

# Project Administration Manual

Project Number: 36188  
Loan Number: LXXXX  
May 2010

Nepal: Secondary Towns Integrated Urban  
Environmental Improvement Project

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## **Project Administration Manual Purpose and Process**

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The executing and implementing agencies are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by executing and implementing agencies of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Loan agreement. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan Agreement, the provisions of the Loan Agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

## Abbreviations

ADB	=	Asian Development Bank
ADF	=	Asian Development Fund
AFS	=	audited financial statements
CQS	=	consultant qualification selection
DMF	=	design and monitoring framework
DUDBC	=	Department of Urban Development and Building Construction
DSC	=	Design and supervision consultant
DWSS	=	Department of Water Supply and Sewerage
EARF	=	environmental assessment and review framework
EIA	=	environmental impact assessment
EMP	=	environmental management plan
ESMS	=	environmental and social management system
GACAP	=	governance and anticorruption action plan
GDP	=	gross domestic product
ICB	=	international competitive bidding
IDC	=	institutional development consultant for Kavre valley subproject
IEE	=	initial environmental examination
IPP	=	indigenous people plan
KWSMB	=	Kavre Water Supply Management Board
MLD	=	Ministry of Local Development
MOE	=	Ministry of Environment
MOF	=	Ministry of Finance
MPMC	=	municipal project management committee
MPPW	=	Ministry of Physical Planning and Works
MuAN	=	Municipal Association of Nepal
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
NPC	=	National Planning Commission
NWSC	=	Nepal Water Supply Corporation
OFID	=	OPEC Fund for International Development
PAI	=	project administration instructions
PAM	=	project administration manual
PCO	=	project coordination office
PIU	=	project implementation unit
PMSC	=	project management support consultant
PSC	=	project steering committee
QBS	=	quality based selection
QCBS	=	quality- and cost based selection
RF	=	resettlement framework
RP	=	resettlement plan
RRP	=	report and recommendation of the President to the Board
SBD	=	standard bidding documents
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SWMRMC	=	Solid Waste Management Resource Mobilization Center
TDF	=	Town Development Fund
TOR	=	terms of reference
WUSC	=	water users and sanitation committee

## I. PROJECT DESCRIPTION

### **Summarize the project's rationale, location and beneficiaries.**

The Project is to improve quality of life and to help achieve higher and socially inclusive economic growth in key regional centers in Nepal through improved and affordable municipal services delivered effectively, efficiently and reliably by accountable Project municipalities. The Project will implement urban environmental improvement, on an integrated basis, in the areas including sewerage and drainage, solid waste, and urban roads and lanes in the Biratnagar, Birgunj and Butwal municipalities.<sup>1</sup> In addition, a water supply development subproject in the Kavre valley<sup>2</sup> will be implemented. At the same time, community development programs including awareness-raising on health and hygiene and 3R (reduce, reuse, and recycle), and investment in small-scale community facilities will be carried out. The Project will also strengthen capacity of municipalities and the central Government for project management and operation.

### **Impact and Outcome**

The expected impact of the Project will be to improve quality of life and to help achieve higher and socially inclusive economic growth in key regional centers in Nepal. The expected outcome of the Project will be improved and affordable municipal services delivered effectively, efficiently and reliably by accountable Project municipalities.

### **Outputs**

1. Reliable, affordable, and effective municipal infrastructure developed
  - 1.1 Drainage and sewerage systems improved (Biratnagar, Birgunj)
  - 1.2 Urban roads and lanes improved (Biratnagar, Birgunj)
  - 1.3 Solid waste management systems improved (Birgunj, Butwal)
  - 1.4 Water supply systems expanded (Kavre valley, Butwal)
  - 1.5 Other urban infrastructure facilities improved (Butwal)
  - 1.6 Community development program undertaken, including health and hygiene education, 3R (reduce, reuse and recycle) promotion, skills training, and investment in small-scale community facilities
2. Capacity of municipalities and the central Government strengthened for project management and operation
  - 2.1 Municipalities strengthened in terms of financial, technical and institutional capacity

### **Component 1: Developing reliable, affordable and effective urban infrastructure**

1.1 **Drainage and Sewerage.** Biratnagar and Birgunj, located on the flat land of Terai,<sup>3</sup> suffer from chronic water-logging problems caused by inadequate capacity of drainage channels due to ad-hoc construction of the drainage system and poor maintenance worsened by obstructions

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<sup>1</sup> In the National Urban Policy (2007), Biratnagar, Birgunj and Butwal are referred to as possible regional economic centers in Eastern, Central and Western regions, respectively.

<sup>2</sup> The subproject, intended to provide water supply to Banepa, Dhulikhel and Panauti municipalities, was planned to be implemented under the ongoing Urban and Environmental Improvement Project (UEIP) (L1966-NEP). However, only the project preparatory work, including detailed design and the Environmental Impact Assessment, will be completed under the UEIP. The Government requested ADB support for the physical investment under the Project.

<sup>3</sup> The Terai is the southern plain area bordering India.

from solid waste dumping. Storm-water drainage systems will be improved together with wastewater management systems, as storm-water drainage is currently being used as open sewers, causing bad odors, health risks and pollution of the watercourses. Wastewater treatment plants<sup>4</sup> will be constructed in both municipalities.

It is considered that operation and maintenance (O&M) costs for drainage and wastewater management system will be recovered through the increases in municipal revenue generation whether through changes in tax arrangements and/or the use of charges and/or other measures. Since property tax rates in these municipalities are currently at a very low level, there is a huge potential to increase the municipal revenue through revision on the tax rates, revaluation, and reducing tax exemptions. Household connection to the sewerage system will be included in the main civil work contract without directly charging the connection cost from the beneficiaries. While the water supply system in the two municipalities is complex, where water users are getting water supply from different sources including Nepal Water Supply Corporation (NWSC), water users and sanitation committees (WUSCs), and own tubewells, other approaches, such as collection of sewerage tariff along with the water supply bill, which is being practiced in Kathmandu, will also be considered.

**1.2 Roads and Lanes.** Urban roads and lanes will be reinstated or upgraded where drainage and sewerage pipe networks work will be undertaken.

**1.3 Solid Waste Management.** In the absence of a sanitary landfill, Birgunj and Butwal municipalities are currently dumping waste haphazardly along river banks and open spaces, with little recycling, causing pollution and public health hazards. The Project will adopt an integrated approach for solid waste management, with review and improvement of the entire system from segregation and collection, through 3R including focus on composting of organic waste, to transportation and final disposal at the sanitary landfill, and thus include procurement of necessary equipment and vehicles and the construction of a sanitary landfill site in each municipality. Preliminary assessment has been made about the potential for utilizing the Clean Development Mechanism (CDM) for composting, and further studies will be undertaken during the detailed design stage. The landfill site will be developed as an integrated resource recovery center to optimize resource recovery, which may include an organic waste compost plant, bio-digester, and unit for material recovery such as paper, plastics and bottles.<sup>5</sup> Appropriate system will be further studied in the detailed design.

During the detailed design stage, Biratnagar, Birgunj and Butwal municipalities will adequately assess the possibility and appropriate modality of private sector participation in O&M of the drainage and sewerage system and/or the solid waste management system, as relevant to the municipality, from the viewpoint of effective and efficient system operation, and reflect the findings in the bidding documents as appropriate. No later than twelve months prior to the scheduled completion of the construction work of the concerned subproject, the three municipalities will select or newly establish a unit responsible for the drainage and sewerage system and the solid waste management system (including landfill). They will assign adequate number of staff, and have them trained, to a level and degree commensurate with the roles and functions of each municipality in O&M.

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<sup>4</sup> Waste stabilization ponds will be established as the least cost option. In Biratnagar, a reed bed treatment plant will also be constructed.

<sup>5</sup> The costs of these facilities for resource recovery are not included in the Project.

1.4 **Water Supply.** Water supply subprojects will be implemented in the Kavre valley and Butwal, where respective municipalities are currently facing severe shortage of supply. Current water supply in Kavre valley is highly inadequate – it is estimated that about 70%, 10%, and 25% of households are served with private connections in Banepa, Panauti and Dhulikhel municipalities, respectively, and even in the areas served, water is provided for only about 2 hours a day in Banepa, 1-1.5 hours a day in Panauti, and 8 hours a day in Dhulikhel.

Regional approach is taken for the Kavre valley subproject, whereby a single Project Implementation Unit (PIU) will be established for Project implementation, and the Kavre Water Supply Management Board<sup>6</sup> (KWSMB) (or its equivalent) will be established to take charge of O&M. The KWSMB will be established before the contract award for civil works, and no later than one year prior to the scheduled completion of the construction work of the subproject, (a) the Government will approve: (i) an asset and liability transfer agreement; (ii) a regulation for the KWSMB operation; and (iii) staff rules of KWSMB; and (b) KWSMB will approve a business plan for the initial three years of the KWSMB including a staff development and transfer plan. In preparing the business plan, participation of private sector operators, including water users associations, for effective and efficient system operation, will be adequately considered.

Water tariffs will be set at a level adequate to recover repayment of the subloan, O&M expenditures, replacement and future expansion. Financial analysis of the Kavre valley subproject has indicated that the monthly tariffs will be less than 3.4% of the monthly income even for the poor households.

1.5 **Other infrastructure.** Strategically located at the crossing point of the East-West Highway and the Siddhartha Highway (North-South Corridor), auto-related enterprises including workshops, motor parts making, painting, welding, repairing etc. have clustered in Butwal. Basic infrastructure such as roads, wastewater management, and water supply in this auto-industry zone (auto-village) will be improved by the Project through a public-private partnership (PPP) arrangement. An agreement will be concluded between the private sector and the municipality regarding the PPP arrangement for subproject implementation and operation before the bid announcement.

1.6 **Community Development Programs.** This subcomponent will mainly consist of (i) health and hygiene education programs in communities and schools,<sup>7</sup> in particular targeting women and vulnerable groups including the poor; (ii) promotion of household and/or community level 3R activities with a focus on organic waste composting; (iii) skills training mainly for the poor; and (iv) investment in small-scale facilities such as public, school, and community toilets and communal water taps, in accordance with the priorities set by communities, with an aim at achieving social inclusiveness and improved sanitation in Biratnagar, Birgunj and Butwal municipalities. A portion of this subcomponent could be used to facilitate the connection of the poor's access to sanitation (mainly for on-site sanitation) and/or water supply services through performance-based grants such as output-based aid (OBA).<sup>8</sup>

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<sup>6</sup> This will follow the Water Supply Management Board Act (2006).

<sup>7</sup> The program will follow community-led total sanitation (CLTS) and/or school-led total sanitation (SLTS) approach.

<sup>8</sup> An appropriate mechanism of OBA is being studied under the ongoing Second Small Towns Water Supply and Sanitation Sector Project (Grant 0157-NEP). Under the OBA, those eligible for grants will be determined first. Eligible beneficiaries or municipalities will pre-finance a part of the connection costs (private latrines or water supply), and will be later reimbursed the grant amounts after the intended outputs have been confirmed by verification parties such as local NGOs.

This component will also cover consulting services for design, construction supervision and support for initial operation of facilities for the above subcomponents (except community development program) which will include (i) technical capacity development of municipal staff for O&M of the facilities constructed under the Project; (ii) support for setting and collecting appropriate level of tariffs, taxes and/or other charges to ensure adequate budget allocation for O&M, repayment to the Town Development Fund (TDF), replacement and future expansion; and (iii) assess the possibility and appropriate modality of private sector participation in service delivery. Local nongovernment organizations (NGOs) will be engaged to assist the community development program.

Subprojects to be prepared after Board approval, including the water supply Subproject in Butwal and the Subprojects envisioned under community development programs for small-scale community facilities, will satisfy the following general criteria:

- (i) The Subproject has been identified and designed by the relevant PIU in a participatory manner during the feasibility and detailed design stages;
- (ii) Institutional and financial arrangements for construction and operation and maintenance (O&M) have been agreed upon (a) among the PIUs and the relevant communities, in relation to Subprojects under community development programs, and (a) among the PIU, WUSC, NWSC and TDF in relation to the Butwal water supply Subproject;
- (iii) The Subproject complies with all requirements of relevant national laws and regulations and ADB's *Safeguard Policy Statement (2009)*, the environmental assessment and review framework (EARF) and the Resettlement Framework; and
- (iv) An agreement on the cost sharing arrangement for the specific Subproject has been reached among the parties concerned.

In addition to satisfying the general criteria shown above, the Subproject for construction of a water supply system in Butwal will satisfy the following further criteria:

- (i) Institutional and financial arrangements for construction and O&M, including the capacity of the proposed implementing agency for the Subproject, have been fully assessed during the feasibility and detailed design stages;
- (ii) An ability-to-pay survey carried out by the PIU for Butwal Municipality has confirmed that the tariff is affordable for most users;
- (iii) The Subproject has an economic internal rate of return (EIRR) of 12% or higher;
- (iv) The design of the Subproject ensures the least-cost of capital and of O&M expenditures in achieving its objectives; and
- (v) If or to the extent the required quantity of raw water needs to be supplied from surface water sources, any and all necessary approvals shall have been obtained in accordance with relevant laws and regulations of Nepal.

The subprojects for construction of community facilities will satisfy the following further criteria, in addition to satisfying the general criteria:

- (i) The communities concerned place high priority on the Subproject and are committed to supporting the O&M of the facilities; and
- (ii) The design of the facilities responds to the requirements of women, children and the disabled.

Prior to any subproject implementation, the PCO will submit to ADB for review and concurrence (a) a summary sheet setting out the main features of the proposed Subproject and satisfaction of the selection criteria above; (b) a Resettlement Plan for the proposed Subproject if such Subproject triggers relevant safeguard requirements under the ADB's *Safeguard Policy Statement (2009)*; (c) an IEE for the proposed Subproject, if such Subproject is classified as category B under ADB's *Safeguard Policy Statement (2009)*; and (d) other documents related to the Subproject including feasibility studies and/or detailed design reports, as may be requested by ADB.

For the water supply Subproject in Butwal, the PCO will additionally submit to ADB for review and concurrence the feasibility study report including the assessment and proposal for institutional and financial arrangements.

## **Component 2: Strengthening capacity of municipalities and the central Government for project management and operation**

2.1 This component will support smooth and effective Project implementation and operation. Adequate capacity development programs will be provided to Project municipalities for institutional strengthening such as the establishment or strengthening of units responsible for O&M.<sup>9</sup> Support will be provided to establish and make operational the KWSMB in terms of (i) asset valuation and transfer, (ii) institutional development including drafting relevant regulations and a business plan, and (iii) system integration.

In selecting the project scope and technology, alternative analysis and least-cost options analysis have been undertaken. Considerations that have been made include the following:

(i) **Drainage and Sewerage.** Biratnagar and Birgunj municipalities need significant investment in storm-water drainage systems. Priority areas have been carefully selected to save costs while maintaining most benefits. A separate system for drainage and sewerage is normally more appropriate in Nepal with advantages of (i) smaller size of pipes required for sewerage leading to cost savings, and (ii) easier and less costly installation of pipes. Therefore, the separate system is proposed in the core areas of Biratnagar. However, a combined system will be adopted in the core areas of Birgunj, because of the existing system. Waste stabilization ponds and reed bed treatment methods will be selected for wastewater treatment in view of the erratic electricity supply in the country and lower O&M requirements.

(ii) **Solid Waste Management.** Possibility of regional approach, where one landfill site would be shared by more than one local body, was discussed. While this should be targeted in the long run considering potential economic and other benefits, it has been agreed that landfills will be first developed as a municipal project and could be later developed into a regional site, if an agreement is reached among neighboring local bodies. Current political context and lack of elected mayors in municipalities would make it difficult to reach a consensus about the regional landfill site and the institutional arrangements where establishment of a new organization would be required.

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<sup>9</sup> A separate team of consultants for institutional strengthening of municipalities under the CDTA has been mobilized since May 2010.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

#### PROJECT READINESS ACTIVITIES

DESCRIPTION	2010												
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
<b>Output 1</b>													
Recruitment of PMSC													by February 2011
Recruitment of DSC													by February 2011
Formation of PCO and PIUs		◇											
Appointment of Project Director and Project Managers		◇											
Formation of PSC and MPMC				◇									
Adequate staffing of PCO and PIUs				◇									
ADB Board approval				◇									
Loan signing						◇							
Government legal opinion provided									◇				
Loan effectiveness											◇		
Land acquisition (landfill, WWTP)													by February 2011

DSC = design and supervision consultant, MPMC = municipal project management committee, PCO = project coordination office, PIU = project implementation unit, PMSC = project management support consultant, PSC = project steering committee, WWTP = wastewater treatment plant

## B. Overall Project Implementation Plan

### OVERALL PROJECT IMPLEMENTATION PLAN

DESCRIPTION	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
<b>Output 1</b>																			
<b>Preparatory work</b>																			
1.0.1 Land acquisition																			
1.0.2 Recruitment of design and supervision consultants																			
1.0.3 Recruitment of local NGOs																			
<b>Output 1.1 Drainage and sewerage systems developed</b>																			
1.1.1 Detailed design and bid preparation																			
1.1.2 Bidding and Contract Award for Civil Works																			
1.1.3 Sub-loan Agreement between TDF and municipalities																			
1.1.4 Construction																			
1.1.5 Support for Initial Operation of the System																			
<b>Output 1.2 Urban roads and lanes improved</b>																			
1.2.1 Detailed design and bid preparation																			
1.2.2 Bidding and Contract Award for Civil Works																			
1.2.3 Sub-loan Agreement between TDF and municipalities																			
1.2.4 Construction																			
<b>Output 1.3 Solid waste management systems improved</b>																			
1.3.1 Detailed design and bid preparation																			
1.3.2 Bidding and Contract Award for Civil Works																			
1.3.3 Sub-loan Agreement between TDF and municipalities																			
1.3.4 Construction and procurement of equipment																			
1.3.5 Support for Initial Operation of Landfill																			
<b>Output 1.4 Water supply systems expanded</b>																			
<b>Kavre valley water supply subproject</b>																			
1.4.1 Detailed design and bid preparation (under L1966-NEP)																			
1.4.2 Bidding and Contract Award for Civil Works																			
1.4.3 Sub-loan Agreement between TDF and municipalities																			
1.4.4 Construction																			
1.4.5 Establishment of KWSMB																			
1.4.6 Operationalization of KWSMB																			
1.4.7 Support for Initial Operation																			
<b>Butwal water supply subproject</b>																			
1.4.8 Feasibility study																			
1.4.9 Detailed design and bid preparation																			
1.4.10 Bidding and Contract Award for Civil Works																			
1.4.11 Sub-loan Agreement between TDF and municipalities																			
1.4.12 Construction																			
1.4.13 Support for Initial Operation																			
<b>Output 1.5 Other urban infrastructure facilities improved</b>																			
1.5.1 Detailed design and bid preparation																			
1.5.2 Bidding and Contract Award for Civil Works																			
1.5.3 PPP arrangement concluded																			
1.5.4 Sub-loan Agreement between TDF and municipalities																			
1.5.5 Construction																			
<b>Output 1.6 Community Development Program</b>																			
1.6.1 Health and hygiene education programs																			
1.6.2 Promotion of 3R (reduce, reuse, recycle) activities																			
1.6.3 Skills training for the poor																			
1.6.4 Small-scale community facilities																			
<b>Output 2</b>																			
2.1 Formation of PCO and PIU and appointment of PD and PMs																			
2.2 Formation of PSC and MPMC																			
2.3 PCO and PIU fully staffed																			
2.4 Recruitment of project management support consultant																			
2.5 Development of project performance management system																			
2.6 Project Management and Operation																			
2.7 Recruitment of institutional development consultant for KV																			
2.8 Support for establishing and operationalizing KWSMB																			
c.f. Institutional strengthening of municipalities (TA-7355)																			

KV = Kavre valley, KWSMB = Kavre Water Supply Management Board, MPMC = municipal project management committee, PCO = project coordination office, PD = project director, PM = project manager, PIU = project implementation unit, PSC = project steering committee, TDF = Town Development Fund

### III. PROJECT MANAGEMENT ARRANGEMENTS

#### A. Project Stakeholders – Roles and Responsibilities

<b>Project Stakeholders</b>	<b>Management Roles and Responsibilities</b>
<ul style="list-style-type: none"><li>• MPPW</li></ul>	<ul style="list-style-type: none"><li>➤ Guides and supports the overall project implementation</li><li>➤ Co-chairs the PSC and makes key policy level decisions to facilitate project implementation</li><li>➤ Liaise with MOF and other Ministries on matters under their jurisdictions</li><li>➤ Ensures adequate counter part funding</li><li>➤ Supports the overall project implementation</li><li>➤ Liaise with project municipalities for smooth project implementation</li></ul>
<ul style="list-style-type: none"><li>• DUDBC (PCO)</li></ul>	<ul style="list-style-type: none"><li>➤ Guides, supervise and monitor the project implementation</li><li>➤ Coordinates all project activities</li><li>➤ Engages project management support consultant</li><li>➤ Point of contact with ADB (including reporting requirements)</li><li>➤ Reviews documents submitted by PIUs to ensure prepared documents are in order</li><li>➤ Ensures and monitors compliance of loan covenants</li></ul>
<ul style="list-style-type: none"><li>• MLD</li></ul>	<ul style="list-style-type: none"><li>➤ Co-chairs the PSC and makes key policy level decisions to facilitate project implementation</li><li>➤ Provides necessary support to project municipalities for smooth project implementation</li><li>➤ Guides, supervise and monitor the performance of project municipalities</li></ul>
<ul style="list-style-type: none"><li>• Relevant technical departments (Department of Roads, DWSS, SWMRMC)</li></ul>	<ul style="list-style-type: none"><li>➤ Work with PCO in reviewing technical reports of subprojects, ensure policy and design coherence, and advise PCO and PIUs on technical matters</li><li>➤ Store knowledge and experiences of the subsector concerned</li></ul>
<ul style="list-style-type: none"><li>• Municipalities (PIUs)</li></ul>	<ul style="list-style-type: none"><li>➤ Implement subprojects under its jurisdiction (design and construction)</li><li>➤ Engage and supervise a design and supervision</li></ul>

