34] Involuntary resettlement impacts are considered significant when 200 or more people experience major impacts. "Major impacts" is defined as involving affected people (i) being physically displaced from housing; and/or (ii) having 10% or more of their productive, income-generating assets lost.

and started discussions on specific actions with various line ministries and development partners including ADB.

68. **Tariff Setting and Cost Recovery.** The Project's financial sustainability assumes an appropriate tariff level to recover necessary capital and O&M costs. WUSCs have the tendency to keep the tariff level lower than that proposed by the consultant and the TDF during the detailed design stage. Water users, especially those in the Terai, may continue to use cheaper but unsafe water sources (e.g., shallow tubewells), which would lower the total amount of tariff collected. Awareness raising about tariff payment and use of safe water will be started early in the project preparation stage for water users and WUSC members, and realistic assessment will be made regarding the amount of water to be used, based on which the appropriate tariff level will be proposed. More concessional terms of subloans from the TDF to WUSCs will significantly ease the burden of cost recovery. More effective capacity building programs for WUSCs are expected to improve business planning, technical operation, and financial management.

## V. ASSURANCES AND CONDITIONS

### A. Specific Assurances

69. In addition to the standard assurances, the Government has given the following assurances, which will be incorporated in the legal documents:

(i) MOF will lend a portion of ADB funds to TDF under a subsidiary loan agreement, with proposed terms of an interest rate of 2%–3% per annum with not less than 20 years maturity including a grace period of 5 years, to be mutually agreed upon by the Government and TDF. TDF will onlend such funds to WUSCs with proposed terms of an interest rate not exceeding 5% per annum and for a repayment period of 20 years including a 5-year grace period.

(ii) MOF and TDF will finalize the lending agreement and TDF will finalize the standard onlending agreement with WUSCs, prior to the first disbursement in respect of civil works and goods with respect to component 2, ensuring that both agreements are acceptable to ADB.

(iii) The Government will provide all required counterpart funds for project implementation on a timely and regular basis.

(iv) The Government will provide adequate support and assistance to SEIU so as to ensure proper implementation of the UWSSSP and the sector development referred to in paragraph 21.

(v) The Government will ensure that necessary technical and financial support will be provided to WUSC for O&M of the schemes developed under the Project.

(vi) The Government will ensure that there will be no overlap of activities between ADB-funded subprojects and projects funded by other development partners.

(vii) MPPW will ensure that all subprojects are selected and implemented in accordance with the town and subproject selection criteria agreed between ADB and MPPW and set out in Appendix 4.

(viii) MPPW will ensure that framework and guidelines regarding the establishment and operation of OBA, to be developed in accordance with Appendix 5, will be satisfactory to ADB.

(ix) DWSS will ensure that, within 1 year of grant effectiveness, five regional water quality and meter calibration laboratories will become fully operational.

(x) The Government will ensure that sufficient funds to cover the costs of land acquisition and involuntary resettlement are made available in a timely manner. All

land and right-of-way required will be made available in a timely manner, and compensation at replacement value and other entitlements will be paid to affected people prior to the award of any civil works contract. Any involuntary resettlement and land or asset acquisition will be carried out in compliance with ADB's *Involuntary Resettlement Policy* (1995), the resettlement framework agreed between MPPW and ADB, the resettlement plan for the subproject, and relevant national laws and regulations.

(xi) MPPW will ensure compliance with ADB's *Environment Policy* (2002), relevant national environmental laws and regulations, and the EARP. All mitigation and monitoring mechanisms set out in the IEEs or EIAs, as well as EARPs, will be complied with throughout Project implementation. DWSS will ensure environmental requirements are incorporated in bidding documents and civil works contracts, and that environmental monitoring is undertaken by DSC and its results are incorporated into quarterly progress reports.

(xii) MPPW will ensure compliance with ADB's *Policy on Indigenous Peoples* (1998).

(xiii) The Government will ensure that civil works contractors comply with all applicable labor laws, do not employ child labor as defined in national legislation for construction and maintenance activities, and do not differentiate wages between men and women for work of equal value.

(xiv) Within 9 months of grant effectiveness, DWSS will conduct a benchmark survey for batch 1 towns and submit for ADB's review and concurrence an implementation plan for monitoring performance and preparing benchmark information.

(xv) DWSS will ensure that the following agreements will be concluded for subproject implementation: (a) a general agreement among local governments, WUSCs, PMO, and TDF specifying, among other things, the proportion of cost-sharing both for water supply and sanitation systems, and the principle of integrated water supply and sanitation, tariff collection, and the OBA, before the commencement of detailed design work; (b) an agreement among the same four parties specifying, among other things, the amount of contribution from each party, the proposed level of tariff to be collected by WUSCs, the commitment of WUSCs to recover payment and repayment, O&M expenditures, replacement, and future expansion in accordance with the UWSSSP, and the target and level of grant to be given under the OBA, before the contract award; and (c) a subsidiary loan agreement between the TDF and WUSC before the contract award. Standard agreements satisfactory to ADB are prepared before such steps are taken for the first subproject.

(xvi) The Government will ensure that the TDF will maintain its own financial sustainability by (a) making adequate provisions for nonperforming assets, (b) maintaining a debt service coverage ratio of at least 1.1 times, and (c) exercising such other due diligence and good banking practices as required for a prudent financial institution.

(xvii) MPPW will ensure that GESI are duly considered and incorporated in project planning and implementation in accordance with the Project's GESI action plan set out in Appendix 10.

## B. Condition for First Disbursement

70. The subsidiary loan agreement, satisfactory to ADB, will have been duly executed and delivered between MOF and TDF prior to the first disbursement in respect of any civil works and goods with respect to component 2.

## VI. RECOMMENDATION

71. I am satisfied that the proposed grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the grant not exceeding $45,100,000 to Nepal from ADB's Special Funds resources for the Second Small Towns Water Supply and Sanitation Sector Project, on terms and conditions that are substantially in accordance with those set forth in the draft Grant and Project Agreements presented to the Board.

Haruhiko Kuroda
President

25 August 2009

## DESIGN AND MONITORING FRAMEWORK

| Design Summary | Performance Targets/Indicators | Data Sources/Reporting Mechanisms | Assumptions and Risks |
|---|---|---|---|
| **Impact**<br>Improved health and economic and environmental living conditions of people in small towns in Nepal | In 20 towns:<br>• Reduction in reported cases of water- and sanitation-related diseases (by 30% by 2017)<br>• Quality of Life (QOL) index to be developed by SEIU and compared between pre- and post-project period | • Health statistics from clinics and health centers in towns<br>• Government survey compiled in MDG reports<br>• Town data published in SEIU reports | **Assumptions**<br>• Macroeconomic stability<br>• Political stability<br><br>**Risks**<br>• Natural disaster affecting construction and operation<br>• Degradation in other QOL attributes |
| **Outcome**<br>Improved, affordable, and sustainable water supply and sanitation services which are governed and managed by locally accountable representative bodies | • 240,000 people in 20 small towns have access to high[a] level water service by 2015<br>• Reduced time for fetching water (essentially to zero in all towns) by 2015<br>• 270,000 people have access to and use improved sanitation[b] facilities by 2015<br>• Wastewater in at least three towns is disposed of in a way that meets environmental standards[c] by 2015<br>• Operation of water supply and wastewater services with full O&M cost recovery is implemented by WUSCs in 20 towns by 2015 | • Household surveys compiled in BME reports<br>• Data from each town compiled in ADB project completion report<br>• Government/SEIU reports<br>• Household surveys and national censuses assembled in JMP–MDG reports | **Assumptions**<br>• WUSC members and employees receiving training and guidance remain in their positions<br>• Conforming policies, institutions and human resources are engaged and established by Government and remain in place<br>• Willingness of the community to pay<br>• Appropriate tariffs set in accordance with suggestions by PMO/TDF and collected efficiently<br><br>**Risks**<br>• Federalism and decentralization develops in a way that contradicts proposed sector development<br>• Users continue to use unsafe but cheap sources of water (such as shallow wells) |
| **Outputs**<br>1. Efficient, effective, and accountable urban water supply and sanitation sector developed | • SEIU established in 2009<br>• Service standards established, performance monitored for 80% of the urban water supply system, which are documented and published by 2012<br>• Service standards improved against initial performance (collected by 2012) for 30% of the water supply system by 2015<br>• National standards for | • Town-level data compiled in project monitoring reports<br>• Government reports<br>• Nationwide data from water supply operators published in SEIU reports | **Assumptions**<br>• Government and MPPW keep its commitment towards improvement of sector efficiency and effectiveness<br>• Urban utilities (nationwide) undertake improvement based on findings of performance monitoring |

| Design Summary | Performance Targets/Indicators | Data Sources/Reporting Mechanisms | Assumptions and Risks |
|---|---|---|---|
| | sewerage and wastewater management formulated by mid-2012<br>• Regional water quality and meter calibration laboratories test water quality on regular basis for all 29 towns under STWSSSP-I by 2011 | • Monitoring reports by laboratories | |
| 2. Safe, accessible, and adequate water supply and sanitation facilities developed in 20 towns<br><br>2.1 Water supply facilities expanded and rehabilitated<br><br>2.2 Sanitation facilities expanded and improved<br><br>2.3 Households connected to the water supply and sanitation system | • Water extraction (surface/groundwater), treatment, storage, transmission, and distribution facilities constructed in 20 towns by 2014<br>• 1,400 km of network for water supply pipes installed or upgraded by 2014<br>• Sanitation (household, on-site sanitation, public toilet, septic tank sludge disposal, and storm water drainage) facilities constructed in 20 towns by 2014<br>• 16,000 households newly connected to piped water supply within the first year of operation<br>• 24,000 households served with new sanitation connections within the first year of operation<br>• 12,000 households served through OBA for water and sanitation connections<br>• Wastewater management facilities constructed in at least three towns by 2014<br>• 1,500 cubic meters (40% of the wastewater in these towns) collected and treated to meet environmental standards by 2015 | • Town-level data compiled in project monitoring reports<br>• Independent verification reports for household connections<br>• Reports from WUSCs<br>• Socioeconomic surveys with data disaggregated by gender, caste, and ethnicity | **Assumptions**<br>• Each town follows suggested fee and OBA scheme<br>• Commitment and paying capacities of local governments and WUSCs towards integrated water supply and sanitation system development<br>• Government commitment to OBA and development of workable system<br>• Adequate coordination between local governments and WUSCs maintained<br><br>**Risks**<br>• Political interference in project selection, preparation, and construction<br>• Security situation further deteriorates and affects design and construction work |
| 3. Governance and capacity strengthened for project management and operation | In 20 towns:<br>• WUSCs raise the capital funds, participate in decision making during implementation, and operate and manage the systems upon commissioning<br>• Town water supply systems operated in accordance with the high-level water service, tariff raised to cover at least O&M and repayment and loan repayment to TDF as scheduled, by 2014 | • Town-level data including training records compiled in project monitoring reports<br>• Stakeholder responses in surveys, workshops, and capacity building programs<br>• Reports from WUSCs | **Assumptions**<br>• Conducive political environment exists and policies are developed and enacted to facilitate WUSCs<br>• Staff receiving capacity building remain in their position<br><br>**Risks**<br>• Political interference in establishment and |

| Design Summary | Performance Targets/Indicators | Data Sources/Reporting Mechanisms | Assumptions and Risks |
|---|---|---|---|
| 3.1 WUSCs strengthened and fully address concerns of the diverse groups of users<br><br>3.2 Regional monitoring and supervision offices/WSSDOs strengthened<br><br>3.3 Public awareness on health and hygiene increased | • Collection and management system for data disaggregated by sex, caste, and ethnicity established by 2010<br>• At least 33% representation of women among WUSC members upon first election<br>• Women, poor, and vulnerable groups appropriately represented in general assembly or other WUA subgroups in accordance with GESI action plan<br>• At least 50% of WUSC members trained on project implementation, operation, and management by commissioning<br>• At least two key managers for operation engaged by WUSCs and trained before construction completion<br>• Technical support of regional monitoring and supervision offices/WSSDOs to WUSCs increased<br>• Gender/social development officer designated in PMO/WSSDOs<br>• Personal and communal hygiene behavior improved by 2014 | • TDF annual reports<br>• Tariff collection records<br>• SEIU reports<br>• Interviews with WUSCs<br>• Households surveys | management of WUSCs<br>• Institutionalization of WUSCs is not given due priority by Government |
| **Activities with Milestones**<br><br>1. Efficient, effective, and accountable urban water supply and sanitation sector developed<br>1.1 SEIU established and staffed (Q3 2009)<br>1.2 SEIU consultants recruited (Q1 2010)<br>1.3 Urban water supply and sanitation sector action plan drafted (Q2 2010)<br>1.4 Service standards for water supply and sanitation established and benchmark data collected (Q2 2011)<br>1.5 Water Supply and Sanitation Act drafted (Q2 2011)<br>1.6 National technical standards for sewerage and wastewater management drafted (Q4 2011) | | | **Inputs**<br><br>• ADB ($45.1 million)<br>• Government ($20.5 million)<br>• Beneficiaries and local governments ($6.1 million) |

| Activities with Milestones | Inputs |
|---|---|
| 2. Safe, accessible, and adequate water supply and sanitation facilities developed in 20 towns<br>2.1 Batch 1<br>2.1.1 Towns selected (Q3 2009)<br>2.1.2 DSC recruited (Q1 2010)<br>2.1.3 Local NGOs engaged (Q2 2010)<br>2.1.4 Detailed design reviewed and bid documents prepared (Q3 2010)<br>2.1.5 Contractors awarded (Q2 2011)<br>2.1.6 Subloan agreement between TDF and WUSC concluded (Q2 2011)<br>2.1.7 Construction completed (Q2 2013)<br>2.1.8 House connections supported by OBA completed (Q4 2013)<br>2.1.9 Operation handed over to WUSC (Q2 2014)<br>2.2 Batch 2<br>2.2.1 Towns selected (Q2 2010)<br>2.2.2 DSC recruited (Q1 2011)<br>2.2.3 Local NGOs engaged (Q2 2011)<br>2.2.4 Detailed design and bid documents prepared (Q3 2011)<br>2.2.5 Contractors awarded (Q2 2012)<br>2.2.6 Subloan agreement between TDF and WUSC concluded (Q2 2012)<br>2.2.7 Construction completed (Q2 2014)<br>2.2.8 House connections supported by OBA completed (Q4 2014)<br>2.2.9 Operation handed over to WUSC (Q2 2015)<br><br>3. Governance and capacity strengthened for project management and operation<br>3.1 PMO established and fully staffed (Q3 2009)<br>3.2 PMC recruited (Q1 2010)<br>3.3 Project performance management system developed (Q4 2010)<br>3.4 Capacity building programs for regional monitoring and supervision offices /WSSDOs planned (Q2 2010)<br>3.5 Capacity building programs for WUSCs planned (Q2 2010)<br>3.6 Capacity building programs implemented for regional monitoring and supervision offices, WSSDOs, and WUSCs (by Q3 2015) | |

ADB = Asian Development Bank, BME = benefit monitoring and evaluation, DSC = design and supervision consultant, DWSS = Department of Water Supply and Sewerage, GESI = gender equality and social inclusion, JMP = Joint Monitoring Programme (program of WHO–UNICEF), km = kilometer, MDG = Millennium Development Goal, MPPW = Ministry of Physical Planning and Works, NGO = nongovernment organization, OBA = output-based aid, O&M = operation and maintenance, PMC = project management consultant, PMO = project management office, Q = quarter, QOL = quality of life, SEIU = sector efficiency improvement unit, STWSSSP-I = Small Towns Water Supply and Sanitation Sector Project, TDF = Town Development Fund, WSSDO = water supply and sanitation divisional or subdivisional office, WUA = water users association, WUSC = water users and sanitation committee.

[a] (i) increased per capita water supply (90–100 liters per capita per day for private house connection; (ii) 24-hour water supply with adequate residual pressure; (iii) at least 90% coverage of the service area after 5 years of operation; (iv) treated water satisfying the National Drinking Water Quality Standards (2007); and (v) predominantly private house connections.

[b] Defined, in accordance with JMP, as the system that hygienically separates human excreta from human contact. Flush or pour-flush toilet to piped sewer system, septic tank or pit latrine with slab, and composting toilet are included.

