

**FRAMEWORK FINANCING AGREEMENT**  
**(IND: North Eastern Region Capital Cities Development Investment Program)**

**Parties** This Framework Financing Agreement ("FFA") dated 14 May 2009 is between India ("IND"), and Asian Development Bank ("ADB").

**MFF Investment Program** India shall implement and shall cause the States to implement the North Eastern Region Capital Cities Development Investment Program (NERCCDIP), which is an integral part of the Government's investment program for urban development. Both NERCCDIP and the Government's Investment Program are described in Schedule 1 hereto.

The total cost of the NERCCDIP over the period 2009 to 2015 is expected to be \$285.7 million equivalent. The total cost of the Government's investment program, is estimated to be \$1.9 billion equivalent.<sup>1</sup>

**Multitranche Financing Facility** The Multitranche Financing Facility (the Facility) is intended to finance subprojects, under the Government's Investment Program, provided that such subprojects comply with the criteria set out in Schedule 4 hereto and that understandings set out in this FFA are complied with.

These may include:

- (i) water supply infrastructure;
- (ii) sewerage and sanitation infrastructure;
- (iii) solid waste management infrastructure;
- (iv) institutional development for improved municipal governance and financial management;
- (v) institutional development for improved utility operational and financial management;
- (vi) NERCCDIP implementation and management.

This FFA does not constitute a legal obligation on the part of ADB to commit any financing. ADB has the right to deny any financing request made by India, cancel the uncommitted portion of the Facility, and withdraw India's right to request any financing tranche under the Facility. Financing tranches may be made available by ADB provided matters continue to be in accordance with the general understandings and expectations on which the Facility is based and which are laid out in this FFA.

This FFA does not constitute a legal obligation on the part of India to request any financing. India has the right not to request any financing under the Facility. India also has the right at any time to cancel any uncommitted portion of the Facility.

India and ADB may exercise their respective rights to cancel the Facility or any uncommitted portion thereof, and ADB may exercise its right to refuse a financing request, by giving written notice to such effect to the other parties. The written notice will provide an explanation for the cancellation or refusal.

<sup>1</sup> This value has been derived from adding the estimate for infrastructure development in each individual City Development Plan (as required under JNNURM) and updated in value as of October 2008.

and, in the case of a cancellation, specify the date on which the cancellation takes effect.

### **Financing Plan**

The financing plan for the NERCCDIP is summarized below.  
(\$ million)

Source	Total	%
Asian Development Bank	200.0	70.0
Government of India and states governments	85.7	30.0
<b>Total</b>	<b>285.7</b>	<b>100.0</b>

Source: Asian Development Bank estimates.

### **Financing Terms**

ADB will provide loans to finance subprojects under the Government's investment program, as and when the latter are ready for financing, assuming, India is in compliance with the understandings hereunder, and the subprojects are in line with those same understandings. Each loan will constitute a tranche.

Each tranche may be financed under terms different from the financing terms of previous or subsequent tranches. The choice of financing terms will depend on the subproject, capital market conditions, and ADB's financing policies, all prevailing on the date of signing the legal agreement for such tranche.

Tranches may be provided in sequence or simultaneously, and some may overlap in time with each other.

Commitment charges or guarantee fees are not payable on the Facility. They are payable only on financing actually committed by ADB as a loan or guarantee. ADB rules on commitment charges and guarantee fees, which are in effect when the legal agreements are signed for a tranche, will apply with respect to such tranche.

### **Amount**

The maximum financing amount available under the Facility is two hundred million dollars (\$200,000,000) equivalent. It will be provided in individual tranches from ADB's Ordinary Capital Resources<sup>2</sup> loans.

### **Availability Period**

The last date on which any disbursement under any tranche may be made will be 31 December 2015. The last financing tranche is expected to be executed no later than 31 December 2012.

### **Terms and Conditions**

India will cause the proceeds of each tranche to be applied to the financing of expenditures of the Government's Investment Program (as defined under NERCCDIP), in accordance with conditions set forth in this FFA and the

<sup>2</sup> Provisions of the Ordinary Operations Loan Regulations Applicable to LIBOR-Based Loans Made from ADB's Ordinary Capital Resources, dated 1 July 2001, would apply to each loan, subject to modifications, if any, that may be included under any Loan Agreement (said Ordinary Operations Loan Regulations as so modified, if any, being hereinafter called the Loan Regulations).

legal agreements for each tranche.

## **Execution**

The National Executing Agency will be the Ministry of Urban Development (MOUD). The State level Executing Agencies will be Urban Development Department (UDD) for Tripura and Nagaland, Urban Development and Poverty Alleviation Department (UD&PAD) for Mizoram, Urban Affairs Department (UAD) for Meghalaya and Urban Development and Housing Department (UDHD) for Sikkim. The Executing Agencies will implement NERCCDIP in accordance with the principles set forth in Schedule 1 to this Agreement, and as supplemented in the legal agreements for each tranche.

## **Periodic Financing Requests**

India may request, and ADB may agree, to provide loans under the Facility to finance the Government's Investment Program and its related subprojects upon the submission of a Periodic Financing Request (PFR). Each PFR should be submitted by India. India will make available to MOUD and each of the SEAs, the proceeds of the tranche in accordance with the related PFR, and the legal agreements for the tranche.

Each individual tranche will be for an amount of no less than \$30 million, or its equivalent. ADB will review the PFR and, if found satisfactory, prepare the related legal agreements.

The subprojects for which financing is requested under the PFR will be subject to the selection criteria set out in Schedule 4 hereto, satisfactory due diligence, and preparation of relevant safeguard and fiduciary frameworks and other documents. ADB and India will agree on a Facility Administration Manual and a schedule to initiate these activities, as soon as possible after the date of this Agreement, but prior to the effective date of the legal agreements for the first tranche.

Until notice is otherwise given by India, MOUD will be India's authorized representative for purposes of executing PFRs.

## **General Implementation Framework**

The Facility will be implemented in accordance with the general framework set out in Schedule 3 hereto.

## **Procedures**

Tranches to be provided under the Facility will be subject to following procedures and undertakings:

- (a) India will have notified ADB of a forthcoming PFR in advance of the submission of the PFR.
- (b) India will have submitted a PFR in the format agreed with ADB.
- (c) ADB may decline to authorize the negotiation and execution of any legal agreement for a tranche.
- (d) If ADB confirms acceptance of the PFR, the legal agreements will be negotiated and executed by the parties.

## **PFR**

The PFR will substantially be in the form attached hereto, and will contain

**information**

the following details:

- (i) Loan amount;
- (ii) Description of subprojects to be financed;
- (iii) Cost estimates and financing plan;
- (iv) Implementation arrangements specific to the subprojects ;
- (v) Confirmation of the continuing validity of and adherence to the understanding in this Agreement;
- (vi) Confirmation of compliance with the provisions under previous Loan Agreement(s) and Project Agreement(s), as appropriate; and
- (vii) Other information as may be required under the Facility Administration Manual, or reasonably requested by ADB.

**Safeguards**

Attached as Schedule 5 are references to the Safeguard Frameworks that will be complied with during the implementation of the Facility.

ADB's Safeguard Policies in effect as of the date of signing of legal agreements for a tranche will be applied with respect to the subprojects financed under such financing tranche.

**Procurement**

All goods and services to be financed under the Facility will be procured in accordance with ADB's *Procurement Guidelines* (2007, as amended from time to time).

**Consulting Services**

All consulting services to be financed under the Facility will be procured in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time).

**Advance contracting; Retroactive financing**

Under each tranche, ADB may, subject to its policies and procedures, allow on request (a) advance contracting of (i) civil works, (ii) equipment and materials, and (iii) recruitment of consultants and (b) retroactive financing of eligible expenditures for (i) civil works, (ii) equipment and materials, and (iii) recruitment of consultants up to 20% of a proposed individual loan, incurred prior to loan effectiveness but not earlier than 12 months before the date of signing of the related legal agreement. India acknowledges that any approval of advance contracting and/or retroactive financing will not constitute a commitment by ADB to finance the related subproject.

**Disbursements**

Disbursements will be made in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time).

**Monitoring, Evaluation, and Reporting Arrangements**

MOUD will be responsible for establishing an Investment Program Performance Monitoring System (IPPMS) acceptable to ADB within three months of the effectiveness of the first loan under MFF, including (i) procedures on data collection and reporting, (ii) performance indicators relating to physical infrastructure and capacity development and program



management support, including those in the design and monitoring framework (for individual loans and the overall NERCCDIP) and (iii) corresponding target dates, including those for institutional and financial reforms and capacity building. The MOUD will help SIPMIUs establish baseline values for each of the indicators and subsequently conduct annual surveys to update these baseline values.

MOUD will provide ADB with quarterly progress reports informing ADB on the progress of overall MFF (i.e., subproject/tranche preparation/approval) and the implementation progress of ongoing individual loans which should consolidate the quarterly reports separately prepared by SIPMIUs. The reports will also provide summary financial accounts of the NERCCDIP, including (i) a summary financial account for each of the States, (ii) expenditures to date, (iii) a report on benefit monitoring, and (iv) a report on safeguard compliance.

Schedule 2 hereto sets the Design and Monitoring Framework for the Facility, against which the implementation effectiveness will be evaluated.

**Undertakings** Attached as Schedule 6 are the undertakings provided by India.

**Representations and Warranties** GOI represents and warrants that it will undertake the actions specified in Schedule 1, Schedule 3, Schedule 4, and Schedule 5 to this FFA, and any specific representation or warranty that may be agreed between GOI and ADB, and the legal agreements entered into for each loan.

**INDIA**

**ASIAN DEVELOPMENT BANK**

By \_\_\_\_\_ (Original Signed)  
Anuradha Thakur, Director,  
Department of Economic Affairs

By \_\_\_\_\_ (Original Signed)  
Tadashi Kondo, Country Director  
India Resident Mission

## SCHEDULE 1

### MFF CONSTITUENTS

#### A. Urban Development and Current Sector Performance

1. **Overview.** The five states share an international boundary with Bangladesh, Bhutan, PRC, Nepal, and Myanmar. They are often hilly, land-locked, and far from mainland markets. Their economies are largely agrarian. Urbanization rates range from 11% to 50%. By 2027, the urban population of the States is estimated to be 30% of their total population. Urbanization is dominated by the capital cities accounting for over 60% of the total urban population. The largest cities are Agartala (Tripura) and Shillong (Meghalaya), with populations over 300,000. Aizawl (Mizoram) has 230,000 people, Kohima (Nagaland) 120,000 and Gangtok (Sikkim) 90,000. The cities had high past growth rates (over 5%). Future annual growth rates are estimated to range from 1.8- 3%.

2. All cities have a well-educated population, thus a potentially productive labor force. All the states are rated as high, high middle or middle in terms of their human development index, and all are low in terms of their infrastructure index.<sup>3</sup> Their high levels of literacy provide a solid basis for development while their isolation, their hilly terrain and their lack of infrastructure have held them back. The five project states have until recently been isolated from both the rest of India and the states on their borders. This is changing, however, as the region is opening up to business and commerce and its infrastructure is improved. Recently, trade with Bangladesh was normalized and this has helped Tripura, Meghalaya and Mizoram. Discussions are underway concerning trade with China, which would help Sikkim, and there is also talk of opening up trade with Myanmar and the southeastern Asia countries. A new railway line is under construction, and highways are being planned across each of the internal borders as well as within the region. India's "look east" policy combined with the interest of the southeastern Asia countries on expanding their trade has the potential to give a major boost to the economies of the region.

3. Several definitions of poverty are currently being used in India. For purposes of administering the various poverty reduction programs, each state surveys its population and classifies its own 'below poverty line' (BPL) levels. These have been summarized in Table S1.1:

**Table S1.1: BPL Populations of the Project Cities (%)**

BPL Definition	Agartala	Aizawl	Gangtok	Kohima	Shillong	All
State <sup>a</sup>	25	20	16	24	19	20.8
Planning Commission 2005-06 (estimated) <sup>b</sup>	10	3	6	2	11	6.4
UN <sup>c</sup>	38	26	30	14	38	29.2

Source: LEA Associates. 2006. Final Report: North Eastern Region Urban Development Program Feasibility Study. Guwahati

Notes:

<sup>a</sup> Although the basic guidelines are promulgated by the central government, each state has slightly different definitions. These are generally based upon easily observable characteristics of the household, such as earnings in the occupation of the primary income earner, or presence (or absence) of equipment such as a motor-driven harrow.

<sup>b</sup> The Planning Commission (PC) estimates the BPL population of each state, based upon household expenditure as surveyed by the National Sample Survey Office at periodic intervals. The PC definition of the poverty line in the Northeast is based upon the Assam poverty line, which may not be strictly comparable to hilly towns. The PC BPL has not been updated since 2000-01.

<sup>c</sup> UN poverty line of \$1.00 per day (INR 45 per day).

4. **Water and Sanitation – Coverage and Service Levels.** The development potential created by increasing connectivity and a productive labor force in the capital cities is hampered by inadequate

<sup>3</sup> As presented in the final report of the Project's feasibility study.

urban infrastructure and services. Coverage is limited to a reduced number of beneficiaries, thus the percentage of populations with access to piped water supply ranges from 50% to 80%.<sup>4</sup> All of the cities experience a tropical monsoon climate, with rainfall that ranges from 2000 mm (Kohima) to 3500 mm (Gangtok) per year. There are, however, marked differences in rainfall during the year, with a rainy season from June-November and a dry season the rest of the year, when water shortages are more acute. Non-revenue water (NRW) levels are high, ranging in most cities from 40 to 60%; water is supplied for a period of 2-4 hours a day; schemes have often been stretched beyond their design life resulting in operational deficiencies;<sup>5</sup> and service does not meet the required standards.<sup>6</sup> Where pipeborne drinking water is not available, water is generally sourced from private or public streams dug/ tube wells, public tanks, ponds and channels; however the quality of extracted water is often compromised and seldom verified. In addition to limited access, water supplies are usually insufficient, particularly at the end of the dry season. Demand and willingness to pay for water and sanitation are nonetheless reasonably high.

5. Lack of adequate water supplies has created severe hardship on the population of all 5 cities and hampered their development. In Agartala, particularly in older parts of town, distribution pipes have been blocked by iron deposits, and supplies are restricted. In Aizawl and Kohima, where production capacity is substantially below demand, and the distribution system pipelines are old and inadequate, water may be available during the dry season for only a few hours a week. In Kohima, the shortages have been so severe that private operators have begun providing piped water supplies in competition with those provided by the PHED. Gangtok and Shillong have recently improved their water production capacity, but neither city has carried out distribution system improvements necessary to bring better services to the population. Although some of the traditional dorbars (tribal villages) surrounding Shillong operate their own piped water supply systems, these are now under pressure due to population growth and limited sources. Gangtok is perhaps the most advanced of the 5 towns in terms of water supply services, due to its access to a substantially large source of water and the introduction of certain operational and management improvements.

6. All five capital cities present size and densities where sanitation is a problem. In all cities, the dominant mode of sanitation is a septic tank or soak pit for toilet wastes, with wastewaters that percolate into the soil and an overflow to the nearest drain or stream, while sullage wastes are drained directly to the nearest drain or stream. Only Gangtok has a central piped sewerage system of substantial size but the present system caters for only about 12% of the population.<sup>7</sup> In Kohima, a small community-built piped sewerage system has been constructed by the residents of Chota Basti slum community, providing only basic treatment.

7. On average, about 95% of the population in program cities have access to a toilet in their dwelling or a shared toilet.<sup>8</sup> In Agartala and Aizawl, most households have a toilet in the dwelling,

<sup>4</sup> Agartala's coverage is around 70%, Aizawl's is around 50%, Gangtok's is around 80%, Kohima's is 50% (of which 50% depend on stand post supplies) and in Shillong coverage is around 50% (but only about 44% have taps in their dwellings).

<sup>5</sup> Agartala's production system is reportedly operating at 50% of their total capacity, Aizawl's at about 50%, Gangtok is operating at 40% of its treatment capacity (lower if abstraction levels are considered). In the case of Kohima, the treatment plant is at present totally non-operational.

<sup>6</sup> In all instances, water pressures are also below the recommended 7 meters at the consumer outlet, water quality is in many instances not monitored frequently enough (in Kohima, for instance, samples are only occasionally taken and sent to Dimapur for analysis; in Shillong, many of the tests are conducted off-plant also; in Agartala, iron concentrations are in some instances above recommended levels) and are suspected do not always meet BIS/WHO water quality standards.

<sup>7</sup> The existing sewerage system in Gangtok suffers from several problems. One of these is lack of connectivity. It has been found that it is difficult to make connections in the mountainous terrain of the city. Houses above a sewer line are relatively easy to connect, whilst those immediately below a sewer line must often connect to a sewer line much further down the hillside. There is at present no mechanism requiring households to connect to the sewer. The existing main outfall line is badly deteriorated and leaking due to a combination of high velocities, which have eroded the bottom of the pipe, and poor or damaged joints. The existing treatment plant is in poor condition, and needs complete rehabilitation.

<sup>8</sup> State-wise, references (National Family Health Surveys of India, 2005-06) show that Mizoram toilet coverage in 2006 amounted to 98%, 97% in Tripura, 86% in Nagaland, 71% in Meghalaya and 89% in Sikkim.

whereas in Gangtok, Kohima and Shillong a fraction of them shared toilets. About 5% of households have no access to a toilet in the dwelling or shared with others, and therefore use either public toilets or practice open defecation. About 19% of toilets are pit latrines or dry toilets, implying that about 24% of the population of the Project cities use pit latrines, dry toilets or open fields and streams. About 72% of households have septic tanks or soak pits. On average, about 26% of households have their septic tanks or soak pits emptied by vacuum trucks, while the rest empty them manually. In the case that the septic tank or soak pit is emptied manually, the common practice is to dump the wastes into the nearest stream or drain.

8. In all the cities of the region, discharge of human wastes is regulated under public health rules. However, it is found that these are not always complied with.. Although both public and private septic tank emptying services are provided, there are no facilities for treatment. The effect of lack of either effective regulation of waste discharges or adequate sanitation services has several implications: in all the program cities, the shallow ground water table and the streams are often polluted by waste waters, and commonly discharged on roadside drains. Thus, both the inhabitants of the city and downstream water users are exposed to health problems and unsatisfactory environmental sanitation. Generally, problems are more significant in lower-lying areas, along the rivers, and in slum and squatter communities. Percolation of waste waters into the soil is also considered an important cause for landslides, troubling all the hill cities, particularly Aizawl, Gangtok and Kohima.

9. Although the levels vary, it is estimated that only 30-50% of solid waste generated is collected. Despite efforts, service is limited in low income areas, slums, inaccessible and steep hilly terrain areas; segregation of biodegradable from non-biodegradable wastes remains an important objective and often contains biomedical and industrial hazardous wastes; no storage bins are provided, waste generated are accumulated at the road side; manual and multihandling of waste continues through manual loading of waste into refuse vehicles; and sanitation workers are at high health risks due to non use of personal protective gears like gloves, dust masks. The transport fleet has often insufficient capacity, it is uncovered and old; parking and garage facilities are not available. With the exception of Gangtok and Shillong, no other cities have compost facilities, and in these towns, compost marketing remains a problem. No sanitary landfills are available in any of the 5 project cities. In absence of a waste treatment and sanitary land filling facility, crude dumping and burning of waste continues to be common practice.

10. **Water and Sanitation Sector – Governance and Financial Performance.** Weak urban systems, management, and finance are responsible for poor performance in infrastructure and service provision. Development of urban local bodies (ULB) is still at an early stage. Among the 5 cities, only Agartala has a fully functioning ULB. In the case of Shillong and Agartala, functions of the existing and emerging ULBs focus at this point on solid waste management, minor roads, drains, and water supply. In Kohima, inclusion of 12th schedule functions into the state level Municipal Act and transfer of those functions to ULB are done partially; whereas in Aizawl and Gangtok, whilst most of the functions listed under the 12th schedule have been incorporated in their respective Municipal Acts, functions are still being held by the parastatal agencies.<sup>9</sup> The situation is further complicated by conflicting legislations and traditional governance structures with overlapping jurisdictions resulting in poor service delivery. Operation and maintenance of water supply and sanitation services (WSS) is generally the duty of Public Health and Engineering Departments (PHEDs). But, these are traditionally oriented to infrastructure creation, and do not have capacities for quality service delivery. Overdesign, high rates of NRW and high establishment costs have led to high operating costs, which are further exacerbated by low tariffs. Weak accounting systems do not allow production of financial information needed for sound decisions for improvements.

<sup>9</sup> In the case of Mizoram and Gangtok, Municipal Acts were recently approved (2007) and some time may be required to progressively devolve all functions.