## **Project Stakeholders**

## **Management Roles and Responsibilities**

- 
- consultant and a local NGO
  - Lead the bidding process for civil works contracts, sign and administer the contract, and supervise the civil works with support from DSC
  - Work under the guidance of and communicate with PCO on all matters related to project implementation in a timely manner, and provide all necessary information to PCO on regular basis
  - Submit audited project account annually to PCO within 6 months of the end of the fiscal year
  - Prepare and submit to ADB through PCO procurement documents for recruiting consultants, NGOs and Contractors; and for the procurement of equipment and vehicles
  - Obtain approval of the design and tender documents, contract documents, variation orders, time extension, etc. for subproject implementation from the municipality (executive officer and the municipal board) before submission to ADB through PCO
  - Review and submit the documents pertaining to feasibility studies, detailed design, cost estimates, bidding documents, etc. prepared by DSC to ADB through PCO
  - Submit progress reports, monitoring reports, withdrawal applications, statement of expenditure and other project related information in a timely manner to ADB through PCO
  - Take responsibility for O&M of infrastructure and service delivery
- Project Manager(s)
    - Be responsible for day-to-day implementation of subprojects
    - Lead PIU for successful implementation of subprojects
    - Coordinate the implementation work through MPMC
    - Engage Project Advisor on regular basis in key project decision-making, meetings and consultation on subproject implementation
  - Project Advisor(s)
    - Assist the project manager (PM) in subproject implementation
    - Assist the PM in review of feasibility studies, design and tender documents, contract documents, variation orders, time extension, etc.
    - Provide views, comments and suggestions to PM on matters pertaining to subproject implementation

## **Project Stakeholders**

## **Management Roles and Responsibilities**

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| <ul style="list-style-type: none"><li>• TDF (financial analyst seconded to PCO)</li><br/><br/><br/><br/><br/><br/><br/><br/><br/><br/><li>• PSC (MPPW, DUDBC, DWSS, TDF, MOE, MOF, MLD, MuAN, NPC, NWSC, SWMRMC, EO of municipalities)</li><br/><br/><br/><br/><br/><br/><br/><br/><br/><br/><li>• MPMC</li><br/><br/><br/><br/><br/><br/><br/><br/><br/><br/><li>• DUDBC divisional offices</li><br/><br/><br/><br/><br/><br/><br/><br/><br/><br/><li>• ADB</li></ul> | <ul style="list-style-type: none"><li>➤ Examines the subproject costs in respect of the changes made at the detailed design stage in connection with the repayment capacity of municipalities</li><li>➤ Submit audited project account annually to PCO within 9 months of the end of the fiscal year</li><li>➤ Reviews the subproject proposal submitted by PIUs with respect to financial and economic viability</li><li>➤ Provides loans to municipalities if considered financially feasible and collects repayment from them</li><br/><br/><br/><br/><br/><br/><br/><br/><br/><br/><li>➤ Reviews overall progress of the Project</li><li>➤ Recommends key policy decisions to ensure successful implementation of the Project</li><br/><br/><br/><br/><br/><br/><br/><br/><br/><br/><li>➤ Reviews subprojects implementation</li><li>➤ expedites decision-making processes at the municipal level</li><li>➤ Enhances collaboration between subprojects/activities under the Project and other activities in the municipality</li><br/><br/><br/><br/><br/><br/><br/><br/><br/><br/><li>➤ Coordinate with PCO and assists PIUs in subproject implementation</li><li>➤ Provide post-construction support to municipalities</li><br/><br/><br/><br/><br/><br/><br/><br/><br/><br/><li>➤ Supervises the overall project implementation</li><li>➤ Reviews and issues no-objection to procurement and disbursement documents</li></ul> |
|--|--|
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## **B. Key Persons Involved in Implementation**

### **Executing Agency**

Ministry of Physical Planning and Works (MPPW)

Officer's Name: Mr. Deep Basnyat

Position: Secretary

Telephone:

Email address

Department of Urban Development and Building Construction (DUDBC)

Officer's Name: Mr. Ashok Nath Uprety

Position: Director General

Telephone:

Email address

**Executing Agency**  
**ADB**

Division Director

Staff Name: Ms. M. Teresa Kho  
Position : Director, SAUD  
Telephone No.(632)632-6858  
Email address: mtkho@adb.org

Mission Leader

Staff Name: Norio Saito  
Position: Urban Development Specialist  
Telephone No. (632) 632-6258  
Email address: nsaito@adb.org

**C. Project Organization Structure**

The Ministry of Physical Planning and Works (MPPW) will be the Executing Agency (EA), working through its Department of Urban Development and Building Construction (DUDBC), which will establish a project coordination office (PCO) for the Project headed by project director. Biratnagar, Birgunj and Butwal municipalities will be the Implementing Agencies (IAs) for the subprojects, each with a PIU headed by project manager. Another PIU will be established for the Kavre valley water supply subproject, comprising representatives from Banepa, Dhulikhel and Panauti municipalities. In each PIU, project manager is appointed through consultation between DUDBC and the respective municipality. If the project manager is appointed by the municipality, DUDBC will appoint project advisor to the municipality. If the project manager is deputed from DUDBC, the municipality will appoint deputy project manager.

At the central level, a project steering committee (PSC) will be set up with the secretaries of MPPW and the Ministry of Local Development (MLD) as the co-chair, and the director generals of the DUDBC and Department of Water Supply and Sewerage (DWSS), the executive director of TDF, joint secretaries of the MPPW, MLD, the Ministry of Environment (MOE), and the National Planning Commission (NPC), a representative from the Ministry of Finance (MOF), the general managers of Nepal Water Supply Corporation (NWSC) and Solid Waste Management and Resource Mobilization Center (SWMRMC), the executive officers (EO) of relevant municipalities, and the President of Municipal Association of Nepal (MuAN) as members, and the project director as member secretary. The PSC will review overall progress and recommend key policy decisions.

Representatives from Department of Roads, DWSS, and SWMRMC will be appointed to work with the PCO in reviewing technical reports of subprojects, ensure policy and design coherence, and advise the PCO and PIUs on technical matters of subprojects.

In each municipality, a municipal project management committee (MPMC)<sup>10</sup> will be established in order to discuss project implementation issues, enhance collaboration among relevant departments and organizations, and expedite decision-making processes with an aim at achieving intended project output and outcome. MPMC will be chaired by the EO,<sup>11</sup> and comprise relevant department heads of the respective municipality, chief of the divisional office of DUDBC, DWSS and other relevant government departments, a representative from district development committee, four members representing the local disadvantaged communities,

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<sup>10</sup> The Kavre valley project management committee will be established in the Kavre valley. The committee will be chaired by one of the executive officers from the three relevant municipalities.

<sup>11</sup> Composition will be reviewed if local election takes place.

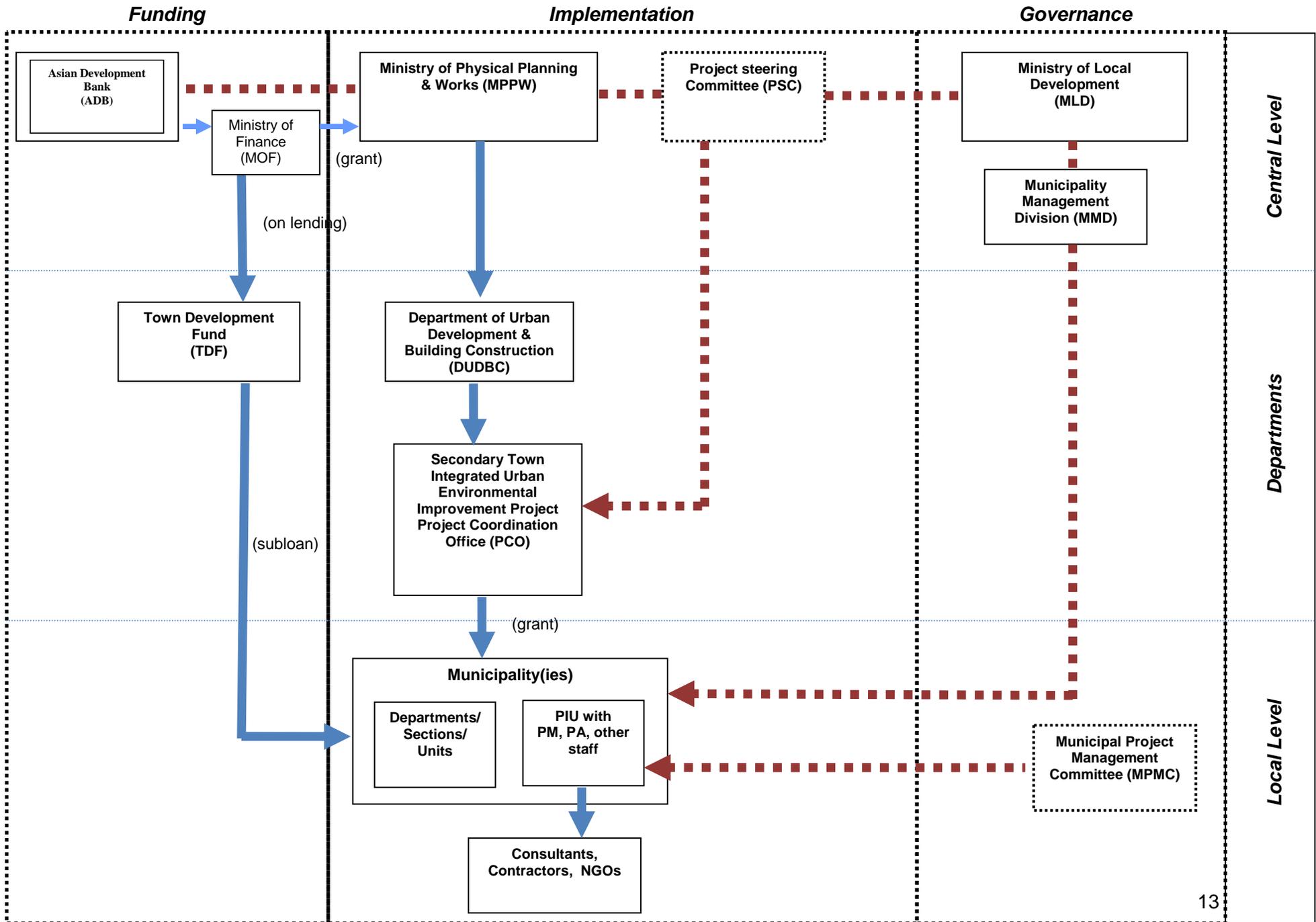
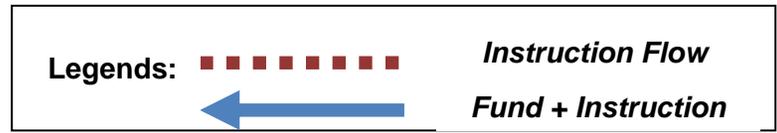
NGOs, women's groups and the private sector, and the respective project manager working as member secretary.<sup>12</sup>

The following agreements will be concluded for each subproject under Component 1: (a) an agreement (referred to as subproject agreement) among the municipalities, PCO and TDF specifying, among other things, the proposed amount of contribution from each party, and the proposed level of tariff, taxes and/or other charges to be collected by municipalities, prior to the bid announcement for the civil works contract; and (b) an onlending (subloan) agreement between the TDF and the relevant municipality(ies) prior to the contract award; provided that in relation to the Kavre valley subproject, the subproject agreement will also reflect the sharing of costs, risk and TDF loan liability as among the Banepa, Dhulikhel and Panauti municipalities. Standard agreements under clauses (a)-(b) above, satisfactory to ADB, will be prepared before such steps are taken for the first subproject; for the Kavre valley subproject the subproject agreement will also be satisfactory to ADB.

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<sup>12</sup> Other members can be included, such as representatives from political parties represented in the local political mechanism, as deemed appropriate by the municipality concerned. A representative from NWSC and VDCs located at the proposed water source will also be members of the Kavre valley project management committee.

# PROJECT ORGANIZATION STRUCTURE



#### IV. COSTS AND FINANCING

The Government has requested a loan of \$60 million equivalent (SDR 40,927,000) from ADB's Special Funds resources to help finance the project. The loan from ADB will finance (i) a part of civil works costs, (ii) consulting services, (iii) a part of incremental recurrent Government staff costs, and (iv) financial charges during implementation. The loan will have a 32-year term, including a grace period of 8 years, an interest rate of 1.0% per annum during the grace period and 1.5% per annum thereafter, and such other terms and conditions set forth in the draft loan and project agreements.

The Government has also requested a loan of \$17 million from the OPEC Fund for International Development (OFID) to jointly finance the sewerage and drainage civil works. Administered by ADB, the OFID loan will have a maturity of 20 years with a grace period of 5 years, and an interest rate of 1.0% per annum and a service charge of 1.0%. In the unlikely event that cofinancing from the OFID is not provided within 6 months of the effective date, the Government will take all necessary and appropriate steps to make available all counterpart funds required for timely and effective completion of the Project whether through either budget allocations or other arrangements acceptable to ADB, in the absence of which the Government and ADB will agree to scale down the scope of the Project, and if applicable to adjust the relevant financing arrangements. The Government will provide \$19.7 million equivalent to cover (i) taxes and duties, (ii) a part of civil works costs, (iii) a part of incremental recurrent Government staff costs, and (iv) land acquisition and resettlement costs. Municipalities (including beneficiaries) will contribute \$9.6 million equivalent.

##### A. Cost Estimates by Expenditure Category

	(\$ million)
	<b>Total Cost</b>
<b>A. Investment Cost <sup>a</sup></b>	
1. Civil Work	
(i) Drainage and sewerage systems improvement	38.98
(ii) Roads and lanes improvement	8.49
(iii) Solid waste management systems improvement	4.85
(iv) Water supply systems expansion	10.53
(v) Other urban infrastructure facilities improvement	2.51
(vi) Community development	2.60
2. Land acquisition and resettlement	4.26
3. Consultants	
(i) Community development	0.58
(ii) Project management and capacity building	7.16
4. Taxes	12.47
<b>Subtotal (A)</b>	<b>92.43</b>
<b>B. Recurrent Costs <sup>a</sup></b>	
1. Project administration and implementation <sup>b</sup>	2.12
2. Taxes	0.28
<b>Subtotal (B)</b>	<b>2.40</b>
<b>C. Contingencies <sup>c</sup></b>	
Physical	7.57
Price	1.33
<b>D. Financial Charges <sup>d</sup></b>	<b>2.61</b>
<b>Grand Total</b>	<b>106.33</b>

<sup>a</sup> In mid-2010 prices.

<sup>b</sup> Project administration and implementation includes office refurbishment, salaries, expenses and vehicles.

<sup>c</sup> Physical contingencies computed at 10% for civil works. Price contingencies computed at 0.0% to 1.5% on foreign exchange costs and 5.0% to 8.0% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>d</sup> Includes interest and service charges. Interest during construction for ADB loan has been computed at the rate of 1.0%. Interest and service charges during construction for OFID loan has been computed at the rate of 2.0%.

Source: Asian Development Bank estimates

## B. Allocation and Withdrawal of Loan Proceeds

	Disbursement Category	Loan Amount Allocated (\$) (SDR in parenthesis)	Disbursement Percentage
1	Civil Works and Equipment		
1a	Drainage and sewerage systems, and roads and lanes improvement	26,703,000 (18,215,000)	48 percent of total expenditure claimed including taxes
1b	Solid waste management improvement and community development program	6,590,000 (4,495,000)	76 percent of total expenditure claimed including taxes
1c	Water supply systems expansion	7,895,000 (5,385,000)	64 percent of total expenditure claimed including taxes
1d	Other urban infrastructure facilities improvement	1,630,000 (1,112,000)	56 percent of total expenditure claimed including taxes
2	Consultants	7,746,000 (5,284,000)	100 percent of total expenditure claimed excluding taxes
3	Project administration and implementation	1,058,000 (722,000)	44 percent of total expenditure claimed including taxes
4	Unallocated	5,765,000 (3,932,000)	
5	Interest Charges	2,613,000 (1,782,000)	Amount due
	<b>Total</b>	<b>60,000,000</b> <b>(40,927,000)</b>	

## C. Expenditure Accounts by Financier

	(\$ million)									
	Total Cost	ADB Amount	OFID Amount	GoN <sup>a</sup> Amount	GoN Taxes					
<b>A. Investment Cost<sup>b</sup></b>										
(i) Civil Work										
1. Drainage and sewerage systems and road and lanes improvement	<b>55.30</b>	26.70	48%	15.30	28%	5.46	10%	7.83	14%	
2. Solid waste management systems improvement and community development	<b>8.67</b>	6.59	76%	0.00	0%	0.86	10%	1.23	14%	
3. Water supply systems expansion	<b>12.26</b>	7.90	64%	0.00	0%	2.63	21%	1.73	14%	
4. Other Urban infrastructure facilities improvement	<b>2.92</b>	1.63	56%	0.00	0%	0.88	30%	0.41	14%	
(ii) Land acquisition and resettlement	<b>4.26</b>	0.00	0%	0.00	0%	4.26	100%	0.00	0%	
(iii) Consultants										
1. Community development	<b>0.68</b>	0.58	86%	0.00	0%	0.00	0%	0.10	14%	
2. Project management and capacity building	<b>8.34</b>	7.16	86%	0.00	0%	0.00	0%	1.17	14%	
<b>Subtotal (A)</b>	<b>92.42</b>	<b>50.56</b>	<b>55%</b>	<b>15.30</b>	<b>17%</b>	<b>14.09</b>	<b>15%</b>	<b>12.47</b>	<b>13%</b>	

	Total Cost	ADB Amount	OFID Amount	GoN <sup>a</sup> Amount	GoN Taxes
<b>B. Recurrent Costs<sup>b</sup></b>					
(i) Salaries	1.47	0.65	44%	0.00	0%
(ii) Vehicle and office equipment	0.93	0.41	44%	0.00	0%
<b>Subtotal (B)</b>	<b>2.40</b>	<b>1.06</b>	<b>44%</b>	<b>0.00</b>	<b>0%</b>
<b>C. Contingencies<sup>c</sup></b>					
(i) Physical	7.57	4.89	65%	1.70	22%
(ii) Price	1.33	0.88	66%	0.00	0%
<b>Subtotal (C)</b>	<b>8.90</b>	<b>5.77</b>	<b>65%</b>	<b>1.70</b>	<b>19%</b>
<b>D. Financial Charges<sup>d</sup></b>					
(i) Interest and service charges during implementation	2.61	2.61	100%	0.00	0%
<b>Subtotal (D)</b>	<b>2.61</b>	<b>2.61</b>	<b>100%</b>	<b>0.00</b>	<b>0%</b>
<b>Grand Total</b>	<b>106.33</b>	<b>60.00</b>		<b>17.00</b>	
Percentage (%)	100	56		16	12

ADB = Asian Development Bank, OFID = OPEC Fund for International Development, GoN = the Government of Nepal

<sup>a</sup> The amount includes finances from the Government and the municipalities.

<sup>b</sup> In mid-2010 prices.

<sup>c</sup> Physical contingencies computed at 10% for civil works. Price contingencies computed at 0.0-1.5% on foreign exchange costs and 5.0-8.0% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>d</sup> The figures include interest and service charges. Interest during construction for ADB loan has been computed at the rate of 1.0%. Interest and service charges during construction for the OPEC Fund for International Development loan has been computed at the rate of 2.0%.

Source: Asian Development Bank estimates

#### D. Expenditure Accounts by Outputs/Components

	(\$ million)								
	Components								Total
	1	1.1	1.2	1.3	1.4	1.5	1.6	2	
<b>A. Investment Cost<sup>b</sup></b>									
1. Civil Works and Equipment	79.15	45.57	9.89	5.65	12.26	2.76	3.03	0.00	79.15
2. Land acquisition and resettlement	4.26	2.84	0.00	1.40	0.02	0.00	0.00	0.00	4.26
3. Consultants	6.85	3.69	0.80	0.46	0.99	0.22	0.68	2.17	9.02
<b>Subtotal (A)</b>	<b>90.26</b>	<b>52.10</b>	<b>10.69</b>	<b>7.50</b>	<b>13.27</b>	<b>2.98</b>	<b>3.71</b>	<b>2.17</b>	<b>92.42</b>
<b>B. Recurrent Costs<sup>b</sup></b>									
1. Salaries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.47
2. Vehicles and office equipment <sup>c</sup>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.93
<b>Subtotal (B)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2.40</b>	<b>2.40</b>
<b>C. Contingencies<sup>d</sup></b>									
1. Physical	7.38	4.23	0.92	0.52	1.14	0.26	0.32	0.19	7.57
2. Price	1.30	0.82	0.13	0.16	0.11	0.03	0.04	0.04	1.33
<b>Subtotal (C)</b>	<b>8.68</b>	<b>5.05</b>	<b>1.05</b>	<b>0.69</b>	<b>1.25</b>	<b>0.29</b>	<b>0.36</b>	<b>0.22</b>	<b>8.90</b>
<b>D. Financial Charges<sup>e</sup></b>									
1. Interest and service charges during implementation	2.49	1.44	0.30	0.21	0.37	0.08	0.10	0.12	2.61
<b>Subtotal (D)</b>	<b>2.49</b>	<b>1.44</b>	<b>0.30</b>	<b>0.21</b>	<b>0.37</b>	<b>0.08</b>	<b>0.10</b>	<b>0.12</b>	<b>2.61</b>
<b>Grand Total</b>	<b>101.43</b>	<b>58.58</b>	<b>12.04</b>	<b>8.39</b>	<b>14.89</b>	<b>3.35</b>	<b>4.17</b>	<b>4.90</b>	<b>106.33</b>
Component allocations (%)	95.39	55.10	11.32	7.89	14.00	3.15	3.93	4.61	100.00

<sup>a</sup> In mid-2010 prices.