[c] Tolerance limits for wastewater to be discharged into inland surface waters from combined wastewater treatment plants, set by the Government, will be used. Limits include 50 milligrams per liter (mg/l) for total suspended solids, 50 mg/l for biochemical oxygen demand and 5.5–9.0 for pH.

## WATER SUPPLY AND SANITATION SECTOR ANALYSIS

### A. Status of Water Supply and Sanitation Coverage

1. The Government of Nepal, with assistance from a variety of multilateral and bilateral donors and nongovernment organizations (NGOs), has made considerable effort to provide improved water supply and sanitation services to people living in both the urban and rural areas of Nepal. The Three-Year Interim Plan (FY2008–FY2010) of the Government reports that 76.6% of the population had access to basic drinking water services and 45.8% had access to basic sanitation services in 2006, and sets the target of 85% of the population with access to basic drinking water services and 60% with access to basic sanitation services by the end of the interim plan period. The most recent World Health Organization (WHO) and United Nations Children's Fund (UNICEF) joint monitoring report[1] indicates even better coverage for water supply, with 94% of the urban population and 88% of the rural population estimated to have access to improved drinking water sources in 2006, although the figures are substantially lower, at 49% in urban areas and 11% and rural areas, in terms of house connections.

2. Although these figures show that Nepal is ahead of its Millennium Development Goal (MDG) target of 73% (95% for urban and 72% for rural) for access to improved water source in 2015, the *Nepal Millennium Development Goals: Progress Report* by UNDP cautions against optimism because of serious functionality problems.[2] Based on a survey in 2002, it was reported that water availability was only intermittent in many areas, half of the gravity flow systems in the hills needed major repair, and more than half of the tubewells in the Terai were contaminated. Arsenic contamination is also a major issue in some areas in the Terai where water supply depends on shallow wells. UNDP concludes that Nepal's coverage could be considerably lower if the strict definition of access to safe drinking water were applied. Taking into account functionality and water quality, the implication would be that Nepal is seriously behind in achieving its MDG target for water supply.

3. The WHO and UNICEF joint monitoring report shows that improved sanitation is available to 45% of the urban population but only to 24% of the rural population in 2006. As the situation in small towns is likely to be much closer to the rural figures, there is strong need to improve sanitation services delivery to meet the MDG target of 53% (67% for urban and 52% for rural). Assuming that the rate of increase in coverage between 2000 and 2006 is maintained until 2015, it appears that the MDG target for sanitation will not be met in either urban or rural areas.

4. For the households that do have sanitary latrines, these are usually pour-flush latrines connected to a disposal pit or to a septic tank. The liquid effluent either infiltrates into the ground or is discharged to surface water drains as there are no sewer systems in the smaller urban areas. Using storm water drainage as sanitary sewers in this way is a widespread practice in Nepal, and is a principal factor in pollution of the nation’s watercourses. Wastewater management is still in its infancy and currently implemented only in a small number of large towns.

### B. Small Towns Water Supply and Sanitation

5. The 15-year Development Plan for Small Towns Water Supply and Sanitation was endorsed by the Government in January 2000. It defined small towns (209 towns with a total population of 2.14 million), quantified the water supply and sanitation needs of small towns, estimated the cost of providing the improved services, and proposed an institutional framework.

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[1] WHO and UNICEF. 2008. Joint Monitoring Programme for Water Supply and Sanitation. *Progress on Drinking Water and Sanitation: Special Focus on Sanitation*. New York and Geneva.

[2] UNDP. 2005. *Nepal Millennium Development Goals: Progress Report*. New York.

Small towns were further classified in terms of water supply coverage as good (existing piped water supply coverage equal to or higher than 75%), satisfactory (between 30% and 75%), and poor (less than 30%). In the 8 years to 2008, however, improved water supply services were provided to only 32 towns, out of which 29 were supported by the Asian Development Bank's (ADB's) Small Towns Water Supply and Sanitation Sector Project (STWSSSP-I) and the remaining three by a grant from the Government of Japan.

6. In the project preparatory work, the 15-year plan has been updated and small towns have been redefined within the framework of the National Urban Policy (2007) as follows: (i) population of 5,000–40,000; (ii) located on a road linked to the strategic road network; and (iii) having at least one secondary school and a health post in addition to grid electricity, basic telecommunications, and banking. Two hundred and sixty five towns (153 in the Terai and 112 hill towns), with a total population of 3.6 million, satisfy the criteria. These towns are being developed haphazardly, although they are playing an important role in creating economic links between the rural areas and the country's urban economy. According to the original plan, only 45% of the population in small towns had access to piped water (irrespective of water quality) and the current coverage is likely to be similar. Although there is serious and urgent need, support to improve water supply and sanitation services in small towns, both from the Government and from development partners, has been severely limited.

## C. Policy and Legal Environment

7. Development of the legislative framework for Nepal's water and sanitation sector is a relatively recent phenomenon taking place primarily over the last 10 years to 2009. The policy and legal framework has developed incrementally with separate policies and regulations adopted and enacted for water resources, national sanitation, rural water supply and sanitation, water quality, and urban development. Major acts and regulations relevant to the Project are shown in Table A2.1.

**Table A2.1: Water Sector Legislation, Policy, and Plan**

| Act or Regulation | Areas Addressed |
|---|---|
| Water Resources Act 1992 | • The umbrella act governing water resource management.<br>• Declares the order of priority of water use.<br>• Vests ownership of water in the state.<br>• Provides for the formation of water user associations and establishes a system of licensing.<br>• Prohibits water pollution.<br>• Allows ownership of completed projects to be transferred to users associations. |
| National Water Supply Sector Policy 1998 | • Makes clear the objective of providing safe, convenient, and adequate water supply to all, with sanitation as its integral component.<br>• Decreases direct involvement of the Government in implementation and strengthens institutions for decentralized service delivery.<br>• Sets the target of expanding the national coverage of water supply to all by 2002 (but the target was not achieved). |
| Drinking Water Regulation 1998 | • Regulates the use of drinking water.<br>• Provides for the formation of drinking water user associations and sets out the procedure for registration.<br>• Deals with licensing of use drinking water.<br>• Deals with the control of water pollution and maintenance of quality standards for drinking water.<br>• Sets out the conditions of service utilization by consumers.<br>• Provides for the acquisition of house and land and compensation. |

| Act or Regulation | Areas Addressed |
|---|---|
| | • Provides for formation of service fee fixation committee. |
| Local Self Governance Act 1999 | • Establishes a decentralized governance structure.<br>• Sets out the powers, functions, and duties of the VDCs, municipalities, and DDCs in relation to water and sanitation.<br>• Sets out which natural resources are assets of local bodies and empowers local bodies to levy a natural resource tax.<br>• Allows local bodies to transfer assets to consumer groups. |
| Local Self Governance Regulation 1999 | • Sets out the powers, functions, and duties of VDCs, municipalities, and DDCs in relation to water and sanitation.<br>• Establishes the procedure for the formulation of water-related plan and project implementation |
| National Drinking Water Quality Standards 2005 | • Sets standards for water quality.<br>• Service providers responsible for monitoring.<br>• Local offices of the Ministry of Health and Population responsible for surveillance.<br>• Guidelines specify methods and frequency of sampling and testing. |
| Water Supply Management Board Act 2006 | • Establishes WSMBs to manage services in municipal areas.<br>• Authorizes WSMBs to issue licenses and enter into agreements with service providers to collect tariffs.<br>• Constitutes Kathmandu WSMB. |
| Water Supply Tariff Fixation Commission Act 2006 | • Establishes the commission.<br>• Provides for appointments to the commission.<br>• Authorizes the commission to fix tariffs to be charged by service providers.<br>• Authorizes the commission to monitor service providers to ensure compliance with standards. |
| National Water Plan 2005 (2002–2027) | • Sets national coverage and service level targets for water and sanitation for all by 2017. Aims to provide universal basic service first then focus on upgrading.<br>• Describes need for clearly defined roles and responsibilities, improved coordination, increased resources, improved cost recovery in urban schemes, improved monitoring, and effective regulation. |

DDC = district development committee, VDC = village development committee, WSMB = water supply management board.
Source: Asian Development Bank assessment.

8. Some inconsistencies are observed among the acts and regulations, and translating policies and plans into actions in the context of decentralization and community empowerment is a key challenge.

9. The National Water Supply Sector Policy 1998 did not adequately specify roles and responsibilities of central government agencies and local governments and issues of cost sharing and recovery. The policy was never updated, while the Rural Water Supply and Sanitation Sector Policy was adopted in 2004, with specific provisions for community contribution and responsibilities for operation and maintenance. Under such context, the Ministry of Physical Planning and Works (MPPW) has finalized the Urban Water Supply and Sanitation Sector Policy, which has been assisted by ADB's project preparatory technical assistance. As a next step, an action plan will need to be developed to facilitate the implementation of the policy. The Government intends to develop an umbrella water supply and sanitation act by consolidating existing acts and regulations.

## D. Institutional Arrangements

10. In the 1990s, political liberalization and a focus on decentralization saw important new participants emerge in the sector, in particular community groups and local governments. New working methods, including a demand-led, community-based participatory approach, were introduced and communities, particularly in rural schemes, were encouraged to take full ownership and contribute to the capital costs.

11. The MPPW has overall responsibility for water supply and sanitation, within which the Department of Water Supply and Sewerage (DWSS) is designated as the lead agency for the drinking water and sanitation sector. The DWSS operates through 10 technical divisions based in Kathmandu and offices in the five development regions, and has regional and divisional (or subdivisional) offices in all 75 districts of the country.[3] As the lead agency, the functions of the DWSS include sector planning and coordination, developing technical standards, and managing design and construction activities for both the urban and rural parts of the sector. The role of the DWSS has been shifting from an implementing agency to a facilitator and coordinator in line with decentralization. The DWSS has strengthened its institutional capacity with substantial experiences gained through past ADB-assisted water supply and sanitation projects, such as the Rural Water Supply and Sanitation Sector Project and the STWSSSP-I.

12. The Ministry of Local Development (MLD) is the lead government body for promoting local development and decentralization. The ministry achieves this through supporting capacity building in local bodies, i.e., district development committees, municipalities, and village development committees (VDCs). Under the MLD, the Department of Local Infrastructure Development and Agriculture Roads is responsible for small-village schemes through the district technical offices and VDCs.

13. The main role defined for district development committees, municipalities, and VDCs in promoting the development of water and sanitation facilities is developing local plans, programs, and projects, and also providing the materials and financial support to match the projects' cost and technical support. In many cases, actual service provision has been left to water users and sanitation committees (WUSCs) in accordance with the Local Self Governance Act and the Water Resources Act. WUSCs, as elected representatives of the water users association members, work as investors of infrastructure as well as operators of the completed infrastructure, under the supervision of municipalities or VDCs. The water supply and sanitation divisional and subdivisional offices of the DWSS provide technical support to local governments and WUSCs in the development and operation of facilities.

14. The Water Supply Tariff Fixation Commission was established in 2007 and is responsible not only for fixing water tariffs but also for ensuring quality standards in service delivery in relation to the level of tariff. Although initially responsible only for Kathmandu, the commission has a plan to establish offices in the regions and to extend its activities to all parts of the country, but does not yet have the capacity to do this.

[3] Out of 75 districts, 42 have divisional offices, 28 have subdivisional offices; the regional monitoring and supervision offices are responsible for the other five districts in which they are located.

## EXTERNAL ASSISTANCE TO THE WATER AND SANITATION SECTOR

| Project Name | Type of assistance | Duration | Amount (million) | Source |
|---|---|---|---|---|
| **A. Urban** | | | | |
| Community Infrastructure in Municipalities | Grant | 2000–2005 | DM14 | GTZ/KfW |
| Melamchi Water Supply Project | Loan/grant | 2001–2014 | $317 | ADB, JICA, NDF, OFID |
| Town Development Program II | Grant | 2001–2009 | € 8.05 | KfW |
| Small Towns Water Supply and Sanitation Sector Project (STWSSSP) | Loan | 2001–2008 | $34 | ADB |
| Kathmandu Water Supply Facilities Improvement Project | Grant | 2001–2004 | $19.5 | JICA |
| Public–Private Partnership for Urban Environment | Grant | 2002–2009 | $1.4 | UNDP |
| Urban and Environmental Improvement Project | Loan | 2003–2010 | $35.1 | ADB |
| Helvetas: Water Resources Management Programme | Grant | 2004–2009 | $0.8 | DFID |
| Kathmandu Valley Water Services Sector Development Program | Loan | 2004–2010 | $5.3 | ADB |
| Kathmandu Valley Water Services Sector Development Project | Loan | 2004–2014 | $11.2 | ADB |
| Improvement of Water Supply Facilities in Urban and Semi Urban Center | Grant | 2005–2006 | $9.8 | JICA |
| Support to STWSSSP | Grant | 2007–2008 | $0.33 | UN-Habitat |
| Support to STWSSSP | Grant | 2007–2010 | $0.34 | UN-Habitat |
| Urban Development through Local Efforts | Grant | 2008–2010 | €5.5 | GTZ |
| Capacity Building and Human Resource Development for Sustainable Water Supply | Grant | 2008–2010 | $1.7 | JICA |
| Urban Water Supply and Sanitation and Pro-Poor Governance And Capacity Building | Grant | 2008–2012 | $5 (projected) | UN-Habitat |
| Capacity Development on Water Supply In Semi-Urban Areas | Grant | 2009–2012 | $2 | JICA |
| Town Development Program III | Grant | 2009–2012 | € 7.5 | KfW |
| **B. Rural** | | | | |
| NEWAH: Water Supply and Sanitation Program | Grant | 1999–2008 | $10.4 | DFID/AusAid |
| GWS: Water Supply and Sanitation Program | Grant | 1999–2009 | $17.7 | DFID |
| Community-Based Water Supply and Sanitation Project | Loan | 2004–2010 | $35.7 | ADB |
| Decentralized Action for Children and Women | Grant | 2004–2007 | $1.3 | UNICEF |
| Rural Water Supply and Sanitation Fund Development Board | Loan | 2005–2010 | $35.4 + $34 | World Bank |
| NEWAH: Water Supply and Sanitation Program | Grant | 2005 | $3.8 | WaterAid |
| Rural Water Resource Management Project | Grant | 2006–2010 | $17.5 | Government of Finland |
| Rural Water and Sanitation Services in Western Nepal | Grant | 2008–2012 | €13 | Government of Finland |
| Decentralized Action for Children and Women (Water and Sanitation) | Grant | 2008–2010 | $4.25 | UNICEF |
| Rural Reconstruction and Rehabilitation Sector Development Program | Loan | 2008–2011 | $50 | ADB |

ADB = Asian Development Bank, DFID = Department for International Development of the United Kingdom, DM = deutsche mark, GWS = Gurkha Welfare Service, Helvetas = Swiss Association for Development and Cooperation, JICA = Japan International Cooperation Agency, NDF = Nordic Development Fund, NEWAH = Nepal Water for Health, OFID = Organization of Petroleum Exporting Countries Fund for International Development, STWSSSP = Small Towns Water Supply and Sanitation Sector Project, UNDP = United Nations Development Programme, UNICEF = United Nations Children's Fund.

Source: Asian Development Bank assessment.

## CRITERIA FOR SELECTING SMALL TOWNS AND SUBPROJECTS

### A. Town Selection

1. Data for assessing applications and prioritizing projects to be considered for funding should be gathered during a prefeasibility study. These studies should be carried out strictly in accordance with the procedures in the implementation guidelines, so that applications can be compared fairly, based on standard data sets.

2. **Scoring for Town Selection.** Scores will be given in the following manner to select towns:

(i) If a town does not fit the definition of a small town,[1] it is automatically excluded.

(ii) The district development committee, with an endorsement from the village development committee (VDC) or municipality where the subproject is located, has included or agreed to include the subproject in the district plan and has submitted a formal subproject application to the Department of Water Supply and Sewerage (DWSS).

(iii) Poverty is weighted so that towns with a higher proportion of poor people score more. The lowest band is set at the poverty line (i.e., people below the poverty line).[2]

(iv) If a town does not have a piped system, it should be awarded maximum points. If it has a piped system, the scoring is according to the proportion of the population not served by it.