11. Main problems faced by the sector in the delivery of water and sanitation services are low self-financing ratios, insufficient tariff recovery, and high production costs. The vast majority of urban infrastructure and services are funded by the Government of India through State governments. User charges and urban taxes are limited. Water charges as flat and/or volumetric (Aizawl and Kohima) tariffs are levied in all cities, but they are far below the operating costs. No sewerage charge exists, except in Sikkim. Solid waste charges are being levied in Gangtok and proposed to be levied in Aizawl and Kohima while a solid waste tax is levied as part of property tax in Agartala, and service charges is in place in Shillong. There is a growing gap between the desire for better services of residents and the current level of services in the cities. Although some initial thought has been paid, there is need in all cities to develop a new tariff methodology to meet revised cost-recovery objectives, introducing sewerage tariffs and solid waste charges, and implement quarterly monitoring of financial and operational indicators. In addition to NRW reduction, progress needs to be achieved in implementing programs for reduction of power consumption and financial management strengthening, operational and institutional efficiency. Areas for development include (i) asset management, (ii) asset planning, and (iii) public utility management.

12. Private sector involvement in service provision is very limited<sup>10</sup> due to lack of regulatory frameworks, commercially oriented delivery systems, and inadequate tariffs. Lack of own source revenues of the States and ULBs contribute to poor operation and maintenance with consequent lack of sustainability in service delivery.

## **B. Road Map**

13. A core objective of Government's 11<sup>th</sup> Five-year Plan (2007-12) is to reduce poverty and regional disparities by ensuring, amongst other, access to basic physical infrastructure and a comprehensive strategy for better health.<sup>11</sup> NER, as one of the least developed regions, is prioritized for investments in infrastructure and social services. The Plan highlights the vital role of the capital cities in NER's socioeconomic transformation. Given the difficult terrain and accessibility of NER, these cities perform a much higher order function than those of similar size in India. With the opening up of the trade/business with neighboring countries and emerging transport corridors in the region, these cities are expected to play even a greater role in NER's economy as commercial and business hubs, besides being administrative centers. Investments in urban infrastructure and services will be the key to unleashing the potential of these cities to catalyze the growth in NER.

14. The 11<sup>th</sup> Plan, and previously the 10<sup>th</sup> Plan, also stress the importance associated to improving quality of governance and service delivery systems, necessary to pace NER's development. The Plans advocate a two pronged approach to urban development whereby funds for capital investments are coupled with reforms. The Plans' main reference for reforms is the 74<sup>th</sup> Constitutional Amendment Act (CAA 1994) that promotes decentralized urban governance. The CAA enables broadening the role of ULBs from being mere providers of civic services to a wider arena of socioeconomic planning. Further, it acknowledges that functional delegation can only work if it is accompanied by financial devolution. It stipulates that the States need to empower ULBs to raise revenues and undertake reforms to levy user charges, enhance property tax, rationalize establishment costs, and improve municipal accounting and budgeting. With the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), the Government has reaffirmed its commitment to sustainable urban development. JNNURM aims at fast-track investments in urban infrastructure in a large number of cities subject to the cities' commitment to a range of reforms in line with the 74<sup>th</sup> CAA. JNNURM also advocates balancing asset creation with asset management, incorporating private sector efficiencies into service delivery, and making ULBs financially sustainable service providers.

<sup>10</sup> Other than a private venture in Shillong for composting, no other activities are in place with private sector participation in major urban sectors.

<sup>11</sup> The recently approved National Urban Sanitation Policy is an immediate result of this vision.

15. The rationale for the Government's Roadmap and Investment Program is derived from the above development agenda and the policy priorities of the Government. The Road Map and Investment Program aim to pave the way for the Government to attain its goal of bringing NER at par with the developed regions of India. It intends to address the States' urban infrastructure and services needs, which remain a critical constraint to harnessing the increasing development potential of the NER cities as well as improving living conditions for rapidly growing urban populations. The Road Map and the Investment Program follow the principle of linking capital investments to reforms in order to ensure sustainable impact. It targets those capital cities that will spearhead the repositioning of NER as a gateway bridging India to the neighboring states as well as South, Southeast, and East Asia. The program will provide a unique opportunity to improve environmental conditions in all 5 program towns, addressing poor hygiene and sanitation conditions and reducing vulnerability within a disaster prone environment. Moreover, the roadmap and Investment Program seeks to provide adequate service delivery levels for all, including the poor, and it incorporates in its design, tools, mechanisms and resources necessary to ensure that communities within the program towns (often characterized by their strong identities) are engaged in a way that adequately reflects their views and aspirations.

16. The North Eastern Capital Cities Development Investment Program (NERCCDIP) is designed to use the multitranche financing (MFF) facility in the form of a stand-alone project. The primary reason for designing NERCCDIP as an MFF stems from the broad and complex agenda that the above Road Map involves. The Road Map involves provision of utility infrastructure subcomponents in five states' capital cities with varying levels of needs and absorptive capacities. MFF will enable flexibility in investment decisions based on needs and constraints in each city within a sector road map framework as well as progress of the reform agenda. Although a program has been drawn for guidance, it will further allow implementation to be based on readiness of individual subprojects and cities. The Road Map also involves complex institutional and financial reform agenda necessitating long term partnership of ADB with India and the North Eastern states and performance based approaches. MFF will enable long term engagement for building the capacities of urban institutions and local bodies and will provide proper incentives for performance improvements with individual loans being linked to certain reform targets stretched over a realistic time frame. The MFF will allow flexibility to mix and match different sources of funding (such as JNNURM, PPP, Government, ADB) available to GOI and the States.

17. **Vision:** The Roadmap and Investment Program underpinning NERCCDIP have been guided by the Government's policy framework and development priorities. The vision is "providing sustainable urban infrastructure and services leading to better quality of life for a population of 2.07 million<sup>12</sup> people" which in turn will lead to the creation of more efficient cities with increased urban productivity, strengthening their economy and reducing poverty. The principles of the Roadmap and Investment Program are (i) simultaneously providing investments in five capital cities that will spearhead the repositioning of NER as the gateway linking India to the neighboring states as well as to Southeast and East Asia, (ii) providing urban infrastructure and services such that full potential benefits are realized when all the subsectors are improved in an integrated manner, and (iii) linking investments to reforms for urban governance, finance, and service delivery. NERCCDIP will meet priority investment and reform needs and pave the way to attain the vision for the NER capital cities.

18. **Long Term Sector Needs and Proposed Investment Program:** The assessment of the long-term (20 years) urban infrastructure and services improvements needs and the prioritization exercise prepared to match requirements for the five cities over the next 10 year period are based on growth strategies and conceptual infrastructure master plans. The growth strategies assessed demographic and physical growth of cities and distribution. Conceptual master plans were prepared on the basis of growth strategies, existing master plans, where available,<sup>13</sup> consultations with

<sup>12</sup> 2.07 million people are estimated to be living in the five capital cities by 2027.

<sup>13</sup> In the form of City Development Plans developed by each of the capital cities (<http://jnnurm.nic.in/>).

stakeholders, socioeconomic surveys, and analysis of infrastructure deficiencies, demand projections, and assessment of institutional absorptive capacities to develop and sustain infrastructure assets. It is estimated that over \$1.9 billion are needed over the next 20 years to meet overall infrastructure requirements in the five cities, and \$1.1 billion (see table S1.2) are required to meet essential service delivery functions, including water supply, sewerage and sanitation, and solid waste management, as proposed under this MFF.<sup>14</sup>

19. NERCCDIP forms part of the medium to long-term investment program for the NER capital cities. NERCCDIP, which will be implemented over a 7-year period places emphasis on increasing operational efficiencies, carrying out pilot initiatives to test methods of service delivery, establishing the institutional, operational, and financial foundations and building capacities for further improvements. During the following 12-year period, the system established would be consolidated around the proven approaches and operations would continue to achieve greater coverage to most urban services by 2027. The States will need to identify alternative sources of financing to meet the remaining investment needs. Sources include, JNNURM, Non-lapsable Central Pool of Resources, 10% funding from Ministry of Urban Development and Poverty Alleviation, financial institutions, and private sector.

### C. Strategic Context

20. Urban development has been one of Government of India's key priorities over the last decade. The 11<sup>th</sup> FYP recognizes that *"Indian cities will be the locus and engine of economic growth over the next 2 decades, and realization of the ambitious goal of 9-10% growth in GDP depends on making Indian cities much more livable, inclusive, bankable and competitive."* Both the 11<sup>th</sup> FYP and ADB's strategy<sup>15</sup> stress (i) the existence of intra-urban, intra-state and inter-state differences in levels of urban services and the need for balanced development and (ii) the urgency of reducing urban poverty as part of its strategy for promoting inclusive growth. The protection of the environment and environmental sustainability are also regarded as being critical to inclusive growth: the need to avoid water pollution, improve waste water and solid waste management and increase environmental awareness. The 11<sup>th</sup> FYP also remains committed to strengthening urban governance and management through decentralization, enhancing accountability, and establishing regulatory frameworks for service delivery.

21. NERCCDIP, in line with targets set in the 11<sup>th</sup> FYP, will set out to (i) increase access of urban population to water and sanitation – an essential MDG – and (ii) improve environment and public health for urban populations in the capital cities of the North Eastern Region States of Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

### D. Policy Framework: Urban Institutional, Financial, and Service Delivery Reforms

22. In accordance with the Government's urban policy framework, the Road Map sets a vision for developing urban governance, finance, and service delivery frameworks in the capital cities. The vision entails a number of sequenced interventions for (i) advancing municipal governance and management through developing legislative and institutional frameworks for urban local bodies (ULBs) and enhancing their capacities for effective and accountable urban governance and management, (ii) gradual establishment of efficient and financially sustainable WSS service providers, and (iii) creating sustainable sources of financing for urban infrastructure and services.

23. **ULBs/Local Governance:** The Road Map supports the development of new ULBs in Aizawl and Gangtok. In both instances, reforms will involve enabling of recently enacted municipal legislation and constitution of the ULBs in each of these towns. Pending elections a dedicated administrative unit

<sup>14</sup> This value has been derived from adding the estimate for infrastructure development in each individual City Development Plan (as required under JNNURM) and updated in value as of October 2008.

<sup>15</sup> [2009. *India Country Partnership Strategy (2009-2012)* (in preparation). Manila]

will be created and efforts will focus on developing its organizational, staffing, and management systems. Subsequently, from early 2011, the transfer of functions from State Government is to be fully pursued.

24. In Shillong, where there is an operating unelected municipal board, the immediate efforts will be directed to transforming it to a statutory municipal body within the existing boundaries while in the medium term, the target will be establishing an urban governance framework for the Greater Shillong area. The process will involve enabling the representation of traditional governance structures within the municipal system, amending municipal legislation, and developing organizational structure, improved management systems and tools, and human resources for the ULB.

25. In Kohima, where municipal legislation and an elected municipal body exist, reforms will aim to accelerate capacity building of the municipality, including the actual transfer of functions, assets, and resources, and transfer/recruitment of staff to the municipality, upgrading administrative and management systems, and developing ward/village level structures and capacities as per the State's communitization policy. In addition, minor revisions to the current Municipal Act will be made in line with the 74<sup>th</sup> Amendment.

26. In Agartala, which is the most advanced city in terms of ULB reforms, efforts will be directed at providing the existing Agartala municipality and its zones and wards with adequate administrative, management, operational systems and staffing. In all the three existing ULBs of Agartala, Kohima, and Shillong, steps will be taken to better define the roles of the legislature and executive branches, streamline key processes such as for budgeting, financial and asset inventory and management, amend the organizational structure, e.g., create new wings/units/sections, and introduce personnel code of practice (office administration regulation rules) and performance-based management systems.

27. **Efficient and Sustainable Service Providers:** The Road map stipulates that cities will gradually move towards developing ring fenced WSS service providers focusing on quality service delivery and financial sustainability. In the short term, existing States departments will be restructured to create a division with dedicated responsibility for city water supply and sewerage for eventual transformation to financially viable WSS providers. The divisions will be provided with (i) double entry accounting systems able to record assets, liabilities, revenues, and costs, (ii) management systems to execute in the short term a NRW reduction and metering program, later to become an asset management program, and performance based service delivery systems, (iii) ability to levy user charges, adjust tariffs, and retain and use funds for gradual cost recovery, and (iv) optimizing/redistribution of staff. In the midterm, efforts will be directed to developing well tailored options for WSS service providers operating in a client-oriented, cost effective, and sustainable manner, with their own sources of funds. This process would involve (a) awareness campaigns; (b) valuation of assets and financial modeling of options; (c) proposals for the structure, functions, organization, staffing, financial and human resource management systems of the preferred option; (d) stakeholders consultation to generate consensus on the preferred option; (e) passage of legislation for the preferred option; and (f) creation of agency. While a number of options are available such as a publicly owned agency under the State, a community owned agency, or an agency jointly owned by the State, ULB, and community, given the decentralization framework, ring fencing the WSS operations at ULB level would be the most appropriate option to contemplate.

28. Appropriate arrangements would be made initially at the State level and eventually at ULB level for regulating the WSS service provider and any future concessionaires as well as advising on policy development. Due consideration will be given to the rights and roles of water rights holders/private and community water suppliers. In the case of Kohima, support would be provided to develop a sustainable partnership agreement between the State and the water rights holders, involving measures for compensation of the water withdrawals based on metered water consumption.



29. **Municipal Finance Reforms:** Institutional reforms will be accompanied with reforms to set in motion a system of sustainable sources of finance. Reforms involve the introduction and rationalization of user charges through (i) volumetric metering of water supplies, coupled with volumetric water charges, (ii) imposition of a new sewerage service charge as a percentage of the water bill, (iii) levying of solid waste service charges based upon the level of service provided, and (iv) improved collection efficiencies. The charges are set low for basic consumption and increase based on consumption levels allowing all consumers even the poor to afford services.

30. Interventions will also involve reforming property tax system as a major source of local revenue. A property tax will be introduced in those cities i.e., Aizawl, Gangtok, and Kohima, where the tax is not levied currently while enhancement of existing property tax will be made in Agartala and Shillong. The property tax will be set at a level that generates revenues of 1-2% of capital value and the tax rate would be increased as public acceptance grows. The property tax reforms will involve improvements in tax administration (area base methods supported by GIS systems and computerization of billing and other functions) with periodical revision of property tax assessments and improved tax collection efficiencies.

31. Finally, the reforms include measures for efficient and transparent use of financial resources. This would be achieved through (i) implementing a modern, accrual-based double entry system of accounting that will enable regular issuance of financial statements on urban operations; recording of all bills, State grants, fixed assets, and physical inventories; (ii) computerization of accounting; and (iii) an efficient and transparent budget process, that will link financial targets to physical targets set as part of city investment programming.

32. **Potential for Private Participation:** Under NERCCDIP, the dominant mode of service delivery is government-led (ULBs, State departments, future water and sewerage agencies). This is justified as the program is limited to basic urban infrastructure sectors for which (i) a natural monopoly is the case – piped water supply, sewerage, and solid waste disposal system; (ii) services and benefits are of public good nature; and (iii) integrated management is required due to externality and interdependence of multiple sectors. In the short term, private sector participation (PSP) is constrained by lack of regulatory frameworks and commercially oriented service delivery systems, and inadequate tariff structures and rates that do not allow the private sector to have a satisfactory level of cost-recovery. However, the Program's reform initiatives for creating regulatory frameworks, efficient and financially viable service delivery systems, and tariff reforms will gradually create an enabling environment for PSP. The Program will also finance a PSP study to examine specific components with PSP potential.<sup>16</sup> The study, to be conducted in each city with adequate awareness raising and participatory methods, will propose detailed time-bound roadmaps for realistic PSP in the sectors where potential is identified and will survey interest amongst potential private partners.

## E. Investment Program

33. **Impact and Outcome:** NERCCDIP is expected to improve the quality of life for 1.2 million people (by project completion) and enhance urban productivity in the five capital cities through (i) increasing the access to urban infrastructure and services of the city populations, including the poor and (ii) supporting urban institutional, management, service delivery, and financial reforms to create an environment and capacities for sustainable provision of urban infrastructure and services. The Government Investment Program covers the capital cities of the five states of Agartala (Tripura), Aizawl (Mizoram), Shillong (Meghalaya), Kohima (Nagaland), and Gangtok (Sikkim) and NERCCDIP constitute an opportunity to finance priority investments.

<sup>16</sup> This may include BOT type for new compost plants, outsourcing of solid waste collection, management contracts sewage treatment plants, outsourcing of maintenance for water distribution networks and for user charge billing and collection.

**Table S1.2: Investment Program and Long Term Needs for North Eastern Region Capital Cities (\$ million)<sup>a</sup>**

	Sector (Urban Infrastructure)	Total Investment (2027)	NERCCDIP <sup>b</sup>	Other Financing Resources			
				JNNURM <sup>c</sup>	Central Assistance <sup>d</sup>	State Plan	Others <sup>e</sup>
<b>A</b>	<b>Agartala</b>						
1	Water Supply	110.3	45.6	17.3	39.6	4.4	
2	Sewerage and sanitation	206.7	0.0	20 <sup>d</sup>	176.0	20.7	
3	Solid Waste Management	6.2	3.7		2.0	0.2	
	<b>Sub Total A</b>	<b>323.2</b>	<b>49.3</b>	<b>37.3</b>	<b>217.6</b>	<b>25.3</b>	<b>0.0</b>
<b>B</b>	<b>Aizawl</b>						
1	Water Supply	93.6	27.3		51.4	5.7	7.1
2	Sewerage and sanitation	161.9	24.2		122.3	13.6	
3	Solid Waste Management	8.3	5.0		2.7	0.3	
	<b>Sub Total B</b>	<b>263.8</b>	<b>56.5</b>	<b>0.0</b>	<b>176.4</b>	<b>19.6</b>	<b>7.1</b>
<b>C</b>	<b>Gangtok</b>						
1	Water Supply	41.9	9.5		28.5	3.2	
2	Sewerage and sanitation	62.8	25.3	4.8	25.7	2.9	2.2
3	Solid Waste Management	5.5	2.0		3.0	0.3	
	<b>Sub Total C</b>	<b>110.2</b>	<b>36.8</b>	<b>4.8</b>	<b>57.2</b>	<b>6.4</b>	<b>2.2</b>
<b>D</b>	<b>Kohima</b>						
1	Water Supply	46.2	13.9		28.1	3.1	
2	Sewerage and sanitation	65.6	29.2		30.7	3.4	
3	Solid Waste Management	10.0	5.6		4.4	0.5	
	<b>Sub Total D</b>	<b>121.8</b>	<b>48.7</b>	<b>0.0</b>	<b>63.2</b>	<b>7.0</b>	<b>0.0</b>
<b>E</b>	<b>Shillong</b>						
1	Water Supply	119.5	0.0	17.1 <sup>d</sup>	107.5	11.9	
2	Sewerage and sanitation	136.5	37.9		89.0	9.6	
3	Solid Waste Management	6.0	4.2		1.4	0.2	
	<b>Sub Total E</b>	<b>262.0</b>	<b>42.1</b>	<b>17.1</b>	<b>197.9</b>	<b>21.7</b>	<b>0.0</b>
<b>Total</b>		<b>1081.0</b>	<b>233.4</b>	<b>59.2</b>	<b>719.4</b>	<b>79.9</b>	<b>9.4</b>
<b>Other expenditure</b>			<b>52.3</b>				
			<b>20.7%</b>	<b>5.5%</b>	<b>66.5%</b>	<b>7.4%</b>	<b>0.9%</b>

Notes:

<sup>a</sup> Figures include infrastructure base costs, taxes and contingencies. No design costs/consultancies are included

<sup>b</sup> Proposed ADB's support under MFF.

<sup>d</sup> As of end 2008.

<sup>d</sup> Expected support

<sup>e</sup> Additional sources of funding will have to be identified to fill the financing gap..

34. **Outputs:** NERCCDIP outputs, in line with the Government's Investment Program, are grouped into two parts. Part A covers urban infrastructure and services improvements including the rehabilitation, improvement and expansion of (i) water supply, (ii) sewerage and sanitation, and (iii) solid waste management. Part B covers Investment Program management and implementation support and a comprehensive capacity building program to support the attainment of the urban institutional and financial reform agenda and enhance capacities of the service providers.

#### 1. Part A: Urban Infrastructure and Services Improvements:

35. **Water Supply** investments in Agartala, Aizawl, Gangtok and Kohima, will aim to improve the quality of water and lengthen the water supply service duration to 24 hours per day in some parts and 12 hours per day in all parts of the system, and to achieve an average coverage of 70% by the end of the Investment Program. Investments include expansion of water production capacity through source and treatment works, expansion and rehabilitation of existing distribution systems, reservoirs and

machinery, replacement of old and leaking service connections, installation of bulk and consumer meters, and programs to reduce unaccounted for water. These will be supported by public awareness campaigns to promote water conservation and demand for water supply improvements.

36. **Sewerage and Sanitation** improvements in Aizawl, Gangtok, Kohima and Shillong will adopt a two-pronged approach comprising (i) provision of piped-sewerage and sewage treatment systems and service connections and (ii) improving on site sanitation particularly septic tanks and soak pits where and until sewerage systems can be constructed. Improvements also include provision of community latrines in low income areas and assistance to poor households for sanitation. Sewerage investments are modestly sized, serving the worst-affected parts of the cities (average 20% of population) as the first phase development of sewerage master plans. These are supported by awareness campaigns to promote the understanding on better sanitation and demand for improvements. Support is also provided for implementing sanitation regulations that will prevent unsafe discharge of sanitary wastes.