<sup>b</sup> Project administration and implementation includes office refurbishment, salaries, expenses and vehicles.

<sup>c</sup> Physical contingencies computed at 10% for civil works. Price contingencies computed at 0.0-1.5% on foreign exchange costs and 5.0-8.0% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>d</sup> Includes interest and service charges. Interest during construction for ADB loan has been computed at the rate of 1.0%. Interest and service charges during construction for the OPEC Fund for International Development loan has been computed at the rate of 2.0%.

Source: Asian Development Bank estimates

## E. Expenditure Accounts by Year

### Asian Development Bank and OPEC Fund for International Development Loans

	(\$ million)							
Expenditure Account <sup>a</sup>	Year	2010	2011	2012	2013	2014	2015	Total
A. Civil Work								
4. Drainage and sewerage systems, roads, lanes, solid waste, and community development		0.00	0.00	0.71	11.21	39.76	2.48	<b>54.16</b>
5. Water supply systems expansion		0.00	1.06	5.68	0.60	1.33	0.08	<b>8.76</b>
6. Other urban infrastructure facilities improvement		0.00	0.00	0.27	1.45	0.09	0.00	<b>1.81</b>
B. Land acquisition and resettlement		0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
C. Consultants		0.00	5.40	1.81	0.70	0.42	0.25	<b>8.58</b>
D. Project administration and implementation		0.27	0.16	0.16	0.16	0.16	0.16	<b>1.07</b>
E. Financial Charges <sup>b</sup>		0.01	0.10	0.24	0.41	0.90	0.94	<b>2.61</b>
<b>Grand Total</b>		<b>0.28</b>	<b>6.73</b>	<b>8.88</b>	<b>14.54</b>	<b>42.67</b>	<b>3.91</b>	<b>77.00</b>

<sup>a</sup> Figures includes physical contingencies computed at 10% for civil works and price contingencies computed at 0.0-1.5% on foreign exchange costs and 5.0-8.0% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>d</sup> Includes interest and service charges. Interest during construction for ADB loan has been computed at the rate of 1.0%. Interest and service charges during construction for the OPEC Fund for International Development loan has been computed at the rate of 2.0%.

### Government and Municipalities

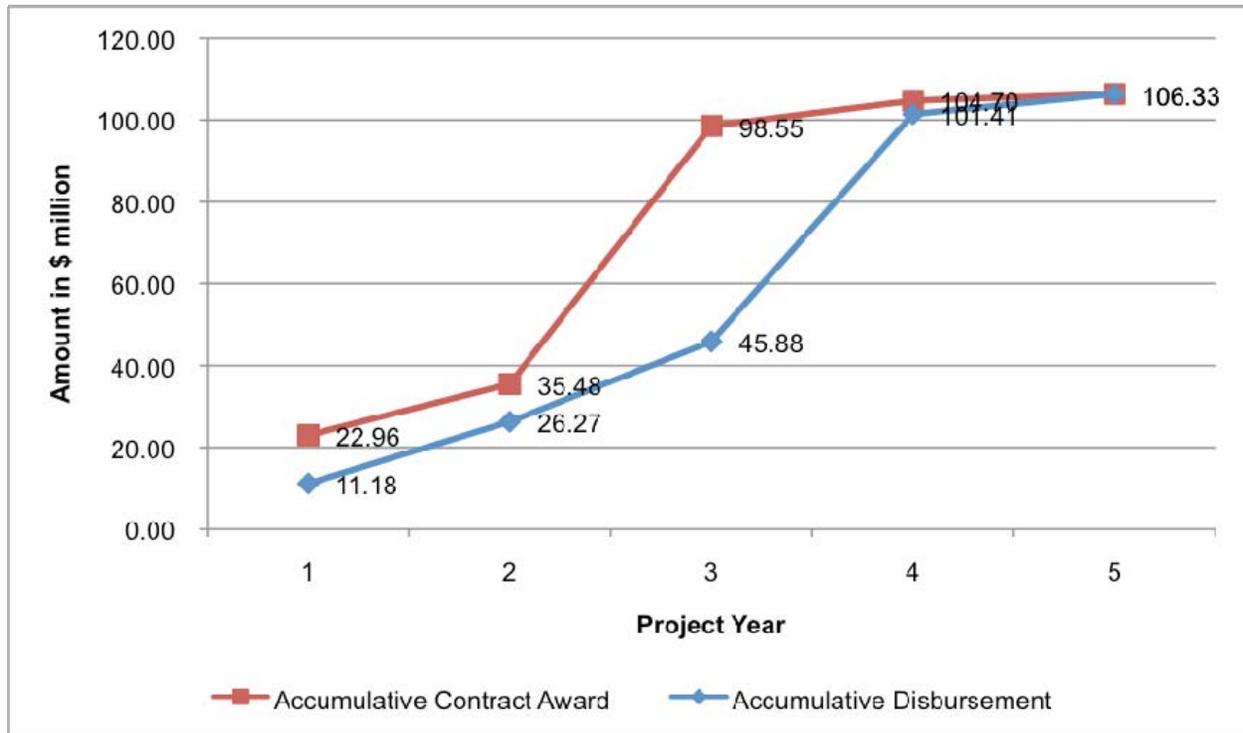
	(\$ million)							
Expenditure Account <sup>a</sup>	Year	2010	2011	2012	2013	2014	2015	Total
A. Civil Work								
1. Drainage and sewerage systems, roads, lanes, solid waste, community development		0.00	0.00	0.21	3.33	11.82	0.74	<b>16.11</b>
2. Water supply systems expansion		0.00	0.56	3.02	0.32	0.70	0.04	<b>4.65</b>
3. Other urban infrastructure facilities improvement		0.00	0.00	0.21	1.11	0.07	0.00	<b>1.39</b>
B. Land acquisition and resettlement		0.01	2.25	2.31	0.00	0.00	0.00	<b>4.57</b>
C. Consultants		0.00	0.80	0.27	0.10	0.06	0.04	<b>1.27</b>

D. Project administration and implementation	0.34	0.20	0.20	0.20	0.20	0.20	<b>1.35</b>
E. Financial Charges <sup>b</sup>	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.00</b>
<b>Grand Total</b>	<b>0.36</b>	<b>3.82</b>	<b>6.21</b>	<b>5.07</b>	<b>12.86</b>	<b>1.02</b>	<b>29.33</b>

<sup>a</sup> Figures includes taxes, physical contingencies computed at 10% for civil works, and price contingencies computed at 0.0% to 1.5% on foreign exchange costs and 5.0% to 8.0% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>b</sup> Includes interest and service charges. Interest during construction for ADB loan has been computed at the rate of 1.0%. Interest and service charges during construction for the OPEC Fund for International Development loan has been computed at the rate of 2.0%.

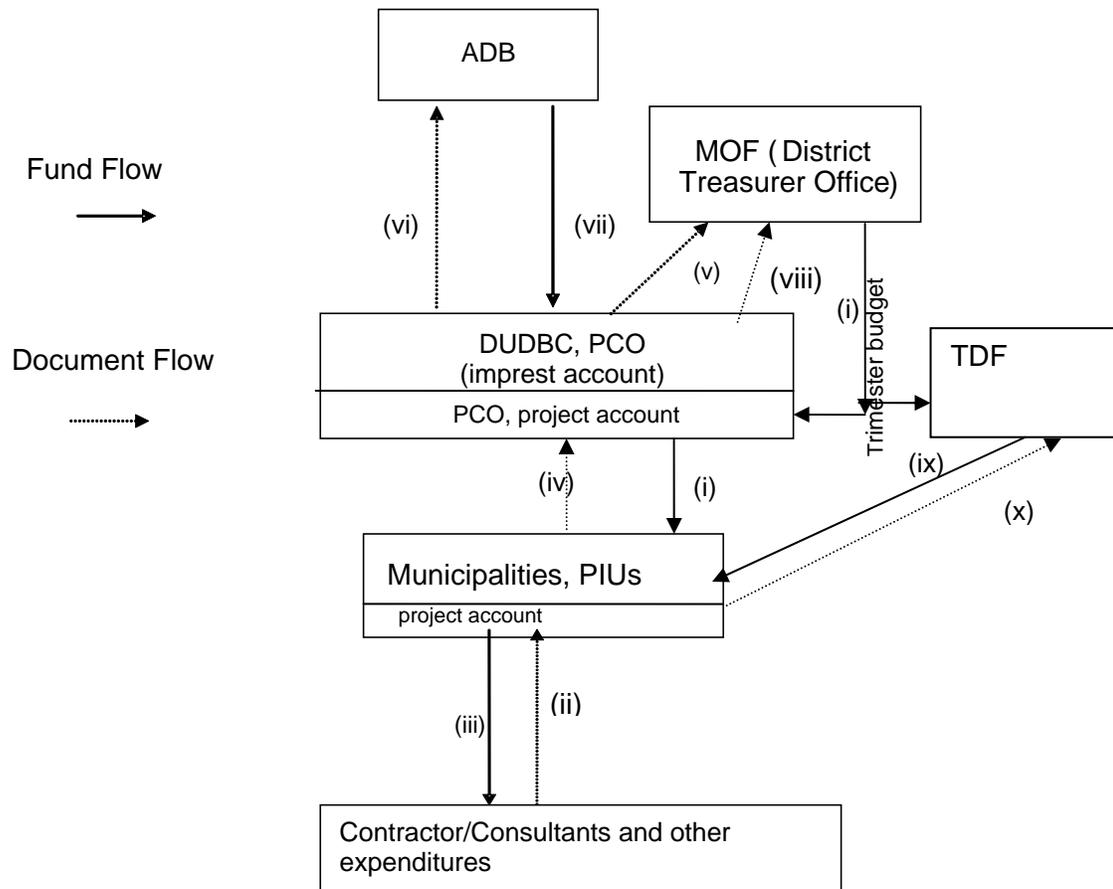
### F. Contract and Disbursement S-curve



### G. Fund Flow Diagram

The fund flow is shown in the diagram in Section III. C. A portion of the ADB loan proceeds will be on-lent by the Government to TDF. The balance of the ADB loan amount and all the proceeds of the OFID loan will be channeled through the Government as a grant portion.

Details are shown in the diagram below:



#### For Payment to Contractors, Consultant and Other Expenditures

- (i) MOF releases annual budget as an advance to PCO project account and TDF and accordingly PCO releases advances to PIUs from project accounts
- (ii) Contractors and consultant issue claims to PIUs or invoices submitted for other expenses to PIUs
- (iii) PIU check the claims and invoices and make payments (using advance fund from Government, municipality counterpart fund, and TDF)
- (iv) PIU sends expenditure statement of payments value below \$100,000 and evidence of payment for payments >\$100,000 to PCO
- (v) PCO consolidates statement of expenditures from PIUs and transfers fund equal for ADB financing from imprest account to MOF
- (vi) PCO requests for replenishment from ADB
- (vii) ADB replenishes imprest account
- (viii) Consolidated expenditure statement from PCO to MOF (District Treasury Office) on monthly basis
- (ix) TDF lends to municipalities
- (x) PIUs send evidence of payment to TDF

## H. Cost Sharing Arrangement by Components

Cost sharing arrangements between the Government and municipalities, and the relative share of subloan proceeds and municipal cash contribution will vary with subcomponents (e.g. drainage and sewerage, solid waste, and water supply), in line with the Government policy, the prevailing practices in the country, and the possibility of direct cost recovery. Water supply systems will be financed by municipalities<sup>13</sup> (50%) and the Government (50%). The initial budgetary allocation from municipalities will be 15% of the civil works contract, with the remaining 35% to be borrowed from the TDF.<sup>14</sup> Large-scale sanitation-related facilities—drainage, sewerage and solid waste management system— will be financed by municipalities (16% to 19%) and the Government (81% to 84%),<sup>15</sup> with municipalities contributing 8% from its budget and borrowing 8% to 11% from the TDF. The same ratio applies to small-scale infrastructure facilities including public, community, and school toilets, and communal water taps, but due to small investment requirements, municipalities will provide all its contributions in cash. 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, except for the incremental administrative expenses for project implementation units (PIUs), which will be partly funded by respective municipalities. Further details are shown in the table below:

Component	Government		Municipality	
	Government contribution (%)	ADB/OFID loan converted to Government grant (%)	ADB loan converted to TDF loan to municipality (%)	Municipality contribution (%)
Drainage and sewerage (including roads and lanes improvement) (with VAT)	16	65	11	8
Solid waste management(with VAT)	16	68	8	8
Water supply (with VAT)	20	30	35	15
Other urban infrastructure (Butwal) (with VAT)	14	36	20	30 <sup>a</sup>
Community development program (with VAT)	5	76	0	19
Consulting services (without VAT)	0	100	0	0
Incremental recurrent costs (central) (with VAT)	56	44	0	0
Incremental recurrent costs (municipality) (with VAT)	26	44	0	30
Land acquisition	90	0	0	10

<sup>a</sup> This will include contribution from the private sector.

<sup>13</sup> For the Kavre valley water supply subproject, three municipalities (Banepa, Dhulikhel and Panauti) will collectively borrow from the TDF in accordance with their financing and institutional requirements. It is envisaged that the assets and liabilities of such municipalities regarding this subproject will be later transferred to the KWSMB.

<sup>14</sup> This will be repaid from tariffs to be collected by municipalities.

<sup>15</sup> Sanitation will require a higher contribution from the Government as there are limited demands from the public and difficulties in direct cost recovery, but the system improvement will bring significant public health benefits.

Based on the above cost-sharing arrangement, the detailed breakdown of costs for each municipality and subcomponent is shown below:

**I. Cost Sharing Arrangement by Municipalities**

Overall Allocations	(\$ million)					
	Total Allocations	Biratnagar	Birgunj	Butwal	Kavre Valley	PCO
<b>ADB &amp; OFID financing sources</b>	<b>66.92</b>	<b>21.93</b>	<b>28.16</b>	<b>7.53</b>	<b>7.20</b>	<b>2.10</b>
Converted to Grant	<b>55.36</b>	19.10	24.50	5.92	3.74	2.10
Onlending	<b>11.56</b>	2.83	3.66	1.61	3.46	0.00
<b>Nepal financing sources</b>	<b>14.24</b>	<b>4.09</b>	<b>6.45</b>	<b>1.82</b>	<b>1.64</b>	<b>0.24</b>
<b>Taxes</b>	<b>13.65</b>	<b>4.07</b>	<b>5.22</b>	<b>1.72</b>	<b>2.29</b>	<b>0.37</b>
Government	<b>18.75</b>	5.64	8.43	1.81	2.27	0.60
Municipalities	<b>9.15</b>	2.52	3.24	1.73	1.66	0.00
<b>Total</b>	<b>94.81</b>	30.09	39.83	11.07	11.13	2.71

#### Civil Work and equipment for sewerage and drainage and roads and lanes

	Withdrawal Percentage	Total Allocations						
			Biratnagar	Birgunj	Butwal	Kavre Valley	PCO	
<b>ADB &amp; OFID financing sources</b>		<b>42.00</b>	<b>18.86</b>	<b>23.14</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	
Converted to Grant	65% of gross	<b>35.70</b>	16.03	19.67	0.00	0.00	0.00	
Onlending	11% of gross	<b>6.30</b>	2.83	3.47	0.00	0.00	0.00	
<b>Nepal financing sources</b>		<b>5.46</b>	<b>2.45</b>	<b>3.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	
<b>Taxes</b>		<b>7.83</b>	<b>3.52</b>	<b>4.32</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	
Government	16% of gross	<b>8.87</b>	3.99	4.89	0.00	0.00	0.00	
Municipalities	8% of gross	<b>4.42</b>	1.99	2.44	0.00	0.00	0.00	

#### Civil Work and equipment for solid waste management

	Withdrawal Percentage	Total Allocations						
			Biratnagar	Birgunj	Butwal	Kavre Valley	PCO	
<b>ADB &amp; OFID financing sources</b>		<b>4.29</b>	<b>0.00</b>	<b>1.91</b>	<b>2.38</b>	<b>0.00</b>	<b>0.00</b>	
Converted to Grant	68% of gross	<b>3.86</b>	0.00	1.71	2.15	0.00	0.00	
Onlending	8% of gross	<b>0.43</b>	0.00	0.19	0.24	0.00	0.00	
<b>Nepal financing sources</b>		<b>0.56</b>	<b>0.00</b>	<b>0.25</b>	<b>0.31</b>	<b>0.00</b>	<b>0.00</b>	
<b>Taxes</b>		<b>0.80</b>	<b>0.00</b>	<b>0.35</b>	<b>0.44</b>	<b>0.00</b>	<b>0.00</b>	
Government	16% of gross	<b>0.90</b>	0.00	0.40	0.50	0.00	0.00	
Municipalities	8% of gross	<b>0.45</b>	0.00	0.20	0.25	0.00	0.00	

### Civil Work and equipment for water supply

	Withdrawal Percentage	Total Allocations	Biratnagar	Birgunj	Butwal	Kavre Valley	PCO
<b>ADB &amp; OFID financing sources</b>		<b>7.90</b>	-	-	<b>1.49</b>	<b>6.41</b>	-
Converted to Grant	30% of gross	3.63	0.00	0.00	0.69	2.95	0.00
Onlending	35% of gross	4.26	0.00	0.00	0.80	3.46	0.00
<b>Nepal financing sources</b>		<b>1.73</b>	<b>0.00</b>	<b>0.00</b>	<b>0.33</b>	<b>1.40</b>	<b>0.00</b>
<b>Taxes</b>		<b>2.63</b>	-	-	<b>0.50</b>	<b>2.14</b>	-
Government	20% of gross	2.52	0.00	0.00	0.48	2.05	0.00
Municipalities	15% of gross	1.84	0.00	0.00	0.35	1.49	0.00

### Civil Work and equipment for environmental improvement in auto-industry zone

	Withdrawal Percentage	Total Allocations	Biratnagar	Birgunj	Butwal	Kavre Valley	PCO
<b>ADB &amp; OFID financing sources</b>		<b>1.63</b>	-	-	1.63	-	-
Converted to Grant	36% of gross	1.06	0.00	0.00	1.06	0.00	0.00
Onlending	20% of gross	0.57	0.00	0.00	0.57	0.00	0.00
<b>Nepal financing sources</b>		<b>0.88</b>	-	-	0.88	-	-
<b>Taxes</b>		<b>0.41</b>	0.00	0.00	0.41	0.00	0.00
Government	14% of gross	0.41	0.00	0.00	0.41	0.00	0.00
Municipalities	30% of gross	0.88	0.00	0.00	0.88	0.00	0.00

### Civil Work and equipment for community development program

	Withdrawal Percentage	Total Allocations	Biratnagar	Birgunj	Butwal	Kavre Valley	PCO
<b>ADB &amp; OFID financing sources</b>		<b>2.30</b>	<b>1.06</b>	<b>0.71</b>	<b>0.44</b>	<b>0.09</b>	<b>0.00</b>
Converted to Grant	76% of gross	2.30	1.06	0.71	0.44	0.09	0.00
Onlending	0% of gross	0.00	0.00	0.00	0.00	0.00	0.00
<b>Nepal financing sources</b>		<b>0.30</b>	<b>0.14</b>	<b>0.09</b>	<b>0.06</b>	<b>0.01</b>	<b>0.00</b>
<b>Taxes</b>		<b>0.43</b>	<b>0.20</b>	<b>0.13</b>	<b>0.08</b>	<b>0.02</b>	<b>0.00</b>
Government	5% of gross	0.15	0.07	0.05	0.03	0.01	0.00
Municipalities	19% of gross	0.58	0.27	0.18	0.11	0.02	0.00

### Land acquisition and resettlement

	Withdrawal Percentage	Total Allocations	Biratnagar	Birgunj	Butwal	Kavre Valley	PCO
<b>ADB &amp; OFID financing sources</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Converted to Grant	Ineligible	<b>0.00</b>	0.00	0.00	0.00	0.00	0.00
Onlending	Ineligible	<b>0.00</b>	0.00	0.00	0.00	0.00	0.00
<b>Nepal financing sources</b>		<b>4.26</b>	<b>1.29</b>	<b>2.90</b>	<b>0.04</b>	<b>0.02</b>	<b>0.00</b>
<b>Taxes</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Government	90% of gross	<b>3.83</b>	1.16	2.61	0.04	0.02	0.00
Municipalities	10% of gross	<b>0.43</b>	0.13	0.29	0.00	0.00	0.00