(v) As a measure of hardship, intermittent systems providing less than 10 hours service per day are scored inversely by the number of hours. Waiting time for water would be too complex to assess over a whole town.

(vi) Quality is scored according to whether or not the water meets the National Drinking Water Quality Standards (NDWQS).

(vii) Sanitation is scored proportionate to the number of households not having sanitary latrines.

(viii) Additional points are given if the town does not have any system of wastewater drainage. If the town has wastewater drainage but the effluent is discharged without treatment, it scores fewer points.

(ix) Community demand is assessed by the interest shown by people by participating in a public meeting at the prefeasibility stage. It assumes that the publicity process during the prefeasibility study to inform people about the potential project has been carried out in accordance with the implementation guidelines.

(x) Project readiness and population growth are measured. Towns that have already made necessary land available and collected upfront cash contributions will be given additional points. Towns with high population growth rates will also be awarded additional points.

(xi) Fair and equitable consideration will be given to geographical and regional balances. In any event, and unless otherwise agreed by ADB, 2–6 towns will be selected from each region, and not more than two-thirds of subprojects will be located either in the Terai or hills.

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[1] A small town is defined as (i) population of 5,000–40,000; (ii) located on a road linked to the strategic road network; and (iii) having at least one secondary school and a health post in addition to grid electricity, basic telecommunications, and banking.

[2] Nepal Living Standards Survey in FY2004 set the average national poverty line as NRs7,696 per year. With a household size of five people, this gives a household income level of NRs3,200 per month, rounded down to NRs3,000.

**Table A4.1: Priority Scoring**

| Criterion/Indicator | Details | Points |
|---|---|---|
| Meets definition of small town: | Yes/No | Include/exclude |
| DDC, VDC/Municipality approval | Yes/No | Include/exclude |
| **Poverty**: | | |
| Matrix scoring based on percent in income brackets shown in Table A4.2 below | | 20 |
| **Water Supply** | | |
| Piped system | No | 25 |
| % of population not served by piped system | | 10x %/100 |
| % of poor areas not served by piped system | | 10x %/100 |
| Existing water supply | | |
| Quantity < 45 liters per capita per day | | 5 |
| Number of hours supply per day | 0–2 hours | 5 |
| | 2–4 hours | 4 |
| | 4–6 hours | 3 |
| | 6–8 hours | 2 |
| | 8–10 hours | 1 |
| | > 10 hours | 0 |
| Quality to National Standard | No | 5 |
| **Sanitation** | | |
| % of population without sanitary latrines | | 20x %/100 |
| Wastewater drainage | No | 7 |
| Wastewater drainage but without treatment | | 3 |
| **Community Interest** | | |
| Proportion of people at meeting out of total households | | 10x no./HH |
| **Project Readiness**[a] | | |
| Land availability (for treatment plants etc.) | Yes | 5 |
| Collection of upfront cash | 25% and above | 10 |
| (% as against the required minimum 5% contribution of subproject cost) | 15%–25% | 7 |
| | 5%–15% | 5 |
| | 1%–5% | 3 |
| | Less than 1% | 0 |
| **Urbanization and Growth Potential** | | |
| Population growth in the last decade | 5% and above | 5 |
| (% per annum) | 3–5% | 3 |
| | Less than 3% | 1 |
| **Total Score** | | |

[a] For selection of batch 2 towns, since the same indicators are not available or appropriate without feasibility studies, indicators will be modified to be percentage of population willing to pay a certain level of monthly tariff, with a proposed maximum score of 10 points.

Source: Department of Water Supply and Sewerage assessment.

**Table A4.2: Poverty Scoring Matrix**

| Income band (per month) | % of population | Points | Score |
|---|---|---|---|
| | | | % population x Points |
| > NRs7,000 | | 0 | |
| NRs5,000 – 7,000 | | 8 | |
| NRs3,000 – 5,000 | | 16 | |
| < NRs3,000 | | 20 | |
| | | **Total** | |

Source: Department of Water Supply and Sewerage assessment.

3. For batch 1, towns that have already completed at least the feasibility studies will be considered. Each batch is expected to have about 10 towns, and towns with high scores will be selected among those considered. When the town selection has been made for each batch, the project management office (PMO) will send ADB for review and concurrence (i) a narrative summary of town selection together with the score of towns considered, (ii) a location map, and (iii) salient features of each subproject.

## B. Subproject Selection

4. **General Criteria.** Before the subproject is implemented, the PMO will ensure that the specific criteria, including the following, have been satisfied:

(i) The subproject has been identified and designed in a participatory manner during the prefeasibility, feasibility, and detailed design stages.

(ii) The design of the subproject ensures the least-cost of capital and of operation and maintenance (O&M) expenditures in achieving its objectives.

(iii) The subproject complies with all requirements of relevant national laws and regulations and the Asian Development Bank's (ADB's) policies, including, among others, the Government's Environmental Protection Rules (1997) and their amendment in 2007, and ADB's *Environment Policy* (2002), *Involuntary Resettlement Policy* (1995), and *Policy on Indigenous Peoples* (1998).

(iv) The subproject has been prepared in accordance with the environmental assessment and review procedures and the resettlement framework for the Project. Subprojects that will cause significant[3] resettlement impacts will not be selected.

(v) The design of the facilities has been made in accordance with the relevant Government guidelines and standards.

(vi) A general agreement among local governments, water users and sanitation committees (WUSCs), PMO, and Town Development Fund (TDF) specifying, among other things, the proportion of cost sharing for both water supply and sanitation systems, and the principle of integrated water supply and sanitation, tariff collection, and output-based aid (OBA), has been signed before the commencement of detailed design work.[4]

(vii) Before the contract award, an agreement among the same four parties has been signed specifying, among other things, (a) the amount of contribution from each party; (b) the proposed level of tariff to be collected by WUSCs; (c) WUSC's commitment to recover payment and repayment, O&M expenditures, replacement, and future expansion in accordance with the Urban Water Supply and Sanitation Sector Policy (UWSSSP); and (d) the target and level of grant to be given under the OBA.

5. **Water Supply.** The specific criteria include the following:

(i) The WUSC has agreed with the design of the subproject, initial community contribution of 5%–15% of the capital cost (including 5% upfront cash contribution), the collection of tariff at a level to cover necessary repayment of principal and payment of interests to the TDF, all O&M expenditures, replacement, and future expansion in accordance with the UWSSSP, and the responsibility for O&M of the scheme. An ability-to-pay survey has confirmed that the tariff is affordable for most users.

[3] Involuntary resettlement impacts are considered significant when 200 or more people experience major impacts. "Major impacts" is defined as involving affected people (i) being physically displaced from housing; and/or (ii) having 10% or more of their productive, income-generating assets lost.

[4] This will mean the commencement of detailed design review for towns where the detailed design is already available.

(ii) The subproject has an economic internal rate of return of 12% or higher.
(iii) When the required quantity of raw water needs to be supplied from surface water sources, necessary agreement and approval have been obtained in accordance with relevant laws and regulations of the country.

6. **Sanitation, including Solid-Waste Management.** The specific criteria include the following:

(i) The WUSC has agreed with the design of the subproject, and the responsibility for O&M of the scheme.
(ii) The design of the facilities suits the requirements of women, children, and the disabled.
(iii) The WUSC and the VDCs or municipalities where the proposed system serves have agreed to jointly contribute 15% of the capital cost[5] and cover 100% of the O&M cost. Details of the arrangement will be included in para 4 (vi)–(vii) above.

7. Before the subproject implementation, the PMO will submit to ADB for review and concurrence (i) a summary sheet showing that the criteria have been met; (ii) salient features of each subproject; (iii) subproject resettlement plans if any subproject involves involuntary resettlement and/or land acquisition; (iv) other safeguard documents, if requested by ADB; and (v) feasibility studies and/or detailed design reports, if requested by ADB.

[5] WUSCs may make contributions either in cash or in kind.

# FRAMEWORK OF OUTPUT-BASED AID

## A. Background

1. Output-based aid (OBA) is a method for using explicit performance-based grants to support delivery of basic services where policy concerns justify public funding to complement or replace user charges. The Project proposes a strategy for using OBA to deliver water supply and sanitation services to the poor and vulnerable groups in Project towns. Under the OBA, grants will be given to service providers, i.e., water users and sanitation committees (WUSCs), after achievement of specific outputs have been duly verified. The specific outputs are piped household connections for water supply and construction of private latrines for sanitation. Grants will be provided only to poor households for water supply services, and to both poor and non-poor (though at different levels) for sanitation services.

## B. Unit Costs of Water Supply House Connection and In-house Latrine

2. The cost of providing house connection to a household depends upon the distance of the household from the pipe network. The estimated costs for various distances are given in Table A5.1.

**Table A5.1: Estimated Unit Cost for Water Supply House Connection**

| Particulars | Distance (meters) of the User Household from Pipeline | | | |
|---|---|---|---|---|
| | **10** | **25** | **50** | **75** |
| Pipe (NRs per meter) | 140 | 140 | 140 | 140 |
| Cost for pipe (NRs) | 1,400 | 3,500 | 7,000 | 10,500 |
| Accessories (30% of pipe) (NRs) | 800 | 800 | 800 | 800 |
| Water meter (NRs) | 1,200 | 1,200 | 1,200 | 1,200 |
| **Total (NRs)** | **3,400** | **5,500** | **9,000** | **12,500** |
| Estimated proportion of poor households (%) | 10 | 40 | 35 | 15 |
| Weighted average cost (NRs) | 7,565 (say 8,000 including miscellaneous costs) | | | |

Note: Labor cost not included assuming household will provide own labor.
Source: ADB estimates based on the hearing from the DWSS.

3. As can be seen from Table A5.1, the cost of individual house connection varies greatly depending on the distance from the pipeline. Accordingly, it is considered appropriate to provide grants based on the actual cost of house connection.

4. The cost of constructing latrines in a household is likely to be uniform. The estimated cost of constructing a latrine is given in Table A5.2.

**Table A5.2: Unit Cost for Construction of In-House Latrine (Basic Model)**

| **Particulars** | **Estimated cost** (NRs) |
|---|---|
| Cost of High Density Polyethylene (HDPE) pipe | 6 meters x NRs25 per meter = NRs150 |
| Accessories and miscellaneous (lump-sum) | 1,800 (including drain pipe) |
| Cement (3–4 bags) | 1,600 |
| Pan | 500 |
| Cistern | 950 |
| **Total** | **5,000** |

Note: Labor cost not included assuming household will provide own labor. Substructure up to plinth level considered.
Source: ADB estimates based on the hearing from the DWSS.

5. As the cost of construction of latrines is approximately uniform for the basic model, it is appropriate to provide grants based on the uniform cost.

## C. Level and Extent of Grant, and Mode of Payment

6. Grants for latrine construction will be provided in accordance with the Government norms. A fixed unit grant amount[1] multiplied by the number of households without access to sanitation services will be provided. Distribution of grant among beneficiaries will be determined by each town. As construction of a latrine by a household is essentially an individual choice, it is desirable that construction be done by individual householders as per his or her choice. However, the Project and the nongovernment organization (NGO) will give all information and will support the household in making an informed decision regarding the type of model, cost of model, sourcing the material, etc.

7. Grants to poor households for water supply house connections will be provided at the rate of 50% of actual cost, or NRs6,500, whichever is less. In any project town, the maximum proportion of households eligible for grants is equivalent to the district-level poverty ratio in the base year (current year). For example, if a district has a poverty ratio of 30%, then a grant in a project town in such a district will be limited to 30% of total households.

8. In order to ensure the quality of house connection, minimize leakages at the connection point, and reduce occurrences of frequent road cuts, it is desirable that house connection for water supply be executed by the main civil works contractor. Grants under the OBA will be admissible only if connections are made by the main civil works contractor during the construction period and the first 6 months of the operation and maintenance (O&M) period.

9. Payment of the grant amount will be made to the WUSC after house connection has been verified, as prescribed.

## D. Target Group and Expected Utilization

10. **Water Supply.** In the proposed towns, there are approximately 55,000 households, out of which about 30%, i.e., 17,000 households, are poor. Assuming a weighted average amount of actual cost as NRs8,000 per poor household for house connection for water supply as calculated in Table A5.1, grant expenditure (50%) for connections to poor households is likely to be NRs68 million (17,000 x NRs4,000).

11. **Sanitation.** Assuming that 25% of the poor households and 50% of the general (non-poor) households already have latrines, 13,000 (75% of 17,000) poor households and 19,000 (50% of 38,000) non-poor households will need to be supported by the Project. The total grant is likely to be NRs38.4 million (32,000 x NRs1,200[2]).

12. Accordingly, NRs106.4 million ($1.33 million) will be required for grant support for water supply and sanitation from the Project.

## E. Eligibility Criteria

13. Poor households will be identified using a broad framework outlined in Table A5.3.

[1] In the draft national guidelines for promoting improved sanitation, the unit grant amount per household is NRs1,000 in the Terai, NRs1,200 in the hills, and NRs1,500 in the mountains.

[2] NRs1,200 per household was assumed, in line with the draft national guidelines mentioned in footnote 1.

**Table A5.3: Eligibility Criteria for Identifying Beneficiaries Under Output-Based Aid**

| Eligibility Criteria[a] |
|---|
| • Family members without reliable income and employment-generating opportunities or a wage earner.<br>• Possesses house with separate kitchen, but only one room to stay and without telephone, TV, or refrigerator.<br>• Land holding less than 0.25 hectares.<br>• Food sufficiency up to 6 months of the year.<br>• Possesses few (1–2) large productive cattle and buffalo.<br>• Any member of the household should not be a regular or retired government servant or a regular or retired employee of any private sector organization, or should not be a public representative. |

[a] At least four out of six criteria, including the last criterion, have to be met.
Source: Asian Development Bank assessment.

## F. Identification of Target Beneficiaries

14. Identification of target beneficiaries will be done by local NGOs in collaboration with WUSCs and design and supervision consultants (DSCs), and under the overall superintendence of the project management consultant (PMC) and project management office (PMO). It is very important to properly identify the eligible households so that the benefits are delivered to the deserving persons and the grant is not misused. Some indicative (rather than comprehensive) parameters for target beneficiaries are given below. The actual parameters to be used and the process to be followed will depend on the context and prevailing circumstances of a town and will be determined by DSCs, NGOs, and WUSCs, and approved by the PMC and/or PMO well before the actual process of identification. The process has to be participatory and consultative.

(i) **Housing index**. This index uses external housing conditions as a proxy for poverty, and can be very effective in conditions where there is a consistent relationship between poverty and housing conditions. Typical factors to be analyzed will include use of construction materials for walls, roofs, etc.; and space in the house such as separate kitchen, separate rooms for children and parents, etc. This method relies on there being a strong correlation between housing conditions and poverty; there is not a universal relationship—it is very much defined by the context. Where the housing index is adapted to local conditions, perhaps even including other externally visible, nonhousing indicators, there is a greater chance of this index being applicable to a wider range of contexts.

(ii) **Participatory wealth ranking**. This tool uses a community's own definitions and perceptions of poverty, and employs rigorous cross-checking methods to ensure consistency and accuracy of results. This method relies on detailed knowledge of a community of itself, and is unlikely to work in contexts where the community is weak, or where there are high levels of conflict or mistrust.

(iii) **Perceptions of important community leaders**. Sometimes, important community leaders such as local priests, tailors, school teachers, chairperson of ward, etc., can give useful information about economic status of households. They may be involved in the process of identification of target beneficiaries.

(iv) **Check-list approach**. Under this approach, a list of poverty proxies or indicators is built on, based on a local understanding of poverty and in consultation with WUSCs. Scores are then assigned to each indicator, or a poverty-line level determined. The poverty level of a household can then be calculated from their score, or number of qualifying indicators.

15. In general, all four methods build on existing information, collect the minimum data necessary for reliable targeting, and follow-up targeting with a motivation process to encourage the poor to benefit from the subproject. Thus, these methods must not be applied blindly but adapted to local needs and conditions. A number of choices need to be made which will determine which tool is used. It has been suggested that all four methods of poverty targeting

are adopted, the findings are triangulated, and the poor identified, integrating all findings in a participatory way and through consensus.

## G. Implementation Arrangements

16. The following process will be followed in the implementation of OBA:

### 1. Identification, Endorsement, and Application

(i) The PMO, PMC, DSCs, WUSCs, and NGOs should be in place and fully functional.