37. **Solid Waste Management** improvements in all 5 cities aim to expand the service coverage levels to more than 80%. This will be achieved by (i) awareness campaigns highlighting the importance of good sanitation and in-house waste collection, segregation, and recycling; (ii) improving solid waste collection, transportation, and disposal by providing equipment, development of transfer stations, as necessary, sanitary landfill sites and composting plants; and (iii) increasing the efficiency of solid waste operations through improved systems for routing and scheduling of vehicles, other machinery, and staff training.

## 2. Part B: Institutional Strengthening and Investment Program Management

38. **Catalyzing urban Governance and Financial Process:** The Investment Program will support State Governments and ULBs in meeting their commitments towards attainment of urban institutional and financial reform agenda in line with India's and states' policies. It will specifically assist in (i) furthering reforms associated with creating and strengthening ULBs (ii) incorporate efficiencies and commercial principles into service delivery through gradual introduction of sustainable service delivery agencies particularly for water supply and sewerage (iii) assist in implementing financial management reforms for promoting sustainable sources of finance and transparent utilization of financial resources for service delivery.

39. **Municipalization:** The Program will assist the States in the implementation of the 74<sup>th</sup> CAA by supporting them (i) conducting civic awareness campaigns and public hearings toward creation/strengthening of ULBs, (ii) preparing/strengthening existing municipal legislation,<sup>17</sup> with view to transferring functions from the State to the ULB and (iii) conceptualizing and implementing organizational development measures and the introduction of operational systems improvements.<sup>18</sup> Efforts will be directed to integrate traditional structures into emerging urban governance frameworks. Such improvements will be complemented by comprehensive human resource development programs and training for elected and appointed officials.

40. **Municipal Financial Reform.** Municipal financial reform assistance will focus on improving accounting and budgeting systems and practices through the adoption of accrual-base accounting, application of GIS based systems in revenue administration, and computerization of financial systems.

<sup>17</sup> This may include one or several of the following actions: (a) Framing the Rules under Municipal Act for day-to-day administration; (b) Issuance of an executive order for constituting a municipality; (c) Agreeing on general principles of demarcating municipal boundaries and wards; (d) Making amendment in Municipality Act as per 74th CAA; (e) Issuance of Government orders/Notification of Transfer of functions listed under 12th Schedule of 74th CAA; (f) Framing Rules for Ward Delimitation; (g) Conduct Municipal Election; (h) Agreeing on a proposed staffing and reporting structure and manpower requirements and State Finance Commission recommendation; (i) sending recommendations to the State Finance Commission for allocation of municipal budgets.

<sup>18</sup> Such as (a) fixing of cadre strength and responsibilities for various levels of officers, (b) definition of job functions, skills and qualification requirements, (c) short term training to newly recruited staff and officers, (d)

Assistance will also be extended for the design, introduction and implementation of consumption based and progressive user charges and improved property taxation to enable recovery of full costs of operation and maintenance by completion of the Investment Program implementation.

41. **Improved Service Delivery.** The Program will also extend support to the States towards (i) improving operational and financial efficiency and asset management skills,<sup>19</sup> (ii) short term support for restructuring existing States' departments into a single circle with dedicated responsibility for city water supply and sewerage and accounting and financial management systems. The Capacity Building Component will also include an umbrella program of civic awareness and community participation to support the implementation and positive impact of all the physical improvements under the Investment Program,<sup>20</sup> such as may be citizen's participation in waste segregation.

42. **Investment Program Management Capacity Enhanced.** This component supports funding for costs associated with the Investment Program management and implementation, including incremental administration and operations associated with program management units in MOUD and the States, equipment, logistics, and consulting inputs for assisting these units in managing the Investment Program and undertaking detailed design and construction supervision. Such support is considered essential to the implementation of the Program, particularly in light of the lack of experience of the proposed executing and implementing agencies with projects of this size, implemented through separate design and construction contracts.

## F. Financing Plan

43. The Government has requested financing up to an equivalent of \$200.0 million from ADB's ordinary capital resources to help finance the Investment Program. The remaining \$85.7 million equivalent will be provided by the Government and cover (i) taxes and duties, (ii) land acquisition and compensation costs, (iii) incremental recurrent Government staff costs, (iv) interagency payments and (v) a small fraction of civil works costs. Financing will be provided under an MFF in accordance with ADB's policy. Balance resources required to finance the Investment Program are expected to be provided under the Government of India's sponsored JNNURM (approximately \$60 million equivalent), Non-lapsable Central Pool of Resources and other Central Government programs (such as those under the Central Pollution Control Board).

<sup>19</sup> In addition to the introduction of appropriate financial management system, activities envisaged may included, energy reduction and non-revenue programs, environmental audits, introduction of management information systems, quality assurance and quality control functions etc.

<sup>20</sup> Civic awareness activities will focus on stimulating a demand for improved urban infrastructure and services through (i) disseminating information on the scope and nature of the improvements, (ii) educating the city's people on the linkages between the environment and health and the benefits to be derived from the interventions and their role and responsibility for good environmental practices for solid waste and septic management, and (iv) raising the residents' awareness of the cost implications of improved services.

**SCHEDULE 2**  
**DESIGN AND MONITORING FRAMEWORK FOR THE FACILITY**

Design Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Risks/ Assumptions
<b>Impacts</b>  Improved environment and well-being of urban residents in the five program cities	By 2017 <ul style="list-style-type: none"> <li>Contribution to reducing regional disparities and improved well-being as measured by the States' infrastructure index by 2017.</li> <li>Significant contribution to meeting MDG7 targets in program cities (halving by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation) in 5 Program capital cities.</li> <li>Reduced incidence of waterborne disease in Program areas (halved by 2017).</li> <li>All significant water bodies in the immediate vicinity of the 5 program cities fully meet by 2017 Class B and/or Class D standards (<a href="http://cpcb.nic.in/Water_Quality_Criteria.php">http://cpcb.nic.in/Water_Quality_Criteria.php</a>)</li> </ul>	Central, State and local government statistics  Household consumer expenditure and employment surveys  2011 census (next scheduled census)  BPL surveys  Baseline and completion socio-economic surveys  Program environmental surveys  Investment Program completion report and Tranche completion reports.	<b>Assumptions</b>  Continued political support for development in NER  Urban infrastructure improvements will attract enough private sector investments into the program cities and NER.  <b>Risks</b>  Parallel development in other key areas for the NER not materialized in a timely manner
<b>Outcomes</b>  Sustainable an increased access to better urban services in five program cities.	By the end of Program (2015) <b>Water Supply:</b> Population of 1.2 million in the program cities provided with treated 12-24/7 water; Unaccounted for water reduced to a reasonable level around 30%;  <b>Sanitation and Sewerage:</b> Population of 0.3 million in the central zone of the four cities provided with sewerage, reduction in the volume of wastewater discharged to water bodies  <b>Solid Waste Management:</b> Population of 0.9 million provided with solid waste collection treatment and sanitary disposal practiced in five cities.  <b>Service Delivery:</b> 100% compliance with standards for water distribution or effluent discharge in program support area 100% compliance with India's Solid Waste Management and Handling Rules in program support area  <b>State and ULB Project Capacities</b> Project development, implementation and management capacity of state (UD and PHED) and ULB level developed as demonstrated by capability to independent prepare feasibility and detailed studies, and handle consultancy management, procurement and compliance with safeguards requirements by 2015. All municipalities are empowered as defined by 74th CAA and MOAs signed with MOUD by 2015.	State and local government statistics and reports  Household consumer expenditure and employment surveys  2011 (and subsequent) census  IPCC and progress reports  ADB review mission reports  Resettlement and environmental external monitoring results  NGO reports  Baseline and completion socio-economic surveys  Investment Program completion report and Tranche completion reports.  BPL surveys	<b>Assumptions</b>  Local governance is improved, and institutional issues resolved to effectively operate and manage improved urban services  Funding is mobilized for operations, maintenance and replacement of project facilities  <b>Risks</b>  Willingness to pay for services may be low among beneficiaries  Lack of sufficient skilled staff to operate and manage urban services in the program cities  Natural disaster (e.g., major flood and landslides) in the program cities  Environmental regulations not strictly enforced
<b>Outputs</b>	By end 2013 <ul style="list-style-type: none"> <li><b>Agartala</b> (South and Central Zones):</li> </ul>	SIPMIU/IPCC quarterly	<b>Assumptions</b>

Design Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Risks/ Assumptions
<p>Part A: Improved urban infrastructure and services</p> <p>A.1 Water supply expanded and rehabilitated</p>	<p>source augmentation and distribution through provision of (i) infiltration galleries at the College Tilla, (ii) treatment capacity augmentation, (iii) rehabilitation of 24 tube wells and 9 new ones, (iv) rehabilitation of 17 IRPs and 8 new ones, (v) 7 ground water treatment plants, (vi) 17.5 ML capacity reservoirs, (vii) 67 km of primary pump mains and 140 km of secondary pipelines, (viii) NRW program and (ix) 50,000 metered connections.</p> <ul style="list-style-type: none"> <li>• <b>Aizawl:</b> (i) provision of a dedicated 132 KV line to the Tlawng river intake (17 km), (ii) replacement of the "bunched" connection system (though 22 km of primary mains and 88 km of secondary pipelines), (iii) replacement of 7 reservoirs and construction of 9 new ones, (iv) chlorinators at major reservoirs (2) and (v) NRW program, (vi) 41,000 metered connections.</li> <li>• <b>Gangtok:</b> (i) repairs to rapid sand filtration at WTP, (ii) replacement of the "bunched" connection system (through 31 km of primary mains and 38 km of secondary pipelines), (iii) construction of 3 new reservoirs, (iv) chlorinators at major reservoirs (4) and (v) NRW program and (vi) 19,000 metered connections.</li> <li>• <b>Kohima:</b> (i) refurbishment of existing WTP, (ii) replacement of the "bunched" connection system (though 17 km of primary mains and 90 km of secondary pipelines), (iii) construction of 7 new reservoirs and replacement of 19, (iv) chlorinators at major reservoirs (2) and (v) NRW program and (vi) 19,000 metered connections.</li> <li>• In all above towns: works will result in (i) water quality improvements; (ii) more efficient and expanded operation of source, treatment and distribution systems; (iii) increased water security and service reliability through provision dedicated power supply systems; (iv) improved environmental conditions through construction of sludge drying and disposal facilities at treatment plants.</li> </ul>	<p>progress reports</p> <p>Budgets and annual work plans</p> <p>IPPMS reports</p> <p>ADB review mission reports</p> <p>Disbursement records</p> <p>Tranche completion and commissioning certificates</p>	<p>Water source allocations confirmed in Kohima</p> <p>Public awareness campaign will develop support for replacement of connections and provision of meters</p> <p>Consumers will prefer central piped water supplies to alternative sources.</p> <p>Poor will be connected and be able to afford both the connection and the service</p> <p>Required land acquisition and compensations completed in time</p> <p><b>Risks</b></p> <p>Further deterioration of water supply systems may cause cost increases and scope changes</p> <p>Integration of various water systems into the central system in each program city may be delayed</p>
<p>A.2 Sewage collection, management and treatment and sanitation improved</p>	<p>By end 2015</p> <ul style="list-style-type: none"> <li>• <b>Aizawl:</b> (i) provision of sewerage system for Zone I (23 km of primary mains and 30 km of secondary collectors; 3,592 HH connections) and (ii) 7 MLD STP; (iii) 6 community toilet blocks and (iv) assistance to 1000HH to convert to upgrade latrines for connection to sewers.</li> <li>• <b>Gangtok:</b> (i) provision of sewerage system for Zones II and III (24 km of primary mains and around 40 km of secondary collectors; around 8,000 HH connections) and (ii) 2 STPs each of 4</li> </ul>	<p>SIPMIU/IPCC quarterly progress reports</p> <p>Budgets and annual work plans</p> <p>IPPMS reports</p> <p>ADB review mission reports</p> <p>Disbursement records</p> <p>Tranche completion and commissioning certificates</p>	<p><b>Assumptions</b></p> <p>Public awareness campaign will be effective to encourage household connections to the sewerage systems</p> <p>Adequate staff trained and placed for STP operation</p> <p>Poor will connect and afford the connection and the service</p> <p><b>Risks</b></p>

Design Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Risks/ Assumptions
	<p>MLD capacity; (iii) 6 community toilet blocks and (iv) assistance to 1000HH to convert to upgrade latrines for connection to sewers.</p> <ul style="list-style-type: none"> <li>• <b>Kohima:</b> (i) provision of sewerage system for Zones I and II (57 km of primary mains and secondary collectors; around 6,700 HH connections) and (ii) 2 STPs with 5MLD and 7 MLD capacities; (iii) 6 community toilet blocks and (iv) assistance to 1000HH to convert to upgrade latrines for connection to sewers.</li> <li>• <b>Shillong:</b> (i) provision of sewerage system for Zone I (33 km of primary mains and around 60 km of secondary collectors; around 6,500 HH connections) and (ii) 12 MLD STP; (iii) 6 community toilet blocks and (iv) assistance to 1000HH to convert to upgrade latrines for connection to sewers.</li> </ul>		<p>Connection rate to the sewerage systems may be lower than expected</p>
A.3 Solid waste management systems developed	<p>By end 2014</p> <ul style="list-style-type: none"> <li>• <b>Agartala:</b> (i) introduction of house-to-house waste collection (15,000 HH), (ii) improvement to primary, and secondary collection and transportation system, (iii) development of a compost plant (50 TPD) and (iv) sanitary landfill site; (v) construction of garage/transfer station.</li> <li>• <b>Aizawl:</b> (i) introduction of house-to-house waste collection (2,000 HH), (ii) improvement to primary, and secondary collection and transportation system, (iii) development of a compost plant (50 TPD) and (iv) sanitary landfill site; (v) construction of garage/transfer station.</li> <li>• <b>Gangtok:</b> (i) introduction of house-to-house waste collection (2,000 HH), (ii) improvement to primary, and secondary collection and transportation system, (iii) development of sanitary landfill site; and (v) construction of transfer station.</li> <li>• <b>Kohima:</b> (i) introduction of house-to-house waste collection (2,000 HH), (ii) improvement to primary, and secondary collection and transportation system, (iii) development of a compost plant (50 TPD) and (iv) sanitary landfill site; (v) construction of garage/transfer station and approach road.</li> <li>• <b>Shillong:</b> (i) introduction of house-to-house waste collection (2,000 HH), (ii) improvement to primary, and secondary collection and transportation system, (iii) development of short-term sanitary landfill site; (v) of transfer station and (vi) development of permanent landfill.</li> </ul>	<p>SIPMIU/IPCC quarterly progress reports</p> <p>Budgets and annual work plans</p> <p>IPPMS reports</p> <p>ADB review mission reports</p> <p>Disbursement records</p> <p>Tranche completion and commissioning certificates</p>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Public awareness campaign will encourage households to dispose their wastes in designated places and voluntarily segregate their wastes</li> <li>• Private operators will find composting profitable</li> <li>• Poor will be served and able to afford the service</li> </ul> <p><b>Risks</b></p> <ul style="list-style-type: none"> <li>• Environmental clearances not completed in a timely manner</li> <li>• Compost not well marketed in the areas</li> </ul>
Part B: Institutional Development and Investment Program Management Strengthened	<p>By end 2012</p> <ul style="list-style-type: none"> <li>• (i) New urban local bodies (ULBs) constituted in Gangtok and Aizawl; (ii) ULB in Shillong reconstituted and municipal election held; (iii) ULBs in all 5 States strengthened.</li> </ul>	<p>SIPMIU quarterly progress reports</p> <p>Budgets and annual work plans</p>	<p><b>Assumptions</b></p> <ul style="list-style-type: none"> <li>• Reforms will lead to higher efficiency, transparency and accountability</li> <li>• Public will participate in</li> </ul>

Design Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Risks/ Assumptions
B.1 Urban institutional, financial, and service delivery reforms undertaken and municipal capacities strengthened	<ul style="list-style-type: none"> <li>• Double entry accounting systems installed and financial systems computerized program ULBs.</li> <li>• Property tax strengthened to yield at least 0.5% of property value</li> <li>• GIS installed and operational for application in priority areas</li> <li>• Planning process/legislation amended to strengthen development controls and sanitation regulations</li> <li>• Municipal staff trained in operation and maintenance of services, financial management, regulation enforcement</li> <li>• PSP studied and tried in selected projects</li> </ul>	IPPMS reports Review mission reports Disbursement records Tranche completion and commissioning certificates Records of consultations and meetings Financial statements of agencies and ULBs	election Roles of existing villages and dorbars can be suitably incorporated in proposed structures Political leaders and high rank bureaucracy will support reforms for creating financially viable service providers and tariff reforms Staff is available with expertise and experience required for various infrastructure sectors and management tasks  <b>Risks</b> Tariff reforms hampered due to lack of general public and politicians' understanding Village and dorbars leaders may disagree on the new urban governance arrangements
B.2 Public utility management Improved	<ul style="list-style-type: none"> <li>• Dedicated city water and sewerage units established in all cities by 2014.</li> <li>• Asset management systems improved and performance-based operational systems introduced for water, sewerage and solid waste management services by 2014; as measured by benchmarking indicators in IPPMS and 2009 baseline.</li> <li>• Sustainable user charge structure including volumetric water charges, sewerage charges and solid waste management charges implemented. Recovery to be no less than as agreed under JNNURM MOAs by 2012 and full O&amp;M costs in all cities by 2015.</li> </ul>		
B.3 Public Awareness Increased	<ul style="list-style-type: none"> <li>• Public and village leaders acceptance of ULB creation as shown in support for election process by 2015.</li> <li>• Broad understanding of the need for and compliance with service charges.</li> <li>• Segregation at source by no less than 50% of the population by 2015.</li> </ul>		
B.4 Investment Program Capacity Developed	<ul style="list-style-type: none"> <li>• On-the-job capacity building program prepared for implementation.</li> <li>• SIPMIU capacity on consultant recruitment/management, procurement and contract management, disbursement management, project and performance monitoring, safeguards compliance, land acquisition, preparation of feasibility and detailed designs.</li> </ul>		
<b>Activities with milestones</b>			<b>Inputs (\$ Million)</b>
<b>Preparatory Activities</b>			<b>TOTAL</b>
0.1 IPCC in MOUD and SIPMIUs in States established and core staff appointed by Oct 2008.			ADB 200.0
0.2 Short-listing for consultancies completed by January 2009 and appointments by September 2009			GOI 85.7
0.3 Process of land acquisition of private lands and resettlement (in agreement with ADB's <i>Involuntary Resettlement Policy</i> [1995]) initiated by December 2008.			<b>Grand Total 285.7</b>
0.4 IPCC formulates protocols on (i) project performance monitoring system, (ii) reporting, and (iii) accounting and auditing February 2009.			
0.5 Requests for environmental clearance submitted/obtained from SPCB/CPCB by Feb 2009.			
0.6 Engineering designs for the 1 <sup>st</sup> tranche to be completed by July 2009 and tendered by SIPMIUs by September 2009.			
<b>Subproject Implementation for the 1<sup>st</sup> tranche</b>			<b>Tranche 1</b>
1.1 Undertake baseline surveys (with gender disaggregated data)			ADB 30.0
1.2 Initiate awareness campaign and community consultations in all 5 towns by May 2009			GOI 12.8
1.3 Secure all lands for subproject construction under tranche 1 by June 2009			<b>Grand Total 42.8</b>



Design Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Risks/ Assumptions
1.4 Obtain all required environmental clearances and NOCs by June 2009 1.5 Complete tender and award of all contracts under Tranche 1 by June/July 2009 1.6 Undertake construction works and equipment installation till December 2011			
<b>Subproject Preparation and Implementation for the 2<sup>nd</sup> tranche</b> 2.1 SIPMIUs undertake DSMC recruitment in all 5 States (from November 2008 to September 2009) 2.2 SIPMIUs undertake preliminary designs and reassess project viability (economic, financial etc) for Tranche 2 by February 2010. Undertake detailed designs and prepare all associated documentation (IEEs, RPs, bidding documents) and submit to ADB/IPCC for review and consolidation by July 2010. 2.3 Secure all lands for subproject construction under tranche 2 by July 2010 2.4 Obtain all required environmental clearances and NOCs by July 2010 2.5 Complete tender and award of all contracts under Tranche 2 by January 2011 2.6 Undertake construction works and equipment installation till December 2013			
<b>Subproject Preparation and Implementation for the 3<sup>rd</sup> tranche</b> 3.1 SIPMIUs undertake preliminary designs and reassess project viability (economic, financial etc) for Tranche 3 by September 2010. Undertake detailed designs and prepare all associated documentation (IEEs, RPs, bidding documents) and submit to ADB/IPCC for review and consolidation by January 2011. 3.2 Secure all lands for subproject construction under Tranche 3 by March 2011 3.3 Obtain all required environmental clearances and NOCs by March 2011 3.4 Complete tender and award of all contracts under Tranche 3 by June 2011 3.5 Undertake construction works and equipment installation till February 2015 3.6 Undertake completion surveys (with gender disaggregated data)			
<b>Institutional Strengthening and Capacity Building</b> 4.1 IDCs recruited for Agartala and Shillong in T1; and in Kohima, Aizawl and Gangtok in T2. 4.2 Drafting of regulations, preparation and implementation of institutional development plans and operating procedures, decentralization of urban services to ULBs initiated by Mar 2009 4.3 Drafting regulations, preparation and implementation of institutional development plans, and operating procedures for new WSS agencies by March 2009. 4.4 Improvement of financial management and accounting and computerization initiated by March 2009 and completed in all 5 towns by end 2012. 4.5 Operational improvement of urban infrastructure services: Development of operation management programs, staff trained, and implementation is ongoing 4.6 Development of volumetric charges and other user fees to make services affordable and financially sustainable initiated in all States by December 2009. 4.7 Support for design and implementation of stronger property tax systems in all Program cities; and introduction of property taxes in Aizawl and Kohima initiated by July 2010. 4.8 Gender Action Plan implementation throughout NERCCDIP, 2009-2015.			