### Consultants

	Withdrawal Percentage	Total Allocations	Biratnagar	Birgunj	Butwal	Kavre Valley	PCO
<b>ADB &amp; OFID financing sources</b>		<b>7.75</b>	<b>1.80</b>	<b>2.21</b>	<b>1.38</b>	<b>0.50</b>	<b>1.86</b>
Converted to Grant	100% of net	<b>7.74</b>	1.80	2.21	1.38	0.50	1.86
Onlending	Ineligible	<b>0.00</b>	0.00	0.00	0.00	0.00	0.00
<b>Nepal financing sources</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Taxes</b>		<b>1.27</b>	<b>0.30</b>	<b>0.36</b>	<b>0.23</b>	<b>0.08</b>	<b>0.31</b>
Government	100 % of tax	<b>1.27</b>	0.30	0.36	0.23	0.08	0.31
Municipalities	0%	<b>0.00</b>	0.00	0.00	0.00	0.00	0.00

### Project administration and implementation

	Withdrawal Percentage	Total Allocations	Biratnagar	Birgunj	Butwal	Kavre Valley	PCO
<b>ADB &amp; OFID financing sources</b>		<b>1.06</b>	<b>0.21</b>	<b>0.21</b>	<b>0.21</b>	<b>0.21</b>	<b>0.24</b>
Converted to Grant	44% of gross	<b>1.06</b>	0.21	0.21	0.21	0.21	0.24
Onlending	Ineligible	<b>0.00</b>	0.00	0.00	0.00	0.00	0.00
<b>Nepal financing sources</b>		<b>1.06</b>	<b>0.21</b>	<b>0.21</b>	<b>0.21</b>	<b>0.21</b>	<b>0.24</b>
<b>Taxes</b>		<b>0.28</b>	<b>0.05</b>	<b>0.05</b>	<b>0.05</b>	<b>0.05</b>	<b>0.06</b>
Government	26% of gross	<b>0.78</b>	0.12	0.12	0.12	0.12	0.30
Municipalities	30% of gross	<b>0.56</b>	0.14	0.14	0.14	0.14	0.00

**Contingencies (up to 10% of each subloan amount)**

	<b>Total</b>				<b>Kavre</b>	
	<b>Allocations</b>	<b>Biratnagar</b>	<b>Birgunj</b>	<b>Butwal</b>	<b>Valley</b>	<b>PCO</b>
<b>ADB &amp; OFID financing sourced</b>	<b>7.47</b>	<b>2.49</b>	<b>3.19</b>	<b>0.82</b>	<b>0.76</b>	<b>0.20</b>
Physical contingency	<b>6.59</b>	2.17	2.80	0.73	0.70	0.19
Price contingency	<b>0.88</b>	0.31	0.40	0.09	0.06	0.02
<b>Nepal</b>	<b>1.43</b>	<b>0.40</b>	<b>0.60</b>	<b>0.20</b>	<b>0.24</b>	<b>0.00</b>
Physical contingency	<b>0.98</b>	0.26	0.33	0.17	0.21	0.00
Price contingency	<b>0.45</b>	0.14	0.27	0.03	0.02	0.00

## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

Financial management assessment undertaken for MPPW, DUDBC, 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. However, the assessment for the municipalities has shown that municipal capacity needs further strengthening in areas including timely auditing, better accounting, and revenue enhancement. A capacity development technical assistance (CDTA) from ADB<sup>16</sup> will address these weaknesses. Further capacity building support will be provided after the CDTA's completion, if found necessary. Financial management risks should be considered and updated throughout the life of the project. Risk mitigation measures should also be updated accordingly.

### B. Disbursement

The Loan proceeds including ADB administered co-financier funds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time),<sup>17</sup> and detailed arrangements agreed upon between the Government and ADB.

Pursuant to ADB's Safeguard Policy Statement (2009) (SPS),<sup>18</sup> ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list (Appendix 5) to subprojects financed by ADB.

The PCO will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB. Based on the withdrawal applications, ADB and OFID will fund the project imprest accounts on a reimbursable basis.

The Government will, immediately after loan effectiveness, establish two imprest accounts for the (i) ADB loan, and (ii) OFID loan, each at the Nepal Rastra Bank for the Project for the MPPW. The maximum ceiling of the respective imprest account will not at any time exceed the estimated ADB financed or ADB administered co-financier financed expenditures to be paid from the imprest account for the next 6 months or 10% of the respective loan amount, whichever will be lower. The request for initial advance to the imprest account should be accompanied by an Estimate of Expenditure Sheet<sup>19</sup> setting out the estimated expenditures for the first six (6) months of project implementation, and submission of evidence satisfactory to ADB that the imprest account has been duly opened. For every liquidation and replenishment request of the imprest accounts, the borrower will furnish to ADB (i) Statement of Account (Bank Statement) where the imprest account is maintained, and (ii) the Imprest Account Reconciliation Statement (IARS) reconciling the above mentioned bank statement against the EA's records.<sup>20</sup>

The statement of expenditure (SOE) procedure will be adopted to reimburse eligible expenditures

<sup>16</sup> ADB. 2009. *CDTA to Nepal for Institutional Strengthening of Municipalities*. Manila.

<sup>17</sup> Available at: [http://www.adb.org/Documents/Handbooks/Loan\\_Disbursement/loan-disbursement-final.pdf](http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf)

<sup>18</sup> Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

<sup>19</sup> Available in Appendix 29 of the *Loan Disbursement Handbook*.

<sup>20</sup> Follow the format provided in Appendix 30 of the *Loan Disbursement Handbook*.

or liquidate advances provided into the imprest accounts. Any individual payment to be reimbursed or liquidated under SOE procedure will not exceed the equivalent of \$100,000. SOE records should be maintained and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.<sup>21</sup>

Before the submission of the first withdrawal application, the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is US\$100,000, unless otherwise approved by ADB. The borrower is to consolidate claims to meet this limit for reimbursement and imprest account claims. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing.

### **C. Accounting**

The PCO, TDF and the municipalities will maintain separate project accounts and records by funding source for all expenditures incurred on the Project. Project accounts will follow international accounting principles and practices or those prescribed by the Government's accounting laws and regulations.

### **D. Auditing**

The PCO will cause the detailed consolidated project accounts to be audited in accordance with International Standards on Auditing and/or in accordance with the Government's audit regulations by an auditor acceptable to ADB. The audited accounts will be submitted in the English language to ADB within 9 months of the end of the fiscal year by the executing agency. The annual audit report will include a separate audit opinion on the use of the imprest accounts and the SOE procedures (as applicable). The Government, TDF and the municipalities have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures. For revenue generating projects only, ADB requires audited financial statements (AFS) for each executing and/or implementation agency associated with the project.

## **VI. PROCUREMENT AND CONSULTING SERVICES**

### **A. Advance Contracting and Retroactive Financing**

All advance contracting and retroactive financing will be undertaken in conformity with ADB's *Procurement Guidelines* (February 2007, as amended from time to time) (ADB's *Procurement Guidelines*)<sup>22</sup> and ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to

<sup>21</sup> Checklist for SOE procedures and formats are available at:

[http://www.adb.org/documents/handbooks/loan\\_disbursement/chap-09.pdf](http://www.adb.org/documents/handbooks/loan_disbursement/chap-09.pdf)  
[http://www.adb.org/documents/handbooks/loan\\_disbursement/SOE-Contracts-100-Below.xls](http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-100-Below.xls)  
[http://www.adb.org/documents/handbooks/loan\\_disbursement/SOE-Contracts-Over-100.xls](http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-Over-100.xls)  
[http://www.adb.org/documents/handbooks/loan\\_disbursement/SOE-Operating-Costs.xls](http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Operating-Costs.xls)  
[http://www.adb.org/documents/handbooks/loan\\_disbursement/SOE-Free-Format.xls](http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Free-Format.xls)

<sup>22</sup> Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

time) (ADB's *Guidelines on the Use of Consultants*).<sup>23</sup> The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, executing and implementing agencies have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the Project.

**Advance contracting.** The Government has requested an ADB's approval of advance contracting for the recruitment of PMSC, DSCs, IDC and local NGOs, and prequalification of contractors, tendering, and bid evaluation for the Kavre valley water supply subproject.

**Retroactive financing.** The Government has requested an ADB's approval of retroactive financing for the recruitment of PMSC, DSCs, IDC and local NGOs and for the establishment and operation of PCO and PIUs. Retroactive financing will be up to 5% of the total ADB loan amount for eligible expenditures for eligible expenditures incurred prior to loan effectiveness but not earlier than 12 months prior to the signing of the loan agreement.

## B. Procurement of Goods, Works and Consulting Services

All procurement of goods and works will be undertaken in accordance with ADB's *Procurement Guidelines*.

International competitive bidding procedures will be used for civil works contracts estimated to cost more than \$1 million, and supply contracts valued at more than \$500,000. National competitive bidding procedures will be used for civil works contracts equivalent to \$1,000,000 or less, and supply contracts equivalent to \$500,000 or less. Shopping will be used for contracts for procurement of works and equipment worth equivalent to \$100,000 or less.

Before the start of any procurement ADB and the Government will review the public procurement laws of the Government to ensure consistency with ADB's *Procurement Guidelines*. Any inconsistency with ADB's *Procurement Guidelines* will be reflected in NCB Annex.

An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C.

All consultants and nongovernment organizations (NGOs) will be recruited according to ADB's *Guidelines on the Use of Consultants*.<sup>24</sup> The terms of reference for all consulting services are detailed in Section D.

An estimated 1,585 person-months (86 international, 1,499 national) of consulting services will be provided to (i) facilitate project management and implementation including overall monitoring and evaluation at the central level; (ii) carry out detailed design and construction supervision for individual subprojects, including monitoring for safeguards compliance; and (iii) provide institutional development support for the establishment and operationalization of the Kavre Valley Water Supply Management Board (or its equivalent). An estimated 831 person-months (all national) of local NGO services will be provided to assist the implementation of the community development program. Consulting firms and local NGOs will be engaged using the quality- and cost-based selection (QCBS) method with a standard quality:cost ratio of 80:20. Selection criteria for local NGOs will include (i) experience relevant to the project activities and objectives, (ii) experiences in the district

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<sup>23</sup> Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

<sup>24</sup> Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

where the Project municipalities are located, (iii) financial integrity, and (iv) record of proven competence in community mobilization and public health sensitization programs.

### **C. Procurement Plan**

See Annex A.

### **D. Consultant's Terms of Reference**

Outline terms of reference for all consulting services, including those for local NGOs are shown in Annexes B to E.<sup>25</sup>

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<sup>25</sup> Terms of reference guidelines available at: [http://www.adb.org/Documents/Manuals/Consulting-Services-Operations-Manual/CSOM.pdf?bcsi\\_scan\\_D4A612CF62FE9576=AORY9a8Nho2ezS9Xss/lqEAAAANNiAA&bcsi\\_scan\\_filename=CSOM.pdf](http://www.adb.org/Documents/Manuals/Consulting-Services-Operations-Manual/CSOM.pdf?bcsi_scan_D4A612CF62FE9576=AORY9a8Nho2ezS9Xss/lqEAAAANNiAA&bcsi_scan_filename=CSOM.pdf) (paras 65–72).

## VII. SAFEGUARDS

**Environmental Safeguards.** Environmental Management Plans (EMPs) have been prepared for each municipality (Biratnagar, Birgunj, and Butwal) and for Kavre Valley subproject as part of the Initial Environmental Examination (IEE) reports, and an Environmental Assessment and Review Framework (EARF) has been prepared to guide environmental assessment and reporting for subprojects to be defined after Board approval (e.g., public toilets in Biratnagar, Birgunj, and Butwal; and Butwal water supply). The following are institutional roles and responsibilities to ensure EMPs are implemented during design and construction stages:

Project Coordination Office: The PCO, with assistance from the project management support consultant (PMSC) is to (i) confirm IEEs/EMPs are updated based on detailed designs; (ii) confirm whether EMPs are included in bidding documents and civil works contracts; (iii) provide oversight on environmental management aspects of the Project and ensure EMPs are implemented by PIU, design and supervision consultants (DSCs), and contractors; (iv) establish a system to monitor environmental safeguards of the project including monitoring the indicators set out in the monitoring plan of the EMP; (v) facilitate and confirm overall compliance with all Government rules and regulations regarding forest and environmental permits and clearances as well as any other approved environmental guidelines, as relevant; (vi) supervise and provide guidance to the DSCs to properly carry out the environmental assessments as per the EARF; (vii) review, monitor and evaluate the effectiveness with which the EMPs are implemented, and recommend necessary corrective actions to be taken as necessary; (viii) consolidate quarterly environmental monitoring reports from PIU and submit annual monitoring report to ADB; and (ix) ensure timely disclosure of final IEEs/EMPs in locations and form accessible to the public.

Project Implementation Units: The four PIUs in Biratnagar, Birgunj, Butwal, and Kavre Valley, with the assistance of DSCs, are to: (i) ensure IEEs and EMPs are updated by DSC during detailed design stage; (ii) ensure EMPs are included in bidding documents and civil works contracts; (iii) ensure compliance with all Government rules and regulations including forest and environmental permits and clearances; (iv) oversee implementation of EMPs including environmental monitoring by contractors; (v) take corrective actions when necessary to ensure no environmental impacts; and (vi) submit quarterly environmental monitoring reports to the PCO.

**Social Safeguards (Involuntary Resettlement and Indigenous People).** Combined Resettlement Plans (RPs)/Indigenous People's Plans (IPPs) have been prepared for Birgunj, Biratnagar, and an RP for Kavre Valley. A combined Resettlement Framework/Indigenous People's Framework was prepared to guide future resettlement planning for subprojects to be defined after Board approval (e.g., public toilets in Biratnagar, Birgunj, and Butwal; and Butwal water supply). The cost related to land acquisition and resettlement/rehabilitation will be borne by the municipality and the Government. The PCO is to ensure that affected persons (APs) are compensated prior to land acquisition and commencement of civil works. The following are institutional roles and responsibilities to ensure RPs/IPPs are implemented during design and construction stages:

Project Coordination Office: The PCO is to (i) conduct internal monitoring of resettlement process to ensure smooth implementation; (ii) ensure PIUs with assistance from DSC update RPs/IPPs during the detailed design stage; (iii) ensure timely payments of compensation and other entitlements as per the RPs and made before land acquisition and commencement of civil works; (iv) ensure ongoing consultations with communities and affected persons; and (v) submit

semiannual monitoring reports to ADB that describe the progress of the implementation of resettlement activities and any compliance issues and corrective actions.

Project Implementation Units: PIUs in Biratnagar, Birgunj, and Kavre Valley are to: (i) ensure all RPs are updated based on detailed designs, if required; (ii) engage in ongoing meaningful consultations with stakeholders and affected persons; (iii) implement RPs with support from DSCs and NGOs; (iv) provide timely payments to affected persons before land acquisition and commencement of civil works; (v) ensure all training and capacity building activities are provided to affected persons by NGOs; (vi) ensure all grievances are addressed and when necessary activate the Grievance Redress Committee; (vii) take corrective actions where necessary; (viii) submit quarterly monitoring reports to PCO and clearly communicate the implementation status of RPs and the status of APs throughout the project period; and (ix) provide relevant information to PCO.

Municipal project management committee (MPMC): The MPMC is to discuss land acquisition issues if/when there is a delay in such activities in order to expedite the process.

Civil Works Contracts: The Government will ensure that civil works contracts and bidding documents under the Project include specific provisions requiring contractors to comply with all (a) applicable labor laws and core labor standards on (x) prohibition of child labor as defined in national legislation for construction and maintenance activities, on (y) equal pay for equal work of equal value regardless of gender, ethnicity or caste, and on (z) elimination of forced labor, and (b) the requirement to disseminate information on sexually transmitted diseases including HIV/AIDS to employees and local communities surrounding the Project sites.

## VIII. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

### A. Project Design and Monitoring Framework

See Annex F.

### B. Monitoring

**Project performance monitoring:** Within three (3) months of loan effectiveness, the PCO will establish a project performance management system using the targets, indicators, assumptions, and risks in the DMF. The baseline data corresponding to indicators and targets set out in the DMF will be gathered during the detailed design stage, within 9 months of loan effectiveness, disaggregated by income levels, sex, caste, and ethnicity. After the initial baseline survey, the PCO will conduct annual monitoring using the same indicators and submit the reports to ADB throughout project implementation. Results of a comprehensive completion survey will be included in the project completion report. These quarterly reports will provide information necessary to update ADB's project performance reporting system.<sup>26</sup>

**Compliance monitoring:** Status of compliance with loan covenants—policy, legal, financial, economic, environmental, and others— will be reviewed at each ADB review mission. All non-compliance issues, if any, will be updated in quarterly progress reports together with remedial actions.

**Safeguards monitoring:** Status of the implementation of the EMP and EARF, and RP and RF, will be discussed at each ADB review mission and integrated into quarterly progress reports.

**Poverty and Social action plans:** Status of the implementation of GESI plan will be discussed at each ADB review mission and integrated into quarterly progress reports.<sup>27</sup>

### C. Evaluation

The Government and ADB will jointly review the Project at least twice a year. This includes (i) the performance of the PCO, PIUs, TDF, DUDBC divisional offices, consultants, NGOs, and contractors; (ii) physical progress of subprojects and effectiveness of capacity building and community development programs; (iii) inclusion of women and vulnerable groups including the poor in subproject planning and implementation; (iv) compliance with loan 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; (ii) assessment of implementation pace against project indicators; (iii) effectiveness of community development and capacity building programs; (iv) compliance with safeguard measures; (v) extent to which the GESI is being met in the municipalities; (vi) needs for additional support for O&M of the facilities established under the

<sup>26</sup> ADB's project performance reporting system is available at:

<http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

<sup>27</sup> Staff Guide to Consultation and Participation: <http://www.adb.org/participation/toolkit-staff-guide.asp> and CSO Sourcebook: A Staff Guide to Cooperation with Civil Society Organizations: <http://www.adb.org/Documents/Books/CSO-Staff-Guide/default.asp>

Project, (vii) lessons learned, good practices, and potential for replication; and (viii) changes recommended. Within 6 months of physical completion of the Project, the DUDBC will submit a project completion report to ADB.<sup>28</sup>

#### **D. Reporting**

The DUDBC will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan; and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the Project. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency AFSs, together with the associated auditor's report, should be adequately reviewed. Project municipalities will provide PCO with monthly progress reports and monthly expenditure reports within 7 days of the following month using the standard format prepared by PCO.

#### **E. Stakeholder Communication Strategy**

The Project intends to maximize transparency by communicating relevant project information to stakeholders in various means. The DUDBC will set up a website within 2 months from the loan effectiveness and disclose all key project-related information, including the scope, cost, and financial and institutional arrangements of the Project, project safeguard reports such as IEE and RPs, and project progress such as procurement, contract award and disbursement. Each PIU will also fully disclose relevant project-related information through municipality's information center—such as subproject cost, cost-sharing arrangement, contractor's name, contract price, progress of construction, financial status of municipalities—through public briefings, bulletin boards, municipal annual reports etc.

Participation is an important aspect of the Project. Public awareness programs for sanitation, health and hygiene education, and 3R (reduce, reuse and recycle) including organic composting in household and/or community level will be implemented by local NGOs engaged in the three municipalities (Biratnagar, Birgunj and Butwal), in parallel with the physical investment activities. The GESI plan will ensure sufficient consultation and participation with beneficiaries, including women, the poor and vulnerable groups.

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<sup>28</sup> Project completion report format available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

## IX. ANTICORRUPTION POLICY

ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Project.<sup>29</sup> All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all Project contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the Project.<sup>30</sup>

To support these efforts, relevant provisions are included in the loan agreement, project agreement and the bidding documents for the Project. In particular, all contracts financed by ADB in connection with the Project will 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.

Furthermore, the Project intends to maximize transparency, as described in Section VIII. E above. Full information disclosure and participatory monitoring at both the central and the local levels are expected to be effective in reducing the risk of corruption and improving governance at central and local levels.

The PCO will prepare a grievance redress mechanism, acceptable to ADB, and ensure that there is appointed an officer, with the requisite capacity, in each PIU to receive, resolve or act upon, both independently and expeditiously, complaints or grievances or reports from stakeholders on misuse of funds and other irregularities relating to the Project or the specific Subprojects in the Municipalities, including but not limited to grievances due to resettlement. Each PIU shall inform stakeholders of their right to submit complaints or grievances relating to the Project.

The Commission for the Investigation of Abuse of Authority (CIAA) may investigate any irregularities in the Project. This includes financial irregularities, as well as corruption of government officials and officers and employees of autonomous bodies.

Project-specific measures to enhance governance and prevent corruption, designed with the stages of project implementation and the disbursement chain in mind, include (i) the requirement for PCO and PIUs to follow government rules and procedures for all expense and revenue items including cash and the proper and accurate maintenance of financial records; and (ii) establishing a project website at PCO to provide transparency on project details including procurement.

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<sup>29</sup> Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

<sup>30</sup> ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

## **X. ACCOUNTABILITY MECHANISM**

People who are, or may in the future be, adversely affected by the project may address complaints to ADB, or request the review of ADB's compliance under the Accountability Mechanism.<sup>31</sup>

## **XI. RECORD OF PAM CHANGES**

The first draft of PAM has been prepared and agreed upon at the loan fact-finding.