(ii) As required in the terms of reference of NGOs, it is the responsibility of the NGO, in collaboration with the WUSC, to carry out the socioeconomic survey of all the households in the town.

(iii) The NGO, in collaboration with the WUSC, identifies the poor households as per the eligibility criteria and participatory consultative process of identification mentioned in this framework.

(iv) After identification of target beneficiaries, the WUSC, in collaboration with the NGO, should organize a meeting of water users associations and the list of target beneficiaries should be read out in this meeting, objections invited and corrected, and the final list endorsed. Representatives of water supply and sanitation divisional or subdivisional offices (WSSDOs) and DSCs should also attend this meeting.

(v) The NGO should explain the OBA framework to target beneficiaries in the list, including the level of grant, extent of coverage, and process of delivery of water supply and sanitation services, etc. The details of house water supply connection—including length of pipe, fixtures, water meters, and valves—method of construction by the main contractor, and responsibility of the household for oversight and quality control in this regard should be explained to the target beneficiary household.

(vi) The details of different types of latrine models, cost of each model, type and unit costs of material required, level of grant, method of payment of grant, etc., should be explained by the NGO and the choice of the model should be ascertained and documented. The responsibility of construction by the beneficiary has to be clearly explained to the household by the NGO and the likely time frame of construction by the household should also be ascertained and documented.

(vii) Voluntary application by the target beneficiary to the WUSC should be obtained by the NGO, verified, compiled, and recommended to the WUSC by the NGO for approval.

### 2. Water Supply After Application

(i) A list of eligible approved target beneficiaries will be prepared by the NGO and a copy will be made available to the main civil works contractor.

(ii) The actual work of house connection is carried out by the main civil works contractor for house connection.

(iii) The contractor should submit a periodic running claim (for example, monthly or when a substantial number of connections are made) to the WUSC along with details of work carried out for the target beneficiaries such as name, address, length of pipe used for connection, fixtures and fittings, water meter, valve, etc., user's contribution, and the amount claimed for each household. The signature of the user indicating satisfactory completion of the work should be obtained by the contractor. The DSC should certify the claim of the contractor.

(iv) The WUSC will get the list of beneficiaries verified through the local NGO so as to ascertain that the house connections have actually been made to the intended beneficiaries and that the desired outputs have been achieved. At the same time, the 50% user's contribution should be collected by the WUSC with the help of the NGO.

(v) The WUSC should make full payment to the contractor from the funds available from various sources such as initial upfront connection fee and actual connection costs recovered from the users.

(vi) The WUSC will periodically get reimbursement from the WSSDO based on the payments actually made to the contractor. Such reimbursement may be used as revolving funds by the WUSC for making payments to the contractor for further connections.

### 3. Sanitation After Application

(i) The WUSC will provide grants to the household, either in cash or in the form of materials needed, together with some guidance for procurement of materials, if the household chooses to procure materials on its own.

(ii) The actual work of latrine construction is carried out by the concerned household.

(iii) Once a latrine has been constructed and made operational by an individual household, such household will send a statement to the WUSC informing it of the completion of the work. (The NGO will provide the format for this application.)

(iv) The WUSC will ask the NGO to verify that the latrine has been constructed, the quality and workmanship of construction, and whether it is operational, and issue a verification report.

(v) The WUSC will send a request for reimbursement of the grant to the WSSDO together with a verification report and have it reimbursed.

## H. Evaluation

17. Evaluation of OBA will be carried out on a random sampling basis by an independent agency appointed by the PMO for this purpose. It may be appropriate to engage the department of sociology, anthropology, management, or economics, etc. of any renowned university for this purpose.

## DETAILED COST ESTIMATES

### Table A6.1: Cost Estimates by Expenditure Category

| Item | $ Million | NRs Million | % of Base Cost |
|---|---|---|---|
| **A. Base Cost**[ab] | | | |
| **1. Water Supply and Sanitation Sector** | | | |
| Equipment and Vehicles | 0.1 | 5 | 0.1 |
| Consulting Services | 1.3 | 86 | 1.9 |
| Incremental Recurring Costs | 0.1 | 8 | 0.2 |
| **Subtotal (A1)** | **1.4** | **99** | **2.2** |
| **2. Developing Water Supply and Sanitation Facilities** | | | |
| Civil Work and Equipment | 45.2 | 3,103 | 69.4 |
| Land Acquisition and Resettlement | 0.4 | 27 | 0.6 |
| Output Based Aid | 1.3 | 91 | 2.0 |
| Consulting Services | 3.5 | 237 | 5.3 |
| NGO Engagement and Surveys | 1.8 | 122 | 2.7 |
| **Subtotal (A2)** | **52.2** | **3,580** | **80.1** |
| **3. Strengthening Governance and Capacity for Project Management and Operation** | | | |
| Equipment and Vehicles | 0.4 | 27 | 0.6 |
| Consulting Services | 1.6 | 107 | 2.4 |
| Capacity Development | 0.1 | 7 | 0.2 |
| Incremental Recurrent Costs | 2.0 | 138 | 3.1 |
| **Subtotal (A3)** | **4.1** | **279** | **6.2** |
| **Subtotal (A1-3)** | **57.7** | **3,957** | **88.6** |
| **4. Tax and Duties** | 7.5 | 511 | 11.4 |
| **Subtotal (A1-4)** | **65.2** | **4,468** | **100.0** |
| **B. Contingencies** | | | |
| Physical Contingencies[c] | 2.6 | 177 | 4.0 |
| Price Contingencies[d] | 4.0 | 271 | 6.1 |
| **Total** | **71.7** | **4,916** | **110.0** |

[a] Exchange Rate of NRs68.57 = $1 has been used.
[b].Base costs are as of July 2008.
[c] Physical contingencies are estimated at 0%–10%.
[d] Price contingencies are estimated at 0.4%–6.8% for foreign cost and at 6.8%–7.4% for local cost (using Asian Development Bank price escalation factors).
Source: Asian Development Bank estimates.

**Table A6.2: Cost Estimates by Financer**

| | Total | ADB | | Government of Nepal | | Beneficiaries and Local Governments | |
|---|---|---|---|---|---|---|---|
| | $ '000 | $ '000 | % | $ '000 | % | $ '000 | % |
| **A. Base Cost[ab]** | | | | | | | |
| **1. Developing Efficient, Effective and Accountable Urban Water Supply and Sanitation Sector** | | | | | | | |
| Equipment and Vehicles | 66 | 66 | 100.0 | | 0.0 | | 0.0 |
| Consulting Services | 1,254 | 1,254 | 100.0 | | 0.0 | | 0.0 |
| Incremental recurrent costs | 117 | 35 | 30.0 | 82 | 70.0 | | 0.0 |
| **Subtotal (A1)** | **1,437** | **1,355** | **94.3** | **82** | **5.7** | | **0.0** |
| **2. Developing Water Supply and Sanitation Facilities** | | | | | | | |
| Civil Work and equipment | 45,249 | 30,807 | 68.1 | 8,310 | 18.4 | 6,132 | 13.6 |
| Land acquisition and Resettlement | 393 | | 0.0 | | 0.0 | 393 | 100.0 |
| Output Based Aid | 1,330 | 665 | 50.0 | 665 | 50.0 | | 0.0 |
| Consulting Services | 3,454 | 3,454 | 100.0 | | 0.0 | | 0.0 |
| NGO engagement and surveys | 1,776 | 1,776 | 100.0 | | 0.0 | | 0.0 |
| **Subtotal (A2)** | **52,203** | **36,703** | 70.3 | **8,975** | **17.2** | **6,525** | 12.5 |
| **3. Strengthening Governance and Capacity for Project Management and Operation** | | | | | | | |
| Equipment and Vehicles | 390 | 390 | 100.0 | | 2.0 | | 0.0 |
| Consulting Services | 1,566 | 1,566 | 100.0 | | 0.0 | | 0.0 |
| Capacity development | 100 | 100 | 100.0 | | 0.0 | | 0.0 |
| Incremental recurrent costs | 2,007 | 602 | 30.0 | 1,405 | 70.0 | | 0.0 |
| **Subtotal (A3)** | **4,063** | **2,658** | 65.4 | **1,405** | 34.6 | | 0.0 |
| **Subtotal (A1-3)** | **57,703** | **40,716** | 70.6 | **10,461** | 18.1 | **6,525** | 11.3 |
| **4. Tax and Duties** | 7,453 | | 0.0 | 7,453 | 100.0 | | 0.0 |
| **Subtotal (A1-4)** | **65,156** | **40,716** | 62.5 | **17,914** | 27.5 | **6,525** | 10.0 |
| **B. Contingencies** | | | | | | | |
| Physical Contingencies[c] | 2,587 | 1,178 | 45.5 | 1,834 | 70.9 | | 0.0 |
| Price Contingencies[d] | 3,957 | 3,206 | 81.0 | 751 | 19.0 | | 0.0 |
| **Total** | **71,700** | **45,100** | | **20,500** | 28.6 | **6,100** | 8.5 |

[a] Exchange rate of NRs 68.57 = $1 has been used.

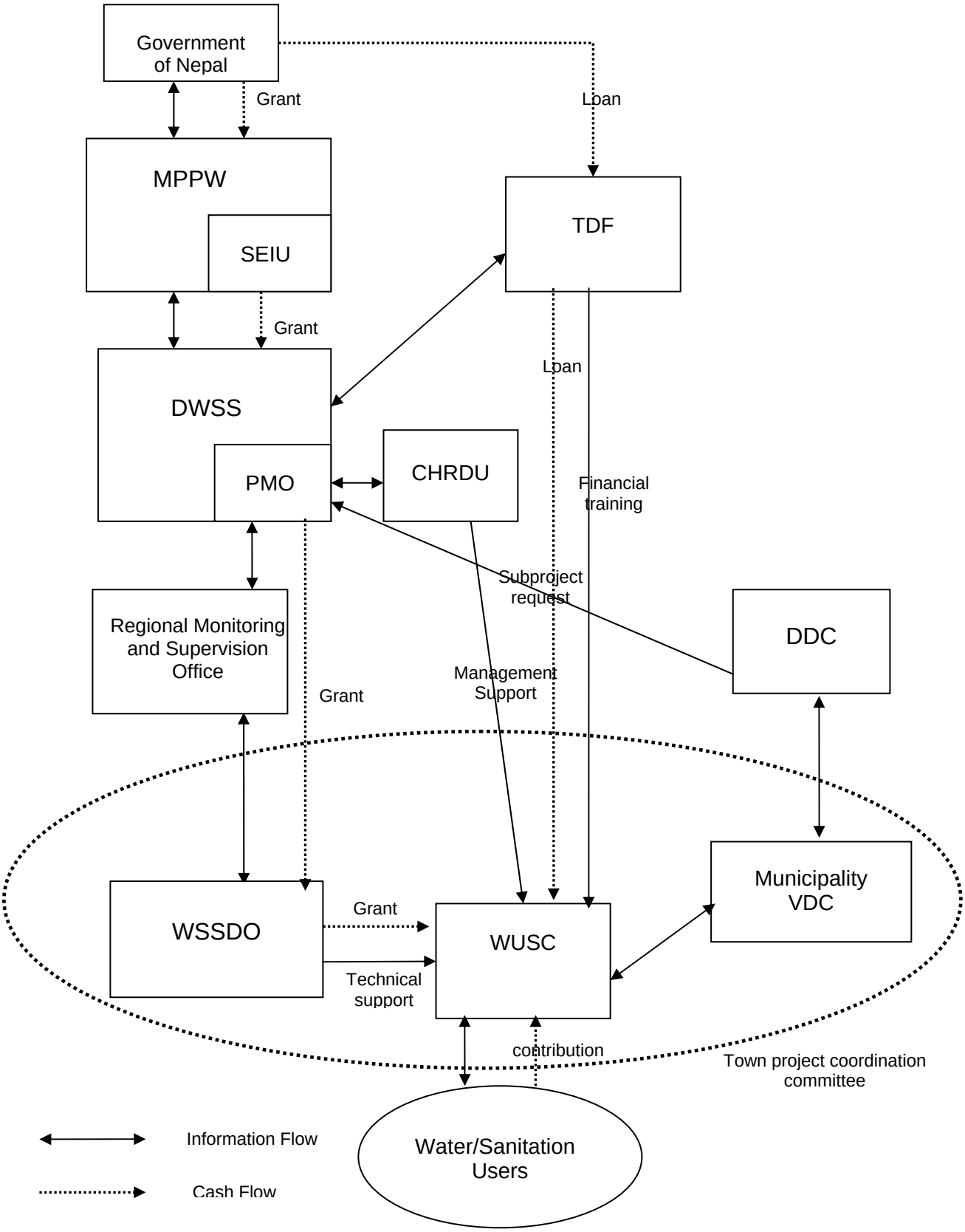
[b] Base costs are as of July 2008.

[c] Physical contingencies are estimated at 0%–10%.

[d] Price contingencies are estimated at 0.4%–6.8% for foreign cost and at 6.8%–7.4% for local cost (using Asian Development Bank price escalation factors).

Source: Asian Development Bank estimates.

## IMPLEMENTATION ARRANGEMENT




CHRDU = Central Human Resources Development Unit, DDC = District Development Committee, DWSS = Department of Water Supply and Sewerage, MPPW = Ministry of Physical Planning and Works, PMO = Project Management Office, SEIU = sector efficiency improvement unit, TDF = Town Development Fund, WSSDO = Water Supply and Sanitation Divisional or Subdivisional Office, WUSC = water users and sanitation committee, VDC = village development committee.

Source: Asian Development Bank estimates.

## IMPLEMENTATION SCHEDULE

| DESCRIPTION | 2009 | | | 2010 | | | | 2011 | | | | 2012 | | | | 2013 | | | | 2014 | | | | 2015 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| **A. Grant Preparation & Advance Actions** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grant Signing | | | ◊ | | | | | | | | | | | | | | | | | | | | | | | | |
| Grant Effectiveness | | | | ◊ | | | | | | | | | | | | | | | | | | | | | | | |
| Recruitment of Consultants for PMO and SEIU | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Assignment of Project Staff to PMO and SEIU | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **B. Component 1** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Implementation of Sector Efficiency Improvement | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **C. Component 2** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Batch 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Town Selection | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selection of DSC (Advance Action) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Review/preparation of detailed design and Bid Preparation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bidding and Contract Award for Civil Works | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subloan Agreement between TDF and WUSC | | | | | | | | | | ◊ | | | | | | | | | | | | | | | | | |
| Construction | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Verification of House Connections | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operation by the Contractor | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Local NGO Recruitment (Advance Action) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Local NGO Support | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Batch 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Town Selection | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selection of DSC | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DD and Bid Preparation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bidding and Contract Award for Civil Works | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub-loan Agreement between TDF and WUSC | | | | | | | | | | | | | | ◊ | | | | | | | | | | | | | |
| Construction | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Verification of House Connections | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operation by the Contractor | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Local NGO Recruitment | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Local NGO Support | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **D. Component 3** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PMO, Capacity Building for WUSC, WSSDO and RO | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DD = detailed design, DSC = design and supervision consultant, NGO = nongovernment organization, SEIU = sector efficiency improvement unit, TDF = Town Development Fund, WSSDO = Water Supply and Sanitation Divisional or Subdivisional Office, WUSC = water users and sanitation committee

Assumptions: All towns under batch 1 have already completed at least feasibility studies.

Source: Asian Development Bank estimates.