ADB = Asian Development Bank, CAA = Constitutional Amendment Act; GIS = Geographical Information Systems, GOI = Government of India, IPCC = Investment Program Coordination Cell, IPPMS = Program Performance Management System, O&M = Operation and Maintenance, SIPMIU = State Investment Program Management and Implementation Unit, ULB = Urban Local Body, WSS = Water supply and Sanitation, MOUD = Ministry of Urban Development, STP = sewerage treatment plant.

### SCHEDULE 3 IMPLEMENTATION FRAMEWORK

1. Unless modified and amended in loan or project agreements under the Facility, the Investment Program will be implemented as follows:

#### **A. Implementation Arrangements**

##### Organizational Setup and Functions

2. The national-level Executing Agency (NEA) for the Investment Program will be MOUD. An Investment Program Coordination Cell (IPCC) will be established in MOUD. The Government of India will set up a national level Steering Committee (NSC) within three months of the first loan effectiveness to monitor the use of funds under the Facility and overall implementation performance of the Investment Program. NSC will be chaired by the Secretary MOUD and comprise representatives of DEA, MDONER, the Planning Commission and States Representatives. IPCC will be responsible for overall management of the Investment Program in the five cities. It will be headed by an Investment Program Manager and consist of at least a three person-team of administrative/financial, technical, and social/environmental officials whose major tasks will include, (i) reporting to ADB on Investment Program implementation progress and other matters, including the preparation and submission to ADB of consolidated quarterly reports, (ii) reviewing and confirming that subprojects submitted by States for financing are in accordance with subproject selection criteria, and submission of periodic financing requests to Department of Economic Affairs (DEA), (iii) consolidating payment /reimbursement requests submitted by the States, (iv) coordinating policy-related activities and ensuring that actions highlighted during NSC meetings, conducted quarterly, are acted upon; (v) preparing NERCCDIP's overall investment program implementation plan and consolidated annual work plan; (vi) coordinating training programs and allocations for each of the States; (vii) conducting monitoring and evaluation activities to ensure compliance with loan covenants and agreed targets; and (viii) designing and supporting the implementation of NERCCDIP's investment program performance management system surveys.

3. A State-level Executing Agency<sup>2</sup> (SEA) in each State will be responsible for executing the part of the loan falling under the respective State Governments. A State Steering Committee (SSC) and an Investment Program Empowered Committee (IPEC) will also be established in each State before first loan effectiveness. SSC, chaired by the Chief Secretary, will consist of the Secretaries and heads of the departments concerned. It will meet quarterly, review progress, provide policy guidance, advise on necessary actions relating to the scope, cost and reform agenda, and facilitate inter-agency coordination. IPEC will be responsible to take decisions on matters related to the NERCCDIP, which do not affect its scope or cost, including financial and administrative approvals, procurement, tenders, purchases, staff recruitment, creation of posts, recruitment of consultants, acquisition of land, and other similar matters. IPEC will be chaired by the Secretary SEA, and comprise the representatives of the ULB's and State departments concerned. It will meet as often as needed, at the request of the Program Director or IPEC members. The State Investment Program Director would be the secretary to IPEC and SCC.

4. A consolidated State Investment Program Management and Implementation Unit (SIPMIU) will be established in each of the five SEAs. The SIPMIU to be headed by a State Investment Program Director will be responsible for overall management and implementation, including (i) recruiting consultants and NGOs; (ii) carrying out detailed surveys, investigations and engineering designs of

<sup>2</sup> State level Executing Agencies are (i) for Tripura, Urban Development Department (UDD), (ii) for Nagaland, Urban Development Department (UDD), (iii) for Mizoram, Urban Development and Poverty Alleviation Department (UD&PA), (iv) for Meghalaya, Urban Affairs Department (UAD), and (v) for Sikkim, Urban Development and Housing Department (UDHD).

their investment activities prior to starting any tendering process; (iii) coordinating with other Government agencies and obtaining all required statutory clearances; (iv) conducting all aspects of the procurement process in compliance with ADB's procurement guidelines; (v) ensuring compliance with loan and grant covenants; (vi) administering the contracts of consultants and contractors, certifying payments and preparing change orders; (vii) preparing disbursement requests to MOUD for forwarding to DEA for onward transmission to ADB; (viii) maintaining Project documents and submitting reports timely, including audit reports, to the IPCC and ADB; (ix) collecting data for key indicators; (x) supervising implementation of summary poverty reduction and social strategy activities (including gender-related programs); (xi) obtaining all necessary clearances, and (xii) guiding awareness campaigns and participation programs; (xiii) organizing and operating State-level program performance monitoring systems; (xiv) reviewing and facilitating the progress of the urban reform action plan and compliance with loan covenants (xv) designing and organizing capacity building programs; (xvi) ensuring compliance with the design and monitoring framework and subproject selection criteria and loan covenants, and targets of reform agenda; and (xvii) program progress monitoring at state level, including baseline and completion surveys. The SIPMIU will also be responsible for preparing and forwarding subprojects for approval to SSC and MOUD and providing support at State level as part of the appraisal process preceding periodic financial request approvals.

5. The State Investment Program Director would be a senior civil service officer, with due power to make decisions and responsible for program management. S/he will be assisted by a Deputy Director, also a senior civil service officer, responsible for overall implementation. Core supporting staff of Investment Program Director/Deputy Director would be a senior administration officer, a senior accounts officer, technical staff (in charge of various engineering fields), a public relations officer and safeguards staff, all supported by junior staff. For implementation of the infrastructure components, the SIPMIU will have a number of small engineering cells with staff deputed from line departments and ULBs where applicable. The tasks of the engineering cells will include designing, contracting, supervising, and administering work in various sectors of the Program. Each cell will be headed by a Superintending/Executive Engineer or Additional Director and assisted by Junior Engineers and other staff, as necessary. There would also be staff responsible for preparing and implementing awareness campaigns, consultations with affected persons, resettlement, training, GIS system development, environmental management, and procurement.

6. Estimated Staff Requirements to be provided as part of the IPCC and each of the SIPMIUs is as follows:

**Table S3.1 – Minimum IPCC Staffing Requirements**

S No.	Position	Entire Investment Program		First Tranche	
		Number	Cumulative Input (person-months)	Number	Cumulative Input (person-months)
1	Investment Program Manager	1	72	1	24
2	Urban Financial Mgt and Revenue Sp.	1	48	1	18
3	Urban Governance and Institutions Sp.	1	36	1	12
4	Senior Finance & Accounts Sp.	1	72	1	24
5	Benefit Monitoring and MIS Officer	1	72	1	24

**Table S3.2 (a) – Minimum SIPMIU (Agartala) Staffing Requirements**

S No.	Position	Entire Investment Program		First Tranche	
		Number	Cumulative Input (person-months)	Number	Cumulative Input (person-months)
1	Program Director	1	72	1	24

S No.	Position	Entire Investment Program		First Tranche	
		Number	Cumulative Input (person-months)	Number	Cumulative Input (person-months)
2	Municipal Specialist	1	72	1	24
3	Water Supply Engineer	1	72	1	24
4	Solid Waste Management Specialist	1	72	1	24
5	Safeguards Specialist (Environment)	1	72	1	24
6	Procurement Specialist	1	63	1	24
7	Social Development Specialist	1	72	1	24
8	BME/MIS Officer	1	72	1	24
9	Accounts and Disbursement Officer	1	72	1	24
10	Admin Manager	1	72	1	24
11	Supervision Engineer	2	100	1	24
12	Assistant Supervision Engineer	3	150	2	35
13	Driver	1	72	1	24

Table S3.2 (b) – Minimum SIPMIU (Aizawl) Staffing Requirements

S No.	Position	Entire Investment Program		First Tranche	
		Number	Cumulative Input (person-months)	Number	Cumulative Input (person-months)
1	Program Director	1	72	1	24
2	Municipal Specialist	1	72	1	24
3	Water Supply Engineer	1	72	1	24
4	Sewerage and Sanitation Engineer	1	72	1	24
5	Solid Waste Management Specialist	1	72	1	24
6	Safeguards Specialist (Environment)	1	72	1	24
7	Procurement Specialist	1	63	1	24
8	Social Development Specialist	1	72	1	24
9	BME/MIS Officer	1	72	1	24
10	Accounts and Disbursement Officer	1	72	1	24
11	Admin Manager	1	72	1	24
12	Supervision Engineer	2	100	1	24
13	Assistant Supervision Engineer	3	150	2	32
14	Driver	1	72	1	24

Table S3.2 (c) – Minimum SIPMIU (Gangtok) Staffing Requirements

S No.	Position	Entire Investment Program		First Tranche	
		Number	Cumulative Input (person-months)	Number	Cumulative Input (person-months)
1	Program Director	1	72	1	24
2	Municipal Specialist	1	72	1	24
3	Water Supply Engineer	1	72	1	24
4	Sewerage and Sanitation Engineer	1	72	1	24
5	Solid Waste Management Specialist	1	72	1	24
6	Safeguards Specialist (Environment)	1	72	1	24
7	Procurement Specialist	1	63	1	24
8	Social Development Specialist	1	72	1	24
9	BME/MIS Officer	1	72	1	24
10	Accounts and Disbursement Officer	1	72	1	24
11	Admin Manager	1	72	1	24
12	Supervision Engineer	2	100	1	24
13	Assistant Supervision Engineer	3	150	2	32
14	Driver	1	72	1	24

**Table S3.2 (d) – Minimum SIPMIU (Kohima) Staffing Requirements**

S No.	Position	Entire Investment Program		First Tranche	
		Number	Cumulative Input (person-months)	Number	Cumulative Input (person-months)
1	Program Director	1	72	1	24
2	Municipal Specialist	1	72	1	24
3	Water Supply Engineer	1	72	1	24
4	Sewerage and Sanitation Engineer	1	72	1	24
5	Solid Waste Management Specialist	1	72	1	24
6	Safeguards Specialist (Environment)	1	72	1	24
7	Procurement Specialist	1	63	1	24
8	Social Development Specialist	1	72	1	24
9	BME/MIS Officer	1	72	1	24
10	Accounts and Disbursement Officer	1	72	1	24
11	Admin Manager	1	72	1	24
12	Supervision Engineer	2	100	1	24
13	Assistant Supervision Engineer	3	150	2	32
14	Driver	1	72	1	24

**Table S3.2 (e) – Minimum SIPMIU (Shillong) Staffing Requirements**

S No.	Position	Entire Investment Program		First Tranche	
		Number	Cumulative Input (person-months)	Number	Cumulative Input (person-months)
1	Program Director	1	72	1	24
2	Municipal Specialist	1	72	1	24
3	Sewerage and Sanitation Engineer	1	72	1	24
4	Solid Waste Management Specialist	1	72	1	24
5	Safeguards Specialist (Environment)	1	72	1	24
6	Procurement Specialist	1	63	1	24
7	Social Development Specialist	1	72	1	24
8	BME/MIS Officer	1	72	1	24
9	Accounts and Disbursement Officer	1	72	1	24
10	Admin Manager	1	72	1	24
11	Supervision Engineer	2	100	1	24
12	Assistant Supervision Engineer	3	150	1	24
13	Driver	1	72	1	24

7. Consultants will be engaged by each of the five SIPMIUs for design, construction supervision and management (DSMC), and institutional development (IDC) activities, in accordance with ADB's *Guidelines on the Use of Consultants* (2007) as amended from time to time. Each of the State DSMCs will be headed by urban development/municipal engineering specialists with international and Indian experience. Their key tasks will include (i) supporting the SIPMIUs in identifying, preparing, and appraising of sub projects, ensuring conformance with the subproject selection criteria, as well as national, state and ADB's safeguards and other policy requirements and guidelines; (ii) undertake detailed surveys and investigations, prepare detailed engineering designs, technical specifications, procurement and contract documents and construction supervision in accordance with established good practices, (iii) support technical evaluation during the tender process and supervise construction of the Program investments, and (v) support the SIPMIU conducting program management activities, awareness and public relations activities, financial management, monitoring and evaluation, technical capacity building programs etc. IDCs will also be recruited by each of the States and will support the SIPMIUs and Government agencies (particularly ULBs and, where relevant parastatals) in (i) implementing the institutional, financial, regulatory, and operational reform agenda, (ii) conducting

capacity building programs for improved asset management and (iii) updating action plans and strategies for meeting the objectives of the reform agenda. Terms of reference for consulting services in each of the SIPMIUs are in Supplementary Appendix H and I of the Report and Recommendation of the President for NERCCDIP. The services of both NGOs and community-based organizations are also likely to be required to support civic awareness raising, slum upgrading, community-level solid-waste management, and resettlement monitoring.

8. The IPCC will be supported by a Program Management and Monitoring consultant (PMMC), headed by an urban development/municipal engineering expert with extensive experience, and will be comprised of a team, including an urban management/finance specialist, and an MIS specialist. The principal tasks of the central PMMC will include: (i) supporting the IPCC in MOUD in program coordination activities including regular progress monitoring and reporting, identifying implementation bottlenecks and recommending corrective actions; (ii) reviewing subproject appraisal reports prepared by the SIPMIUs in States, and supporting the IPCC in preparing the PFRs for submission to DEA; and (iii) supporting IPCC on capacity building activities. The consultant will also be required to assist the IPCC with implementation of the urban reform plan and undertake relevant studies, establish systems, and prepare strategy and action plans for solid-waste management and PSP packages.

#### Implementation Procedures and Arrangements

9. Individual subprojects are selected in accordance with the criteria as stipulated in Schedule 4, and will be implemented through the following procedures.

- (i) Feasibility Studies: For each proposed scheme (water supply, sewerage, solid waste management), SIPMIU will (a) form a planning team comprising specialized/deputized staff to the SIPMIU, and concerned line departments/ULBs (both technical and associated departments involved in provision of clearances, etc) and (b) conduct consultations with stakeholder groups. With the support of the DSMC consultants, the team will review and update/undertake feasibility studies conducted during the PPTA, or undertake new ones, and prepare subproject implementation plans<sup>3</sup> and due diligence assessments (draft environmental and social safeguards documents, economic and financial). Upon concurrence with stakeholder groups in writing, a subproject detailed project report is prepared and submitted to the State Government for approval. The SIPMIU will have those subprojects approved by the executive committee and forwarded to MOUD's IPCC. The appraisal report will be reviewed by MOUD and ADB. Based on this, preparations for a new periodic financing request (PFR) to finance the subproject will be initiated by the Government and ADB, in parallel to the preparation of detailed designs and tender documents.
- (ii) Detailed Design: Detailed design will be undertaken by the SIPMIU upon review of the subproject by MOUD and ADB (and in parallel to the institutional strengthening process). The design process, supported by the DSCM, will involve undertaking of all surveys (topographical, geotechnical, soils etc) necessary; preparation of detailed designs, associated calculations (utilizing computer aided design tools) and drawings. Moreover, the process should remain consultative and approved by State/ULB level institutions and stakeholder groups (as described in (i)) and their endorsement will be sought prior to design finalization and reflected in the implementation agreement. Tender documents will be prepared on the basis of the final design. Where applicable, land acquisition and resettlement plans will be finalized at this stage, and will be implemented with the engagement of an implementation NGO. Similarly, where

<sup>3</sup> Including a strategy for efficient water use and non-revenue water reduction, segregation of solid wastes etc.

applicable environmental documents (initial environmental examinations and/or environmental clearances) and indigenous peoples' development plans, drafted under stage (i) will be finalized after receiving comments from ADB, and statutory clearances sought. The submission of all the above documents to MOUD and ADB will lead to the finalization subproject for inclusion in the next proposed PFR.

- (iii) Approval for Subprojects and Tranches: Upon receipt of documentation from the SIPMIUs as described in (i),<sup>4</sup> MOUD's IPCC will review the subproject proposals to confirm compliance with subproject selection criteria, and then forward those eligible subprojects to ADB for prior review and endorsement. MOUD will coordinate with the SIPMIUs the preparation of detailed engineering designs and agree a common timetable for all States to meet project readiness criteria outlined in (ii). ADB's Appraisal Mission for the specific PFR will be organized based on the quality of feasibility documentation and the timetable set forth for meeting readiness criteria. The consolidated PFR to be formally submitted by MOUD to ADB through the Department of Economic Affairs should include (i) the required loan amount, (ii) a list of subprojects to be financed under the loan, (iii) cost estimates and financing plan, (iv) implementation arrangements, (v) confirmation of the continuing validity of, and adherence to, the provisions of the FFA, (vi) confirmation of compliance with the provisions under previous loan agreements and project agreements as appropriate, (vii) due diligence on safeguards, (viii) other information as may be required under the Facility Administration Memorandum to be prepared and agreed between ADB and India, to facilitate implementation and processing of the Facility.
- (iv) Tendering and Implementation of Civil Works: Upon (a) approval of the detailed design by the State Government, the stakeholders and then MOUD's IPCC, (b) obtaining statutory clearances and (c) full completion of the land acquisition and resettlement process where applicable, SIPMIUs will commence the tendering process of the civil works and supply of goods. SIPMIUs will be responsible for complying with ADB's procurement processes, including (i) submission of bidding documents, and (ii) submission of bid evaluation reports for review and approval, as may be relevant to the different modes of procurement agreed in the PFR Procurement Plans. MOUD's IPCC will monitor the procurement process and the timely award of contracts, and will provide expert support wherever necessary in dealing with matters pertaining to contract administration (as may be advice on aspects pertaining to arbitration etc).
- (v) Implementation Capacity Development and Governance Reform Program: The program will be led by each of the States, through a coordinated effort amongst the SIPMIU, the ULB and PHED. Design and Construction Supervision Consultants will be recruited by the SIPMIUs whilst Program Management and Monitoring Consultants (PMMCs) will be recruited by MOUD's IPCC. Institutional Development Consultants will be recruited by SIPMIUs, the capital city's ULB and the PHED, wherever relevant. The respective SIPMIUs will be responsible for ensuring compliance with ADB's consultant's recruitment process and other requirements of its guidelines, when recruiting DSMCs and IDCs. MOUD's will be responsible for compliance with ADB's consultant's recruitment process and other requirements of its guidelines, when recruiting PMMC as well as monitoring the overall recruitment process and the timely award of contracts.

<sup>4</sup> The SIPMIUs will prepare (a) subproject appraisal reports, including the scope, cost, financing and implementation arrangements; (b) an initial environmental examination or environmental impact assessment, (c) resettlement plan, and (d) an indigenous peoples development plan, as applicable; (d) economic, financial and institutional analyses.

- (vi) Disbursements: Immediately upon first loan effectiveness, the Government will open and maintain a first-generation imprest account (FGIA) in the account of the Controller of Aid Accounts and Audit of the Reserve Bank of India in Delhi to ensure the timely release of loan proceeds and expedite implementation. Imprest accounts will be opened separately for each PFR. The initial advance or replenishment by ADB into the FGIA will be converted into equivalent rupees by the Controller of Aid Accounts and Audit following its policy, and transferred in rupees to each of the States through the budgetary mechanism. As indicated in Figure S3.2, SIPMIUs will submit liquidation of withdrawal applications to MOUD's IPCC who (through the accountant specifically appointed to the NERCCDIP) will rapidly review and consolidate withdrawal applications for further processing by the Controllers of Aid Accounts and Audit and ADB. Through this action MOUD will endorse direct repayment to the States of ADB's share (as per Schedule 3 of the loan agreement) and simultaneously release payment for Gol's share.
- (vii) Capacity Development and Urban Reform Program: SEAs, with support from the SIPMIUs will be responsible for the implementation of the detailed urban governance and municipal reform program. SEAs, with support from the SIPMIUs, should no less than quarterly present progress in the SSC. Information and associated documentation (such as any laws passed, plans prepared etc) as well as a summary of actions agreed during the SSS meeting should be included in the quarterly reports forwarded to the IPCC. The IPCC will consolidate the information provided by the State and prepare a consolidated report pertaining to compliance with targets agreed with each of the States, and include this in the Quarterly Reports submitted to ADB. Compliance with this program will also determine the eligibility of the States for subsequent PFRs.