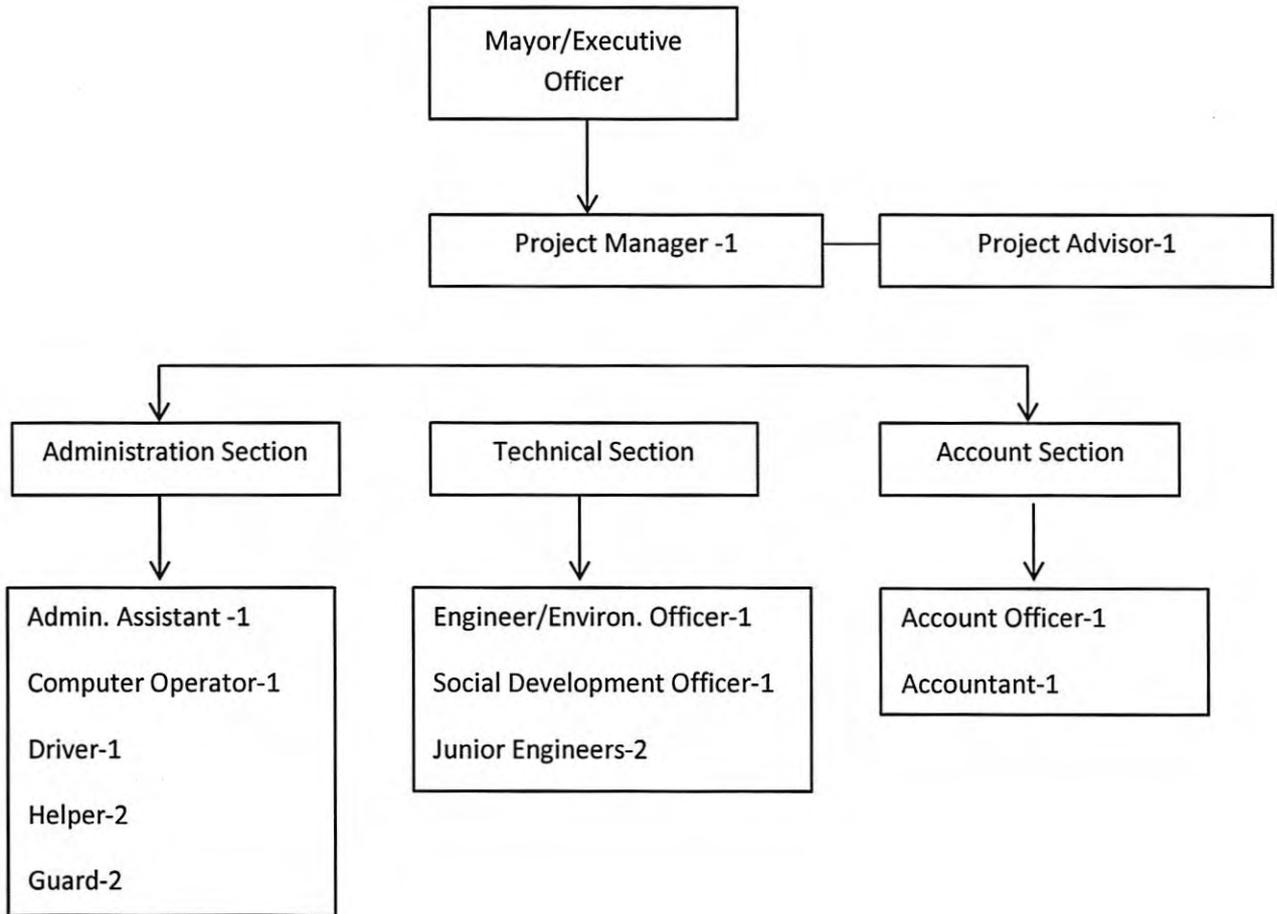
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<sup>31</sup> For further information see: <http://compliance.adb.org/>.

## **List of Annexes**

- A. Procurement Plan
- B. Draft Outline Terms of Reference for the Project Management Support Consultant
- C. Draft Outline Terms of Reference for the Design and Supervision Consultant
- D. Draft Outline Terms of Reference for the Institutional Development Consultant for Kavre Valley Water Supply Management Board
- E. Draft Outline Terms of Reference for the Local NGOs
- F. Project Design and Monitoring Framework

**ORGANOGRAM OF PROJECT IMPLEMENTATION UNIT OF STIUEIP  
IN MUNICIPALITIES**



## PROCUREMENT PLAN

<b>Project Name:</b> Secondary Towns Integrated Urban Environmental Improvement Project <b>Loan Amount:</b> \$60 million <b>Date of first Procurement Plan:</b> 20 May 2010	<b>Loan Number:</b> <b>Executing Agency:</b> Ministry of Physical Planning and Works (MPPW), Government of Nepal <b>Date of this Procurement Plan:</b> 20 May 2010
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### 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.

Method	Procurement of Goods and Works 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)	Community Participation in Procurement

#### 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	Arrangement will be reviewed later.
National Competitive Bidding Goods	Prior	Arrangement will 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
Biratnagar Sewerage and Drainage Network, WWTP, RBT, Road and Lanes	\$21.32 million	International Competitive Bidding	Yes	Q1/2012	Civil works contract, includes electromechanical equipment for WWTP
Birgunj Sewerage and Drainage Network, WWTP, Roads and Lanes	\$26.15 million	International Competitive Bidding	Yes	Q1/2012	Civil works contract, includes electromechanical equipment for WWTP
SWM (landfill) for Birgunj	\$1.84million	International Competitive Bidding	No	Q1/2012	Civil works contract
SWM (landfill) for Butwal	\$1.73million	International Competitive Bidding	No	Q1/2012	Civil works contract
Infrastructure Facilities for Auto-Village Butwal	\$2.51million	International Competitive Bidding	No	Q4/2011	Civil works contract
Water Supply Subproject for Kavre Valley	\$8.56million	International Competitive Bidding	Yes	Q4/2010	Civil works contract
Water Supply Subproject for Butwal	\$1.98million	International Competitive Bidding	No	Q1/2012	Civil works contract

Q = quarter, RBT = reed bed treatment plant, SWM = solid waste management, WWTP = wastewater treatment.

### 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 Support Consultant <sup>1</sup>	\$1.05 million	QCBS (80:20)	Q2/2010 (Advance contracting)	National	One contract with the firm
Project Management Support	\$0.48 million (total)	ICS	Q2/2011	International	3-4 contracts

<sup>1</sup> A Country Procurement Assessment Report (CPAR) of the World Bank indicated the updated threshold for a national consultants' package in Nepal as of Feb 2008 as \$300,000. However, this ceiling will not apply to this package because of the nature and complexity of the assignment: inputs of this assignment are more of simplified routine job to assist the EA during the implementation period over 5 years. Moreover, provision of 3-4 international individual consultant inputs is planned to ensure proper implementation of the project. Therefore, the use of national consultants for this package is considered acceptable.

General Description	Contract Value	Recruitment Method	Advertisement Date (quarter/year)	International or National Assignment	Comments
Consultant					
Design and Supervision Consultants: one contract for each PIU	\$1.61 million (Biratnagar) \$2.00 million (Birgunj) \$1.20 million (Butwal) \$0.50 million (Kavre)	QCBS (80:20)	Q2/2010 (Advance contracting)	International for Birgunj, Butwal and Biratnagar, and national for Kavre	4 contracts
Institutional Development Consultant for Integrated Kavre Valley Water Supply Scheme	\$0.3 million	QCBS (80:20)	Q2/2010 (Advance contracting)	National	One contract with the firm
Local NGO for each project municipality	\$0.19 million (Biratnagar) \$0.21 million (Birgunj) \$0.18 million (Butwal)	QCBS(80:20)	Q2/2010 (Advance contracting)	National	3 contracts

ICS = individual consultant selection, NGO = non government organization, PIU = project implementation unit, 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
Procurement of equipment and vehicles for SWM for Birgunj	\$0.32million	1	NCB	
Procurement of equipment and vehicles for SWM for Butwal	\$0.97million	1	ICB	
Vehicles for the PCO	\$0.06 million	1	Shopping	2 vehicles (4-wheeler)
Office equipment for the PCO	\$0.01 million	1	Shopping	
Vehicles for PIUs	\$0.04 million each	4	Shopping	1 vehicle (4-wheeler) and 4 motorbikes each
Office equipment for PIUs	\$0.01 million each	4	Shopping	
Institutional Development Consultant for Integrated Kavre Valley Water Supply Scheme	\$0.03 million (total)	2-3	ICS	
small-scale infrastructure in each Project municipality	\$1.56 million (total)	multiple	Community Participation in Procurement	Multiple contracts to the community user groups in the 3 Project municipalities

ICB= International Competitive Bidding, ICS = individual consultant selection, NCB = National Competitive Bidding, NGO = non-government organization, PCO = project coordination office, PIU = project implementation unit, QCBS = quality and cost-based selection, SWM = solid waste management.

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
<b>Goods</b>					
Procurement of equipment and vehicles for SWM for Birgunj	\$0.32million	1	NCB	No	
Procurement of equipment and vehicles for SWM for Butwal	\$0.97million	1	ICB	No	
Vehicles for the PCO	\$0.06 million	1	Shopping	No	
Office equipment for the PCO	\$0.01 million	1	Shopping	No	
Vehicles for PIUs	\$0.04 million each	4	Shopping	No	
Office equipment for PIUs	\$0.01 million each	4	Shopping	No	
<b>Works</b>					
Biratnagar Sewerage and Drainage Network, WWTP, RBT, Road and Lanes	\$21.32 million	1	ICB	No	
Birgunj, Sewerage and Drainage Network, WWTP, Roads and Lanes	\$26.15 million	1	ICB	No	
SWM (landfill) for Birgunj	\$1.84million	1	ICB	No	
SWM (landfill) for Butwal	\$1.73million	1	ICB	No	
Infrastructure Facilities for Auto-Village Butwal	\$2.51million	1	ICB	No	
Water Supply Subproject for Kavre Valley	\$8.56million	1	ICB	No	
Water Supply Subproject for Butwal	\$1.98million	1	ICB	No	
small-scale infrastructure in each Project municipality	\$1.56million (total)	Multiple	Community Participation in Procurement	No	Multiple contracts to the community user groups in the 3 Project municipalities
<b>Consulting Services</b>					
Project Management Support Consultant	\$1.05 million	1	QCBS (80:20)	Simplified	
Project Management Support Consultant	\$0.48 million (total)	3-4	ICS	Bio-data	

General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable	Comments
Design and Supervision Consultant: One for each Project Municipality	\$1.61 million (Biratnagar) \$2.00 million (Birgunj) \$1.20 million (Butwal) \$0.50 million (Kavre)	4	QCBS (80:20)	Simplified	
Institutional Development Consultant for Integrated Kavre Valley Water Supply Scheme	\$0.3 million	1	QCBS (80:20)	Simplified	
Institutional Development Consultant for Integrated Kavre Valley Water Supply Scheme	\$0.03 million (total)	2-3	ICS	Bio-data	
Local NGO for each project town	\$0.19 million (Biratnagar) \$0.21 million (Birgunj) \$0.18 million (Butwal)	3	QCBS (80:20)	Simplified	

ICB= International Competitive Bidding, ICS = individual consultant selection, NCB= National Competitive Bidding, NGO = non-government organization, PCO = project coordination unit, QCBS = quality and cost-based selection, RBT = reed bed treatment plant, SWM = solid waste management, WWTP = wastewater treatment.

## **DRAFT OUTLINE TERMS OF REFERENCE FOR PROJECT MANAGEMENT SUPPORT CONSULTANT**

### **I. INTRODUCTION**

1. The Project Management Support Consultant (PMSC) will be engaged to provide support to the central Project Coordination Office (PCO) established under the Department of Urban Development and Building Construction (DUDBC) in overall planning, risk management, implementation, monitoring and evaluation of the Project. The PMSC will also assist the PCO in meeting the relevant requirements of Asian Development Bank (ADB), Town Development Fund (TDF) and the Government for Project implementation.

2. The primary functions of the PMSC will be the following:

- (i) Build capacity of the PCO on a sustained basis in planning and managing the Project;
- (ii) Assist the PCO in reviewing the design and procurement documents prepared by the Project Implementation Units (PIUs), Design and Supervision Consultants (DSCs) engaged by the PIUs, other consultants and NGOs, and recommend for approval;
- (iii) Develop uniform working procedures, guidelines, manuals, quality assurance and quality control system for the smooth implementation of all subprojects in the Project municipalities with DSC's support;
- (iv) Review the design criteria and standards prepared by the DSCs and ensure their uniformity for all Project municipalities and construction supervision of the subprojects;
- (v) Provide guidance to the DSCs on activities during the detailed design, construction supervision and post construction phases;
- (vi) Prepare and implement the Project Performance Management System (PPMS) for the Project;
- (vii) Provide all necessary support to the PCO on its project management, including risk management, cost control, scheduling, monitoring, auditing, reporting, and compliance monitoring for the Project required under both the Government and ADB rules and guidelines;
- (viii) Provide all necessary support to the PCO in communicating with the Project Steering Committee (PSC), TDF, various concerned ministries and government departments as needed, PIUs, ADB, Municipal Project Management Committee (MPMC), municipal boards, and all other relevant stakeholders; and
- (ix) Provide guidance to the DSCs, through PCO, on preparing tools/ manuals for, and training and capacity building of the implementing agencies (IAs) for the long-term operational sustainability of the infrastructure created under the Project.

3. The PMSC is expected to commence its services by February 2011 and carry out the activities during the following Project phases: (i) Detailed design and procurement assistance phase, and (ii) Construction management and post construction management phase. While the first phase is expected to take between 6 months to 1 year depending on the subproject, as indicated in the Project Schedule, the second phase is estimated to take 2.5 years.

4. Separate consultants will assist the Project municipalities in the design and construction supervision of the subprojects, namely DSCs<sup>1</sup>. Similarly, local NGOs will also be separately engaged under the Project by the PIUs to assist the implementation of community development program (CDP) including public awareness-raising programs to provide health and hygiene education, promotion of household and/or community level 3R (reduce, reuse, recycle) activities, implementation of Gender Equality and Social Inclusion (GESI) action plan, etc. Separately, Institutional Development Consultants (IDC) for the Kavre valley water supply subproject will be engaged by the Kavre PIU.

## **II. SCOPE OF WORKS**

5. The scope of services of the PMSC will include but not necessarily be limited to the following:

### **1. Detailed Design and Procurement Assistance Phase**

#### **A. Orientation of PCO Establishment of Procedures and Systems and Completion of Subproject Agreements**

- (i) Design, manage and conduct trainings to the PCO, and other key project stakeholders as advised by the PCO, in project implementation regarding information on the Project's objectives, subprojects, procedures for management, procurement, accounting, administration, reporting, PPMS, and relevant ADB's as well as Government's rules and requirements;
- (ii) Assist and advise the PCO in setting up and updating project accounting procedures, information management systems, cost records, etc;
- (iii) Assist the PCO in preparing procedures and guidelines, if required, for procurement of services, works and equipment;
- (iv) Guide the DSCs' works in scheduling and prioritizing critical surveys, review the survey reports and verified feasibility design documents prepared by the DSCs and recommend for approval of the same to the PCO as appropriate;
- (v) Support PCO in preparing necessary project appraisal and risk management reports, which may be used for TDF in the agreements with municipalities as per its requirements. This may include reviewing the technical, financial & socio-economic study/ appraisal reports prepared by the DSCs, including risk mitigation measures during the construction and post-construction phases of the projects, institutional arrangement, cost recovery for O&M, loan repayment by each municipality, etc;
- (vi) Assist the PCO in completing the following agreements for subproject implementation: (a) an agreement among the three parties (PCO, municipalities and TDF) specifying, among other things, the amount of contribution from each party, the proposed level of tariff and/or other charges to be collected by municipalities, the commitment of municipalities to recover payment and repayment, O&M expenditures, replacement, and future expansion, before the bid announcement; and (b) a subloan agreement between the TDF and municipalities before the contract award.

#### **B. Preparation of Manuals and Guidelines**

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<sup>1</sup> There will be 3 DSCs engaged by and reporting to each of the Biratnagar, Birgunj and Butwal PIUs. For Kavre valley water supply works, detailed design will be carried out under the ongoing Ln1966-NEP Urban Environmental Improvement Project, therefore only construction supervision support will be required under the Project.

- (i) Provide guidelines to, and review the design criteria and standard specifications for civil, mechanical, and electrical works prepared by, the DSCs so as to ensure the highest standards of quality in design and construction and uniformity in all Project municipalities;
- (ii) Review the Quality Assurance and Quality Control (QA & QC) Plans prepared by the DSCs, and ensure uniformity for implementation of subprojects in all Project municipalities;
- (iii) Review and ensure uniformity of the Safety Manuals submitted by the DSCs to be followed on each construction site so as to enforce safety of construction workers, engineers, and citizens;
- (iv) Prepare, in consultation with the DSCs, guidelines for preparation of bid documents: procedure for invitation, receipt, evaluation, approval of bids and award of contracts, standard bidding documents, standard contract forms, and standard templates for bid evaluation reports etc. as per ADB procedures;
- (v) Prepare, in consultation with the DSCs, guidelines for contract administration for day to day contract administration requirements such as measurement of works; certification and payment of contractors' bills, release of retention money; approval of variation, time extension and contractors' claim, issue of completion certificate, financial closure of contract; management during the Defects Liability Period (DLP) etc, and to use it in administration of contracts by the PIUs;

**C. Review of Detailed Engineering Design and Procurement Documents**

- (i) Prepare the standard construction management system, in consultation with the DSCs, to be followed by contractors at construction sites comprising important components such as planning of activities (work plan), procurement of construction material and equipment; construction methodology; deployment of construction machinery, deployment of workers, deployment of funds, etc;
- (ii) Assist the PCO in reviewing and verifying all changes in preliminary design and costs submitted by the DSCs arising from the detailed surveys conducted if any;
- (iii) Assist the PCO in reviewing the proposed PPP modalities in different subprojects prepared by the DSCs;
- (iv) Assist the PCO in reviewing detailed financial assessments and tariff structures for different subprojects conducted by the DSCs;
- (v) Establish a system in PMSC to proof-check all structural designs prepared by the DSCs;
- (vi) While reviewing the detailed designs, ensure that the DSCs have carried out a concept plan in order to ascertain/ identify the overall flow capacities, needs and catchment conditions, so that any physical intervention in sewerage and drainage in the municipalities is in line with the receiving catchment capacity and long-term planning requirement of the towns, and will not lead to overflows/flooding in other parts of the municipalities or redundancy of the constructed drains in future;
- (vii) Assist the PCO in reviewing/proof checking/verifying all detailed design reports, bidding documents, specifications, construction drawings, bid evaluation reports, award of contracts, etc; and
- (viii) Assist the PCO in setting out procedures for third party inspection of the material to be procured for execution of the Project, including preparing the list of materials for such inspection in advance, witness of material procured and review of material received.

#### **D. Establishment and Implementation of PPMS**

- (i) Assist the PCO in setting up the PPMS for the Project as per agreement with ADB;
- (ii) Develop Computerized Subprojects Monitoring System and Contract Ledger including work plans for all stages (feasibility, design, and construction) of all subprojects; monitor and analyze regularly the physical and financial progress; recommend ways to accelerate project implementation; assess reasons for delay and identify measures for improvement;
- (iii) Assist the PCO with the implementation of PPMS, guide and review the collection of baseline data by the DSCs and in subsequent monitoring and evaluation; and
- (iv) Continuously monitor progress of the project as per the PPMS, prepare regular progress reports identified in the PPMS, and based on the progress reports take appropriate corrective action.

#### **E. Monitoring of CDP and GESI Action Plan**

- (i) Prepare, and integrate in the project, indicators related to gender, social inclusion and poverty as required, and assist and guide the DSCs to integrate gender, social inclusion and poverty related indicators and variables in all surveys and designs to be carried out under the Project;
- (ii) Review, and consolidate for the overall Project for monitoring purposes the detailed GESI Implementation Plans prepared by the DSCs based on GESI Action Plan;
- (iii) Review community mobilization guidelines, and relevant training materials prepared by the DSCs, and ensure uniformity in their approach in all Project municipalities;
- (iv) Orient and guide the PCO, DSCs, NGOs and PIUs including their Social Development Specialists and/or units on all social issues such as gender mainstreaming and social inclusion in project with focus on GESI Action Plan, community mobilization and monitoring requirements, as and when needed;
- (v) Review all training programs under the Project to ensure they are gender-sensitive, and arrange gender awareness seminars for PCO staff;
- (vi) Prepare guidelines for the implementation of the CDP and train the DSCs' social development advisors and PIUs' social development units/ advisors on the same;
- (vii) Assist the PCO in all project reviews and in field monitoring to ensure results from gender and social aspects as required; and
- (viii) Prepare progress reports for the PCO from poverty and social dimension with relevant data and information against GESI indicators included in the design and monitoring framework for the Project and update the overall GESI implementation plan for the Project with help from DSCs.