# PROCUREMENT PLAN

| | |
|---|---|
| **Project Name**: Second Small Towns Water Supply and Sanitation Sector Project | **Grant Number**: |
| **Grant Amount:** $45.1 million | **Executing Agency**: Ministry of Physical Planning and Works (MPPW), Government of Nepal |
| **Date of first Procurement Plan:** 21 July 2009 | **Date of this Procurement Plan**: 21 July 2009 |

## Section 1: Process Thresholds, Review, and 18-Month Procurement Plan

### A. Project Procurement Thresholds

1. Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

| Procurement of Goods and Works | |
|---|---|
| **Method** | **Threshold** |
| International Competitive Bidding for Works | More than $1,000,000 |
| International Competitive Bidding for Goods | More than $500,000 |
| National Competitive Bidding for Works | Equivalent to $1,000,000 or less |
| National Competitive Bidding for Goods | Equivalent to $500,000 or less |
| Shopping for Works | Equivalent to $100,000 or less |
| Shopping for Goods | Equivalent to $100,000 or less |
| List here any other methods of procurement approved for use (see Section III of the Procurement Guidelines) | Not Applicable |

### B. ADB Prior or Post Review

2. Except as ADB may otherwise agree, the following prior or post-review requirements apply to the various procurement and consultant recruitment methods used for the project.

| Procurement of Goods and Works | | |
|---|---|---|
| **Procurement Method** | **Prior or Post** | **Comments** |
| | | |
| International Competitive Bidding Works | Prior | |
| International Competitive Bidding Goods | Prior | |
| National Competitive Bidding Works | Prior | To be reviewed later. |
| National Competitive Bidding Goods | Prior | To be reviewed later. |
| Shopping for Works | Post | |
| Shopping for Goods | Post | |
| Direct Contracting | Prior | In accordance with ADB's Procurement Guidelines Section 3.6 and PAI 3.05 |
| Community Participation in Procurement | Prior for the first contract, and post thereafter | In accordance with ADB's Procurement Guidelines Section 3.17 and PAI 5.12 (Implementing Small Projects with Community Participation) |
| **Recruitment of Consulting Firms** | | |
| Quality and Cost-Based Selection | Prior | |
| | | |
| **Recruitment of Individual Consultants** | | |
| Individual Consultants Selection | Prior | |

ADB = Asian Development Bank, PAI = Project Administration Instructions.

### C. Goods and Works Contracts Estimated to Cost More than $1 Million

3. The following table lists goods and works contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

| General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advertisement Date (quarter/year) | Comments |
|---|---|---|---|---|---|
| Civil Works Contracts (one for each town) | $2.4 million on an average for one town and $24 million for 10 towns | International Competitive Bidding | No | Q3/2010 | About 10 contracts expected in 18 months |

## D. Consulting Services Contracts Estimated to Cost More than $100,000

4. The following table lists consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

| General Description | Contract Value | Recruitment Method | Advertisement Date (quarter/year) | International or National Assignment | Comments |
|---|---|---|---|---|---|
| Project Management Consultant | $1.6 million | QCBS (80:20)/ICS | Q2/2009 (Advance contracting) | National firm and 3–4 international individual consultants | One contract with the firm and others with individual consultants |
| Design and Supervision Consultant: one contract for 3–4 towns | $0.58 million for each contract and $1.74 million for three contracts | QCBS (80:20) | Q2/2009 (Advance contracting) | National firm | Three contracts |
| Sector Efficiency Improvement Unit Consultant | $1.16 million | QCBS (80:20)/ICS | Q2/2009 (Advance contracting) | International firm, and a few national individual consultants | One contract with the firm and a few individual consultants |

ICS = individual consultant selection, Q = quarter, QCBS = quality and cost-based selection.

## E. Goods and Works Contracts Estimated to Cost Less than $1 Million and Consulting Services Contracts Less than $100,000

5. The following table groups smaller-value goods, works, and consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

| General Description | Value of Contracts (cumulative ) | Number of Contracts | Procurement / Recruitment Method | Comments |
|---|---|---|---|---|
| Vehicles for PMO and SEIU | $0.28 million | 1 | NCB | |
| Vehicles for WSSDO | $0.03 million | 1 | Shopping | |
| Office equipment | $0.08 million | 1 | Shopping | |
| Local NGO for each project town | $0.08 million for each town and $0.8 million for 10 towns | About 10 | Simplified QCBS (80:20) | About 10 contracts expected in 18 months (Advance contracting) |

NCB = National Competitive Bidding, NGO = nongovernment organization, PMO = project management office, QCBS = quality and cost-based selection, SEIU = sector efficiency improvement unit, WSSDO = water supply and sanitation divisional or subdivisional office.

6. Until a national competitive bidding annex containing modifications to Nepal's Public Procurement Act 2007 and Procurement Regulations 2007 has been incorporated into the Procurement Plan, all national competitive bidding procurement processes, bidding documents, and awards shall be subject to the prior approval of ADB.

## Section 2: Project Procurement Plan

### F. Indicative List of Packages Required Under the Project

7. The following table provides an indicative list of all procurement (goods, works, and consulting services) over the life of the project. Contracts financed by the recipient and others should also be indicated, with an appropriate notation in the Comments section.

| General Description | Estimated Value (cumulative) | Estimated Number of Contracts | Procurement Method | Domestic Preference Applicable | Comments |
|---|---|---|---|---|---|
| **Goods** | | | | | |
| Vehicles | $0.33 million | 3 | NCB/Shopping | No | |
| Office Equipment | $0.13 million | 2 | Shopping | No | |
| **Works** | | | | | |
| Civil Works Contracts (one for each town) | $2.4 million on an average for one town and $48 million for 20 towns | 20 | ICB | No | 20 contracts expected over the life of project |
| **Consulting Services** | | | | | |
| Project Management Consultant | $1.6 million | Multiple | National QCBS (80:20)/ICS | Simplified from the firm and bio-data from the individuals | Few international individual consultants in addition to a national firm |
| Design and Supervision Consultant: one contract for 3–4 towns | $0.58 million for each contract and $3.45 million for six contracts | 6 | National QCBS (80:20) | Simplified | National firm |
| Sector Efficiency Improvement Unit Consultant | $1.16 million | Multiple | International QCBS (80:20)/ICS | Simplified from the firm and bio-data from individuals | International firm and a few national individual consultants |
| Local NGO for each project town | $0.08 million for each town and $1.6 million for 20 towns | 20 | National Simplified QCBS (80:20) | Simplified | Local NGO for each project town (from town or district) |

ICS = individual consultant selection, NGO = nongovernment organization, QCBS = quality and cost-based selection.

## GENDER EQUALITY AND SOCIAL INCLUSION ACTION PLAN

| Activity/Measures | Indicators/Targets | Responsibility (timing) |
|---|---|---|
| **Component 1: Developing an Efficient, Effective, and Accountable Urban Water Supply and Sanitation Sector** | | |
| Make water supply and sanitation standards gender-responsive and socially inclusive | • Inclusion of gender equality and social inclusion approaches, as deemed appropriate, in the implementation of existing laws/regulations (i.e., Urban WSS Policy) and the formulation of new laws, policies, and guidelines under the responsibility of the MPPW | MPPW (continuous) |
| **Component 2: Developing Water Supply and Sanitation Facilities** | | |
| 1. Select project service area through participatory and inclusive approaches | • Awareness raising on project approaches and participation conducted for women and vulnerable groups.<br>• Service area selected through consultations with all stakeholders including members from targeted vulnerable communities, district dalit coordination committees, janajati coordination committees, gender mainstreaming coordination committees, federations of indigenous groups and dalit organizations, and other minority groups. | PMO, WSSDO, DSC, NGO (before service area selection in each town) |
| 2. Collect data disaggregated by sex, caste, and ethnicity in socioeconomic survey | • Gender, caste, ethnicity disaggregated data and information on relevant socioeconomic indicators obtained from survey reports collected by DSC and reflected in the improved PPMS (target: all towns).<br>• Number of households headed by women and other gender indicators included in household survey data. | PMO, WSSDO, DSC, NGO (within 6 months of commencement of DSC work) |
| 3. Adopt pro-poor and gender-sensitive approaches in WUSC operations | • IASC and WUSC operational guidelines/charters are gender-sensitive and inclusive.<br>• Include women and vulnerable groups in training, decision-making, O&M of water supply system, and in monitoring.<br>• IASC and WUSC members trained on participatory poverty assessment and social inclusion.<br>• OBA effectively implemented and 75% of total household of poor in the service area connected to the piped water supply and sanitation systems. | PMO, WSSDO, WUSC, NGO (during the design and construction for trainings)<br><br>(by the end of the first year operation) |
| 4. Ensure representation of women and vulnerable groups in ISACs and WUSCs | • 33% of WUSC members are women, with at least one woman in key position (target: 75% of towns).<br>• Dalits, indigenous groups, Muslims, and religious minorities are appropriately represented in subgroups and/or general assembly of ISACs and WUSCs. | WSSDO, WUSC, NGO (during the design period) |
| 5. Conduct social mobilization | • Local NGOs with inclusive staff composition are selected for social mobilization.<br>• One community mobilizer in NGO is either a woman or from a vulnerable group (dalits, marginalized indigenous groups, Muslims, religious minorities) | PMO, WSSDO<br><br>PMO, NGO (local NGO engagement in each town) |

| Activity/Measures | Indicators/Targets | Responsibility (timing) |
|---|---|---|
| 6. Improve capacity of women and vulnerable groups to actively participate in decision making | • WUA members from vulnerable groups and women are trained in leadership, group management, and O&M of water and sanitation service systems. | WUSC, NGO (during the design and construction) |
| 7. Provide equal employment opportunity to poor women and men in construction works | • Employment of local poor, skilled, and unskilled people, both men and women, will be encouraged in bidding and contract documents (target: all towns).<br>• Equal wages paid for women and men for work of equal value.<br>• Employment record disaggregated by sex. | DSC, Contractor, NGO (before and during construction) |
| 8. Make sanitation and solid-waste management activities gender friendly | • 50% participation of women and vulnerable groups in sanitation and solid-waste management programs ensured. | NGO (during construction) |
| **Component 3: Strengthening Governance and Capacity for Project Management and Operation** | | |
| 1. Designate gender/social development officers in PMO and WSSDO | • Gender and social development officers placed in PMO and WSSDO and involved in project planning, implementation, review, and monitoring (target: all relevant WSSDOs). | PMO, WSSDO (continuous) |
| 2. Designate gender and social inclusion officer (government counterpart) in DWSS | • Institutional capacity of DWSS enhanced on gender mainstreaming and social inclusion supported through GESI officer. | DWSS (continuous) |
| 3. Develop urban water supply and sanitation gender equality and social inclusion training manual | • Training manual on gender and social inclusion produced (includes tools and techniques for GESI mainstreaming in urban water supply and sanitation sector) and used to train project staff. | PMO, NGO (manual developed within 6 months of commencement of PMC services) |
| 4. Provide 1-day training workshop to PMO and WSSDO teams on gender equality and social inclusion | • At least gender specialists of PMO and WSSDO officers are trained on gender equality and social inclusion in urban water supply and sanitation. | PMO, WSSDO (during the design period) |
| 5. Develop PPMS that includes sex, caste, and ethnicity disaggregated data and information | • PPMS developed based on STWSSSP-I.<br>• Disaggregated data, gender, and social indicators incorporated into monitoring formats and progress reports. | PMO, WSSDO, NGO (PPMS developed within 9 months of grant effectiveness) |
| 6. Develop gender equality and social inclusion implementation plan for each subproject | • Implementation plan developed and implemented effectively, and periodically reviewed by each subproject (target: all towns). | PMO, WSSDO, NGO (plan developed within 6 months of commencement of NGO work) |
| 7. Conduct social audits by involving dalit, janajati, gender mainstreaming coordination committees of DDC, and others | • Benefits to poor, women, disadvantaged, and vulnerable ensured through project activities. | PMO, WSSDO, NGO (during the first year operation) |

DDC = district development committee, DSC = design and supervision consultant, GESI = gender equality and social inclusion, ISAC = interim service area committee, MPPW = Ministry of Physical Planning and Works, OBA = output-based aid, O&M = operation and maintenance, PMO = project management office, PPMS = project performance management system, NGO = nongovernment organization, STWSSSP-I = Small Towns Water Supply and Sanitation Sector Project, WSS = water supply and sanitation, WSSDO = water supply and sanitation divisional or subdivisional office, WUA = water users association, WUSC = water users and sanitation committee.

[a] Key positions of WUSC are chairperson, vice chairperson, secretary, and treasurer.

Source: Asian Development Bank assessment in consultation with the Department of Water Supply and Sewerage.

# SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

| Country and Project Title: Second Small Towns Water Supply and Sanitation Sector Project | | | |
|---|---|---|---|
| Lending/Financing Modality: | Sector Lending | Department/ Division: | SARD/SAUD |

## I. POVERTY ANALYSIS AND STRATEGY

### A. Link to the National Poverty Reduction Strategy and Country Partnership Strategy

The National Living Standard Survey (NLSS II) in FY2004 indicated that incidence of poverty declined sharply—from 41.8% in FY1996 to 30.8% in FY2004. This decline was mainly driven by growth in both per capita consumption expenditure and income by an annual average of 4.5%, supported by increased remittance inflows, higher agricultural wages, increased connectivity, and urbanization. Nepal has also made notable progress in various aspects of human development. The child (under 5-years old) mortality rate has declined from 118 per 1,000 live births in 1996 to 61 in 2006, the infant (below 1-year) mortality rate has decreased from 79 per 1,000 live births to 52 in the same period, and the maternal mortality rate has been nearly halved from 539 per 100,000 live births in 1995 to 281 in 2006. Despite the notable progress in overall poverty reduction and human development, the NLSS shows a marked increase in income inequality—the Gini coefficient increased from 34.2% in FY1996 to 41.4% in FY2004. The reduction in poverty has been unevenly distributed. Inequalities across geographic regions and ecological zones and between rural and urban areas remain significant, as do inequalities across gender, ethnic, and caste lines.

In the context of Nepal, poverty has always been a rural phenomenon. However, the increasing migration of the people from rural villages to urban centers for better livelihoods has presented a great challenge to the system to fulfill the growing demands being made of the basic services. The water and sanitation coverage has drastically increased in both rural and urban areas from 1990 onwards. In 2006, 76.6% of the total population had access to basic drinking water services; the figure was 46% in 1990. Access to sanitation services was available to 45.8% of the population in 2006. Although there was decreasing gaps in water and sanitation coverage between rural and urban areas, the increasing population in urban centers also increased demands which the current system has not been able to respond to. Small towns, emerging from rural characteristics, lack basic infrastructure. The poor settlements in these towns are mostly on the periphery and generally denied basic infrastructure including water and sanitation services. Generally, the poor have less access to safe drinking water and sanitation facilities, are not connected to piped systems, and depend upon poor-quality water sources. Women and children are mainly responsible for the collection of water, and consequently women are adversely affected in situations where water is scarce and sanitation is poor, and it increases the burden on them for household and health maintenance.

The water sector policy of the Government's Three-Year Interim Plan (FY2008–FY2010) aims to contribute to raising living standard and the status of public health by making sustainable and equitable water supply and sanitation services available. The country poverty analysis describes the provision of basic services for the poor, including water-related needs, as being fundamental to poverty reduction. The plan includes that the drinking water projects will be made gender friendly and women will be involved institutionally and at all levels. The national Water Plan 2005 has set the target of achieving total population coverage of basic drinking water supply and sanitation services by 2017. Nepal adopted the Millennium Declaration in 2000, committing to work towards attaining the Millennium Development Goals by 2015.

The urban water supply and sanitation sector policy, which has recently been finalized, has as its goal that the policy would be to ensure the socioeconomic development and improved health status of urban populations, including the poor and marginalized, through the provision of sustainable water supply and sanitation facilities. The Asian Development Bank's (ADB's) country strategy and program for Nepal (2005–2009)[a] emphasizes the role of water supply, sanitation, and urban development infrastructure, and the need to target the poor to reduce both poverty and inequalities. Following these policy frameworks, the Project will contribute to helping achieve the Government's goal to provide sustainable and equitable drinking water supply and sanitation services through applying pro-poor approaches so that the poor in the service area will equally benefit from piped water supply system and sanitation. The Project will ensure inclusion of the poor, women, and the disadvantaged caste and ethnic groups by implementing the gender equality and social inclusion (GESI) action plan. Time and economic savings gained from a sustainable water supply system will contribute to economic returns and improved livelihoods. It can be expected that reduced time for fetching water will contribute into increased school attendance and enrolment of children and increased investment of time for women in productive economic activities.