10. MOUD and the State Governments will put into operation the specific arrangements to improve quality of implementation of NERCCDIP, which are identified below:

- (i) posting physical and financial details and project progress in NERCCDIPs, and State Departments websites, along with the tenders and contracts awarded.
- (ii) grievance reporting and redressal mechanisms are in place to assist stakeholders in resolving their complaints in a timely manner. To this end, the IPCC and SIPMIUs will organize awareness campaigns for ULBs and other stakeholders.
- (iii) MOUD and SEAs, through their internal audit wing, will undertake annual financial audit, which will include investigation of all financial records and transactions.
- (iv) SEAs will strengthen its construction supervision, recording, and reporting system with the use of modern technologies, establish a quality control cell, and operationalize an internal third party technical audit mechanism. Accordingly, all work contracts will include provisions for third party inspection for quality control. External monitoring, supervision, and technical audit will also be mobilized under the DSMC and PMMC consultant teams.
- (v) All contracts financed by ADB for the project will include provisions stipulating ADB's right to audit and examine the records and accounts of the contractor.



## **B. Investment Program Monitoring and Review**

11. Based on a review of quarterly progress reports - prepared at State Level by the SIPMIUs and consolidated by the IPCC based on a format pre-agreed with ADB - ADB, MOUD and State Governments will meet semiannually, or more often if required, to review and discuss the progress of the Facility and each loan. In addition to regular reviews, including a midterm review for each loan, a detailed midterm review of the Facility will be undertaken in 2012, within 3 years of the effective date of the first loan agreement by ADB, India and each of the five State Governments. The midterm review will include a detailed evaluation of the scope and implementation arrangements of the Facility, safeguards, issues, progress with achievements versus set targets, contract management progress, and any other outstanding issues, and develop remedial measures to achieve the overall achievements of the Program in a timely manner.

12. IPCC in MOUD will be responsible for establishing an Investment Program Performance Monitoring System (IPPMS) acceptable to ADB within three months of the effectiveness of the first loan under MFF. The IPPMS will track the Program's and individual loan's implementation activities, expected inputs, impacts, outcomes and outputs together with corresponding target dates, including those for institutional and financial reforms and capacity building. Each State will establish individual IPPMS to provide the necessary data for the IPPMS in MOUD. MOUD will provide ADB with quarterly progress reports informing the ADB on the progress of overall MFF (i.e., subproject/tranche preparation/approval) and the implementation progress of ongoing individual loan which should consolidate the reports prepared by SIPMIUs. The reports will also provide summary financial accounts of the Program. MOUD will also submit to ADB, within three months of physical completion of the each subproject/tranche, a completion report that will cover the details of project implementation, costs, monitoring and evaluation activities, and other information requested by ADB.

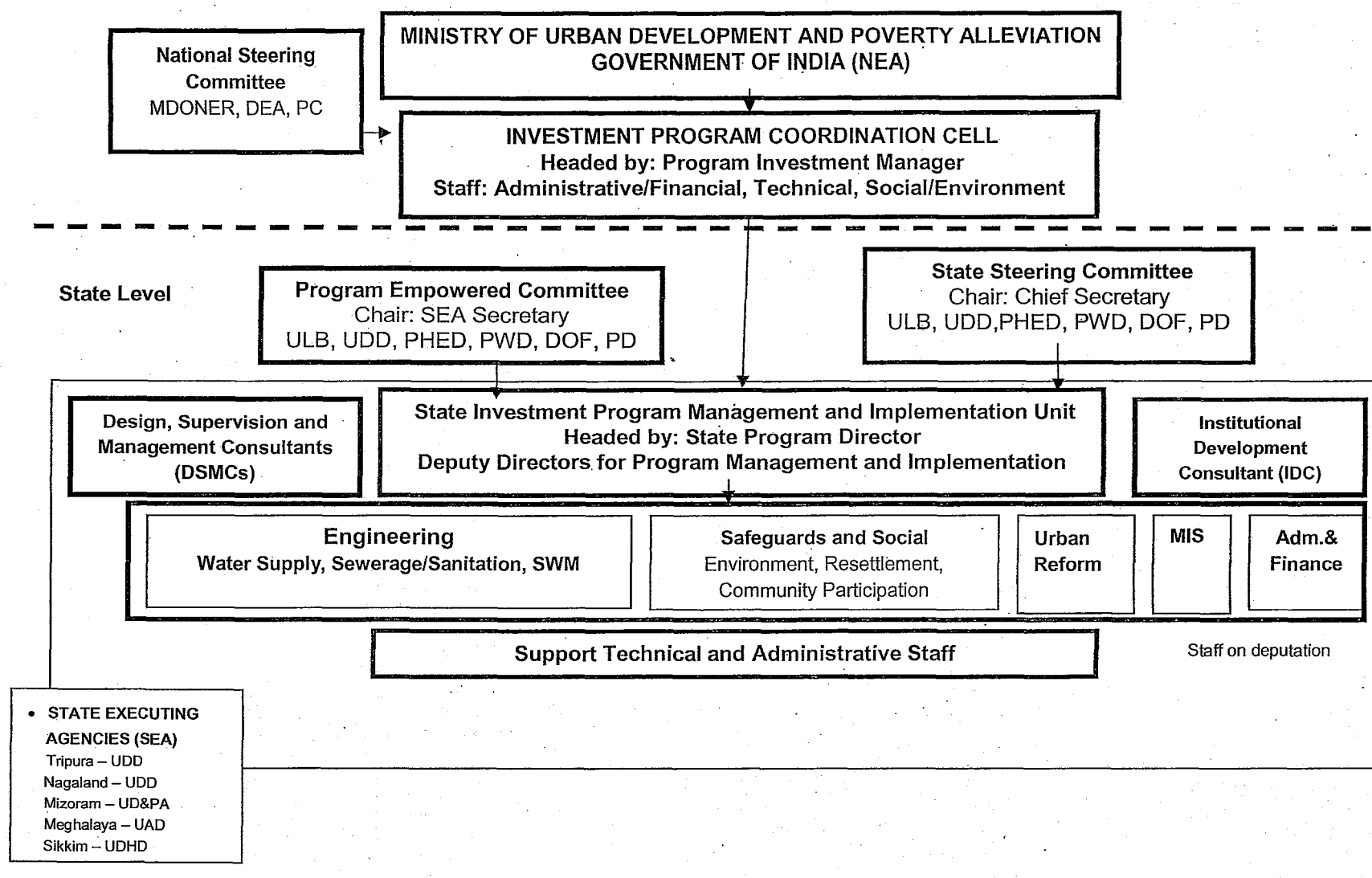
## **C. Counterpart Funds**

13. India and States will ensure that sufficient counterpart funds are made available from their budget for each fiscal year, in a timely manner, for smooth implementation of the Program, particularly in relation to secure SIPMIU staffing and activities.

## **D. Accounts**

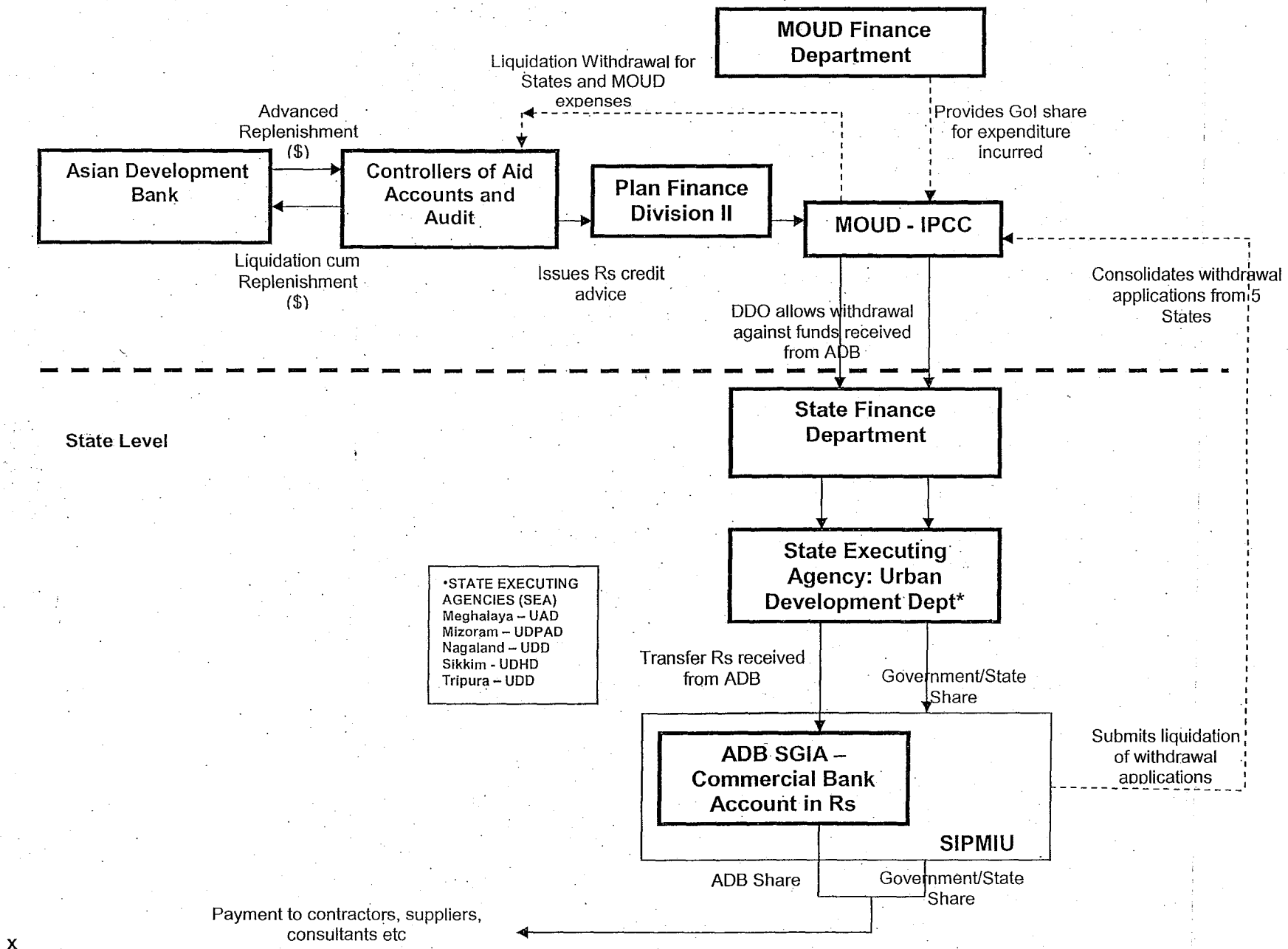
14. India and States will ensure that accounts and records are maintained and audited in a timely manner, for the expenditure (including each subproject) under each loan to adequately identify use of the loan proceeds in such manner and detail as may be specified under each loan agreement or project agreement.

Figure S3.1: Investment Program Organization Chart



MoDONER = Ministry for Development of North Eastern Region, Secy = Secretary, MoUD&PA = Ministry of Urban Development and Poverty Alleviation, DEA = Department of Economic Affairs, PC = Planning Commission, C&S = Commissioner & Secretary, UDD = Urban Development Department, UAD = Urban Affairs Department, UD&PA = Urban Development and Poverty Alleviation Department, UDHD = Urban Development and Housing Department, FA = Financial Advisor, Comm = Commissioner, PHED = Public Health Engineering Department, PWD = Public Works Department, PD = Program Director, RR = Resettlement and Rehabilitation,

Figure S3.2: Investment Program Fund Flow Chart



ADB = Asian Development Bank, MOUD = Ministry of Urban Development, IPCC = Investment Program Coordination Cell, SIPMIU = State Investment Program Management and Implementation Unit, SGIA = Second Generation Imprest Account, UAD = Urban Affairs Department, UDD = Urban Development Department, UDHD = Urban Development and Housing Department. UDPA = Urban Development and Poverty Reduction Department.

## SCHEDULE 4 SELECTION CRITERIA FOR APPROVAL OF PROJECTS

### A. General Subproject Selection Criteria

1. All towns under the Investment Program have been defined and are limited to Agartala (in the State of Tripura), Aizawl (in the State of Mizoram), Gangtok (in the State of Sikkim), Kohima (in the State of Nagaland) and Shillong (in the State of Meghalaya). In accordance with the objectives and targets set under the Road Map and Investment Program for the North East Region Capital Cities Multitranching Financing Facility (MFF), the components of subprojects eligible for financing under the facility will include (i) water supply, (ii) sewerage and sanitation, and (iii) solid waste management.

2. The subprojects will be part of the North Eastern Region Capital Cities Investment Program for 2009-2015 (NERCCDIP). These will be complemented by investments under the JNNURM program. In case the subprojects proposed under NERCCDIP are being implemented from another funding source, alternative subprojects will only be considered for selection if they are part of the Investment Plan for 2007-2027 as defined in the City Development Plan for each of the North Eastern Region Capital Cities. The selection of each subproject in each town, will be subject to all the following general criteria to be adhered to by IPCC and the various SIPMIUs:

- (i) The subproject has not been sanctioned under JNNURM or any other program.
- (ii) The subproject has been identified through the town and infrastructure master plans and any changes thereafter are consistent with it.
- (iii) The subproject is technically sound and a preliminary design has been prepared.
- (iv) The subproject has the following features: (a) consumer demand analysis indicates that people are willing to pay connection and monthly charges to access the improved service; (b) the rationale for the project has been clearly identified; (c) project alternatives have been identified and a least cost analysis has been conducted; (d) the cost and benefit analysis indicates the economic internal rate of return equals or exceeds the economic opportunity cost of capital for the State under consideration; and (e) a tariff analysis, including equity consideration in tariff structure, willingness to pay and affordability, in case of revenue-generating subprojects, has been conducted.
- (v) The subproject is financially sustainable and has a financial action plan comprising (i) funds required for operation and maintenance of completed infrastructure assets, (ii) sources of available funds whether from State, GOI, or user charges, (iii) timed targets for gradually meeting 100% of cost recovery for operation and maintenance, and (iv) financial management system improvements.
- (vi) A financial management assessment for both each implementing body of the works and each owner of the assets created, responsible for the operation and maintenance (O&M) of such assets, has been prepared. This assessment will be in accordance with Chapters 3, 4 and 5 of the *Handbook for Borrowers on Financial Management and Analysis of Projects (2006)*, as updated from time to time.
- (vii) A written agreement between the State Urban Development Department and the ULB or utility agencies that will operate the scheme has been signed, including a commitment to (a) take over O&M of infrastructure assets and facilities created under the NERCCDIP along with existing facilities and (b) make sufficient provision for O&M in their budget (until 100% tariff recovery is achieved).
- (viii) All necessary India and State Government approvals and clearances have been obtained.
- (ix) The subproject avoids or minimizes land acquisition or resettlement.

- (x) The subproject has been prepared in accordance with ADB's Resettlement Framework for NERCCDIP and, where necessary, a compliant resettlement plan has been prepared.
- (xi) The subproject is designed to be seismic resistant in accordance with relevant Indian codes.
- (xii) The subproject (i) meets the environmental subproject selection criteria for NERCCDIP; (ii) has an initial environmental examination (IEE) including an environmental management plan in accordance with the environmental assessment and review framework as per ADB Environmental Policy (2002); and (iii) has a sufficient budget allocation to meet the cost for implementing the environmental management plan.
- (xiii) The subproject complies with the Indigenous Peoples Development Framework for NERCCDIP and, if necessary, an indigenous peoples development plan has been prepared.
- (xiv) A time-bound operational plan consistent with the MoA signed between the State under JNNURM where the subproject is located and the Government of India, describing the institutional arrangements for the implementation and handover of the subproject from the SIPMIU to the service provider has been prepared.

## **B. Sub-sector Specific Criteria**

### **1. Water Supply**

3. To be eligible for financing under the NERCCDIP, a proposed subproject in the water supply sub-sector will comply with all the following selection criteria, in addition to the general criteria set out above:

- (i) The subproject will fall within the following scope:
  - Proposals for increasing efficiency and reducing O&M cost of existing systems through providing dedicated feeder power lines/transformers or replacing old machineries (pumping and others); or
  - Works related to improving the treated water quality specifically disinfection, by chlorination; or
  - Works related to removal of cable/bunched pipelines by laying looped distribution pipe lines and providing new service lines to achieve greater pressures and quantities at consumer end; or
  - Proposals aimed at assessing and reducing non-revenue water (NRW) both on existing and proposed systems, resulting in increasing water availability at no additional cost at the consumer's end; or
  - Works related to implementing volumetric water tariff and NRW management through installation of consumer and bulk meters on pipelines and reservoirs; or
  - Proposals to improve and expand distribution systems through pipelines and reservoirs; or
  - Increase of production to cater to water demand for 2021, through construction of infiltration galleries, tube wells etc along with their ancillary works of pipelines, pump sets, power etc.
- (ii) The EIRR of the subproject is at least 12%;
- (iii) Augmentation of the distribution system in Kohima will only be undertaken once (a) the State has initiated civil works leading to source augmentation (sanctioned by GOI) and (b) a long-term and sustainable partnership arrangement with provisions for

compensation for the use of water has been made with persons and communities, who have rights to water sources.

- (iv) The subproject is located in a city that has demonstrated its commitment to implementing bulk and household individual metering.
- (v) Firm commitment to establish a separate accounting system by the service provider for urban water and sewerage has been provided.

## 2. Sewerage and Sanitation

4. To be eligible for financing under the NERCCDIP, a proposed subproject in the sewerage and sanitation sub-sector will comply with all the following selection criteria, in addition to the general criteria set out above

- (i) The subproject will fall within the following scope:
  - Proposals towards coverage with a sewerage system of high density and polluted areas of cities, to avoid disposal of sanitary wastes and sullage into open drains or open land; or
  - Prevention of pollution in surface and ground waters due to discharge of untreated sanitary wastes and sullage through installation of a piped sewerage system and treatment plants; or
  - Adoption of low cost sanitation technologies for improving sanitary conditions in areas not covered by the piped sewer system; or
  - Provisions of appropriate sewer inspection and maintenance equipment with adequate design safety provisions for regular cleaning of sewers, septic tanks etc.
- (ii) The subproject is located in the town core (most densely populated) area where a minimum per capita supply rate is established to support toilet flushing and where design provides sufficient flow in the network to achieve a self cleansing velocity.<sup>1</sup>
- (iii) If the subproject concerns the installation of a sewer network, adequate treatment and disposal facilities are also provided as part of the subproject or funds from another financier for this purpose have been secured.
- (iv) The EIRR of the subprojects is at least 12%.
- (v) The zone covered by the subproject has a projected population density of at least 100 per hectare in 2017 or is highly vulnerable to landslides/flooding.

## 3. Solid Waste Management

5. To be eligible for financing under the NERCCDIP, a proposed subproject in the solid waste management sub-sector will comply with all the following selection criteria, in addition to the general criteria set out above

- (i) The subproject will fall within the following scope:
  - Works related to improving collection efficiencies and transportation of solid wastes including separate collection of bio-medical wastes;
  - Works related to increasing or improving capacities related to the sanitary treatment and disposal of wastes, or
  - Activities to (i) enhance the awareness of communities towards better solid waste management practices and (ii) involve NGOs / Private sector in solid waste management.

<sup>1</sup> CPHEEO Guidelines recommend the minimum self cleansing velocity as 0.69 m/sec.

- (ii) A timed solid waste management strategy for the subproject is in place, including (a) possible private sector participation and/or (b) community-level solid waste management improvement through civic awareness program.
- (iii) The subproject complies with the Solid Waste Management and Handling Rules (2000) of the GoI and special directions of the Supreme Court.
- (iv) No landfill related equipment will be procured till landfill sites are ready for disposal.
- (v) If the subproject is a composting plant an adequate market/demand study showing the marketability of the compost is available.
- (vi) Prior to undertaking the subproject, sufficient awareness building amongst beneficiaries must have been carried out to ensure segregation of waste at source and effective collection.

### **C. Sequencing of Tranches**

6. The sequencing of tranches is based on the following principles: (i) readiness of subprojects in terms of institutional capacities and safeguards compliance (in particular land acquisition and resettlement as well as environmental aspects); (ii) relative investment priorities under the NERCCDIP and the Government's Investment Program, ranking the subprojects for augmenting efficiency of existing utility systems and capacity building of service providers higher than system expansions; and (iii) the size, growth rates, and logical urban planning/development of the towns.