### **2. Construction Management and Post Construction Management Phase**

#### **A. Overall Project Management and Monitoring<sup>2</sup>**

- (i) Provide overall management support to the PCO in planning, implementing, managing and monitoring all Project related activities;

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<sup>2</sup> These also refer to tasks to be carried out by the PMSC during all phases of the Project wherever applicable;

- (ii) Assist the PCO in developing formats to be used for all reports and submissions including the statement of expenditures, withdrawal applications required during the Project implementation, in preparing the reports and in obtaining approvals from ADB and relevant Government agencies;
- (iii) Review detailed work plan and implementation schedule prepared by the DSCs for project monitoring purposes covering all stages of the implementation process for each subproject to ensure effective project monitoring and timely project outputs;
- (iv) Regularly update the consolidated and overall implementation schedule for the Project, recommend ways to accelerate Project implementation, assess reasons for delay and identify means for improvement;
- (v) Assist the PIUs, through the PCO, in developing tools for monitoring subprojects, such as work plan, micro planning of the activities, material, man power, machinery, cash flow, etc., for satisfactory performance of the subprojects;
- (vi) Assist the PIUs, through the PCO, in carrying out performance evaluation of the DSCs and NGOs and give regular feedback for timely corrective action;
- (vii) Provide proactive advise to the PCO on all project-related issues, including policy issues, loan covenants and special conditions;
- (viii) Assist the PCO in reviewing, give suggestions for improvement, and recommend for approval as appropriate on, all reports submitted by the DSCs and NGOs during all phases of the project, and establish an efficient system for doing the same in PMSC;
- (ix) Assist the PCO in establishing, updating and managing an appropriate information management system for the Project;
- (x) Assist the PCO and PIUs in establishing a proper financial accounting and control system for subprojects in each municipality and for the entire Project in PCO and the PIUs to ensure accurate and timely report submissions, and to ensure smooth funds flow from ADB/Government/TDF/Municipalities/ PIUs to the subprojects and contractors;
- (xi) Regularly undertake visits of subprojects sites, oversee the works and guide the DSCs, contractors and the NGOs on the Project activities and works, and provide concrete suggestions to PCO for improvement on the same if required; and
- (xii) Provide continuous training and guidance to the PCO and PIUs in project formulation, management, monitoring and evaluation, financial and environmental management aspects, and community participatory approaches of the Project.

## **B. Environmental and Social Safeguards Compliance Monitoring**

- (i) Assist the PCO to establish a system to monitor social and environmental safeguards of the project; prepare indicators for monitoring important parameters of safeguards;
- (ii) Assist the PCO to ensure compliance with all Government rules and regulations regarding forest and environmental permits and clearances;
- (iii) Take proactive action to anticipate the potential environmental impacts and resettlement requirements of the project to avoid delays in implementation;
- (iv) Assist the PCO in reviewing all environmental and social safeguards documents, such as IEEs, EIAs and Resettlement Plans prepared by the DSCs;
- (v) Assist the PCO in reviewing, monitoring and evaluating the effectiveness with which the Resettlement Plans and the Environmental Management Plans and

- other safeguards requirements are implemented, and recommend necessary corrective actions to be taken;
- (vi) Assist PCO/ PIUs in monitoring implementation of land acquisition in the Project municipalities in accordance with the Resettlement plan for the subprojects;
  - (vii) Consolidate/ prepare, with assistance from the DSCs and NGOs, monthly and quarterly environmental and social compliance reports for all works in accordance with the EIA, EMP and RP for each of the subprojects and the overall Project;
  - (viii) Assist the PCO in consolidating all monthly and quarterly reports and submitting annual safeguard monitoring report to ADB; and
  - (ix) Provide training programs to the PCO, PIUs, DSCs, NGOs and construction contractors involved in the project implementation for strengthening their capacity in managing and monitoring environmental and social safeguards.

**C. Capacity Building of the Municipalities and Service Providers for Operational Sustainability**

- (i) Conduct needs/gaps assessment and advise the PCO, TDF and the PIUs in implementing the follow-up activities/ recommendations provided by the CDTA<sup>3</sup>, with support from the DSCs, on the administrative, financial, managerial and organizational aspects of the Project municipalities that will have direct impact on the operational sustainability of the infrastructures created under the Project;
- (ii) Provide recommendations to the municipalities and other concerned service providers, if required and with support from the DSCs, for the best/sustainable arrangement for the O&M of physical systems created under the Project; and
- (iii) Assist the PIUs, through the PCO, in ensuring that the DSCs provide sufficient training and support to the municipalities in preparing for effective operations and maintenance of the system prior to the commissioning of the newly constructed systems under the Project and thereafter as required.

**III. COMMUNICATIONS AND REPORTING**

- (i) Assist the PCO in disseminating information on the Project, on aspects such as design, cost estimates, role and responsibilities of various stakeholders, etc, as per ADB's public communication and other policies and the Government procedures as prescribed by the Project authorities;
- (ii) Assist the PCO in preparing, with support from the DSCs and NGOs, monthly and quarterly progress reports for submission on work progress against the agreed timelines, compliance monitoring and other issues under the Project;
- (iii) Assist PCO to conduct regular meetings with the PIUs, DSCs, other consultants and NGOs working in the field to discuss progress and issues related to implementation, and prepare minutes for recording and circulation;
- (iv) Prepare, with support from the DSC and NGOs, all necessary documents for progress reviews, and a comprehensive mid-term review, to be conducted by the Government and ADB at various intervals according to the Project documents and agreements with the Government.
- (v) The following constitute a minimum reporting requirement for the PSMC:

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<sup>3</sup> CDTA to Nepal for Institutional Strengthening of Municipalities. Manila, 2009.

**Table 1: Minimum Reporting Timing and Output Details**

1. Reports	2. Timeline	3. Description
1. Inception report	3 Months from mobilization	<ul style="list-style-type: none"> <li>▪ Detailed work plan and schedule</li> <li>▪ Preliminary assessment of the outputs required and action plan on them, including review of existing situation and information</li> </ul>
2. Monthly progress reports and quarterly progress reports	10 <sup>th</sup> day of every month	<ul style="list-style-type: none"> <li>▪ Progress on delivery of each of the outputs</li> <li>▪ Key issues and constraints</li> <li>▪ Updated project schedule</li> <li>▪ Any changes in project design and details</li> </ul>
3. Interim report	Halfway through the contract period	<ul style="list-style-type: none"> <li>▪ Progress report on each of the subprojects and all other outputs, verified cost estimates after detailed design, verified detailed design reports and tender documents for all major subprojects, update on compliance with ADB loan covenants, etc</li> <li>▪ Issues and constraints</li> </ul>
4. Annual progress report	30 July of each year	<ul style="list-style-type: none"> <li>▪ Summary of reporting requirements outlined above for all aspects of works and activities under the Project</li> </ul>
5. Draft Final Report	On the specified delivery date	<ul style="list-style-type: none"> <li>▪ Detailed draft final report for outputs, including status reports of all design and construction works, issues, all deliverables under the contracts, etc.</li> </ul>
6. Final report	One month prior to contract completion date	<ul style="list-style-type: none"> <li>• Draft Project completion report, and summary of all other reports, progress and issues under the Project, summary of annual progress reports and PPMS; and</li> <li>• Completed PPMS</li> </ul>

#### IV. INDICATIVE STAFFING

6. The personnel requirement for the PMSC for the scope of works as outlined above is estimated to be as follows:

**Table 2: Indicative Staffing Requirement**

<b>Key Professional Staff<sup>4</sup></b>	<b>Person-Months</b>
Team Leader/ Municipal Engineer with experience in urban planning	57
Deputy Team Leader/ Sewerage and Drainage Engineer	57
Procurement Specialist	15
Financial Management Specialist	15
Economist	12
Structural Specialist	15
Roads Specialist	12
Water Supply Specialist	15
Solid Waste Management Specialist	20
Sewage Treatment Specialist	15
Environment Specialist	24
Social Development Specialist	30
PPP Specialist	5
Project Management Specialist (Monitoring and Evaluation)	24
Unallocated	12
<b>Total</b>	<b>328</b>

7. Additionally, the PCO will engage, as individual consultants or panel of experts, international consultants for 20 person-months in total to review specialized technical submission from the DSCs. This may include International PPP Specialist to assist in drafting legal documents for the selected PPP contract/ modality, Drainage and Sewerage Specialist to review drainage and sewerage detailed design reports, Solid Waste Management Specialist to review solid waste management detailed design reports, etc.

<sup>4</sup> All staff are proposed to be national.

## **DRAFT OUTLINE TERMS OF REFERENCE FOR DESIGN AND SUPERVISION CONSULTANTS**

### **I. INTRODUCTION**

1. Design and Supervision Consultants (DSCs) will be engaged to provide services in completing all feasibility (for subprojects for which feasibility studies are not available), detailed design and construction management activities involved with the Project, and in particular under the following subprojects (i) improvement and development of drainage and sewerage systems in Biratnagar and Birgunj, (ii) improvement of urban roads and lanes in Biratnagar and Birgunj, (iii) improvement of solid waste management systems in Birgunj and Butwal, (iv) expansion of water supply systems in the Kavre valley and Butwal, and (v) improvement of other infrastructure facilities in Butwal.

2. The DSCs<sup>1</sup> will work under the overall guidance and control of the Project Implementation Units (PIUs) established under the four implementing agencies – Biratnagar, Birgunj, Butwal and Kavre valley municipalities. The DSCs will, through the PIUs, also report to Project Coordination Office (PCO) which will guide, supervise and monitor the overall Project implementation and assist the PIUs in reviewing all technical and other submissions from the DSCs.

3. Separate consultants will assist the Government in overall management and implementation of the Project, namely Project Management Support Consultant (PMSC). Similarly, three NGOs for each of the Project municipalities and an Institutional Development Consultant (IDC) for the Integrated Kavre Valley Water Supply Scheme will also be engaged separately under the Project. Local NGOs will assist the implementation of community development program (CDP) including public awareness-raising activities to provide health and hygiene education, promotion of household and/or community level 3R (reduce, reuse, recycle) activities, skills training for the poor, gender sensitization, etc. The DSCs will provide all necessary support to and coordination with these consultants and the NGOs to achieve the desired outcomes of the Project.

4. The DSCs are expected to commence their services by February 2011 and carry out the activities, as outlined in the next section, during the following Project phases: (i) Detailed design and procurement assistance phase, and (ii) Construction management and post construction management phase. While the first phase is expected to take between 6 months to 1 year depending on the subproject, as indicated in the Project Schedule, the second phase is estimated to take 2.5 years. It is expected that the DSCs may conduct these in parallel for different subprojects to complete the tasks expeditiously.

### **II. SCOPE OF WORKS**

5. The scope of services of the DSC will include but not necessarily be limited to the following:

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<sup>1</sup> There will be 3 DSCs engaged by and reporting to each of the Biratnagar, Birgunj and Butwal PIUs. For Kavre valley water supply works, detailed design will be carried out under the ongoing Ln1966-NEP Urban Environmental Improvement Project, therefore only construction supervision support will be required.

## **A. Detailed Design and Procurement Assistance Phase**

### **1. Surveys, Verification of Feasibility Studies and GIS Basemaps**

- (i) Review all available primary and secondary data and reports collected during the PPTA and identify requirements for further surveys, studies and investigations;
- (ii) Schedule and prioritize critical surveys in such a way that the detailed engineering designs can be carried out efficiently and expeditiously;
- (iii) Carry out all the required engineering surveys and investigations such as topographical surveys, total station survey, geo-technical investigation, soil survey, leak detection survey, construction material survey, ground water investigation, i.e. hydro-geological investigations, rainfall data collection, identification of underground utilities, solid waste sampling and analysis, etc. as applicable to the subproject in the town. All surveys and investigations shall be accurate and plotted for review of the PIUs;
- (iv) Review and verify all existing secondary information, preliminary designs and technical data, documents and maps prepared/ collated during the feasibility studies for the subprojects under the PPTA; and
- (v) Assist the PIUs in reviewing the GIS basemaps prepared under the CDTA, and undertake necessary updates with respect to the subprojects in the municipalities<sup>2</sup>.

### **2. Finalization of Design Criteria and Preparation of Manuals, Guidelines, and Systems<sup>3</sup>**

- (i) Review, verify and propose recommended design criteria and standards to be adopted for all subproject detailed designs based on the ones used by the PPTA, as well as other ADB funded urban projects in Nepal, such as Loan 1966-NEP Urban and Environmental Improvement Project (UEIP), relevant government and international standards and the ones used by other donor funded projects;
- (ii) Prepare, following the guidelines provided by the PCO if any, standard specifications for civil, mechanical, and electrical works based on the best International/National practices, and use these in the subprojects so as to ensure the highest standards of quality in design and construction;
- (iii) Prepare Quality Assurance and Quality Control (QA & QC) Plan outlining a consistent, comprehensive and uniform system of quality assurance and quality control of the subprojects in the municipality including but not limited to systems of checks and reviews, description of type, frequency and procedures of on-site as well as laboratory tests and inspections etc;
- (iv) Prepare, in consultation with PMSC and PIUs, safety manual to be adopted during implementation on each construction site so as to enforce safety of construction workers, engineers, and general public;
- (v) Support PIUs in preparation of bid documents;
- (vi) Support PMSC in preparation of contract administration guideline delineating procedures and assigning responsibilities at various competent levels for day to day contract administration requirements such as measurement of works, certification and payment of contractors' bill; release of retention money; approval

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<sup>2</sup> The GIS basemaps will be one of the outputs of the *CDTA to Nepal for Institutional Strengthening of Municipalities*. Manila, 2009. The CDTA consultants will handover the completed GIS basemaps to municipalities.

<sup>3</sup> Unless otherwise mentioned all design reports, manuals and guidelines prepared by the DSCs will be submitted for approval to the relevant PIU and the PCO.

of variation, time extension and contractors' claim; issue of completion certificate; financial closure of contract; management during defects liability period etc. and to use it in administration of contracts;

- (vii) Support the PIUs to implement the construction management system for the Project as advised by the PCO;
- (viii) Prepare, in consultation with the PMSC and PIUs, operations manual in a user-friendly language and format (usable by the municipalities and government departments/ bodies responsible for concerned service delivery) for carrying out operations and maintenance (O&M) of various systems developed during the Project.
- (ix) Assist the PIUs to circulate the manuals and guidelines to the relevant stakeholders and organize training workshops early in the Project to ensure their proper and effective use for improving the quality of implementation.

### **3. Specific Design Requirements for the Subprojects**

#### **(i) Improvement and development of drainage and sewerage systems in Biratnagar and Birgunj:**

- a. Undertake location and condition surveys of all existing major sewers and stormwater drains, including where constructed but not commissioned; Conduct specific topographical survey throughout the proposed alignments and geo-technical investigations at required locations for collecting information necessary for engineering design and update the GIS basemaps prepared under the CDTA;
- b. Identify major wastewater producers and pollution sources that may require additional treatment prior to discharge to the public sewer, and in consultation with appropriate authorities, recommend actions required<sup>4</sup>, and organize household wastewater sampling and analysis, to determine the concentration and volume of wastewater presently being discharged;
- c. While conducting detailed design of the sewerage and drainage systems, the DSCs must prepare a concept plan for the entire watershed in order to ascertain the overall flow capacities, needs and catchment conditions, so that any physical intervention in sewerage and drainage in the municipalities is in line with the receiving catchment capacity and long-term planning requirement of the towns, and will not lead to overflows/flooding in other parts of the municipalities or redundancy of the constructed drains in future. In doing so, the DSC must analyze in detail the existing scenario, identify deficiencies, projected flows and needs for improved sewerage and drainage services with a reasonable time horizon of fifteen years or longer if appropriate,<sup>5</sup>

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<sup>4</sup> A GIS based map conducted in 2007 already exists, outlining all industrial polluters in case of the industrial corridor around Biratnagar. The concerned DSC is expected to update this, and the DSC for Birgunj is expected to produce similar GIS based map in case of Birgunj industrial corridor.

<sup>5</sup> It is expected that the DSCs will mainly consolidate, use mostly existing data to conduct this broad masterplanning exercise, and are expected to conduct appropriate needs assessment so that this exercise does not create any delays in Project progress.

- d. Identify and prepare specifications and contracts for sewer cleaning/ rehabilitation / replacement, as required, for non-functioning but critical sewers and drains in the identified town core areas in order to achieve the project outcomes;
- e. For the Waste Water Treatment Plant(WWTP), plan and organize a 'baseline' sampling and analysis program of the receiving water body, in compliance with any environmental management and monitoring plan;
- f. Determine the potential for private sector participation for the WWTP subproject;
- g. Assess the feasibility of developing CDM for the sewerage subcomponent of the Project; and
- h. As part of the sewerage and drainage concept plan, prepare maps and update the GIS basemap to include major stormwater drains and sewers inventory with contours and easy identification tools of the status of the existing drains/canals and their catchments areas.

**(ii) Improvement of urban roads and lanes in Biratnagar and Birgunj**

- a. Survey conditions of pavement and assess adequacy of drainage system for the identified roads and lanes, including detailed conditions of bridges and other cross drainage structures, if any, on them;
- b. Carry out traffic analysis and provide 10 year forecast for pavement design; and
- c. Ensure that road safety issues identified at design stage are properly addressed during construction and ensure that a road safety audit is undertaken on completion of works.

**(iii) Improvement of solid waste management systems in Birgunj and Butwal**

- a. While conducting the detailed design of the solid waste management systems, the DSC must verify/ analyze in detail the existing scenario of the solid waste sub-sector, identify deficiencies, determine sector objectives and investment needs for improved solid waste services with a reasonable time horizon of fifteen years or longer if appropriate, and update and verify available information on the composition and volume of waste generated from domestic and commercial sources, as well as hospitals and institutions;
- b. Based on the quality and quantity of different types of solid waste carry out a sample survey to assess options for waste reduction, recycling and the demand and market for composting;
- c. Based on the tasks outlined above and GIS basemaps, prepare collection and transportation program including vehicle routing, confirm equipment requirements for the municipalities and prepare specifications for tenders of the same;
- d. Ascertain the preferred options for collection and willingness-to-pay for improved waste collection from households, major markets, commercial centers, and hotels / restaurants;
- e. Carry out environmental impact assessment of proposed sanitary landfill sites and ensure that all environmental clearances are obtained;

- f. Carry out boreholes or other measurements to identify and confirm water table depth and groundwater quality at proposed sites and ensure designs include adequate leachate protection measures;
- g. Determine the potential for private sector participation in waste collection, recycling, transportation and disposal;
- h. Assess the feasibility of developing CDM for the solid waste subcomponent of the Project;
- i. Propose changes in the institutional arrangements, if recommended, for improving collection, transportation and disposal of solid wastes including increased private sector involvement; and,
- j. Design the sanitary landfill in accordance with the overall strategy for the integrated solid waste management system of the municipality.

**(iv) Environmental Improvement in Industrial Area and Expansion of Water Supply Systems in Butwal**

- a. As part of the feasibility assessment of this subcomponent, prepare a broad water supply optimization program for Butwal using the available information, including the water supply distribution network maps and update the same in consultation with NWSC;
- b. Undertake the planning and implementation of a water audit of the water supply system, as part of the broad optimization plan, from source to consumer; and
- c. Assist in the PPP arrangement for the Industrial Area (auto-village) in Butwal.

**4. Project Planning and Management Support to the PIUs**

- (i) Prepare detailed work plan and implementation schedule and submit to PIUs and PCO for approval covering all stages of the implementation process for each subproject from field survey and investigations to the acceptance of finished work to ensure coordination, timely project outputs and minimization of disruption to the general public; and regularly update and monitor the same during all phases of the Project;
- (ii) Outline and seek approval from the PIUs on any changes in preliminary design and costs arising from the detailed surveys conducted, provided that the outputs and outcomes of the Project and the service area delineation agreed in consultation with the beneficiaries remain unchanged;
- (iii) Assist the PIUs in maintaining an appropriate information management system, which may be established with the support of and advice from the PMSC, for the Project;
- (iv) Assist the PIUs in establishing the Project accounting system and in conducting all Project related accounting, reporting and auditing; and
- (v) Assist the PIUs in disseminating relevant findings and documents from the tasks outlined above, and hold meetings with all important stakeholders to achieve written approval on the same.