**B. Poverty Analysis** **Targeting Classification: Targeted Intervention (MDG-TI)**

**1. Key Issues**

The critical issue related to poverty reduction that requires particular attention in Nepal is its unequal benefits to different caste, ethnic groups, and those from different geographical regions. The exclusionary practices embedded through strong feudalistic rules and attitudes in the society have historically and systematically excluded women, *dalits*[b], indigenous people (janajatis), *madhesis*,[c] Muslims, religious minorities, and other vulnerable groups from politics, governance, and institutions. The reduction in national poverty between FY1996 and FY2004 led to poverty reduction of 46 percentage points for the upper caste Brahmin/Chhetri group. However, poverty declined by only 21 percentage points among the lower-caste dalits, 10 percentage points among the hill *janajatis*, and 6 percentage points among the Muslims. The NLSS II data shows that the poverty incidences of historically marginalized and socially excluded groups—dalits, janajatis, and Muslims, who altogether constitute more than 50% of the total population—are higher than that of Brahmins, Chhetris, and Newars, and above the national average. The incidence of poverty is 19% among the Brahmins/Chhetris and 14% among Newars, compared with 46% among dalits, 44% among hill janajatis, and 41% among Muslims. The higher poverty incidences are correlated with the lower status of the particular caste and ethnic groups in the social hierarchy.

In addition to gender identity, the caste and ethnic identities have historically greatly influenced people's access to services, benefits, and participation in development programs. Social exclusion due to gender, caste, and ethnic identity is very much recognized in the country's current political and development discourses. Those who were left out of the mainstream development and overall governance and political representation are mostly from the vulnerable communities. Their inclusion in overall development and political representation is crucial in the post-conflict and peace building processes. In changed political circumstances, the rising voices and calls of dalits, indigenous people, madhesis, women, and other vulnerable groups for integration of their issues into a new constitution and new structural changes in Nepal clearly demand higher attention from all concerned. The social inclusion and appropriate representation of these groups is highly recommended in all sectors of development interventions. The benefits of the development interventions need to be diverted with conscious efforts towards these excluded groups.

Gender-based roles and discrimination are relevant to the water supply system. In Nepal generally, women and children are responsible for fetching water. This role increases the burden on women when there is scarcity of water. Time savings in three completed STWSSSP-I projects were reported to range from 30 minutes to 90 minutes per household. A shorter time to collect water normally results in increased consumption of water, which results in improved hygiene (more frequent personal bathing and washing of clothes and utensils) and better livestock maintenance. Health benefits cited by beneficiaries normally include improved quality of life due to better physical health, reduced mental stress (as a result of less drudgery), and an improved household economy. Improving the quality of life by providing basic water and sanitation services will have a profound bearing on reducing women's burden and poverty levels.

By providing access to improved drinking water supply and sanitation, the Project will assist the Government in achieving the MDGs. The Project beneficiaries are town dwellers who have received no or limited piped water supply system and have no access to improved sanitation. By addressing the issues of gender, caste, and ethnic-based discrimination, the Project will adopt the policy of social inclusion for the excluded and vulnerable while targeting the beneficiary community. These groups will be identified through household surveys, and their socioeconomic situation will be studied to include them within the Project activities and to provide them with water and sanitation facilities.

**2. Design Features**

The Project will implement a strategy for using explicit performance-based grants (output-based aid [OBA]) to deliver water supply and sanitation services primarily to the poor and vulnerable groups. Under the OBA, grants will be paid to service providers, i.e., the water users and sanitation committees (WUSCs), after delivery of the household connections has been verified. Grants will be provided to carefully targeted poor households for water supply services, and at different levels between the poor and the non-poor for sanitation services.

## II. SOCIAL ANALYSIS AND STRATEGY

**A. Findings of Social Analysis**

Under the Project, low-income families are identified on the basis of annual income. The national poverty line for Nepal based on consumption is NRs7,696 per household per year (2003). This translates to NRs3,000–NRs4,000 per household per month, depending on the region. The population below the poverty line for urban areas is 13%, and between 24% and 45% in the various regions in which emerging small towns are located. Central Bureau of Statistics poverty estimates for the *Ilakas* (areas that cover clusters of village development committees (VDCs) and municipalities) in which the three project preparatory technical assistance towns are located are 59% for Sukhad, 19% for Duhabi, and 50% for Khandbari municipality. “Better-off” incomes are taken to be those greater than NRs12,844 ($165). Poverty incidence is higher among dalits, highly marginalized ethnic minorities (24 groups classified *highly marginalized* by the National Foundation for Development of Indigenous People, Ministry of Local Development), and religious minorities (Muslims).

Stakeholder analysis for the three project preparatory technical assistance towns found that 10%–76% live in urban areas and 24%–90% in the more rural peripheral areas. The wealthy and middle class comprise between 5% and 20%. Dominant caste groups like Brahmins, Chhetris, and Newars, and traders from the Terai middle castes, account for 40%–50% of the population. On average, between 60% and 70% of the population is in some way disadvantaged or vulnerable. Ethnic minorities account for 30%–45%, Muslims 0%–13%, and dalits 7%–11%. Ethnic minorities can be divided among (i) highly marginalized ethnic minorities, such as Majhi, Tharu ex-Kamaiya, and Dhimal (0%– 2%); (ii) marginalized groups such as Tharu and Tamang (10%–40%); and (iii) disadvantaged ethnic minorities such as the Rai and Magar (2%–34%). Other disadvantaged categories are the poor (19%–59% of whom are below the poverty line), landless (3%–20%), households headed by women (14%–22%), and outlying relatively remote villages that are underserved (10%–30%). The number of Project-affected people is very low, with only a few households in Duhabi and Khandbari in this category.

**B. Consultation and Participation**

1. Provide a summary of the consultation and participation process during the project preparation.
At the central level, workshops were held by inviting key stakeholders (government departments, NGOs, development partners, etc.) to discuss the Project design and the draft urban water supply and sanitation sector policy during the project preparatory technical assistance. A gender equality and social inclusion strategy has been drafted to ensure effective participation of stakeholders in the Project. In each of the three sample subproject towns, group discussions and workshops were organized to solicit views from potential beneficiaries of the Project, including vulnerable groups such as dalits and indigenous people. Strong support for the Project has been confirmed at these workshops, and suggestions and comments made have been reflected in the design of subprojects.

2. What level of consultation and participation (C&P) is envisaged during the project implementation and monitoring?
☐ Information sharing ☐ Consultation ☐ Collaborative decision making ☒ Empowerment

3. Was a C&P plan prepared? ☐ Yes ☒ No
If a C&P plan was prepared, describe key features and resources provided to implement the plan (including budget, consultant input, etc.). If no, explain why.
A C&P plan was not prepared because the gender equality and social inclusion (GESI) implementation plan to be developed and implemented in each town by a local NGO will ensure sufficient consultation and participation of beneficiaries, including women, the poor, and vulnerable groups.

**C. Gender and Development**

**1. Key Issues.** Gender issues focus on women's subordinated role in households. Their responsibility to manage water for drinking, cooking, and cleaning make them the primary users and managers of water. Hence, women are at the core of the Project and its success as they are the main participants and users of water supply facilities. Gender-sensitive processes are important to all community mobilization and scheme implementation plans. Gender will be an integral part of the GESI framework and all components of the Project. To have gender as integral to project success, the institutional capacity and structures are prerequisite in government agencies, the Department of Water Supply and Sewerage (DWSS), the regional monitoring and supervision offices, and the WSSDOs. Similarly, WUSCs need to be gender balanced and their operations need to be gender responsive. Women from vulnerable groups—dalits, marginalized indigenous groups, and poorest households—need extra attention to ensure their participation in WUSCs and sanitation activities.

Benefits accruing to women will be:

- significant time and energy savings through provision of water points at house;
- participation in decision making on the location and design of water points and latrines so as to meet the full practical needs of women;
- priority for paid positions such as health motivators, sanitation masons, and maintenance caretakers;
- 33% representation on WUSCs;
- improved community awareness on GESI through training of WUSC members;
- participation of men as well as women in hygiene promotion sessions; recruitment of male as well as female hygiene promoters.

Gender plan prepared? Yes (as Gender Equality and Social Inclusion Action Plan)

**2. Key Actions.** Measures included in the design to promote gender equality and women's empowerment—access to and use of relevant services, resources, assets, or opportunities and participation in decision-making process:
☒ Gender plan ☐ Other actions/measures ☐ No action/measure

Summarize key design features of the gender plan or other gender-related actions/measures, including performance targets, monitorable indicators, resource allocation, and implementation arrangements.
GESI action plan includes GESI training for DWSS, WSSDOs, NGOs, and WUSCs; placement of gender and social development officers in PMO and WSSDOs; gender, caste, and ethnicity balanced WUSC formation (33% women in WUSCs;

representation from caste and ethnic groups in general assembly of WUSCs); GESI-related monitoring of project implementation and impact; analysis of gender roles in households and inclusion of gender and social indicators in socioeconomic surveys; selection of service area through participatory and inclusive approaches; pro-poor and gender-sensitive approaches in WUSC operations; capacity building of women and ethnic groups to take leadership positions; equal employment opportunity to poor women and men in construction works; gender-friendly sanitation and solid-waste management activities; and social audits to ensure benefits to women and excluded caste, ethnic, and poor sections. Adequate resources will be allocated in annual plans of all subprojects.

**III. SOCIAL SAFEGUARD ISSUES AND OTHER SOCIAL RISKS**

| Issue | Significant/Limited/ No Impact | Strategy to Address Issue | Plan or Other Measures Included in Design |
|---|---|---|---|
| **Involuntary Resettlement** | Limited | Resettlement needs will be small due to the nature of subprojects, and will be minimized through project design. For any land acquisition and resettlement impacts, resettlement plans will be prepared following the guidelines provided in the resettlement framework in Appendix 13. Special compensation measures for vulnerable groups, including indigenous people, are also included in the resettlement framework. | ☐ Full Plan<br>☒ Short Plan<br>☒ Resettlement Framework<br>☐ No Action |
| **Indigenous People** | Limited | Indigenous people will likely be found in most subprojects. With water supply and sanitation services improvement, subprojects are expected to result in improved health and time savings for water collection for indigenous people. Considering the nature and scale of these subprojects, impacts are considered minor, and specific actions favorable to indigenous people will be a part of the integrated GESI action plan. | ☐ Plan<br>☒ Other Action<br>☐ Indigenous Peoples Framework<br>☐ No Action |
| **Labor**<br>☒ Employment opportunities<br>☐ Labor retrenchment<br>☐ **Core labor standards** | No negative impacts will result. Employment opportunities will be generated. | The Project will create short-term employment opportunities in infrastructure construction and maintenance for poor unskilled and skilled laborers. It will benefit both women and men. | ☐ Plan<br>☐ Other Action<br>☒ No Action |
| **Affordability** | Limited | Tariff will be within 3% of the monthly income even for the poor households. In order to assist the poor's service connection, output-based aid will be provided. | ☒ Action<br>☐ No Action |

| Issue | Significant/Limited/ No Impact | Strategy to Address Issue | Plan or Other Measures Included in Design |
|---|---|---|---|
| **Other Risks and/or Vulnerabilities**<br>☐HIV/AIDS<br>☐Human trafficking<br>☒Others(Impacts on Dalit caste) | No negative impacts are expected | The Project's GESI strategy is designed to ensure that dalit caste, including other vulnerable groups, will not be excluded from the Project and its benefits. The design, operation, maintenance, and financial arrangements will be adjusted to ensure their participation and benefit. | ☐ Plan<br>☒ Other Action<br>☐ No Action |

**IV. MONITORING AND EVALUATION**

Are social indicators included in the design and monitoring framework to facilitate monitoring of social development activities and/or social impacts during project implementation? ☒ Yes □ No

[a] ADB. 2004. *Country Strategy and Program 2005-2009; Nepal*. Manila.
[b] Dalit refers to the lowest caste ("untouchable") in the Hindu caste system.
[c] Madhesi refers to a group of people who have the Terai (southern plain area bordering India) origin and use different languages from Nepali as their mother tongue.
Source: Asian Development Bank assessment.

# SUMMARY ENVIRONMENTAL ASSESSMENT

## A. Overview

1. The Second Small Towns Water Supply and Sanitation Sector Project's environmental category is B. As part of the feasibility study, three initial environmental examinations (IEEs) were prepared for sample subprojects in Duhabi, Sukhad, and Khandbari. IEE reports conclude that the planned subprojects would have only small-scale, localized impacts on the environment and these can be mitigated. Mitigation measures and monitoring plans have been proposed in the IEE and are summarized below. Improvement in sanitation and solid-waste management, together with wastewater management, will substantially improve health, economic, and environmental living conditions of these areas. The environmental assessment and review procedure (EARP) is also summarized herein.

## B. Environmental Impacts and Mitigation Measures

2. The three IEEs (Supplementary Appendix J) show that sample subprojects will result in large net environmental benefits. The Project is designed to improve environmental quality and living conditions in selected small-town areas through the provision of basic water supply and sanitation services, including solid-waste management. Three sample subproject IEEs conducted for the Project show that net subproject environmental benefits would be positive and large, and include (i) increased availability of adequate potable water at appropriate pressure from water supply subprojects; (ii) better public health, particularly reduction in waterborne and infectious diseases; (iii) reduced pollution resulting from sewage treatment and solid-waste management focused on community-level 3Rs (reduce, reuse, and recycle); and (iv) improved aesthetics from the improvement of sewage treatment and solid-waste management.

3. There are no adverse cumulative impacts as potential negative subproject impacts during construction and operation will not be significant, and most impacts are localized and temporary. Environmental subproject selection criteria (Table A12.2) further ensure that subprojects will not have significant negative environmental impacts. Impacts that are potentially significant and permanent in nature are identified, and environmental subproject selection criteria will not allow subprojects with such impacts. Potential negative impacts and mitigation measures are summarized in Table A12.1 and no further environmental impact assessment is required.

**Table A12.1 Summary of Potential Adverse Environmental Impacts and Mitigation Measures**

| Potential Negative Impacts | Mitigation Activities and Method |
|---|---|
| **A. Location Impacts** | |
| Loss of land and resettlement impacts | No significant resettlement impacts are envisioned for the Project, and any land acquisition is small scale. Two subprojects require small-scale land acquisition (two households in Duhabi and seven households in Khandbari), and are addressed through short resettlement plans granting compensation and rehabilitation entitlements to affected people. Resettlement plans are prepared based on the resettlement framework agreed upon between the Government and ADB. Any subprojects within this sector project that are determined to cause significant resettlement impacts will not be selected. |
| Impacts on community forests and protected areas | Subprojects will not result in destruction of or encroachment onto protected areas. Any subprojects located near sensitive ecosystems will minimize impacts through proper siting, design, and construction techniques. |
| Arsenic in groundwater supply | Bore holes and water sampling at appropriate depths to ensure arsenic-free water. |
| Impacts due to flooding | Proper siting to avoid flood-prone areas. Project design to include appropriate drainage scheme to withstand rainy season, as well as include physical protection works to protect from river flooding. |
| **B. Design Impacts** | |
| Impacts due to downstream users based on extraction of water for project | Consultation with all downstream users will occur as part of the project to ensure adequate water resources are available for continued activity and/or users receive benefits from the project through negotiations with WUSCs. |

| Potential Negative Impacts | Mitigation Activities and Method |
|---|---|
| Poor water quality from inadequate treatment design and technology | Appropriate water treatment technology selected and designed to treat water quality problems of the project area. |
| Impacts due to disposal of untreated or partially treated sewage from sewage treatment facilities | Adopt best proven treatment technology considering site-specific characteristics and design the facility to meet Government effluent standards. Prepare O&M manual for sewage treatment facilities. Monitoring of effluent will be conducted by DWSS. |
| Impacts due to sludge disposal from STPs and WTPs | Design proper sludge collection, treatment, and disposal system. |
| Tree cutting and clearance of vegetation | Tree cutting will be minimized to the extent possible complying with all tree felling and forest clearance requirements of the Government. Utilize trees in the design as buffer. Plant 25 trees for each tree cut as a mitigation measure as per Government requirement. |
| Nuisance due to odor, and influx of rodents and insects from sewage treatment facilities and solid-waste operations | Sewage treatment and solid-waste facilities are to be sited away from inhabited areas. Develop a physical barrier and visual screen in the form of greenbelt around the sites. |
| Facility breakdown (i.e., high pressure filters, chlorinators, etc.) leading to untreated water | O&M manuals to be prepared as a reference tool to handle emergency situations. Ensure a service tool kit with necessary spare parts. Install standby generators to ensure continuous treatment process operations. |
| Health and safety risk for workers | Prepare O&M manuals for water and sewage treatment facilities to include operational safety, particularly for handling chlorine and lime. Provide/procure maintenance equipment with adequate safety design features for safe cleaning or maintenance works of sewers and septic tanks. |
| **C. Construction Impacts** | |
| Impacts due to haphazard disposal of construction waste | Identify beneficial use of waste soil such as construction. |
| Dust, noise, and emissions from construction activities | Contractor to use equipment that meets Government air quality and emissions standards (2003). Ensure regular wetting of soil. Conduct no noise-generating activities at night. Provide prior public information about the activity. |
| Social conflicts due to employment generation | Ensure that the majority of the workforce is drawn from the local community. |
| Pollution due to disposal of waste from any labor camps | Ensure water and sanitation facilities are well maintained and full breakdown of camps after completion of civil works occurs. |
| Worker safety | Provide personal protection equipment and ensure skilled supervision. |
| Public safety, inconvenience, and traffic disruptions | Ensure prior public information and provide notice and caution boards. Do not restrict access to private and common properties. Leave spaces for access between mounds of soil. Provide walkways and metal sheets to maintain access across trenches for people and vehicles where required. Increase workforce to finish work in areas with impacts on access. Time works to reduce disruption during business hours. Phase construction schedule and working one segment at a time and one side of the road at a time. |
| **D. Operation Impacts** | |
| Water quality testing | Water quality kits and training for water testing and monitoring to be given to each WUSC. WSSDO to provide training as necessary during O&M. All DWSS regional laboratories to implement frequent water quality monitoring during O&M to ensure compliance with national drinking water standards. |
| Risks of handling chlorine and lime in water and sewage treatment facilities | Provide staff training in handling chemicals such as chlorine and lime. Ensure protective equipment such as gloves and boots are supplied. An emergency wash area will be provided as a safety measure in case of chlorine leakage in the confined area. |
| Neglect of waste management facilities leads to environmental pollution | O&M procedures for managing septic waste, sludge, and wastewater to be provided by DSC environmental specialist. |

DSC = design and supervision consultant, DWSS = Department of Water Supply and Sewerage, O&M = operation and maintenance, STP = sewage treatment plant, WSSDO = water supply and sanitation divisional or subdivisional office, WTP = water treatment plant, WUSC = water users and sanitation committee

[a] Resettlement is significant when 200 or more people experience major impacts defined as involving affected people being physically displaced from housing and/or having 10% or more of their productive, income-generating assets lost.