7. The sequencing of tranches is based on the following principles:

- (a) Works pertaining to the improvement of existing infrastructure and operational efficiencies will be taken up in the 1<sup>st</sup> tranche. These include rehabilitation of water supply systems, including leakage reduction, bulk and individual metering, awareness raising for improved solid waste and sanitation practices and water conservation, and capacity building;
- (b) Subprojects on expansion of infrastructure and services (water supply, sewerage and solid waste management) will be generally taken up in the 2<sup>nd</sup> and 3<sup>rd</sup> tranches as they require commitments from the States, for example, on the availability of water source or suitable land with necessary safeguard clearances, and progress towards cost recovery for operation and maintenance to sustain improvements.

### **D. Approval Procedure for Tranches**

8. Subproject preparation has been completed for subprojects that are to be included in the first PFR. For subprojects to be included in future PFRs, approval procedures will be as follows:

- (i) The SIPMIUs in each State, in coordination with relevant State agencies and ULBs, will prepare subproject proposals in the format agreed, indicating compliance of each subproject with the selection criteria, and will submit the proposals to the IPCC in MOUD i.e., NEA.
- (ii) The SIPMIUs will prepare (a) subproject appraisal reports, including the scope, cost, financing and implementation arrangements; (b) an initial environmental examination or environmental impact assessment, (c) resettlement plan, and (d) an indigenous peoples development plan, as applicable; and (e) economic, financial and institutional analyses. The SIPMU will have those subprojects approved by the executive committee and forwarded to the IPCC.

- (iii) The IPCC will review the subproject proposals to confirm compliance with subproject selection criteria, and then forward those eligible subprojects to ADB for prior review and endorsement before submission of a PFR.<sup>2</sup>
  - (iv) Following the endorsement of subprojects by ADB, the IPCC will submit them in the form of a PFR for endorsement to the Department of Economic Affairs in the Ministry of Finance for onward transmittal to ADB.
9. The PFRs should include (i) the required loan amount, (ii) a list of subprojects to be financed under the loan, (iii) cost estimates and financing plan, (iv) implementation arrangements, (v) confirmation of the continuing validity of, and adherence to, the provisions of the FFA, (vi) confirmation of compliance with the provisions under previous loan agreements and project agreements as appropriate, (vii) due diligence on safeguards including documentation of and fulfillment of ADB consultation and disclosure requirements including the 120-day disclosure requirement, where applicable, (viii) other information as may be required under the Facility Administration Memorandum to be prepared and agreed between ADB and India, to facilitate implementation and processing of the Facility.

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<sup>2</sup> Once the subprojects are determined to be eligible and compliant with all requirements, other Project Readiness criteria (e.g preparation of detailed engineering designs, land acquisition processes and obtaining statutory clearances, should be pursued).



## SCHEDULE 5

### SOCIAL DIMENSIONS AND SAFEGUARD REQUIREMENTS

1. India will ensure that all the requirements prescribed in this Schedule, and the following safeguard frameworks and plans that have been prepared with respect to the Facility and the first tranche and of which ADB has been provided full copies, and which are deemed incorporated herein by reference, are complied with during the processing and implementation of the projects under the Facility.

- (i) environmental assessment and review framework, dated January 2009;
- (ii) resettlement framework dated November 2008;
- (iii) indigenous peoples development framework dated October 2008;
- (iv) initial environmental examination for rehabilitation of water schemes in Agartala, Aizawl and Kohima, dated January 2009;
- (v) initial environmental examination for Kohima's solid waste management scheme, dated January 2009;
- (v) initial environmental examination for Shillong's sanitary landfill site, dated January 2009;
- (vi) initial environmental examination for Gangtok's water supply rehabilitation scheme, dated January 2009; and
- (vii) resettlement plan for Gangtok's water supply rehabilitation scheme, dated October 2008.

2. The frameworks cover the Facility-specific information and requirements in accordance with ADB's safeguard policies and India's and States laws and regulations: (i) the general anticipated impacts of the components or projects likely to be financed under the MFF on the environment, involuntary resettlement, and indigenous peoples; (ii) the safeguard criteria that are to be used in selecting components, projects; (iii) the requirements and procedure that will be followed for screening and categorization, impact assessments, development of management plans, public consultation and information disclosure (including the 120-day disclosure rule, for category A and B sensitive projects), and monitoring and reporting; and (iv) the institutional arrangements (including budget and capacity requirements) and the client's and ADB's responsibilities and authorities for the preparation, review and clearance of safeguard documents.

3. Prior to the preparation of each PFR, the applicability and relevance of each safeguard framework for environmental assessment, involuntary resettlement, and indigenous people will be reviewed by MOUD and updated to ensure relevance and consistency with applicable country legal frameworks and ADB's safeguard policies, as amended from time to time. In addition, for each of the subsequent tranches of the MFF a Summary Poverty Reduction and Social Strategy will be attached to the PRF.

4. In all cases, for each new PFR preparation, the client will review ongoing projects to check on the status of compliance with the safeguard plans and frameworks, and submit the review reports to ADB, together with other required safeguard documents relevant to the projects included in the tranche being processed. In any case if major noncompliance is discovered in the course of the review of ongoing projects, a corrective action plan will be prepared and submitted to ADB.

## SCHEDULE 6 UNDERTAKINGS

1. In addition to the other undertakings in this FFA and the Schedules to this FFA, India and the States will undertake the following actions:

- (i) India will ensure that the Facility funds are utilized effectively and efficiently to implement the Investment Program and achieve its objectives.
- (ii) States will implement the Urban Governance, Finance and Service Delivery Improvement Program (Annex 1 to this Schedule) in accordance with the timeframe set in the action plan.
- (iii) Empowered Committees and SIPMIUs, headed and staffed by officers with suitable qualifications and experience, acceptable to ADB, will be in place in each State throughout the Program.
- (iv) India and the States will ensure that adequate funds will be provided to meet any shortfall for financing operation and maintenance cost of assets created under the Investment Program.
- (v) Prior to any investment in augmentation of water supply in any of the capital cities, the city concerned will have approved a plan for increased investments in sewerage and sanitation.
- (vi) India and the States will ensure that all land and right-of-way required for the Investment Program are made available in a timely manner, adequate compensations are provided prior to the signing of relevant civil works contracts, and involuntary resettlement is carried out in accordance with the Resettlement Framework (RF) and Resettlement Plans (RPs) agreed upon between the Government and ADB, the Government's National Policy on Resettlement and Rehabilitation, and ADB's Policy on Involuntary Resettlement (1995). An RP will be prepared for each sub-project involving land acquisition or resettlement and shall be submitted to ADB for review and approval prior to award of any related civil works contracts. For sample sub-projects, updated RPs will be provided to ADB for review and approval following detailed design and prior to award of civil contracts.
- (vii) India and the States will ensure that the design, construction, operation and implementation of all sub-project facilities is carried out in accordance with the environmental assessment and review procedures and Initial Environmental Examinations (IEEs) for core sub-components agreed upon between the Government and ADB, and complies with the Government's environmental laws and regulations and ADB's Environment Policy (2002). Any adverse environmental impacts arising from the construction, operation and implementation of sub-component facilities will be minimized by implementing the environmental mitigation and management measures, and other recommendations specified in environmental assessment reports (e.g., IEEs). The Government will ensure environmental requirements will be incorporated in bidding documents and civil works contracts. Issuance of bid documents will be made after review and clearance of IEE/EIA by ADB and SEIAA or MOEF. GoI will prepare and submit annually to ADB an environmental monitoring report that describes progress in implementation of the EMP and EARP and issues encountered and measures adopted; and compliance with the relevant assurances and loan covenants.
- (viii) India and the States will ensure that sub-projects will not negatively impact vulnerable groups, such as indigenous peoples. In the event of their involvement

in any of the sub-projects, the GoI and the States will ensure that the sub-projects are carried out in accordance with the Indigenous Peoples Development Framework (IPDF) agreed upon between GoI and the States and ADB and comply with ADB's Policy on Indigenous Peoples (1998) and India's and the States' laws and regulations.

- (ix) GoI and the States will ensure that all civil works contractors comply with all applicable labor laws, including those on occupational health and safety, equal pay for men and women for work of equal value, and do not employ child labor as defined in national legislation for construction and maintenance activities.
- (x) The States will take all appropriate and necessary measures to encourage adequate representation of all sections of society in urban local bodies.
- (xi) In cities receiving funds from the Facility for water and sewerage, the State and/or ULB in charge of service delivery will make information on water and affluent testing publicly available.
- (xii) India and the states will comply with the Gender Action Plan agreed between GoI and ADB.
- (xiii) India and the states will ensure that all sub projects meet, to the satisfaction of the ADB, the selection criteria and implementation arrangements and procedures specified in the FFA.

# **URBAN INSTITUTIONAL, FINANCIAL, REGULATORY, AND OPERATIONAL REFORM PROGRAM**

		Agartala	Kohima	Aizawl	Shillong	Gangtok
<b>A</b>	<b>Institutional</b>					
	<b>Implement 74<sup>th</sup> Constitutional Amendment (CA) -Objective: Implementing decentralization measures through establishing and strengthening elected ULBs</b>	<p>Within six months of loan effectiveness develop and submit a plan approved by the State Empowered Committee (SEC) containing (i) a <b>situational assessment of the capacities of the various functional arms of the Urban Local Body (ULB)</b> (ii) a time-bound ULB <b>capacity development and resource program</b> and (iii) a time-bound <b>action plan for devolving further functions in a phased manner to ULBs</b> in line with 74<sup>th</sup> CAA and JNNURM<sup>1</sup></p>				
		<p>Within six months of 1<sup>st</sup> tranche approval, develop and submit to MOUD and ADB an administrative, organizational, operational development strategy and plan approved by the SEC and the Agartala Municipal Council (AgMC including (a) finalization/ clarification of the jurisdictions, mandate, and power of zones/wards and their logistical requirements, (b) organizational structure of AgMC (considering also the expansion of boundaries of AgMC), its political and administrative wings, departments, sections, and their job descriptions, (c) asset management and operation systems development, and (d)</p>	<p>Within six months of 1<sup>st</sup> tranche approval, develop and submit to MOUD and ADB an action plan approved by the SEC to gradually transfer to KMC responsibility and resources for urban functions and to build necessary capacities, including developing administrative, organizational, operational, and financial systems, and staffing.</p> <p>Within one year of 1<sup>st</sup> tranche approval; develop a time-bound plan approved by the SEC to carefully integrate the traditional systems, e.g., panchayats and gaon buras into the Kohima</p>	<p>Within six months of 1<sup>st</sup> tranche approval establish an administrative arm the ULB, including an acting CEO, accounting and engineering units. Transfer/reallocate staff as necessary.</p> <p>Within one year of 1<sup>st</sup> tranche approval organize Aizawl Municipal Council (AiMC) elections.</p> <p>Within two years of 1<sup>st</sup> tranche approval Review the rôle of village councils and develop a plan to integrate them within the new AiMC structure e.g., as sub-municipal units</p>	<p>Within two years of 1<sup>st</sup> tranche approval, install an elected urban local body in the Shillong Municipal Board (SMB) Area.</p> <p>Within one year of 1<sup>st</sup> tranche approval, conduct a public debate, involving all stakeholders, on the need for an urban governance set up for the Greater Shillong area. Submit a report to ADB and MOUD.</p> <p>Within four years of 1<sup>st</sup> tranche approval, finalize the urban governance arrangements for the Greater Shillong area and integrate the traditional governance structures into the urban governance framework.</p>	<p>Within six months of 1<sup>st</sup> tranche approval establish an administrative arm of the Gangtok Municipal Council (GMC), including an acting CEO, accounting and engineering units. Transfer/reallocate staff as necessary.</p> <p>Within one year of tranche approval organize GMC elections.</p>

<sup>1</sup> Depending on the level of municipalization in each city, the following activities may need to be considered in the preparation of the action plans: (1) Formation of Core Group/ Task Force for carrying out reform and constitution of Municipalities; (2) Framing the Rules under Municipal Act for day-to-day administration; (3) Issuance of an executive order for constituting a municipality; (4) Agreeing on general principles of demarcating municipal boundaries and wards; (5) Making amendment in Municipality Act as per 74th CAA; (6) Issuance of Government orders/Notification of Transfer of functions listed under 12th Schedule of 74th CAA; (7) Framing Rules for Ward Delimitation; (8) Conduct Municipal Election; (9) Agreeing on a proposed staffing and reporting structure and manpower requirements and recommend to State Finance Commission; (10) Constitute State Finance Commission and its recommendation implemented; (11) Send recommendations to the State Finance Commission for allocation of municipal budgets; (12) Fixing of cadre strength and responsibilities for various levels of officers; (13) Recruitment of officers and staff with appropriate skills and qualification or transfer from state line departments; (14) Imparting of short term training to newly recruited staff and officers and transferred staff towards municipal council's operations; (15) Complete transfer of functions to municipal council and (16) Transfer of assets to municipal council.

		Agartala	Kohima	Aizawl	Shillong	Gangtok
		personnel management and staff augmentation/development.	Municipal (KMC) and the ward set up			
		Within 3 years of 1 <sup>st</sup> tranche approval and prior to Tranche 3 approval (expected end 2011), all States must have (i) substantially <b>devolved functions</b> to their respective capital cities (for no less than those sectors supported under the Investment Program but also expected in other areas), (ii) adequately <b>staffed</b> engineering, administrative and financial sections of the ULBs, and allocated sufficient budget to initiate activities in newly established ULBs and (iii) <b>transferred assets</b> associated with these functions.				
<b>B</b>	<b>Service Delivery</b>					
	<b>Reforms for Efficient and Financially Sustainable Water Supply and Sewerage Service Providers</b>	Within one year of 1 <sup>st</sup> tranche approval, restructure PHED/AgMC (as per agreed model) and create one single city ring fenced area headed by a senior officer with control over city water and sewerage operations as well as separate accounting and balance sheet.	Within one year of 1 <sup>st</sup> tranche approval, restructure PHED/KMC (as per agreed model) and create one single city ring fenced area headed by a senior officer with control over city water and sewerage operations as well as separate accounting and balance sheet.	Within one year of 1 <sup>st</sup> tranche approval, restructure PHED/AiMC (as per agreed model) and create one single city ring fenced area headed by a senior officer with control over city water and sewerage operations as well as separate accounting and balance sheet.	Within 18 months of 1 <sup>st</sup> tranche approval, restructure PHED/SMB (as per agreed model) and create one single city ring fenced area headed by a senior officer with control over city water and sewerage operations as well as separate accounting and balance sheet.	Within one year of 1 <sup>st</sup> tranche approval, restructure PHED and create one single city ring fenced area (as per agreed model) headed by a senior officer with control over city water and sewerage operations as well as separate accounting and balance sheet.
		Issue order to use double entry accounting, asset inventory and asset management in the circle within two years of 1 <sup>st</sup> tranche approval and implement within 1 year of WS subprojects approval (expected 2 <sup>nd</sup> tranche).	Issue order to use double entry accounting, asset inventory and asset management in the circle within three years of 1 <sup>st</sup> tranche approval and implement within 1 year of WS subprojects approval (expected 2 <sup>nd</sup> tranche).	Issue order to use double entry accounting, asset inventory and asset management in the circle within three years of 1 <sup>st</sup> tranche approval and implement within 1 year of WS subprojects approval (expected 2 <sup>nd</sup> tranche).	Issue order to use double entry accounting, asset inventory and asset management in the circle within two years of 1 <sup>st</sup> tranche approval and implement within 1 year of WS subprojects approval (expected 2 <sup>nd</sup> tranche).	Issue order to use double entry accounting, asset inventory and asset management in the Circle within three years of 1 <sup>st</sup> tranche approval and implement within 1 year of WS subprojects approval (expected 1 <sup>st</sup> tranche).
		Develop performance improvement plans within one year of approval for WSS subprojects and start implementing them.				
		Within two years of 2 <sup>nd</sup> tranche approval, commence implementation of selected option of financially self sustainable, efficient and commercially operated water and sewerage agency and start consultations with stakeholders including ADB on options available.				
		Within 1 year of 2 <sup>nd</sup> tranche approval, and based on the results of the PSP study, conduct consultations and develop a plan and proposals for components with potential for PSP.				
		Within four years of tranche approval of WS subprojects, approve appropriate arrangements/laws for regulating the water service providers				
	<b>Improved Operational Efficiency</b>	Prior to loan effectiveness, issue Government Order to implement a NRW reduction program, as well as a bulk and consumer metering program, and commence implementation within 6 months of 1st tranche approval.				

		Agartala	Kohima	Aizawl	Shillong	Gangtok
	<b>Regulatory Compliance</b>	<p>In States whose capital cities receive funds from the MFF for subprojects in the sewerage and sanitation sector, the States will approve, within six months of tranche approval (generally 3<sup>rd</sup>), regulations to (a) enforce those households with access to a sewerage pipeline to connect to the sewerage system within one year of network completion; (b) enforce all households not to discharge their sanitary waste without treatment and maintain their septic tanks in specified levels of efficiency; (c) require new buildings to obtain a sanitary waste discharge permit; and (d) enforce generators of large quantities of wastes such as industries not to discharge their wastes without treatment and to maintain their discharges at specified levels of efficiency.</p> <p>In States whose cities receive funds from the Facility for subprojects in the solid waste management sector, the States will approve, at the latest by the commencement of civil works, regulations regarding (a) the discharge of solid wastes; (b) the separation of wastes and disposal of hazardous wastes; (c) the installation of improved procedures for vehicle routing, asset control and staff management; and (d) establishment of operations and maintenance procedures for vehicles and other equipment; (e) the monitoring of waste collection and treatment, revenues and costs, staff costs, and other inputs.</p>				
<b>C</b>	<b>Financial</b>					
	<b>Municipal Financial Management</b>	Within 2 years of 1 <sup>st</sup> tranche approval for Agartala and Shillong, and within 2 years of 2 <sup>nd</sup> tranche approval for Aizawl, Gangtok and Kohima, capital cities will have completed migration to an accrual based double entry accounting system. <sup>2</sup>				
	<b>Property Tax Improvements</b>	<p>Within 18 months of 1<sup>st</sup> tranche approval, Agartala will have implemented property tax reforms, including preparation of GIS based property mapping, unit area based and self assessment based property tax system whilst Shillong will have updated its system and retrained staff.</p> <p>Within 18 months of 2<sup>nd</sup> tranche approval, Aizawl, Gangtok and Kohima will have introduced property tax, following the unit area based and self assessment based property tax system.</p> <p>Within 3 years of 1<sup>st</sup> tranche approval for Agartala and Shillong, and 3 years of 2<sup>nd</sup> tranche approval for Aizawl, Gangtok and Kohima, collection efficiency should be no less than 60%, and 85% one year later.</p>				
	<b>Introduction and Rationalization of User Charges</b>	<p>Within 1 year of 1<sup>st</sup> tranche approval, develop (with guidance from Supplementary Appendix M plan) and submit a Financial Action Plan to ensure improved utility financial performance.</p> <p>In line with JNNURM's MOA, within 1 year of 3rd tranche approval, implement solid waste collection charges to generate sufficient revenues to meet 100% of the cost that is incurred in undertaking O&amp;M of existing and project-created SWM assets and services</p> <p>In line with JNNURM's MOA, within 1 year of 3rd tranche approval, implement volumetric water charges with regular adjustments to tariffs to generate sufficient revenues to meet 100% of the cost that is incurred in undertaking O&amp;M of existing and project-created water and sewerage assets.</p>				

<sup>2</sup> This will include, amongst other, (1) Completion and adoption of accounting manual, (2) passing of GO/Legislation/Modification of Municipal Finance rules for migrating to double entry accounting system, (3) Training of personnel, (4) Undertaking of Business process re-engineering, (5) Valuation of assets and liabilities, (6) Drawing up of opening balance sheet, and (7) Drawing up of opening balance sheet.

## DRAFT RESETTLEMENT FRAMEWORK

### A. OVERVIEW

1. The North Eastern Region Capital Cities Development Investment Program (NERCCIP) will improve environment and well-being of urban residents in the Program Cities of Agartala, Aizawl, Kohima, Gangtok and Shillong. NERCCIP will improve and expand urban infrastructure and services in cities, including its slums; and strengthen urban institutions' management and financing capacity. The Program's outputs include (i) urban infrastructure and services improvement including the rehabilitation, improvement, and expansion of water supply, sewerage and sanitation, solid waste management, and slum infrastructure; and (ii) capacity building and investment program management.

#### 1. Scope of Land Acquisition

2. NERCCIP is expected to have minimal impacts on land acquisition and resettlement. Sub-projects involving rehabilitation of existing infrastructure facilities are proposed to be accommodated within the existing premises and therefore will not involve land acquisition and resettlement. Efforts have been made towards siting of new facilities proposed in the Program within available vacant public lands. However, acquisition of land/private assets is required for siting new facilities such as sewage treatment plants (STP), overhead water reservoirs, and development of solid waste management sites. In addition to the permanent land acquisition, temporary impacts are anticipated during laying of water and sewer lines in all the five cities. The overall resettlement impacts are to be further avoided or minimized through careful sub-project siting and alignment during the detailed design and implementation stages.