**5. Detailed Engineering Design**

- (i) Prepare the engineering designs of the subprojects in sufficient detail to ensure clarity and understanding by the PIUs, PCO, PMSC, contractors and other relevant stakeholders. All the design should be in conformity with the best international/national engineering standards;

- (ii) The detailed designs will, as a minimum, include construction drawings, detailed cost estimates, necessary calculations to determine and justify the engineering details for subproject, associated contract documentation to include letter of invitation, conditions of contract, detailed specifications, engineering drawings, bill of quantities (BoQ), implementation schedule, etc. for all sub-projects. The technical specifications should be in accordance with the best international/national practices and should be prepared to achieve the highest standards of quality. For adopting market rates for the detailed cost estimates, proper rate analysis should be carried out. Construction drawings should be prepared with sufficient details to permit contractors to carry out construction work effectively, unambiguously and with the highest standards of quality;
- (iii) The design shall be prepared in close consultation with, and to meet the requirements of, the PCO and PIUs and will be incorporated into a detailed design report to be submitted for approval of the PCO and PIUs;
- (iv) For drainage and sewerage subcomponents, develop a strategy to overcome the difficulties of construction/traffic management in the narrow streets and also prepare detailed plans for detour of traffic during excavation for pipe laying. Propose and implement mechanism for coordination among all stakeholders such as traffic police, roads department, municipalities, etc, for smooth construction execution. Include this strategy with all the bid documents relating to the sewerage and drainage subprojects;
- (v) Carry out financial and economic analysis of the subprojects;
- (vi) Assess and recommend the appropriate level of connection costs and fees, and tariff, taxes or other charges, taking into consideration the issues such as the financial analysis of the concerned subprojects such as water supply, solid waste, sewerage, etc. proportion of the poor in the proposed service area, and the municipality's cash flow, in close coordination with the appropriate regulatory bodies such as Water Supply Tariff Fixation Commission if relevant, and TDF. The DSCs will also consider an appropriate approach to promote connection to the water supply and sewerage system, such as output-based aid;
- (vii) Prepare prequalification, where appropriate, and bid documents using standard ADB bidding documents and specific requirements of each town project, with due consideration to National Competitive Bidding (NCB) and/or International Competitive Bidding (ICB), Shopping (S) etc. Assist PIUs in issuing bid invitation, addendum/corrigendum, and clarifications to the bidders' queries, receiving of bids and evaluation, award of contract and signing of contract;
- (viii) Carry out the EIA/IEE and prepare/update resettlement plans during the detailed design stage in accordance with relevant government rules and regulations and ADB policies;
- (ix) Collect baseline data for the PPMS as advised by the PCO; and
- (x) Assist the PMSC and PCO to set the indicators and carry out all necessary tasks identified by the PPMS for the Project, whose objective is to identify and evaluate the macroeconomic, socio-economic and environmental impact of the Project and ensure that the investment is managed efficiently and that the benefits reach the target groups.

## **B. Construction Management and Post Construction Management Phase**

### **1. Construction Management and Contract Administration**

- (i) Assist the PIUs in supervising and monitoring construction of all subprojects;

- (ii) Assist the PIUs in checking the line level, layout of the construction to ensure conformity with the contract, propose and present for approval any change in the plans that may be deemed necessary indicating any effect the change may have on contract and prepare all change/ variation orders;
- (iii) Assist the PIUs in assessing and enforcing, as per the Standard Construction Management System, the adequacy of contractors' inputs in terms of material, equipments, construction machinery, workers, and construction approach and methodologies;
- (iv) Assist the PIUs in monitoring and enforcing, as detailed out in Safety Manual, the measures taken to ensure safety of the workers, other project personnel, general public and works;
- (v) Furnish detailed drawings, with revisions as necessary, to the contractor;
- (vi) Attend third party inspections if required and provide certification on the quality of the supplies based on such inspections;
- (vii) Assist the PIUs in checking measurement for works completed and in progress, verifying and endorsing bills for payment to the contractors / suppliers by the PIUs, providing certification on the quality of the works accomplished and on their conformity to specifications and drawings;
- (viii) Work as the engineer or employer's representative within the context of conditions of the construction contracts;
- (ix) Regularly monitor physical and financial progress against the milestones as per the contract so as to ensure completion of contract in time;
- (i) Monitor and enforce, as detailed out in Quality Assurance and Quality Control (QA & QC) Plan, the quality of inputs, processes, and outputs during all activities of construction to ensure the highest quality of works conforming to the specifications and drawings;
- (ii) Examine contractors' requests for time extension, variations, additional compensation and claims and recommend appropriate decisions;
- (iii) Assist PIUs in resolution of various other contractual issues and overall contract management; and
- (iv) After physical completion of contract, prepare planned maintenance procedures; check installation and commissioning; monitor preparation of the "as built" drawings.

## **2. Environmental and Social Compliance Monitoring**

- (i) Assist the PIUs in monitoring compliance with the Resettlement Plan and any social development issues identified during feasibility study/detailed design phase in co-ordination with PCO, NGOs and other stakeholders;
- (ii) Assist the PIUs in monitoring compliance with the environmental management plan, EIA and/or environmental mitigation action plan as well as any other environmental issues and take corrective actions where needed;
- (iii) Provide training to the PIUs for environmental management and monitoring during construction and operation;
- (iv) Assist the PIUs in preparing monthly and annual environmental and social compliance reports for all works in accordance with the EMP and RAP for each of the subprojects and the overall Project; and
- (v) Assist the PIUs in cooperating with other development partners and projects, such as the Finland assisted SEAM-N project, to facilitate and achieve the project outcomes.

### **3. Implementation of Community Development Program, Community Mobilization, and GESI Action Plan**

- (i) Ensure that the subprojects design adequately address issues important to women;
- (ii) Ensure that gender issues have adequately been reflected in socio-economic profile, social inclusion plan, community participation and overall Project design;
- (iii) Assist the PIUs in preparing a detailed GESI Implementation Plan for the Project based on GESI Action Plan included in the Project design for all project activities in the concerned municipality including activities and result indicators (with gender, caste/ethnic disaggregated data) for each project components, and incorporate those into project implementation plan and in monitoring formats;
- (iv) Analyse the data from socio economic surveys conducted by the CDTA and prepare the poverty and social mapping for the project areas;
- (v) Prepare criteria and tools in identifying, planning and implementing activities for the NGOs, and guide the NGOs, to maximize community participation, awareness generation, public education with emphasis on water conservation, health & hygiene, etc. in the Project towns;
- (vi) Assist the PIUs in identifying performance monitoring indicators of the NGOs;
- (vii) Design operational guidelines for community mobilization and implementation of the CDP, and orient the NGOs to carry out all activities under them;
- (viii) Develop operational guidelines for implementation of GESI action plan, guide the NGO on the same as per ADB Guidelines ensuring gender mainstreaming, as well as social inclusion in all Project activities, and assist the PIUs in supervising their activities;
- (ix) Assist NGOs in developing and implementing locally relevant training packages;
- (x) Provide training to municipal officials and its social development officer/ unit on gender and social inclusion, GESI implementation plan and community development activities;
- (xi) Work closely with the social development unit of the municipality to strengthen their capacity and build tools for planning and monitoring the social development activities; and
- (xii) Support the PIUs in planning, budgeting, monitoring all activities related to CDP and GESI Implementation Plan.

### **4. Capacity Building of the Municipalities and Service Providers for Operational Sustainability**

- (i) Implement follow-up activities/ recommendations provided by the CDTA, and as advised by the PIUs/ PCO with regards to the selected administrative, financial, managerial and organizational aspects of the municipality and the concerned service providers in implementation as well as O&M of the proposed subprojects and give recommendations for the best management of physical systems created under the Project;
- (ii) Provide recommendations to the PIUs and other concerned service providers in implementation as well as O&M of the proposed subprojects and give recommendations for the best arrangement for sustainable O&M of the physical systems created under the Project; and
- (iii) Provide sufficient training and support to the municipalities in preparing for effective operations and maintenance of the system prior to the commissioning of the newly constructed systems under the Project.

### III. COMMUNICATIONS AND REPORTING

- (i) Assist the PIUs in disseminating information on the Project, on aspects such as design, cost estimates, role and responsibilities of various stakeholders, etc, as per ADB's public communication and other policies and the Government procedures as prescribed by the Project authorities;
- (ii) prepare monthly and quarterly progress reports for submission on work progress against the agreed timelines, compliance monitoring and other issues under the contract to the PIUs and PCO;
- (iii) Conduct regular meetings with the key stakeholders of the Project, as advised by the PIUs, and a bi-weekly meeting with the concerned PIU, NGO and contractors working in the field to discuss progress and issues related to implementation and prepare minutes for recording and circulation;
- (iv) Participate in, and support the PCO/ PMSC/ TDF, PIUs to prepare all necessary documents for, progress reviews and a comprehensive mid-term review, to be conducted by the Government and ADB at various intervals according to the Project documents and agreements with the Government.
- (v) The following constitute a minimum reporting requirement for DSC:

**Table 1: Minimum Reporting Timing and Output Details**

Reports	Timeline	Description
1. Inception report	3 Months from mobilization	<ul style="list-style-type: none"> <li>▪ Detailed work plan and schedule</li> <li>▪ Preliminary assessment of each of outputs required and action plan on them, including review of existing information and system</li> </ul>
2. Monthly progress reports and quarterly progress reports	5 <sup>th</sup> day of every month	<ul style="list-style-type: none"> <li>▪ Progress on delivery of each of the outputs</li> <li>▪ Key issues and constraints</li> <li>▪ Updated project schedule</li> <li>▪ Any changes in project design and details</li> </ul>
3. Interim report for each of the design outputs	Halfway through the indicated design delivery date specified for each of the outputs	<ul style="list-style-type: none"> <li>▪ Verified GIS maps for the project areas</li> <li>▪ Verified preliminary design reports</li> <li>▪ Verified preliminary cost estimates</li> <li>▪ Issues and constraints</li> </ul>

4. Annual progress report	30 July of each year	<ul style="list-style-type: none"> <li>▪ Summary of reporting requirements outlined above for all aspects of works and activities under the Project</li> </ul>
5. Draft final reports for each of the design outputs	1 month prior to the delivery date specified for the design outputs	<ul style="list-style-type: none"> <li>▪ Design reports without the bid documents for the review and approval of the PIUs and PCO, so that final design bid documents can be prepared</li> </ul>
6. Final report on each of the design outputs	On the specified delivery date	<ul style="list-style-type: none"> <li>▪ Detailed final report for output, including engineering specifications, drawings, BOQ, cost estimates, etc. and full tender documents</li> </ul>
7. Final report	One month prior to contract completion date	<ul style="list-style-type: none"> <li>• Summary of all completion reports on all of the design and supervision works managed by the DSC and summary of annual progress reports and PPMS; and</li> <li>• Updated base maps with as built drawings incorporated.</li> </ul>

#### IV. INDICATIVE STAFFING

24. The personnel requirement for the DSC for the scope of works as outlined above is estimated to be as follows:

Table 2: Indicative Staffing Requirement

Professional Staff	Type	Biratnagar DSC (Person-months)			Birgunj DSC (Person-months)			Butwal DSC (Person-months)		
		D&PS	CM	Total	D&PS	CM	Total	D&PS	CM	Total
Sewerage and Drainage Engineer	Int	8	4	<b>12</b>	8	4	<b>12</b>	-	-	-
Sewage Treatment Specialist	Int	5	4	<b>9</b>	5	4	<b>9</b>	-	-	-
Solid Waste Specialist	Int	-	-	-	6	2	<b>8</b>	6	2	<b>8</b>
PPP Specialist	Int	2	-	<b>2</b>	3	-	<b>3</b>	3	-	<b>3</b>
Team Leader/ Sewerage and Drainage <sup>6</sup> Engineer specialized in urban planning	Nat	17	40	<b>57</b>	17	40	<b>57</b>	17	40	<b>57</b>
Sewage Treatment Specialist	Nat	9	24	<b>33</b>	9	24	<b>33</b>	6	2	<b>8</b>
Procurement Specialist	Nat	15	5	<b>20</b>	15	5	<b>20</b>	10	5	<b>15</b>
Quantity Surveyor	Nat	9	-	<b>9</b>	12	-	<b>12</b>	6	-	<b>6</b>
Urban Planner	Nat	9	9	<b>12</b>	9	3	<b>12</b>	4	1	<b>5</b>
Economist	Nat	5	-	<b>5</b>	7	-	<b>7</b>	6	-	<b>6</b>
Solid Waste Specialist	Nat	-	-	-	10	20	<b>30</b>	10	20	<b>30</b>
Institutional Specialist	Nat	4	2	<b>6</b>	5	3	<b>8</b>	3	-	<b>3</b>
PPP Specialist	Nat	4	-	<b>4</b>	6	-	<b>6</b>	6	-	<b>6</b>
Water Supply Specialist	Nat	-	-	-	-	-	-	4	-	<b>4</b>
Water Treatment Specialist	Nat	-	-	-	-	-	-	10	4	<b>14</b>
Roads Specialist	Nat	6	10	<b>16</b>	6	10	<b>16</b>	4	1	<b>5</b>
Civil and Structural Specialist	Nat	6	2	<b>8</b>	8	2	<b>10</b>	4	2	<b>6</b>
Electrical Engineer	Nat	4	-	<b>4</b>	5	1	<b>6</b>	5	1	<b>6</b>
Mechanical Engineer	Nat	4	-	<b>4</b>	5	1	<b>6</b>	5	1	<b>6</b>
Construction Management Specialist	Nat	-	12	<b>12</b>	-	12	<b>12</b>	-	8	<b>8</b>
Environmental Specialist	Nat	10	20	<b>30</b>	14	30	<b>36</b>	8	12	<b>20</b>

<sup>6</sup> Water Supply Specialist for Butwal and Kavre

Professional Staff	Type	Biratnagar DSC (Person-months)			Birgunj DSC (Person-months)			Butwal DSC (Person-months)		
		D&PS	CM	Total	D&PS	CM	Total	D&PS	CM	Total
Social Development Specialist	Nat	10	20	30	10	20	30	8	12	20
Junior Construction Supervision Engineers*2	Nat	-	30	30 <sup>7</sup>	-	48	48	-	42	42
Unallocated	Nat			12			12			12
<b>Subtotal (international)</b>				23			32			11
<b>Subtotal (national)</b>				292			361			279
<b>Total</b>				315			393			290

#### Kavre DSC

##### National Professional Staff

##### Indicative Requirement (person-months)

Team Leader/ Water Supply Engineer Specialized in Construction Management	33
Procurement Specialist	3
Quantity Surveyor	3
Water Treatment Specialist	6
Water Supply Specialist	24
2 Junior civil/ construction supervision engineers	48
Mechanical Engineer	3
Civil Engineer	4
Electrical Engineer	3
Environment Specialist	12
Social Development Specialist	12
Construction Management Specialist	8
Unallocated	6
<b>Total</b>	<b>165</b>

<sup>7</sup> Total for both

## **DRAFT OUTLINE TERMS OF REFERENCE FOR INSTITUTIONAL DEVELOPMENT CONSULTANT FOR KAVRE VALLEY INTEGRATED WATER SUPPLY SCHEME**

### **I. INTRODUCTION**

1. Institutional Development Consultant (IDC) for Kavre Valley Integrated Water Supply Scheme will be engaged by the Project Implementation Unit (PIU) established for the Kavre valley water supply subproject to provide services for the establishment and operationalization of a Water Supply Management Board (the Water Board) for the Kavre Valley Water Integrated Water Supply Scheme in accordance with the Water Supply Management Board Act, 2006.

2. In particular, the IDC will assist the Kavre PIU in the following areas:

- (i) preparing proposal based on the Water Supply Management Board Act, 2006, for establishment of the Water Board;
- (ii) valuating and validating the assets and liabilities of the Nepal Water Supply Corporation (NWSC) and other existing system and preparing a transfer agreement on the same among all concerned parties;
- (iii) preparing all required internal regulations, processes and guidelines for the Water Board including the operating regulation of the Water Board, guidelines and standard operating procedures for the operation and maintenance of the integrated water supply system, staff regulation, etc;
- (iv) preparing a business plan for the initial three years of the Water Board including a staff development and transfer plan;
- (v) preparing for the transition, assisting in the actual integration of the systems and transfer of the assets, operation and maintenance from the existing service providers such as NWSC and various Water Users' Committees (WUCs) operating the systems in Banepa, Dhilikhel and Panauti, and
- (vi) providing start-up support to the Water Board for the first one year of its initial operations.

3. The IDC will work under the overall guidance and control of the PIU at the Kavre valley. While detailed design of the Kavre valley integrated water supply scheme (the Integrated Scheme) is being carried out by consultants engaged under Loan 1966 NEP Urban and Environmental Improvement Project (UEIP). Construction Supervision Consultants will also be engaged by the PIU who will assist the PIU in managing and supervising the construction of the Integrated Scheme. Similarly, separate consultants will assist the Project Coordination Office in the Department of Urban Development and Building Construction in overall management and implementation of the Project, namely Project Management Support Consultant (PMSC).

### **II. SCOPE OF WORKS**

4. The scope of services of the IDC will include but not necessarily be limited to the following:

#### **1. Asset and Liability Valuation and Validation**

- (i) Conduct verification and validation of all fixed assets from the individual systems and the Integrated Scheme;
- (ii) Audit the operational assets, cash balances and inventories. In doing so, identify all operational assets, such as vehicles, furniture/ fixtures, office equipment, cash

- balances, etc. presently being used by NWSC, WUCs and small water supply schemes in all three municipalities;
- (iii) Assess all liabilities including the ones pertaining to the staff (gratuities, pensions etc) and make recommendations to the relevant entities and Water Board on handling them;
  - (iv) Prepare a validation and verification report outlining findings from the above activities, and organize meetings to have the report reviewed and signed by each of the owners for the individual systems, NWSC, WUCs and other small water utilities, as appropriate; and
  - (v) Assist in the verification and physical transfer of all operational assets during the takeover by the Water Board, including operating cash and bank balances.

## **2. Internal Regulation of the Water Board**

5. The IDC will prepare draft regulation for the Water Board, according to the requirements of the Water Supply Management Board Act, 2006. In doing so, the IDC will (i) review the internal regulations of similar Water Boards in Nepal, and (ii) conduct consultations with all relevant stakeholders particularly NWSC staff at the municipality level as well as at NWSC's center office. The IDC will submit the draft to the PIU, incorporate all requested comments after review and assist the PIU in finalizing the draft and submitting to the Government for approval.

## **3. Business Plan for the Water Board**

6. The IDC will prepare a business plan for the first three years of the Water Board, which will assess the organizational and operational needs of the Water Board and outline all systems, organizational structures, business processes, internal procedures, strategies and plans required to be set up in/ for the Water Board in order to ensure its smooth establishment and efficient and sustainable delivery of services in the Kavre Valley.

The business plan will include, as a minimum, the following:

- (i) Initial business policy statements, operation, information and reporting procedures and structures, recommended organizational and managerial set-up;
- (ii) Detailed strategies, structures and resources required for setting up and managing all aspects of the Water Board, such as human resources development, financial management, accounting system, asset management, operations and maintenance management, quality assurance and quality control, computerization and information management system, customer billing and collection system, operational guidelines and procedures, customer service, pro-poor services, etc;
- (iii) Operating guidelines and procedures;
- (iv) Staff development and transfer plan, which will be developed pursuant to the assessment of technical capacity of the existing staff that have been agreed to be transferred to the Water Board, including their positions, grades and level of skills, and needs assessment for any new staff requirement, and assessment of technical and other training needs for the staff to operationalize the system and during the initial operations and management (O&M);
- (v) Recommend organogram for the Water Board, including brief job descriptions for staff at all positions and their proposed levels of delegation of authority; and
- (vi) Assessment of start-up tools, equipment and resources required for the Water Board for the first three years of operations.

#### **4. Staff Regulation**

7. The IDC will prepare a draft by-law or regulation for the staff of the Water Board. In doing so, the IDC will (i) review existing staff regulations of NWSC and other similar water boards and bodies in Nepal; (ii) meet with the existing NWSC and WUC staff to be transferred to the Water Board and (iii) consult closely with the Ministry of Physical Planning and Works and other relevant stakeholders. The IDC will submit the draft to the PIU, incorporate all requested comments after review and assist the PIU in finalizing the draft and submitting to the Water Board representatives for approval. The IDC will assist the PIU in consulting with NWSC staff about their concerns and assessing the capability and performance of existing NWSC staff, and suggest a mechanism of their deployment or other options for an efficient operation of the water supply systems under the Water Board.

#### **5. Transition Preparation and Start-up Support**

8. The IDC will prepare a detailed transition action plan, outlining the actions, timeframes and responsibilities of each entity for all tasks required to be carried out during the actual integration of the system and for the first year of the Water Board's operations of the Integrated Scheme, and assist in the actual transition, start-up and operations of the Water Board for the first year of its operations. The start-up support will include, but not be limited to the following:

##### **Technical**

- (i) Train the relevant staff on all the operating procedures, business processes, guidelines and systems recommended in the approved business plan for efficient O&M of the Integrated System for the first one year;
- (ii) Develop, and train the relevant staff on reporting systems on leak detection, quality control, etc.;
- (iii) Prepare immediately needed consumables, such as chemicals, and spare parts in order to operate and manage the system for the first one year; and
- (iv) Assist in the procurement of the immediately needed consumables and spare parts if required.

##### **Financial**

- (i) Calculate required operating budget for the first year of operations;
- (ii) Prepare the start-up balance sheet for the Water Board;
- (iii) Review the present water tariff structure and mechanism of NWSC and other WUCs and study government's policy on water tariff governed by the Tariff Fixation Commission; and
- (iv) Prepare a tariff proposal for the Water Board, and assist the Water Board in submitting it to the Water Supply Tariff Fixation Commission for approval.

##### **Office Management, IT support and Staff Relations**

- (i) Conduct immediate office management needs for the Water Board and assist in its establishment;
- (ii) Customize the accounting and billing software, to be provided by the PIU, for the use of the Water Board and assist the staff in operating it; and
- (iii) Assist the Water Board's new staff, prior to the system integration as well as after the actual operations start-up, by providing necessary orientation and induction into the new institutional arrangement, new staff regulations, operational guidelines, etc.