Source: Department of Water Supply and Sewerage assessment.

## C. Summary Environmental Assessment and Review Procedures

### 1. Institutional Roles and Responsibilities

4. The Ministry of Physical Planning and Works (MPPW) will be the national executing agency with responsibility for subproject execution delegated to the Department of Water Supply and Sewerage (DWSS). A project management office (PMO) established in the DWSS will be responsible for overall environmental coordination and management of the Project. Towards this, the PMO will be assisted by an environmental expert consultant responsible for supporting and overseeing EARPs at the national level. The expert will support the PMO in the initial screening of subprojects to ensure compliance with subproject selection criteria. He or she will review all IEEs and environmental impact assessments (EIAs), and ensure all government and ADB procedures are met including, but not limited to, the ADB *Environment Policy* (2002) and *Environmental Assessment Guidelines,*(2003) and the Government's Environmental Protection Act (1997) and Environmental Protection Rules (1997, amended 2007). The expert will take corrective actions where necessary. He or she will also provide environmental training to build capacity within the PMO, regional monitoring and supervision offices, water supply and sanitation divisional and subdivisional offices (WSSDOs), and water users and sanitation committees (WUSCs), and submit bi-annual environmental progress reports to the MPPW and ADB.

5. The WSSDO of the DWSS will be engaged between the PMO, regional monitoring and supervision offices, and WUSCs, and will provide technical support to the design and supervision consultant (DSC) during IEE or EIA preparation. The WSSDO will also work as a technical backstop agency for WUSCs, even after construction completion, to assist in the supervision of environmental monitoring during operation and maintenance (O&M).

6. An environmental specialist within the DSC will prepare IEEs and EIAs in parallel with the detailed design, and supervise the construction process, in accordance with government and ADB requirements. IEEs will be approved by the MPPW through the DWSS, while EIAs (if needed) will be approved by the Ministry of the Environment. EIA reports of category A and IEE reports of category B subprojects (if any) will also be submitted to ADB for review and concurrence. The DSC will ensure that all mitigation requirements are integrated into contractor bidding documents and that construction works carried out by the contractors strictly follow the environmental specifications detailed in environmental management plans. Nongovernment organizations (NGOs) will assist the WSSDO and WUSC in raising environmental awareness of the local residents. The WUSC is responsible for O&M of all facilities constructed under the Project and will receive necessary water quality training from the WSSDO.

### 2. Environmental Monitoring and Reporting

7. Environmental monitoring will be undertaken during construction and operation of the Project. The PMO and WSSDO are responsible for monitoring the overall compliance with government and ADB policies and procedures. The DSC environmental specialist, with support from the WSSDO and WUSC, will monitor environmental mitigation requirements during construction to ensure that mitigation is provided and effective in reducing impacts. The WUSC with support from the WSSDO will be responsible for environmental and water quality monitoring during operation. As per government requirements, WUSCs are to provide water quality monitoring reports to the district public health office concerned. Under the Project, each WUSC will receive water testing kits with upfront training from the DSC and ongoing support

from the WSSDO. Regional DWSS laboratories will conduct regular water testing to ensure compliance with Nepal National Drinking Water Quality Standards (NDWQS). [2]

8. The environmental specialist in the DSC is to prepare and submit quarterly environmental monitoring and implementation progress reports to the WSSDO and PMO who will initiate necessary follow-up actions, if any. The PMO will review the environmental performance of the Project through these reports, and submit biannual environmental monitoring progress reports to the MPPW and ADB.

### 3. Public Consultation and Information Disclosure

9. Stakeholder consultation is an integral part of the environmental assessment process. During Project preparation, consultations are to be undertaken by the DSC as an integral part of IEE and EIA preparation with various stakeholder groups including government representatives, WUSCs, NGOs, and residents of project areas. Consultations for subprojects are to be mainly conducted locally, employing various methods (e.g., socioeconomic surveys of households, formal meetings, individual and structured discussions, and focus group discussions). Regular and continued stakeholder participation at all stages of project design and implementation is to occur.

10. During subproject preparation, the DWSS is required to provide public notices regarding information on the Project's environmental issues as per the government rules. IEEs and EIAs will also be made available upon request. Moreover, a grievance redress committee, chaired by the WSSDO, shall be set up to register grievances of the people regarding technical, social, and environmental aspects. The process is designed to be transparent, gender responsive, culturally appropriate, and commensurate to the risks and adverse impacts of the Project, as well as readily accessible to all affected people, who are to be appropriately informed about the mechanism through media and public outlets. This participatory process shall ensure that all views of the people are adequately reviewed and suitably incorporated into the design and implementation process.

### 4. Environmental Selection Criteria for Subprojects

11. To help ensure compliance with Government and ADB policies, environmental subproject selection criteria have been prepared to guide the implementation of future subprojects. A summary of the environmental subproject selection criteria is provided in Table A12.2.

12. The full EARP, based on provisions of the Government's environmental policies and the environmental assessment requirements of ADB, is provided in Supplementary Appendix K. The EARP details (i) the environmental assessment and review procedures, (ii) responsibilities and authorities involved in environmental assessment and review, and (iii) staffing requirements and budgets.

**Table A12.2. Summary of Environmental Criteria for Subproject Selection**

| **Overall selection criteria (applicable to all components)** |
|---|
| • Will avoid resettlement/relocation. If unavoidable, the extent of resettlement will be minimized.<br>• Will not involve social conflict.<br>• Will avoid locating facilities close to socially and culturally important buildings and sites, including schools, health centers, temples, and shrines.<br>• Will not result in destruction of or encroachment onto protected areas, including reserved forests or biodiversity conservation hotspots. If unavoidable the extent of impacts will be minimized and with appropriate government (i.e., Ministry of the Environment) permission. |

[2] Five regional water quality and meter calibration laboratories, established under the Small Towns Water Supply and Sanitation Sector Project (STWSSSP-I), will become fully functional and provide support to the WSSDOs and WUSCs in conducting water quality monitoring.

- Will not result in destruction/disturbance to historical and cultural places/values.
- Will reflect inputs from public consultation and disclosure for site selection.

**Water Supply**

- Will avoid any groundwater source where water quality and bore hole sampling tests reveal arsenic levels above safe drinking standards.
- Will ensure adequate water is available for proposed extraction rates to ensure sustainable use and yields of both surface and groundwater resources
- Will ensure an adequate buffer exists around treatment plants and pumping stations to alleviate noise and other possible nuisances.
- Will not result in excessive abstraction of water affecting downstream water users (e.g., irrigation users) and other beneficial water uses for surface and groundwater. Will negotiate agreements with other users and the appropriate regulatory agencies and establish controls to ensure that water is not abstracted in excess of agreed volumes.
- If river water is used as the source, will maintain natural ecological condition in the river.
- Will ensure adequate protection from pollution of intake works or wells.
- Will not utilize raw water of very poor quality evidenced by the presence of high levels of pollution.
- Will ensure occupational safety measures for the safe handling of chlorine, including emergency wash area, as well as proper handling so as not to result in inadequate treatment and over chlorination.
- Will ensure proper and adequate treatment and disposal facilitates for increased volumes of wastewater.
- Will ensure networks and distribution systems are designed considering vulnerability to landslides and earthquakes.
- Will not involve the use or handling of asbestos cement pipes. Existing asbestos cement pipes, if any, will be left as is, and marked appropriately.
- Will ensure location of water treatment plant is appropriately sited to accommodate present and future demands, direction and rate of growth of the service area, and potential deterioration of source quality in the future.
- Will ensure location of water treatment plant will follow the natural hydraulic gradient so that the service area can be supplied by gravity, where applicable.
- Will be located above the 1-in-100 year design flood level of the maximum flood level experienced if records are insufficient for flood analysis.
- Will include treatment of all backwash and sludge resulting from water treatment facilities and ensure disposal is acceptable to effluent/discharge standards of the Government before disposal.
- Will ensure that owners and users of any land that is relinquished for pipelines or other facilities are provided with an improved water supply as part of the scheme.

**Sewerage/Sanitation**

- Will ensure low-cost sewerage and sanitation measures are not in close proximity to inhabited areas or in flood- and landslide-prone areas, and that effluent disposal points are not close to water intake or water usage points.
- Will ensure the siting of all new latrines a sufficient distance from existing or new tubewells or shallow wells to avoid fecal contamination of groundwater sources.
- Will ensure networks and distribution systems are designed considering vulnerability to landslides and earthquakes, where applicable.
- Subproject sewage treatment technology and low-cost sanitation schemes are appropriate to the site and local culture, and do not require sophisticated O&M, but will ensure treatment as per the national effluent discharge standards. Air/odor dispersion will be considered during detailed design to reflect appropriate technology, design, and required mitigation measures, including adequate vegetative and spatial buffer around treatment plant.
- Will ensure appropriate O&M and safety procedures and guidelines exist to ensure the safe disposal and treatment of sewage sludge without causing an environmental or occupational hazard, and only after appropriate testing, to promote its safe and beneficial use as an agricultural fertilizer.
- Will include within the scheme a program of community education to raise awareness of the importance of good sanitation and cleanliness in maintaining individual and public health.

**Drainage**

- Will ensure that new drainage systems dispose of all water safely and adequately without polluting surface water or groundwater.

Source: Department of Water Supply and Sewerage assessment.

# SUMMARY RESETTLEMENT FRAMEWORK

## A. Introduction

1. Project investments will not have significant resettlement impacts as land requirements for proposed water supply and sanitation components are considered small scale. The Second Small Towns Water Supply and Sanitation Sector Project further minimizes impacts through careful design to avoid or minimize land acquisition, and utilizes public land and existing facilities wherever possible.

2. Short resettlement plans were prepared for two out of three sample subprojects in Duhabi and Khandbari (Supplementary Appendix L), where resettlement impacts were identified.[1] As indicated by these sample subprojects, the nature of land acquisition is small, impacting two households in Duhabi and seven households in Khandbari. Impacts occur primarily to agricultural plots with no structures. The resettlement framework aims to restore the lives of any affected person to pre-project levels, with special provisions to improve the status of vulnerable groups. Any subprojects determined to cause significant[2] resettlement impacts will not be considered for implementation. This summary captures the salient points of the resettlement framework.

## B. Resettlement Framework Policies and Principles

3. The resettlement framework outlines the objectives, policy principles, and procedures for land acquisition (if required), compensation, and other assistance measures for affected people. The resettlement framework is based on national laws including the Land Acquisition Act 2034 (1977) and the Land Reform Act 2021 (1964), and ADB's *Involuntary Resettlement Policy* (1995). The three important elements of the *Involuntary Resettlement Policy* are (i) compensation to replace lost assets, livelihood, and income; (ii) assistance for relocation, including provision of relocation sites with appropriate facilities and services; and (iii) assistance for rehabilitation to achieve at least the same level of well-being with the project as without it. The entitlement matrix (Table A13.1) summarizes the main types of losses and the corresponding nature and scope of entitlements. Where the entitlement matrix does not cover a particular impact, it can be enhanced in the resettlement plans based on the findings of the social assessment and detailed measurement survey. Standards described will not be lowered but can be enhanced in the subproject resettlement plans as required.

[1] The Duhabi subproject will impact two households (25 affected people) and Khandbari subproject seven households (41 affected people). For each subproject, land ownership and usage are known. All affected people were closely consulted in resettlement plan preparation. No resettlement impacts will occur in Sukhad.

[2] Resettlement is significant when 200 or more people experience major impacts defined as involving affected people being physically displaced from housing and/or having 10% or more of their productive, income-generating assets lost.

**Table A13.1: Entitlement Matrix**

| No. | Type of Loss | Application | Entitled Person | Entitlement | Implementation Issues | Responsible Institution(s) |
|---|---|---|---|---|---|---|
| 1a | Loss of land | Full/partial permanent loss of homestead, agricultural, vacant land | Owner(s) with legal title | Land-for-land arrangements, if government land available, of equal productive capacity satisfactory to affected person, or<br><br>Cash compensation equivalent to current market rate/replacement value. Compensation will include provision for all fees (documentation fee, etc.), taxes, and other charges as applicable.<br><br>If the residual of land is not economically viable, option to be compensated for the entire asset.<br><br>Agricultural landowners who lose more than 10% of their cultivated land holdings will be considered severely affected and qualify for a cultivation disruption/transitional allowance of NRs10,000 per household[a]. | As per the LAA,, compensation for land determined through either (i) mutual agreement with plot owner, or (ii) the option to allow LACFC determination of compensation. To be determined by plot owner.<br><br>LACFC or NGO to determine viability of residual land if owner opts for compensation for full land area.<br><br>If compensation through mutual agreement, NGO to verify satisfaction of plot owner with compensation amount. If not satisfied, then owner can raise with GRC with assistance from NGO. | WSSDO, WUSC, NGO, LACFC |
| 1b | Loss of land | Full/partial permanent loss of homestead, agricultural, vacant land | Tenant(s), leaseholder(s), tenant farmer(s) | Registered (legal) tenants will be entitled to 50% of the total land compensation amount as per the Land Reform Act.<br><br>Assistance in finding replacement land.<br><br>Shifting allowance for households based on actual cost of moving/unloading. | Tenants are verified through a record of tenancy at the Land Revenue Office.<br><br>Landowners will reimburse leaseholders land rental deposit or unexpired lease. | WSSDO, WUSC, NGO, LRO |
| 1c | Loss of land | Permanent loss of agricultural land | Sharecropper | 30 days' advance notice to harvest standing seasonal crops; if harvest is not possible, compensation for share of standing crops at market rates (item 4)<br><br>Cash compensation for perennial crops and fruit-bearing trees based on annual net product market value multiplied by average fruit production for next 15 years (or such period as set out in the prevailing law)<br><br>Sharecropper assisted in finding replacement land to continue farming.<br><br>If no replacement land is available, household members involved in farming are eligible for skill development | Harvesting prior to acquisition will be accommodated to the extent possible.<br><br>Value of crops/fruit trees to be negotiated between sharecropper and WUSC or determined by LACFC with advice from agriculture department<br><br>A list of affected people will be maintained by WUSC | WSSDO, WUSC, NGO |