3. An entitlement matrix, consistent with the existing norms and guidelines of the country and the state governments, and ADB's policy on involuntary resettlement has been prepared to cover losses identified in this Program. The matrix recognizes that the lack of title/customary rights recognized under law will not be a bar to entitlement and has special provisions for non-titled persons. The eligibility for compensation will be determined through a cut-off date. People moving into the sub-project area after the cut-off date will not be entitled to compensation or other assistance.

4. A short RP has been prepared for the Gangtok water supply sub-project, the only sub-project in Tranche 1 with resettlement impacts. The sub-project will have temporary impacts due

to laying of water supply distribution networks. Transect walks show that disruption is minimal and can be mitigated. The RP will be used as a model for the preparation and implementation of other sub-project RPs. Preliminary sites for most sub-projects proposed in the Program have been identified. Joint verification for most components has been undertaken with the respective implementing agencies. Impacts are not expected to be significant. The extent of land acquisition and resettlement will be finalized at the detailed design stage consistent with this Resettlement Framework (RF).

5. The total estimated land acquisition (from private land owners) for the Program in the 5 cities is 38.84 hectares (ha). Annex A provides the city wise details on the estimated land acquisition and resettlement requirements for each of the proposed components.

## **2. Resettlement Framework**

6. The NERCCIP Draft RF has been prepared for use of the five Program cities. The framework outlines the objectives, policy principles and procedures for land acquisition, if any, compensation and other assistance measures for affected persons (APs), if any. This framework reflects the borrower's land acquisition laws/regulations, state policies on resettlement and ADB's policy on involuntary resettlement and other social safeguard guidelines. A detailed description of each compensation measure and assistance is provided in the entitlement matrix.

## **B. POLICY AND LEGAL FRAMEWORK**

7. The policy framework and entitlements for the program are based on national laws *The Land Acquisition Act, 1894* (LAA, amended in 1984); National Rehabilitation and Resettlement Policy, 2007; state laws and regulations; and ADB's *Policy on Involuntary Resettlement*, 1995. The relevant state laws include: (i) Agartala: *Tripura Municipal Act, 1994, Tripura Land Revenue and Land Reforms Act, 1960* (ii) Aizawl: *Mizoram Prevention of Government Land Encroachment Act, 2001 and Mizoram Urban and Regional Development Act, 1990*, (iii) Gangtok: *Sikkim Urban and Regional Planning Development Act, 1998 and The Sikkim Land (Requisition and Acquisition) Act, 1977*, (iv) Kohima: *The Nagaland Land (Requisition and Acquisition) Act, 1965, Nagaland Eviction of Persons in Unauthorized Occupation of Public Land Act, 1971, The Nagaland (ownership) and Transfer of its Land its Resource) Act, 1990 and Nagaland Town and Country Planning Act, 1966*, and (v) Shillong: *The Meghalaya Town and Country Planning Act, 1973*. The salient features of national and ADB policies have been summarized below. These policies are reviewed in the following sections.

### **1. Union Governments Policy**

#### **a. National Rehabilitation and Resettlement Policy (NRRP), 2007.**

8. The National Policy on Resettlement and Rehabilitation stipulates the minimum facilities to be ensured for persons displaced owing to the acquisition of land for public purposes. The objectives of the Policy are:

- (i) To minimize displacement and to identify non-displacing or least displacing alternatives;
- (ii) To plan resettlement and rehabilitation of Project Affected Families (PAFs) or Project Affected Households (PAHs), including tribal and vulnerable households;



- (iii) To provide improved standard of living to PAFs or PAHs and
- (iv) To facilitate harmonious relationship between the requiring body and PAFs.

9. Though this Policy is applicable for projects where over 400 PAFs in the plains or 200 in hilly or tribal areas are displaced, the basic principles can be applied to the resettling and rehabilitating of project-affected families regardless of the number affected.

#### **b. Land Acquisition Act, 1894 (LAA)**

10. The Act provides a framework for facilitating land acquisition within the country. This Act enables the States to acquire private lands for public purposes. The Act ensures that no person is deprived of land and entitles APs to a hearing before acquisition. The main elements of the Act are given below:

- (i) Land identified for the purpose of a project is placed under Section 4 of the LAA. This constitutes notification. Objections must be made within 50 days to the DC (highest administrative officer of the concerned District).
- (ii) The land is then placed under Section 6 of the LAA. This is a declaration that the Government intends to acquire the land. The DC is directed to take steps for the acquisition, and the land is placed under Section 9. Interested parties are then invited to state their interest in the land and the price. Under Section 11, the DC will make an award within one year of the date of publication of the declarations. Otherwise, the acquisition proceedings will lapse.
- (iii) In case of disagreement on the price awarded, within 6 weeks of the award the parties (under Section 18) can request the DC to refer the matter to the Courts to make a final ruling on the amount of compensation.
- (iv) Once the land has been placed under Section 4, no further sales or transfers are allowed. However, since the time lag between Sections 4 and the others following it is about three years, land transfers are not uncommon.
- (v) Compensation for land and improvements (such as houses, wells, trees, etc.) is paid in cash by the project authorities to the State government, which in turn compensates landowners.
- (vi) The price to be paid for the acquisition of agricultural land is based on sale prices recorded in the District Registrar's office averaged over the three years preceding notification under Section 4. The compensation is paid after the area is acquired, actual payment by the State taking about two or three years. An additional 30 percent is added to the award as well as an escalation of 12 percent per year from the date of notification to the final placement under Section 9. For delayed payments, after placement under Section 9, an additional 9 percent per annum is paid for the first year and 15 percent for subsequent years.

#### **C. ADB'S INVOLUNTARY RESETTLEMENT POLICY**

11. The three important elements of the involuntary resettlement policy are (i) compensation to replace lost assets, livelihood, and income; (ii) assistance for relocation, including provision of relocation sites with appropriate facilities and services; and (iii) assistance for rehabilitation to achieve at least the same level of well-being with the project as without it. Some or all of these elements may be present in a project involving involuntary resettlement.

12. For any ADB operation requiring involuntary resettlement, resettlement planning is an integral part of project design, to be dealt with from the earliest stages of the project cycle, taking into account the following basic principles:

- (i) Involuntary resettlement will be avoided whenever feasible.
- (ii) Where population displacement is unavoidable, it should be minimized.

- (iii) All lost assets acquired or affected will be compensated. Compensation is based on the principle of replacement cost.
- (iv) Each involuntary resettlement is conceived and executed as part of a development project or program: The APs need to be provided with sufficient resources to re-establish their livelihoods and homes with time-bound action in co-ordination with civil works.
- (v) The affected people are to be fully informed and closely consulted.
- (vi) Affected people are to be assisted to integrate economically and socially into host communities so that adverse impacts on the host communities are minimized and social harmony is promoted.
- (vii) The absence of a formal title to land is not a bar to ADB policy entitlements.
- (viii) Affected people are to be identified and recorded as early as possible to establish their eligibility, through a census which serves as a cut-off date, and prevents subsequent influx of encroachers.
- (ix) Particular attention will be paid to vulnerable groups including those with out legal title to land or other assets; households headed by women; the elderly or disabled; and indigenous groups. Assistance must be provided to help them improve their socio-economic status.
- (x) The full resettlement costs will be included in the presentation of project costs and benefits.

#### **1. Comparison of Borrower's Policy with the RP**

13. The NRRP represents a significant milestone in the development of a systematic approach to address resettlement issues in India. LAA, 1894 however gives directives for acquisition of land in public interest and provides benefits only to titleholders. Annex B presents a comparison of the Gol policies (LA Act and NRRP), the state policies vis-à-vis NERCCIP RF, which is consistent with ADB's IR policy.

#### **D. RESETTLEMENT FRAMEWORK PRINCIPLES AND ENTITLEMENTS**

14. Following the state laws and regulations of respective State Governments on land acquisition and incorporating ADB's policy on Involuntary Resettlement as well as the National Resettlement and Rehabilitation Policy, the basic principles for the Program will include these elements with respect to each sub-project, namely (i) as a matter of policy, land acquisition, and other involuntary resettlement impacts would be minimized as much as possible; (ii) any land acquisition and/or resettlement will be carried out and compensation provided in order to improve or at least restore the pre-Project income and living standards of the affected people; (iii) consultation with affected people on compensation options; (iv) payment of compensation for acquired assets at market/replacement rates; (v) payment of compensation for lost land, housing, assets and resettlement allowances in full prior to the contractor taking physical acquisition of the land and prior to the commencement of any construction activities; (vi) resettlement assistance to APs including non-titled persons (e.g., informal dwellers/squatters, and encroachers) prior to the contractor taking physical acquisition of the land and prior to the commencement of any construction activities; (vii) income restoration and rehabilitation; (viii) establishment of appropriate grievance redress mechanisms to ensure speedy resolution of disputes; (ix) special attention to vulnerable groups; and, (x) involvement of women in all activities related to resettlement planning, implementation, and monitoring.

15. The sub-projects to be taken up for implementation in the Program will have broadly three types of impacts that will require mitigation measures. The types of impacts are (i) loss of assets, including land and houses; (ii) loss of livelihood or income opportunities; and, (iii) collective impacts on groups, such as loss of common property resources and loss of access or limited access to such resources.

16. Displacement under the sub-projects will be limited to the area required for the sub-project and its safety zones, referred to as the direct impact zone. Only structures and other encumbrances within this zone will be removed for the Program. Every effort will be made during the preparation of the detailed design to minimize acquisition of land and other assets and to reduce negative socio-economic impact. The structures and assets falling outside the direct impact zone will be left undisturbed. Impacts, unforeseen to the structures or assets outside will also be compensated in accordance to the principles of this RF.

17. A detailed description of each compensation measure and assistance is provided in the entitlement matrix. The affected households will be entitled to a combination of compensation measures and resettlement assistance, depending on the nature of ownership rights of lost assets and scope of the impact, including social and economic vulnerability of the APs. Table 1 presents the entitlement matrix for the Program.

Table 1: Entitlement Matrix

S. No	Type of loss	Application	Definition of entitled person	Compensation policy	Implementation issues	Responsible agency
1	Loss of private land	Agricultural land, homestead land or vacant plot	Legal titleholders	<ul style="list-style-type: none"> <li>• Compensation at replacement or land for land where feasible (including option for compensation for non-viable residual portions)</li> <li>• Transitional allowance<sup>1</sup> based on three months minimum wage rates</li> <li>• Shifting assistance<sup>2</sup> for households.</li> <li>• Notice to harvest standing seasonal crops.</li> <li>• If notice cannot be given, compensation for share of crops will be provided.</li> <li>• Additional compensation for vulnerable households<sup>3</sup> (item 7) whose livelihood is impacted by the project.</li> </ul>	<ul style="list-style-type: none"> <li>• If land-for-land is offered, (i) ownership will be in the name of original landowners, (ii) joint ownership in the name of husband and wife will be offered in case of non-female-headed households.</li> <li>• Charges will be limited to those for land purchased within a year of compensation payment and for land of equivalent size.</li> <li>• Vulnerable households will be identified during the census conducted by the implementing NGO</li> </ul>	The Valuation committee will determine replacement value. The NGO will verify the extent of impacts through a 100% survey of AHs determine assistance, and identify vulnerable households.
1-a	Loss of private land	Agricultural land, homestead land or vacant plot	Tenants & leaseholders	<ul style="list-style-type: none"> <li>• Transitional allowance based on three months minimum wage rates.</li> <li>• Notice to harvest standing seasonal crops.</li> <li>• If notice cannot be given, compensation for share of crops will be provided.</li> <li>• Shifting assistance for households</li> <li>• Additional compensation for vulnerable households.</li> </ul>	<ul style="list-style-type: none"> <li>• Land owners will reimburse tenants and leaseholders land rental deposit or unexpired lease</li> <li>• Vulnerable households will be identified during the census conducted by the implementing NGO.</li> </ul>	NGO will confirm land rental and ensure tenants and leaseholders receive reimbursement for land rental deposit or unexpired lease, and report to SIPMIU.
1-b	Loss of private land	Agricultural land, homestead land or vacant plot	Sharecropper	<ul style="list-style-type: none"> <li>• Notice to harvest standing seasonal crops</li> <li>• If notice cannot be given, compensation for share of crops will be provided</li> <li>• Additional compensation for vulnerable households</li> </ul>	<ul style="list-style-type: none"> <li>• Harvesting prior to acquisition will be accommodated to the extent possible.</li> <li>• Work schedule will avoid harvest season.</li> </ul>	SIPMIU will ensure provision of notice. NGO will identify vulnerable households.

<sup>1</sup> To be provided for APs whose livelihood is getting affected by the project. The transitional allowance will be calculated based on minimum wage rates for semi-skilled labor in the respective cities for 26 working days a month for three months (Agartala- INR 150/day, Shillong- INR 196/day, Aizawl - INR 150/day, Gangtok-INR 177/day, Kohima-INR 200/day). This allowance will be utilized till an alternative means of livelihood is found. In case of vulnerable households, the transitional allowance will be supplemented by livelihoods related skill training.

<sup>2</sup> To be provided to APs who would be relocate from the site proposed for acquisition to new place decided by AP. This will be equivalent to one day hire charges for a truck, including shifting within a radius of 50km (around INR 3,000)

<sup>3</sup> Vulnerable household comprise female-headed household, disabled-headed household, indigenous person-headed households (consistent with the IPDF in Supplementary Appendix Q) and Below Poverty Line households.

S. No	Type of loss	Application	Definition of entitled person	Compensation policy	Implementation issues	Responsible agency
					<ul style="list-style-type: none"> <li>Vulnerable households will be identified during the census conducted by the implementing NGO</li> </ul>	
1-c	Loss or private land	Agricultural land, homestead land or vacant plot	Encroachers/Squatters	<ul style="list-style-type: none"> <li>60 days advance notice to shift from encroached land.</li> <li>Additional compensation for vulnerable households.</li> </ul>	<ul style="list-style-type: none"> <li>Vulnerable households will be identified during the census conducted as part of the RP.</li> </ul>	SIPMIU will ensure provision of notice. NGO will identify vulnerable households.
2	Loss of Government land	Vacant plot, Agricultural land, homestead land	Leaseholder	<ul style="list-style-type: none"> <li>Transitional allowance based on three months wage rates</li> <li>Reimbursement of unexpired lease.</li> <li>Additional compensation for vulnerable households (item 7).</li> </ul>	<ul style="list-style-type: none"> <li>Vulnerable households will be identified during the census conducted by the implementing NGO.</li> </ul>	
2-a	Loss of Government land	Vacant plot, RoW of road	Encroachers	<ul style="list-style-type: none"> <li>60 days advance notice to shift from encroached land.</li> <li>Additional compensation for vulnerable households (item 7).</li> </ul>	<ul style="list-style-type: none"> <li>Vulnerable households will be identified during the census conducted by the implementing NGO.</li> </ul>	SIPMIU will ensure provision of notice. NGO will identify vulnerable households.
2-b	Loss of Government land	Vacant plot, RoW of road	Squatters	<ul style="list-style-type: none"> <li>60 days advance notice to shift from occupied land.</li> <li>Additional compensation for vulnerable households.</li> </ul>	<ul style="list-style-type: none"> <li>Vulnerable households will be identified during the census conducted by the implementing NGO.</li> </ul>	SIPMIU will ensure provision of notice. NGO will identify vulnerable households.
3	Loss of residential structure	Residential structure and other assets <sup>4</sup>	Legal titleholders	<ul style="list-style-type: none"> <li>Replacement value of the structure and other assets (or part of the structure and other assets, if remainder is viable)</li> <li>Shifting assistance for households.</li> <li>Right to salvage materials from structure and other assets</li> <li>All fees, taxes and other charges (registration etc) incurred for replacement structure</li> <li>Transitional allowance based on three-month minimum wage rates.</li> <li>Additional compensation for vulnerable households (item 7)</li> </ul>	<ul style="list-style-type: none"> <li>Vulnerable households will be identified during the census conducted by the implementing NGO.</li> </ul>	The Valuation committee will determine replacement value <sup>5</sup> . The NGO will verify the extent of impacts through a 100% survey of AHs determine assistance, verify and identify vulnerable households.
3-a	Loss of residential structure	Residential structure and other assets	Tenants and leaseholders	<ul style="list-style-type: none"> <li>Replacement value of the structure and other assets (or part of the structure and other assets, if remainder is viable) constructed by the AP</li> <li>Shifting assistance for households.</li> <li>Right to salvage materials from structure</li> </ul>	<ul style="list-style-type: none"> <li>Vulnerable households will be identified during the census conducted by the implementing NGO.</li> <li>Structure owners will reimburse tenants and</li> </ul>	The NGO will verify the extent of impacts through a 100% surveys of AHs determine assistance, verify and identify vulnerable households.

<sup>4</sup> Other assets includes, but isn't limited to walls, fences, sheds, wells, trees etc.

<sup>5</sup> The replacement value will be assessed based on the current schedule of rates of the respective cities.

S. No	Type of loss	Application	Definition of entitled person	Compensation policy	Implementation issues	Responsible agency
				and other assets. • Transitional allowance based on three month minimum wage rates. • Additional compensation for vulnerable households (item 7)	leaseholders rental deposit or unexpired lease.	
3-b	Loss of residential structure	Residential structure and other assets	Encroachers and Squatters	• 60 days advance notice to shift from occupied land • Right to salvage materials from structure and other assets • Additional compensation for vulnerable squatter households (item 7)	• Vulnerable households will be identified during the census conducted by the implementing NGO.	The NGO will verify the extent of impacts through a 100% survey of AHs determine assistance, verify and identify vulnerable households.
4	Loss of commercial structure	Commercial structure and other assets	Legal titleholders	• Replacement value of the structure and other assets (or part of the structure and other assets, if remainder is viable) • Shifting assistance for households. • Right to salvage materials from structure and other assets • All fees, taxes and other charges (registration etc) incurred for replacement structure. • Transitional allowance for three months based on structure rental rates. • Additional compensation for vulnerable households (item 7)	• Vulnerable households will be identified during the census conducted by the implementing NGO.	The Valuation committee will determine replacement value. The NGO will verify the extent of impacts through a 100% survey of AHs determine assistance, verify and identify vulnerable households.
4	Loss of commercial structure	Commercial structure and other assets	Tenants and leaseholders	• Replacement value of the structure and other assets (or part of the structure and other assets, if remainder is viable) constructed by the AP • Shifting assistance for households. • Right to salvage materials from structure and other assets. • Transitional allowance for three months based on structure rental rates. • Additional compensation for vulnerable households (item 7)	• Vulnerable households will be identified during the census conducted by the implementing NGO. • Structure owners will reimburse tenants and leaseholders rental deposit or unexpired lease.	The NGO will verify the extent of impacts through a 100% survey of AHs determine assistance, verify and identify vulnerable households.
4	Loss of commercial structure	Commercial structure and other assets	Encroachers and squatters	• Replacement value of the structure and other assets (or part of the structure and other assets, if remainder is viable) constructed by the AP • 60 days advance notice to shift from occupied land. • Shifting assistance to vulnerable groups. • Right to salvage materials from structure and other assets. • Transitional allowance for three months	• Vulnerable households will be identified during the census conducted by the implementing NGO.	The NGO will verify the extent of impacts through a 100% surveys of AHs determine assistance, verify and identify vulnerable households.