### III. INDICATIVE STAFFING

9. The personnel requirement for the IDC for the scope of works as outlined above is estimated to be as follows:

<b>National Professional Staff</b>	<b>Indicative Person-months</b>
Team Leader/ Institutional Development Specialist	27
Water Supply Engineer	12
Financial Management Specialist	12
Human Resource Management Specialist	5
Legal Specialist	6
IT/ Software Engineer	6
Unallocated (individual)	6
<b>Total</b>	<b>74</b>

## DRAFT OUTLINE TERMS OF REFERENCE FOR NONGOVERNMENT ORGANIZATIONS

### 1. Introduction

1. Three Non-Government Organizations (NGOs), one for each of the Biratnagar, Birgunj and Butwal Municipalities, will be engaged by the concerned Project Implementation Unit (PIU) to provide support in implementation of the Community Development Program (CDP) that mainly consists of (i) health and hygiene education programs in communities and schools, in particular targeting women and vulnerable groups including the poor, (ii) promotion of household and/or community level 3R (reduce, reuse, recycle) activities with a focus on organic waste composting, (iii) skills training mainly for the poor, and (iv) investment in small-scale facilities such as public, school, and community toilets and communal taps, in accordance with the priorities set by communities, with an aim at achieving social inclusiveness and improved sanitation in Biratnagar, Birgunj and Butwal municipalities. Community mobilization will be conducted by NGOs to facilitate community participation in project activities and with particular focus on the CDP component. The NGOs will also assist the PIUs in implementation of gender and social inclusion activities as outlined in Gender Equality and Social Inclusion (GESI) Action Plan for the Project.

2. Separate consultants will be engaged by each of the PIUs to carry out design and construction supervision of the subprojects in the municipalities, namely Design and Supervision Consultants (DSCs). There will also be the Project Management Support Consultant (PMSC), engaged by the central Project Coordination Office (PCO) for the Project, based at the Department of Urban Development and Building Construction (DUDBC). The selected NGOs will work closely in collaboration with the DSCs and under the overall guidance and supervision of the PIUs, as well as the PCO when required.

3. The scope of services of the NGO in each Project municipality will include, but not necessarily be limited to the following:

### 2. Scope of Works

#### A. Information Dissemination and Community Mobilization

- (i) Disseminate project information to the community through ward citizen groups on (a) project objectives, its activities and approaches to the community through ward level citizen groups; (b) rights and responsibilities of the municipalities, community groups and users' committees as applicable; and (c) services and benefits the Project offers among all social groups in Project area. While conducting these activities, the NGOs will ensure that information has reached to all beneficiaries and stakeholders;
- (ii) Organize ward and tole level consultations in a participatory way with the ward citizen groups as a preparation for community mobilization and to raise interest of the people to participate in project activities. Facilitate and ensure participation of women, poor and disadvantaged groups in the consultations. Organize separate focus group discussions with these vulnerable groups wherever needed and identify appropriate mechanism to hear their voices and actions needed;
- (iii) Facilitate community mobilization activities in the existing tole groups and other citizen's groups, and create new community based groups (such as health and sanitation groups) in the Project municipalities if required;
- (iv) Assist in preparing self-governing charter/rules of such groups if required taking into account pro-poor, inclusive and gender mainstreaming perspective;

- (v) Train community groups and users' committees to prepare their long-term operational guidelines with pro poor, participatory, gender sensitive and inclusive approaches in order to carry out the activities supported by the project and to continue after the project;
- (vi) Train the users' committee members in book keeping and leadership skills;
- (vii) Identify poor households, indigenous people, dalits and other vulnerable groups, including those affected by land acquisition and resettlement as identified in Resettlement Plans for the subprojects, and encourage these people to take up the employment opportunities on construction works implemented by the Project;
- (viii) Pay more attention to and make concerted effort in ensuring that the concerns of women and disadvantaged groups are adequately addressed by the users' committees, community health and sanitation groups, PIUs and municipalities while planning and implementing the activities;
- (ix) Implement the community mobilization activities, including all tasks outlined above, according to the guidelines provided by the DSCs and in the areas selected by the PIUs based on the poverty and social mapping conducted by the DSCs;
- (x) Follow up on the implemented activities and support targeted communities to take advantage of the socio-economic opportunities offered by improved physical infrastructure, and at increasing social capital and community cohesion and inclusion; and
- (xi) Work with the social development officer/ Unit of the Project Municipalities in overall planning and monitoring of community mobilization activities.

## **B. Implementation of the CDP**

4. The general awareness raising activities will be implemented on a municipality-wide scale, whereas the more focused programs will be implemented in selected areas according to the criteria developed under the Project. The following four subcomponents will be implemented under the CDP.

### **(I) Health and Hygiene Education**

- (i) Assist the PIUs/ DSCs in preparing the Health and Hygiene Education Plan and Public Health Awareness Campaign activities to implement at various levels (mass level, community, schools) and stages of project implementation; include CLTS and SLTS approach including mass public awareness. Involve the community at large, ward and tole committees, schools, CBOs and other relevant organizations in the public health education and campaigns. Form, if appropriate, special focus groups in schools and wards for this purpose; network and coordinate with other important stakeholders and external partners involved in the health sector such as the WHO, UNICEF, Health Department and District Offices;
- (ii) Assist the PIUs to plan and implement various Information, Education and Communication (IEC) strategies such as use of electronic and print mass media; distribution of leaflets, posters; use of banners, hoardings; organization of street plays; music concerts; organization of competitions in schools and tole; mass workshops, public meetings; development of locally relevant audio-visual material and broadcast/telecast on local radio/cable etc on public health issues; utilize the IEC material prepared by other agencies in the health sector;
- (iii) Train and facilitate tole based health and sanitation groups, particularly in the poor areas selected by the poverty mapping exercise, to prepare community health and sanitation plan with the objective of improving personal health and hygiene,

- household cleanliness, keeping drinking water safe and clean, use of toilets, washing hands, disposal of household wastes which they can implement by themselves, and construct sanitary toilets through CLTS and SLTS approach; and
- (iv) Monitor and assess the effects of public health campaigns and health educational programs jointly with the DSCs at different levels and collect feedback for necessary actions and take appropriate corrective actions.

## **(II) Small-scale facilities and operational support**

- (i) Develop criteria for identification of households/community for small-scale facilities, such as toilets or communal taps, based on the poverty and social mapping conducted by the DSCs, and help prioritize demands from different groups ensuring that the facility goes to the most deprived groups and find appropriate ways to implement those in accordance to community's interest and in consultation with PIU/DSCs;
- (ii) Assist the users committees to design small scale facilities ensuring that they are technically sound and socially acceptable (with gender needs addressed for toilet and communal tap construction);
- (iii) Assist the recipient communities to form a users' committee and to develop their rules/charters for the identified small scale facility construction, operation and maintenance. Orient and sensitize the committees to make their rules gender sensitive and inclusive;
- (iv) Assist the users' committees, if they are carrying out construction of small-scale facility, in preparing an implementation plan and a schedule for organizing and managing local labor and materials inputs; assist in organizing the collection of community cash, labor, and local materials as community in-kind contributions; and
- (V) Ensure, in coordination with users' committees, proper quality of targeted infrastructure, such as public, school and community toilets and communal taps and that is fully operational and continuously in use after construction.

## **(III) 3R promotion at community/household level<sup>1</sup>,**

- (i) In close coordination with the DSCs, develop solid waste management system based on 3 R principles. Identify the components of such a system based on the principle of 3R (reduce, reuse and recycle) but not limited to segregation at source; in-house composting; fee based simple collection system; elimination of practice of dumping of house waste on streets/adjacent open spaces; identification and management of collection points for house waste; elimination of manual handling of waste to the extent possible; separation of systems of disposal of solid waste from liquid waste; simple processing for composting etc;
- (ii) Implement 3R promotion activities in the Project municipality;
- (iii) Organize and implement the public awareness campaign for important solid waste management messages such as reducing the use of plastics; segregation at source; dumping of house waste at the designated places instead of on streets/adjacent open spaces; in-house composting; keeping the public places clean and not littering them; elimination of open defecation; elimination of urination in public places;
- (iv) Ensure that community-based activities are integrated into the overall solid waste management practices (waste collection, transportation and final disposal) of the Project municipalities; and

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<sup>1</sup> To be conducted in Butwal and Birgunj municipalities

- (v) Co-ordinate with community awareness, mobilization, people's participation and capacity building activities as related to Solid Waste Management.

#### **(IV) Training for skills development**

- (i) In accordance to the poverty and social mapping carried out by the DSCs, identify the poor and disadvantaged households to be supported for skills development training. Training should also cover affected persons as identified in the Resettlement Plans. Based on the field analysis and community consultations, identify the areas of skills development appropriate for the poor, rag-pickers if applicable and disadvantaged. Special attention should be paid to identify the skills that women can fully utilize and can benefit from economically;
- (ii) Identify and coordinate with private sector training schools and relevant governmental/non governmental agencies that can provide training on different skills that are market oriented and have employment prospects; make necessary arrangements for the trainees to get training in the field as well as in training centers; monitor the quality of training and supervise training activities; and
- (iii) Provide information to the trainees on accessing markets and to help link with local entrepreneur groups wherever possible.

#### **C. Gender Equality and Social Inclusion**

- (i) In accordance to the set targets and monitoring indicators of GESI Action Plan of the Project, facilitate and ensure representation of women, poor and disadvantaged in the community based groups and users' committees;
- (ii) Assist the PIUs in implementing the municipality-level GESI Implementation Plan, developed by the DSCs, ensuring gender mainstreaming and social inclusion in community mobilization processes and in CDP activities;
- (iii) In coordination with and guidance from the DSCs, work with the Social Development Unit/officer of the Project municipalities in planning and monitoring of the CDP and to ensure gender sensitivity and social inclusion in overall Project activities;
- (iv) Ensure and advocate participation of women and disadvantaged group members of the relevant committees of any user groups if formed in all important meetings and decisions; and
- (v) In consultation with and guidance from the DSCs and PIUs, orient and sensitize the community and the relevant institutions including other stakeholders on gender and social inclusion with respect to Project design.

#### **3. Indicative Staffing**

4. The personnel requirement for the NGOs is estimated to be as follows:

1. Team Leader/ Coordinator – 54 person months (per municipality)
2. Sanitation Engineer - 3 person months (per municipality)
3. Sanitation Motivator – 24 person months (per municipality)
4. 3 R Motivators – 24 person months (each for Birgunj and Butwal)
5. Social Mobilisers - 216 person months using 4-5 mobilisers for Biratnagar; 216 person-months using 4-5 mobilisers for Birgunj and 108 person-months using 2-3 mobilisers for Butwal

### DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p><b>Impact</b> Improved quality of life and higher and socially inclusive economic growth in key regional centers in Nepal</p>	<ul style="list-style-type: none"> <li>• Prevalence of diarrheal diseases reduced by 15% in Biratnagar, 20% in Birgunj and 5% in Butwal in 2018 from the 2004 level<sup>a</sup></li> <li>• Manufacturing value-added increased in real terms by 30% in Biratnagar and Birgunj and 10% in Butwal in 2018 from the 2006 level<sup>b</sup></li> </ul>	<ul style="list-style-type: none"> <li>• District health records</li> <li>• Nepal living standard survey</li> </ul>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Macroeconomic stability</li> <li>• Political stability</li> <li>• Improvement in other infrastructure (power supply, transport etc.)</li> </ul> <p><b>Risks</b></p> <ul style="list-style-type: none"> <li>• Federalism and regional development moves in contradiction with the National Urban Policy (2007)</li> </ul>
<p><b>Outcome</b> Improved and affordable municipal services delivered effectively, efficiently and reliably by accountable Project municipalities</p>	<p>Municipalities will have by the end of 2017:</p> <ul style="list-style-type: none"> <li>• No major water-logging in the core municipal area in Biratnagar and Birgunj</li> <li>• 90% of municipal waste collected, and all non-recyclable waste disposed of in the landfill in Birgunj and Butwal</li> <li>• 75% of wastewater in the service area collected, which is treated to meet environmental standards in Biratnagar and Birgunj</li> <li>• 85% of municipal population have access to improved<sup>c</sup> water services in Kavre Valley<sup>d</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Survey in each municipality compiled in ADB project completion report</li> <li>• Municipality annual reports</li> <li>• Nepal living standard survey</li> <li>• Water quality monitoring at influent and effluent of the wastewater treatment plants</li> </ul>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Municipalities' revenues increased as planned and adequately allocated to service delivery</li> <li>• Necessary support and supervision provided by the central government</li> <li>• Communities practice good health and hygiene behavior</li> </ul> <p><b>Risks</b></p> <ul style="list-style-type: none"> <li>• Extreme weather events beyond the design level</li> <li>• Industrial wastewater flowing into municipalities remain untreated</li> </ul>
<p><b>Outputs</b> 1. Reliable, affordable, and effective municipal infrastructure developed</p> <p>1.1 Drainage and sewerage systems improved (Biratnagar, Birgunj)</p>	<p>Municipalities will have by the end of 2015:</p> <ul style="list-style-type: none"> <li>• Storm-water drainage facilities constructed covering the core municipal areas in Biratnagar and Birgunj</li> <li>• Wastewater treatment plants with a total capacity of 25,000 m<sup>3</sup>/day and sewerage network covering the core municipal area constructed in Biratnagar and Birgunj</li> <li>• 25,000 new households served with sanitation connections (sewer connections and on-site sanitation)</li> </ul>	<ul style="list-style-type: none"> <li>• Municipality-level data compiled in project monitoring and completion reports (for all indicators)</li> </ul>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Commitment of municipalities</li> <li>• Key municipal officials receiving necessary skills training remain in their position</li> <li>• Adequate coordination between the central government and municipalities</li> </ul> <p><b>Risks</b></p> <ul style="list-style-type: none"> <li>• Continued absence of mayor and frequent change in executive officers of municipalities</li> <li>• Opposition of local communities to some facilities (wastewater treatment plants, landfills)</li> </ul>

<b>Design Summary</b>	<b>Performance Targets and Indicators</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Assumptions and Risks</b>
<p>1.2 Urban roads and lanes improved (Biratnagar, Birgunj)</p> <p>1.3 Solid waste management systems improved (Birgunj, Butwal)</p> <p>1.4 Water supply systems expanded (Kavre valley, Butwal)</p> <p>1.5 Other urban infrastructure facilities improved (Butwal)</p> <p>1.6 Community development program undertaken, including health and hygiene education, 3R (reduce, reuse, and recycle) promotion, skills training and investment in small-scale community facilities</p>	<ul style="list-style-type: none"> <li>• Total 44 km of roads and lanes where drainage improvement takes place reinstated or upgraded</li> <li>• Sanitary landfill with a capacity of 20 tons/day in 2015 with service life of 20-25 years developed in Butwal and Birgunj</li> <li>• 3,000 households newly served and 4,500 households receiving improved<sup>c</sup> services for water supply in Kavre valley</li> <li>• 110 km of water supply pipes installed or upgraded</li> <li>• Necessary infrastructure (roads, drainage etc) in auto-village in Butwal improved</li> <li>• Hand washing practice improved</li> <li>• Number of good quality private latrines increased</li> <li>• Public, community and school toilets (separated by gender) constructed in Biratnagar, Birgunj and Butwal</li> <li>• Community/household organic waste composting practiced in Birgunj and Butwal</li> <li>• At least 33% representation of women in committees established for community development programs</li> <li>• Women and vulnerable groups given priority in awareness-raising and skills training programs.</li> </ul>		

Design Summary	Performance Targets and Indicators	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>2. Capacity of municipalities and the central Government strengthened for project management and operation</p> <p>2.1 Municipalities strengthened in terms of financial, technical and institutional capacity</p>	<p>Municipalities will have by 2015:</p> <ul style="list-style-type: none"> <li>• Internal revenue of three<sup>e</sup> municipalities increased by 30% in real terms from the 2009 level</li> <li>• Citizens' satisfaction to service delivery (drainage, sewerage, solid waste management and water supply) improved</li> <li>• Score of three<sup>e</sup> municipalities for minimum conditions and performance measures improved</li> <li>• Access ratio of urban services and poverty ratio regularly monitored, with disaggregated data by sex, caste, and ethnicity</li> </ul>	<ul style="list-style-type: none"> <li>• Municipalities financial statement</li> <li>• Citizen's satisfaction survey</li> <li>• Assessment of minimum conditions and performance measures compiled by MLD and the Local Body Fiscal Commission Secretariat</li> </ul>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Commitment and leadership of municipalities for performance improvement</li> <li>• Good coordination among different sections in municipalities</li> </ul> <p><b>Risks</b></p> <ul style="list-style-type: none"> <li>• Strikes by municipal staff</li> </ul>
<p><b>Activities with Milestones</b></p> <p>1. Development of reliable, affordable, and effective municipal infrastructure</p> <p>1.0.1 Land acquisition completed (Q1 2011)</p> <p>1.0.2 Design and supervision consultants recruited (Q1 2011)</p> <p>1.0.3 Local nongovernment organizations recruited (Q1 2011)</p> <p>1.1 Drainage and sewerage systems improved</p> <p>1.1.1 Detailed design and bid documents prepared (Q4 2011)</p> <p>1.1.2 Contract for civil works awarded (Q3 2012)</p> <p>1.1.3 Subloan agreement between TDF and municipalities signed (Q3 2012)</p> <p>1.1.4 Construction completed (Q1 2015)</p> <p>1.1.5 Initial operation of the system supported (Q4 2015)</p> <p>1.2 Urban roads and lanes improved</p> <p>1.2.1 Detailed design and bid documents prepared (Q4 2011)</p> <p>1.2.2 Contract for civil works awarded (Q3 2012)</p> <p>1.2.3 Subloan agreement between TDF and municipalities signed (Q3 2012)</p> <p>1.2.4 Construction completed (Q1 2015)</p> <p>1.3 Solid waste management systems improved</p> <p>1.3.1 Detailed design and bid documents prepared (Q4 2011)</p> <p>1.3.2 Contract for civil works awarded (Q3 2012)</p> <p>1.3.3 Subloan agreement between TDF and municipalities signed (Q3 2012)</p> <p>1.3.4 Construction completed (Q1 2014)</p> <p>1.3.5 Initial operation of the landfill supported (Q4 2013)</p> <p>1.4 Water supply systems expanded</p> <p><b>Kavre valley water supply subproject</b></p> <p>1.4.1 Detailed design and bid documents prepared (under L1966-NEP) (Q3 2010)</p> <p>1.4.2 Contract for civil works awarded (Q2 2011)</p> <p>1.4.3 Subloan agreement between TDF and municipalities signed (Q2 2011)</p> <p>1.4.4 Construction completed (Q2 2013)</p> <p>1.4.5 KWSMB established (Q2 2011)</p> <p>1.4.6 KWSMB put into operation (Q2 2012)</p> <p>1.4.7 Initial operation of the system supported (Q1 2014)</p> <p><b>Butwal water supply subproject</b></p> <p>1.4.8 Feasibility study undertaken (Q2 2011)</p>		<p><b>Input</b></p> <p>ADB: \$60.00 million  Government: \$19.72 million  OFID: \$17.00 million  Municipalities: \$9.61 million</p>	

Activities with Milestones	Input
1.4.9 Detailed design and bid documents prepared (Q4 2011) 1.4.10 Contract for civil works awarded (Q2 2012) 1.4.11 Subloan agreement between TDF and municipalities signed (Q2 2012) 1.4.12 Construction completed (Q2 2014) 1.4.13 Initial operation supported (Q4 2014) 1.5 Other urban infrastructure facilities improved 1.5.1 Detailed design and bid documents prepared (Q3 2011) 1.5.2 Contract for civil works awarded (Q1 2012) 1.5.3 Public–private partnership arrangement concluded (Q3 2011) 1.5.4 Subloan agreement between TDF and municipalities signed (Q1 2012) 1.5.5 Construction completed (Q3 2013) 1.6 Community development program undertaken (continuous until Q1 2015) 2. Strengthening of financial, technical, and institutional capacity of municipalities 2.1 PCO and PIU formed, and project director (for PCO) and project managers (for PIUs) appointed (Q2 2010) 2.2 PSC and municipal project management committee formed (Q2 2010) 2.3 PCO and PIU fully staffed (Q2 2010) 2.4 Project management support consultants recruited (Q1 2011) 2.5 Project performance management system developed (Q1 2011) 2.6 Project management and operation sustained (continuous until Q4 2015) 2.7 Institutional development consultant for Kavre valley recruited (Q1 2011) 2.8 Establishment and operationalization of KWSMB supported (Q1 2014)	

ADB = Asian Development Bank, KWSMB = Kavre Water Supply Management Board, OFID = OPEC Fund for International Development, PCO = project coordination office, PIU = project implementation unit, PSC = project steering committee, Q = quarter, TDF = Town Development Fund.

<sup>a</sup> The latest data available are district data for 2004. The rate of diarrheal diseases that year was 4.85% in Morang (Biratnagar), 1.29% in Parsa (Birgunj), and 2.13% in Rupandehi (Butwal). The targets may be increased if more recent municipal data become available. WHO. 2007. *Nepal District Health Profiles*. Kathmandu.

<sup>b</sup> The latest data available are district data for 2006/2007: NRs3,458 million in Morang, NRs3,027 million in Parsa, and NRs1,752 million in Rupandehi. Central Bureau of Statistics. 2007. *Census of Manufacturing Establishments*. Kathmandu.

<sup>c</sup> 80 liters per capita per day (lpcd) for fully plumbed connections, 65 lpcd for yard connections, and 40 lpcd for stand posts, satisfying national drinking water quality standards, with 24-hour supply.

<sup>d</sup> 90% in Banepa, 100% in Dhulikhel, and 80% in Panauti.

<sup>e</sup> Biratnagar, Birgunj, and Butwal.

Source: Asian Development Bank estimates.