| No. | Type of Loss | Application | Entitled Person | Entitlement | Implementation Issues | Responsible Institution(s) |
|---|---|---|---|---|---|---|
| | | | | training based on their need at the rate of NRs5,000 per person/household[b]<br><br>Affected people eligible for project employment | and given to the contractor. Contractor as per their contract required to hire project affected people, prioritizing vulnerable affected people. | |
| 1d | Loss of land | Permanent loss of homestead, agricultural land | Non-titleholders (squatter(s) and encroacher(s)) (on government land) | 60 days advance notice to shift from occupied land<br><br>Assistance in finding alternative land | | WUSC,NGO, WSSDO |
| 2a | Loss of structure | Residential/commercial structure and other assets (e.g., fences, gates, posts) | Owner(s) with legal title | Cash compensation equivalent to replacement value of structure/asset (or part of structure/asset) with provision of all taxes, registration costs, and other fees incurred for replacement structure.<br><br>Owners losing total structure are entitled to relocation allowance (cash) equivalent to 2 months rent[c] for moving to alternative premise for re-establishing house/businesses<br><br>Assistance in finding alternative site.<br><br>Rights to salvage materials from structure<br><br>Transfer/shifting allowance to cover the cost of moving structures (transport plus loading and unloading) and materials will be paid on actual cost basis or on current market rates. | Compensation for structures determined through mutual agreement between plot owners and WUSC, or the option for LACFC determination of compensation. | WUSC, NGO, WSSDO |
| 2b | Loss of structure | Residential/commercial structure and other assets (e.g., fences, gates, posts) | Tenant(s) and leaseholder(s) | As per the LAA, the tenant is entitled to 100% compensation for the structure built on the land with the permission of the landowners.<br><br>If structure is constructed by the tenant/leaseholder, cash compensation equivalent to replacement value of structure/asset (or part of structure/asset)<br><br>Tenants/leaseholders losing entire structures they built are entitled to relocation allowance (cash) equivalent to 2 months rent for moving to alternative premise for re-establishing house/businesses<br><br>Assistance in finding alternative site. | Structure owners will reimburse tenants and leaseholders rental deposit or unexpired lease.<br><br>Compensation for structure built by tenant through mutual agreement between WUSC and tenant or compensation determined by LACFC | WUSC, NGO, WSSDO |

| No. | Type of Loss | Application | Entitled Person | Entitlement | Implementation Issues | Responsible Institution(s) |
|---|---|---|---|---|---|---|
| | | | | Rights to salvage materials from structure if constructed by tenant/leaseholder<br><br>Transfer/shifting allowance to cover the cost of moving structures (transport plus loading and unloading) and materials will be paid on actual cost basis or on current market rates. | | |
| 2c | Loss of structure | Residential/commercial structure and other assets (e.g., fences, gates, posts) | Encroacher(s) and squatter(s) | 60-days advance notice<br><br>Rights to salvage materials from structure<br><br>Transfer/shifting allowance to cover the cost of moving structures (transport plus loading and unloading) and materials to be paid on actual cost basis or on current market rates.<br><br>Assistance in finding alternative land | | WUSC,NGO, WSSDO |
| 3 | Loss of livelihood/ income | Livelihood/income | Business owner(s), tenant(s), leaseholder(s), employee(s), agricultural worker(s), hawker(s)/ vendors(s) | One lump sum grant of 2-months[d] income to business owner, leaseholder/tenant, based on the nature and type of losses assessed on a case-by-case basis.<br><br>For employees: one-time financial assistance equivalent to 30-days minimum wage rates to be within district for respective categories.<br><br>Those losing main source of livelihood are eligible for skill development training based on need at the rate of NRs5,000 per person/household.<br><br>Affected people eligible for project employment | | WUSC,NGO, WSSDO |
| 4 | Loss of crops and trees | Standing crops and trees | Owner(s) with legal title, tenant(s), leaseholder(s), sharecropper(s), encroacher(s), squatter(s) | 30 days' advance notice to harvest standing seasonal crops, if harvest is not possible, cash compensation for crops (or share of crops) equivalent to prevailing market price<br><br>Cash compensation for perennial crops and fruit-bearing trees based on annual net product market value multiplied by average fruit production for next 15 years (or such period as set out in the prevailing law)<br><br>Compensation for loss of wood-trees at current market value of wood (timber or firewood, as the case may be). | Harvesting prior to acquisition will be accommodated to the extent possible.<br><br>Value of crops/fruit trees to be negotiated between sharecropper and WUSC or determined by LACFC with advice from agriculture department | WUSC,NGO, WSSDO |
| 5 | Impacts on vulnerable affected people | All impacts | Vulnerable affected people | Additional subsistence allowance equivalent to NRs10,000 per household[e] for restoring or enhancing their livelihood.<br><br>In case of total loss of land, and a total dependency on agriculture, replacement land if feasible/available. | Vulnerable households to be identified during detailed measurement surveys conducted as part of the resettlement plan. | WUSC, NGO, WSSDO |

| No. | Type of Loss | Application | Entitled Person | Entitlement | Implementation Issues | Responsible Institution(s) |
|---|---|---|---|---|---|---|
| | | | | Eligible for skill development training based on need at the rate of NRs5,000 per person/household<br><br>Vulnerable households will be prioritized in any project employment | A list of vulnerable people will be maintained by WUSC and given to the contractor. Contractor as per their contract required to hire project-affected people, prioritizing vulnerable affected people. | |
| 6 | Temporary loss of land for the use of contractors during construction | Land temporarily acquired for the Project | Owner(s) with legal title | Contractor to negotiate a contract agreement on the rental rate with the owner for temporary acquisition of land.<br><br>Project and the contractor to ensure that persons other than the owner affected as a result of temporary acquisition are compensated for the temporary period.<br><br>Land should be returned to the owner at the end of temporary acquisition period, restored to its original condition or improved as agreed with the affected person. | | WUSC, NGO, WSSDO |
| 7 | Temporary loss of access | Temporary loss of access to land, structure, utilities, common property resource | Owner(s) with legal title, tenant(s), leaseholder(s), sharecropper(s), encroacher(s), squatter(s) | 30 days' advance notice<br><br>Provision of temporary access (e.g., planks across pipe trench) where possible.<br><br>Restoration/enhancement of affected land, structure, utilities, common property resource | | WUSC, NGO, WSSDO |
| 8 | Temporary loss of livelihood (i.e., vendors inside ROW temporarily impacted due to construction) | Temporary loss of livelihood/source of income | Owners of temporary kiosks, mobile vendors, with or without acceptable proof of ownership over the land; with or without building permit | 30 days advance notice<br><br>Provision of alternative sites for continued economic activity (e.g., within available ROW or across road)<br><br>Use of Project dump trucks to haul goods and relocate shops<br><br>Restoration of affected land, structure, utilities, and common property resource<br><br>For construction activities involving disruption for a period of more than 1 month, provision of alternative sites for hawkers and vendors for continued economic activities. If not possible, allowance based on minimum wage rate for 1 month or the actual period of disruption whichever is more | | WUSC,NGO, WSSDO |

| No. | Type of Loss | Application | Entitled Person | Entitlement | Implementation Issues | Responsible Institution(s) |
|---|---|---|---|---|---|---|
| 9 | Loss of cultural and community structures /facilities | Schools, community centers, markets, places of worship, public trees, natural resources (including water used for irrigation and other livelihood purposes) | Community<br><br>Indigenous people who traditionally used water from the source for irrigation<br><br>Households using the water from the source for different livelihood, and other purposes. | Replacement or restoration (requiring adequate cash compensation to complete these activities) of the affected community facilities, including public water stand posts, temples, shrines, bus shelters etc.<br><br>Enhancement of community resources<br><br>For irrigation water, continued provision of water at quantities that will not adversely affect productivity and other output, and/or project benefits given to affected users through consultation and negotiation.<br><br>25 sapling trees and growth care support per tree in the case of public trees | | WUSC, WSSDO |
| 10 | Any other loss not identified | | | Unanticipated involuntary impacts shall be documented and mitigated based on the principles provided in ADB's *Involuntary Resettlement Policy* (1995) | | DWSS, WUSC |

ADB = Asian Development Bank, DWSS = Department of Water Supply and Sewerage, GRC = grievance redress committee, LAA = Land Acquisition Act, LACFC = Land Acquisition and Compensation Fixing Committee, LRO = Land Revenue Office, NGO = nongovernment organization, ROW = right-of-way, WSSDO = water supply and sanitation divisional or subdivisional office, WUSC = water users and sanitation committee.

[a] NRs10,000 is based on common practice in Nepal for providing seed money to initiate income activities. The amount is valued at more than 2 months income at minimum daily wage rate (NRs150/day).

[b] The training cost includes cost of training allowance fr affected households for the short-term training on income generation for a period of 4–6 days at NRs 150/day, which is NRs900. Other costs include the costs for training and logistics, where the cost of groups of trainees will be involved. The cost is therefore given as a lump sum of NRs5,000.

[c] Two months based on the following: first month to find a place, second month to settle.

[d] Based on 2 months to find replacement income with advance notice.

[e] NRs10,000 is based on common practice in Nepal for providing seed money to initiate income activities. The amount is higher than 2 months income at minimum daily wage (NRs150/day).

Source: Department of Water Supply and Sewarage assessment.

## C. Procedure for Resettlement Plan Preparation

4. Resettlement plans will be prepared by a resettlement specialist within the design supervision consultant (DSC) with support from the WUSC and/or NGO, and will include the following steps: (i) undertake a detailed census (which is the cut-off date[3] for non-titleholders), and replacement cost survey[4] of all affected people including titled and non-titled persons, and conduct a socioeconomic survey of least 10% of all affected people and 20% of severely affected households; (ii) conduct consultation with affected people about the likely subproject impacts, and principles and entitlements as per the resettlement framework; (iii) based on surveys and consultation with affected people, prepare the draft resettlement plan with time-bound implementation schedule, procedures for grievance mechanism, and monitoring and evaluation, and a budget; (iv) make draft resettlement plan available to affected people; (v) finalize resettlement plan and submit to ADB for approval; and (vi) translate and disclose final resettlement plan to affected people and post on ADB's website.

## D. Institutional Arrangements

5. The Ministry of Physical Planning and Works (MPPW) is the national executing agency of the Project. A project management office (PMO) will be established in the DWSS responsible for coordinating, monitoring, and supervising resettlement activity for the Project. The DWSS divisional or subdivisional offices (WSSDOs) will provide field support for the PMO. The WSSDOs will ensure that WUSCs implement resettlement plans, which will be assisted and monitored by NGOs. Each of these institutions involved in resettlement planning will receive necessary training from the project management consultant (PMC) resettlement expert. Further details on agencies responsible for resettlement plan activities are in Table A13.2.

**Table A13.2: Institutional Roles and Responsibilities**

| Activity | Responsible Agency |
|---|---|
| **Subproject Initiation Stage** | |
| Disclosure of proposed subproject details by issuing public notice | PMO/WSSDO |
| Disclosure of proposed land acquisition | PMO/WSSDO |
| **Resettlement Plan Preparation and Updating Stage** | |
| Identification and verification of affected people | DSC resettlement specialist /WUSC/NGO |
| Conducting detailed census, socioeconomic, and replacement cost surveys of all affected persons | DSC resettlement specialist /WUSC/NGO |
| Conducting consultations with affected people and other stakeholders through FGDs/meetings/workshops. Summary resettlement framework available in local language | WSSDO/WUSC/NGO/DSC resettlement specialist |
| Computation of replacement values of land/assets proposed for acquisition and finalizing rehabilitation measures | DSC resettlement specialist /NGO |
| Determining final compensation for land/property (as per government law) | WUSC with Landowner, or LACFC |
| Review of resettlement plan | PMC resettlement expert |
| Disclosure of final entitlements and rehabilitation packages | WSSDO/NGO |
| Approval of resettlement plan | MPPW/ADB |
| Translating draft and final resettlement plans into local language | DSC resettlement specialist |
| Disclosing of resettlement plans to affected persons | WSSDO/WUSC/NGO |
| **Resettlement Plan Implementation Stage** | |
| Disseminating Information to affected people | WSSDO/WUSC/NGO |
| Compensation paid to affected people before award of civil contracts | WUSC |
| Implementation of proposed rehabilitation measures | WUSC |
| Consultations with affected people during rehabilitation activities | WUSC/NGO |

[3] The cut-off date for non-titleholders is the date of the census survey. Those who encroach into the subproject area after the cut-off date will not be entitled to compensation or any other assistance.

[4] A replacement cost survey for various types of affected assets will be a basis for determining compensation rates at replacement cost; however, replacement costs will be ultimately decided by the Land Acquisition and Compensation Fixing Committee (LACFC). Data from replacement cost survey can be used for verification of final compensation findings of the LACFC. The compensation amount will ultimately be transferred to a LACFC account to be delivered to affected people in a timely manner.

| Activity | Responsible Agency |
|---|---|
| Grievance redress | GRC/MOH |
| Internal monitoring | WSSDO |
| External monitoring | NGO |

ADB = Asian Development Bank, DSC = design supervision consultant; FGD = focus group discussion, GRC = grievance redress committee; LACFC = Land Acquisition and Compensation Fixing Committee, MOH = Ministry of Home Affairs; MPPW = Ministry of Physical Planning and Works, NGO = nongovernment organization, PMC = project management consultant, PMO = project management office, WSSDO = water supply and sanitation divisional or subdivisional office, WUSC = water users and sanitation committee.
Source: Department of Water Supply and Sewerage assessment.

## E. Consultation, Disclosure, and Grievance Redress

6. The resettlement plans for Duhabi and Khandbari, including focus group discussions, meetings, and individual interviews, were held involving affected households. Local language versions of the summary resettlement framework and resettlement plans will be made available in the WSSDOs, VDCs, district development committees, WUSCs, and other public locations. The resettlement framework and resettlement plans will be posted on ADB's website and Government website, and information dissemination and consultation will continue throughout program implementation. Grievances of affected people will first be brought to the attention of WUSCs. Grievances not adressed by the WUSC will be brought to the grievance redress committee (GRC) established in each town. Further grievances will be handled by the Ministry of Home Affairs which can exercise legal authority through the district court. Records will be kept of all grievances received including contact details of complainant, date that the complaint was received, nature of grievance, agreed corrective actions and the date these were effected, and final outcome.

## F. Monitoring and Evaluation

7. Resettlement plan implementation will be closely monitored to provide the executing agency with an effective basis for assessing resettlement progress and identifying potential difficulties and problems. Internal monitoring will be undertaken by the DWSS (PMO and WSSDO) and will involve (i) administrative monitoring to ensure that implementation is on schedule and problems are dealt with on a timely basis; (ii) socioeconomic monitoring during and after any resettlement impact utilizing baseline information from subproject preparation; (iii) overall monitoring to assess the status of affected people; and (iv) preparation of monthly progress reports to be submitted to the PMO, reporting actual achievements against the targets fixed and reasons for shortfalls, if any. The selected local NGO will work as an external monitoring agency to document (i) restoration of income levels; (ii) changes in occupation pattern; (iii) changes in affected people's type of housing; (iv) assessment of affected people's access to amenities, such as water, electricity, and transportation; and (v) performance of WUSCs in resettlement implementation. The independent agency (i.e., NGO) will monitor subprojects and submit a report directly to the WSSDO and PMO upon completion of land acquisition and resettlement. The executing agency will submit the external monitoring report to ADB for review.

## G. Resettlement Budget

8. Detailed budget estimates for involuntary resettlement will be prepared for each resettlement plan by the DSC resettlement specialist and will be included in the overall subproject cost estimate. The resettlement cost estimate includes all costs related to resettlement including compensation, relocation, transfer costs, displacement allowances, rehabilitation costs, administrative costs, special assistance for vulnerable households, and consultation. All land acquisition funds will be paid to affected people by the WUSC, and backed by DWSS. Grant assurances will guarantee that affected people are compensated for all losses as per the resettlement plan before the award of civil contracts, and NGOs will verify whether compensation was paid and the satisfaction of the affected person. Land acquisition, compensation, relocation, and rehabilitation of income and livelihood will be considered as an integral component of project costs.