S. No	Type of loss	Application	Definition of entitled person	Compensation policy	Implementation issues	Responsible agency
				based on structure rental rates. • Additional compensation for vulnerable squatter households (item 7).		
5	Loss of livelihood	Livelihood	Owner / tenant /leaseholder/ employee of commercial structure, agricultural worker	• Assistance for lost income based on three months minimum wage rates • Additional compensation for vulnerable households.	• Vulnerable households will be identified during the census conducted by the implementing NGO.	The NGO will verify the extent of impacts through a 100% survey of AHs determine assistance, verify and identify vulnerable households.
6	Loss of trees and crops	Standing trees and crops	Legal titleholder, Sharecropper, Leaseholder	• Notice to harvest standing seasonal crops • If notice cannot be provided, compensation for standing crop (or share of crop for sharecroppers) at market value • Compensation for trees based on timber value at market price to be determined by the Forest Department for timber trees and for other trees by the Horticultural Department.	• Harvesting prior to acquisition will be accommodated to the extent possible • Work schedules will avoid harvest season. • Market value of trees/crops has to be determined.	SIPMIU will ensure provision of notice. The valuation committee will undertake valuation of standing crops, perennial crops and trees, and finalize compensation rates in consultation with APs
7	Impacts on vulnerable APs	All impacts	Vulnerable APs	• Agricultural land. Further to item 1, in case of total loss of land, and a total dependency on agriculture, land-for-land compensation if feasible/available. • Government land. Further to Item 2, provision for skill training for displaced vulnerable squatters • Residential structure. Further to Item 3, in case of total loss of structure, skill training for vulnerable households • Commercial structure. Further to item 4, in case of total loss of business, skill training for vulnerable households, including assistance for purchase of income generating assets, to a maximum of INR 30,000/- • Livelihood. Vulnerable households will be given priorities in employment as labor in the project.	• Vulnerable households will be identified during the census conducted by the implementing NGO. • If land-for-land is offered, ownership in the name of original landowner(s).	The NGO will verify the extent of impacts through a 100% surveys of AHs determine assistance, verify and identify vulnerable households.
8	Temporary loss of land	Land temporarily required for project activities	Legal titleholders	• Provision of rent for the period of occupation • Compensation for assets lost at replacement value • Restoration of land to its previous or better quality.	• Arrangement by the contractor on the activities to be taken up. • Impacts if any on the structures, assets and plantation due to the temporary occupation.	The valuation committee will determine rental value and duration of lost income through survey and consultation with APS. A photograph of the pre

S. No	Type of loss	Application	Definition of entitled person	Compensation policy	Implementation issues	Responsible agency
					<ul style="list-style-type: none"> <li>Extent of rehabilitation, restoration of the site.</li> </ul>	<p>occupation to be made by the NGO. NGO and RO will ensure that the compensation is paid prior to handing over of site to the owner. The site will be taken up by the contractor after consent of RO.</p>
9	Temporary disruption of livelihood	Commercial and agricultural activities	Legal titleholders, tenants, leaseholders, sharecroppers, employees, hawkers or vendors.	<ul style="list-style-type: none"> <li>30 days advance notice regarding construction activities, including duration and type of disruption.</li> <li>For construction activities involving disruption for a period of more than a month, provision of alternative sites for hawkers and vendors for continued economic activities. If not possible, allowance based on minimum wage rate for vulnerable households for 1 month or the actual period of disruption whichever is more.</li> </ul>	<ul style="list-style-type: none"> <li>During construction, the IPMU will identify alternative temporary sites to the extent possible, for vendors and hawkers to continue economic activity.</li> <li>IPMU will ensure civil works will be phased to minimize disruption through construction scheduling in co-ordination with the contractors and the DSC</li> </ul>	<p>Alternative locations, if any will be identified for the said duration of disruption.</p>
10	Loss and temporary impacts on common resources	Common resources	Communities, Government Agencies, Dorbars, Village Councils	<ul style="list-style-type: none"> <li>Replacement or restoration of the affected community facilities – including public water stand posts, temples, shrines, bus shelters etc.</li> <li>Enhancement of community resources</li> </ul>	-	SIPMIU and Contractor.
11	Any other loss not identified	-	-	<ul style="list-style-type: none"> <li>Unanticipated involuntary impacts will be documented and mitigated based on the principles provided in the ADB IR Policy.</li> </ul>	-	<p>The NGO will ascertain the nature and extent of such loss. The SIPMIU will finalize the entitlements in line with the ADB IR policy.</p>



## E. RESETTLEMENT PLAN (RP) PREPARATION

### 1. Surveys

18. For proper rehabilitation of APs, social impact assessment (SIA) surveys will be undertaken in each sub-project. The State-level Investment Program Management and Implementation Units (SIPMIUs) will undertake surveys for each identified sub-project, based on preliminary technical design. The SIA surveys will be based on preliminary technical designs of the sub-project (which may include any or a combination of the following: water supply, sanitation and sewerage, and solid waste management) identified. The SIA will help in determining the magnitude of displacement, prospective losses, better targeting of vulnerable groups, ascertaining actual costs of resettlement, preparing and implementing a rehabilitation program. The SIA surveys will comprise:

- (i) **Census.** The purpose of the census is to register and document the status of the potentially affected population<sup>6</sup> within the sub-project impact area/impact zone. The census will cover 100 percent of APs. The census will provide a demographic overview of the population, and will cover people's assets and main sources of livelihood.
- (ii) **Baseline Socio-economic Sample Survey.** The purpose of the baseline socioeconomic sample survey is for establishing monitoring and evaluation parameters and is used as a benchmark for monitoring the socio-economic status of APs. The survey will cover 10 percent APs and 20 percent significantly affected persons<sup>7</sup>. The survey will collect gender-disaggregated data to address gender issues in resettlement. The survey will carry out the following (i) preparation of accurate maps of the sub-project area and updates; and (ii) analysis of social structures and income resources of the population.

### 2. Formulation of Resettlement Plans

19. RPs will be prepared based on the results of the census and from information drawn from the baseline socio-economic sample survey; the database on APs should be completed before RP preparation. RP preparation will be governed by involuntary resettlement impacts identified during the census, and will be based on the following criteria:

- (i) If involuntary resettlement impacts are found to be significant, a full RP will be prepared for the sub-project in consultation with APs. The EA and ADB will approve its final version before the award of contracts; and
- (ii) If involuntary resettlement impacts are not significant, a short RP will be prepared for the sub-project in consultation with APs. All RPs will be reviewed and approved by ADB before the award of contracts.

20. RPs will be prepared by the SIPMIUs through project consultants (PC), if necessary, and in consultation with APs, local representatives, and NGOs. The PC's team should include a resettlement specialist familiar with ADB policy and procedures for preparing RPs and with experience in preparing an RP document in a similar ADB project or a Resettlement Action Plan document in a similar World Bank project.

<sup>6</sup> The potentially affected population will include both the titleholders and the non-titleholders within the project impact zone. The identification of non-titleholders would be based on legal documents, such as the ration card, voter's list etc. In the absence of any supporting legal documents, the information by the community, village councils or dorbars will be considered.

<sup>7</sup> A significant loss is defined in ADB OM section F2/OP as 200 or more people being physically displaced from housing and losing 10 per cent or more of their productive income generating assets

21. The RP will be brought to the notice of the APs and host communities, with the help of a local NGO (appointed by the SIPMIU), for their suggestions. The RP will be prepared in local language<sup>8</sup>, if not, translated and notified to the public, by posters and/or resettlement booklets. The completed RP will include the census of APs, and their entitlements to restore losses, institutional mechanisms and schedules, budgets, assessment of feasible income restoration mechanisms, avenues for grievance redressal, and participatory results monitoring mechanism. The RP should be broadly structured in the following manner:

- (i) Scope of Land Acquisition and Resettlement
- (ii) Socio-economic Information
- (iii) Objectives, Policy Framework, and Entitlements
- (iv) Gender Impact and Mitigative Measures
- (v) Information Dissemination, Consultation, Participatory Approaches and Disclosure Requirements
- (vi) Grievance Redress Mechanisms
- (vii) Relocation of Housing and Settlement
- (viii) Compensation, Relocation, and Income Restoration
- (ix) Institutional Framework
- (x) Resettlement Budget and Financing
- (xi) Implementation Schedule
- (xii) Monitoring and Evaluation Procedures

### **3. Gender Impacts and Mitigation Measures**

22. Any negative impacts of a sub-project on female headed households will be taken up on case-to-case basis and rehabilitation of these households will be treated on a priority basis under the sub-projects. The RP will formulate measures to ensure that socio-economic conditions, needs and priorities of women are identified and the process of land acquisition and resettlement does not disadvantage women. The RP will ensure that gender impacts are adequately addressed and mitigated. Women's focus groups discussions will be conducted to address specific women's issues. Any direct negative impacts of the sub-project on female headed households will be taken up on a case-to-case basis and rehabilitation of these households will be treated as a priority under the sub-project. During disbursement of assistance and compensation, priority will be given to female headed households. Joint ownership in the name of husband and wife will be offered in case of non-female headed households. Annex C gives the gender action plan for the Program.

23. A participation framework during the subsequent stages of project design and implementation has been worked out towards ensuring the participation of women. Female headed households wherever impacted due to the proposed improvements, are covered by adequate compensation based on the entitlement matrix.

## **F. CONSULTATION AND DISCLOSURE**

24. Comprehensive planning is required to assure that local government, NGOs, host population and project staff interacts regularly and purposefully in all stages of the Program. Aiming at promotion of public understanding and fruitful solutions to address the local needs of the communities and issues pertaining to resettlement, various sections of APs and other stakeholders were consulted through focus group discussions (FGD), meetings and individual interviews. The opinions of the stakeholders and their perceptions were obtained during these consultations. This approach adopted towards the formulation of the framework would be

<sup>8</sup> Bengali in case of Agartala, Mizo in case of Aizawl, Hindi/Nepali in case of Gangtok. In case of Kohima and Shillong, the RP in English language will be notified to the public.

continued during the program implementation. The following will be the key stakeholders who will be consulted with at various stages of the program implementation:

- (i) All affected persons (APs), program beneficiaries, including representatives of vulnerable households;
- (ii) decision makers, policy makers, elected representatives of people, community and citizens, NGOs etc;
- (iii) staff of executing agency, implementing agencies, SIPMIUs etc;
- (iv) officials of the revenue departments, social welfare department etc; and
- (v) representatives of the various state government departments, as required.

25. Towards enhancing public awareness on the improvement of infrastructure services and the potential benefits in the quality of life, awareness campaigns are proposed. These will be campaigns at the community level, door-to-door dissemination of information and promotion of neighborhood groups to take up public health and environmental improvement initiatives in their localities.

26. It is envisaged that during program implementation, this consultative process will be carried forward to ensure that the affected population and other stakeholders are informed, consulted, and allowed to participate actively in the development process. This will be done throughout the Program, during preparation, implementation, and monitoring of project results and impacts. During implementation and monitoring, information will be disseminated to APs and other key stakeholders in appropriate ways. This information will be prepared in the local language, as required, describing the main Program features including the entitlement matrix.

## **1. Consultation**

27. The consultation process established for the Program will employ a range of formal and informal consultative methods. Different techniques of consultation with stakeholders are proposed during project preparation: in-depth interviews, public meetings, group discussions etc. To understand the socioeconomic profile of city residents, questionnaires were designed and information collected from individuals on a one-to-one basis. The consultations will be held with special emphasis on vulnerable groups. The key informants during the project preparation phase and during RP implementation will include stakeholders such as:

- (i) Heads and members of households likely to be affected,
- (ii) Groups/clusters of APs,
- (iii) Local voluntary organizations and NGOs,
- (iv) Government agencies and departments, and
- (v) Major project stakeholders, such as women, tribal and ethnic communities.

28. Public participation has been generated through the use of various methods, such as, stakeholder consultation meetings, FGDs with different groups (including women), key informant interviews etc. This also helped people in different areas within the cities to (i) know about the Program, and (ii) express their opinion regarding project priorities.

29. Each RP will be prepared and implemented in close consultation with stakeholders and will involve focus group discussion (FGD) and meetings, particularly with affected households. Census of households and individuals located within the Program will be undertaken to register and document the status of the potentially affected population within the impact area. It will provide a demographic overview of the population served by the RP and profiles of household assets and main sources of livelihood. It will cover 100% of the potentially affected population within the project impact area. Guidelines and procedures for conducting the census and managing the database are provided in Annex D. In addition, baseline socio-economic surveys will be conducted to take stock of resettlement impacts on APs. Consultations with APs during RP preparation will ensure that views of APs on compensation and rehabilitation measures are

fully incorporated while consultations conducted during RP implementation will identify help required by APs during rehabilitation.

30. The effectiveness of the resettlement and rehabilitation process is directly related to the degree of continuing involvement of those affected by the sub-project. The SIPMIU will ensure that APs and other stakeholders are informed and consulted about the sub-project, its impact, their entitlements and options, and allowed to participate actively in the development process. This will be done particularly in the case of vulnerable individuals and groups, who will be encouraged to choose options that entail the lowest risk. This exercise will be conducted throughout the sub-project life—during preparation, implementation, and monitoring of sub-project results and impacts.

31. The NGOs will ensure that any views of APs, particularly vulnerable APs, related to the resettlement process are looked into and addressed. The implementing NGO will ensure that groups and individuals consulted are informed about the outcome of the decision-making process, and confirm how their views were incorporated. Since resettlement and rehabilitation is a continuous process and a baseline data/information is available, the implementing NGO will update the baseline information as and when required.

## **2. Disclosure**

32. Information will be disseminated to APs at various stages. In the sub-project initiation phase, the SIPMIU will be responsible for issuing the public notice to acquire a particular land/property for the sub-project along with program information/details. The notice will be published in local newspapers, twice with a one week interval. The resettlement staff of the SIPMIU along with local revenue officials/officers from the DC's office will also conduct meetings with APs in addition to the public notification to ensure that the information is given to all APs.

33. For the benefit of the community in general and APs in particular, the RP will be translated into local language and made available<sup>9</sup> at: (i) Offices of ULB/urban development department; (ii) District Magistrate Office; and, (iii) SIPMIU. Hard copies of the RP will be kept in the city library, accessible to citizens as a means to disclose the document and at the same time creating wider public awareness.

34. Electronic version of the RF/RPs will be placed in the official website of the SIPMIU/State Government and the official website of ADB after approval of the RP by the Government and ADB. The SIPMIU will issue notification on the locality-wise start date of sub-project implementation. The notice will be issued by the SIPMIU in local newspapers one month ahead of implementation works. This will create public awareness on program implementation. The SIPMIU offices will provide information on resettlement principles and features of the RP. The basic information in the RP including sub-project locations, impact estimations, entitlements, implementation schedule etc. will be presented in the form of a brochure that will be circulated among APs. Posters designed to disseminate basic tenets of the RP will be distributed in different localities to generate mass awareness. Copies of the summary of the RP will be kept in the SIPMIU office and will be distributed to any AP wanting to understand the RP.

35. The RF will be made available in local language(s) during public meetings. This will enable stakeholders to provide inputs on the resettlement process, prior to award of civil work contract.

36. An intensive information dissemination campaign for APs will be conducted by the SIPMIU/ULB with assistance of the implementing NGO (Annex E for NGO Terms of Reference),

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<sup>9</sup> In accordance with Operations Manual Section F2/BP on involuntary resettlement.

at the outset of RP implementation. All the comments made by APs will be documented in the sub-project records and summarized in sub-project monitoring reports. Copies of the ADB Policy on Involuntary Resettlement and the RP will be made available, in both English and local languages, at the ULB office for reference and study by the public.

**Table 2: Summary of Consultation and Disclosure Activities**

Sub-project Phase	Activities	Details	Responsible Agency
Sub-project Initiation Phase	Mapping of the sub-project area	Sub-project area to be mapped, clearly showing survey numbers of titleholders of land/property proposed for acquisition	SIPMIU in co-ordination with DC's office and other local bodies.
	Stakeholder identification	Cross section of stakeholders to be identified in order to facilitate their participation in the sub-project.	SIPMIU along with officials from the DC's office.
	Sub-project information dissemination; Disclosure of proposed land acquisition and sub-project details	Leaflets containing information on sub-project to be prepared. Public notice will mention the names and survey no's of titleholders of land/property proposed for acquisition along with sub-project details. Notice will be issued in local newspapers. Web disclosure on website also proposed.	SIPMIU will approach DC with required details and will be involved in information dissemination. SIPMIU will be assisted by consultants for leaflet preparation. Notice will be issued from the DC's office. EA to post notice on its website.
	Stakeholder Meetings	Meetings at community/household level with titleholders of affected land/property and their family members during project scoping.	SIPMIU with officials from DC's office/local revenue officials will facilitate meetings to disclose the information to each AP.
RP Preparation Phase	SIA surveys	RF will be made available in DC and SIPMIU office, to be translated in local language	SIPMIU will ensure the availability of RF.
	Formulating compensation measures and rehabilitation measures	Conducting discussions/meetings/workshops with all APs and other stakeholders	SIPMIU will conduct all required discussions/meetings/workshops and will invite all secondary stakeholders.
	Disclosure of final entitlements and rehabilitation packages	Web disclosure of the RP. Circulating copies of RPs to all stakeholders including APs, translating summary RP in local language before conducting final disclosure meeting. Conducting public meetings for RP approval by APs.	PC appointed by SIPMIU will undertake all activities related to circulation of RP. SIPMIU will arrange public meeting of all stakeholders with APs for RP approval. Consultant will document all the comments and suggestions made by APs and will send it to the SIPMIU along with the RP.
RP Implementation Stage	Disclosing final RP approved by ADB to all important stakeholders	Final RP reviewed and approved by ADB, to be updated/disclosed on the EA's website. Ensuring the availability of copy of the approved RP and ADB IR policy at SIPMIU and DC office.	EA/SIPMIU
	Consultation with APs during rehabilitation activities	Meetings/discussions will be arranged with APs. Households to identify help required by APs during rehabilitation.	Implementing NGO along with ULB will arrange required meetings/discussions. Designated staff from the SIPMIU will participate while the NGO will monitor consultation activities.

## G. COMPLAINTS AND GRIEVANCE

37. The Grievance redressal mechanism that has been suggested for the Program will be outlined and detailed in each RP. The NGO implementing the RP with support from the Resettlement Officer of the SIPMIU will, through continuous interactions with APs, resolve queries and grievances regarding various issues including land acquisition, structures

acquisition, livelihood, entitlements, other assistances. Towards addressing the unresolved grievances of the APs, the Program will have a Grievance Redress Committees (GRC) in each State. The grievance redress mechanism, which includes the pre-GRC and post-GRC avenues for dealing with the grievances of APs is presented in Figure 1.

38. The GRC will be integrated with the SIPMIU. The committee will comprise:

- (i) Chairperson – Project Director
- (ii) Member – Resettlement Officer of Social/Resettlement Unit
- (iii) Member – Officer of Land Revenue Department
- (iv) Member – Representative of Implementing NGO
- (v) Member – Representative (female) from APs

39. The members of this Committee will carry out their functions as discussed below. The duration of these Committees will be throughout the Program implementation period of 6 years. The NGO implementing the RP will represent the grievances of the APs to the GRC. The female AP representative will ensure grievance concerning women are brought out. The GRC will hear complaints from APs and facilitate solutions, and the process as a whole, will promote conflict resolution through mediation. The GRC will resolve the issue within one month from the date of registration of any case in the GRC.

40. The functions of the GRC are as follows:

- (i) To provide support to APs on problems arising from land acquisition (temporary or permanent) property acquisition, and eligibility for entitlements provided, compensation and assistance.
- (ii) To record the grievances of the APs, categorize and prioritize them and provide solutions within a month.
- (iii) To report to the aggrieved parties about the developments regarding their grievances and decisions of the GRC.

41. The GRC will meet every month on a pre-fixed date during implementation of RP. The Committee will suggest corrective measures at the field level and fix responsibilities for implementation of its decisions. The Committee will deliver their decisions within a month from the registration of the case. In the event of the grievance not being resolved by the GRC, the PD will refer the grievance to the Empowered Committee (IPEC)<sup>10</sup>. The EC would meet as often as necessary, at the request of the Project Director, who will be responsible for processing and placing all papers before the Committee, recording decisions, issuing minutes of the meetings and taking follow up action to see that formal orders are issued and the decisions carried out.

<sup>10</sup> The Finance Secretary, with the Secretaries of all the concerned departments as members, will chair the Investment Program Empowered Committee (IPEC). The Project Director would be the Secretary of the Committee. The PEC will be fully empowered to take decisions in all matters related to the Project, which will include financial and administrative approvals, approval of procurement, tenders, purchases, appointment of staff, creation of posts, recruitment of Project Management Consultants and Design & Supervision Consultants, acquisition of land and so on.

42. In the event of the grievance not being resolved by the EC, the AP will proceed towards a legal redress of the grievance in the court.

## H. COMPENSATION AND REHABILITATION

44. Land acquisition and resettlement impacts will be compensated in accordance with the provisions of the entitlement matrix in Table 1. Compensation for loss of land will be determined on the basis of replacement value. A Valuation Committee will determine the replacement value. The committee will comprise:

45. The replacement value for the land will be determined based on discussions with the landowners by the Valuation Committee. The Valuation Committee will finalize the

compensation amount taking into account the findings of a land market survey carried out by the Valuation Committee to ascertain prevailing market values<sup>11</sup> of land.

46. The replacement values for immovable properties, including structures and assets will be arrived at by the Valuation Committee as follows:

- (i) Houses and Buildings. The value of the houses, buildings and other immovable properties of the APs will be determined for the purpose of payment of compensation at the relevant Basic Schedule of Rates (BSR) published by the respective state governments;
- (ii) Trees. Compensation for trees will also be based on their market value in case of timber bearing trees and replacement value in case of fruit bearing trees based on rates fixed by the Department of Agriculture, Forest, Horticulture, Sericulture, etc.
- (iii) Other Assets. Compensation for the assets attached with land such as (wells, irrigation units, etc.) will be based on replacement value. The Valuation Committee will estimate this through detailed market surveys.

47. Compensation will be paid and resettlement of APs will be completed before taking possession of land/properties and prior to the start of civil works. The APs will hand over to the Government, land and properties acquired free from all encumbrances such as mortgage and debt. However, in case of any loans, on such acquired land and properties given to the AP by any Government agency, remains unadjusted as per the information furnished by the AP or by the lending agency, such amounts will be deducted out of total compensation. The acquired land and properties will vest in the Competent Authority paying compensation for such lands/properties. If the Competent Authority fails to pay decided compensation to APs within a year after the date of notification, additional amount by way of interest (12 percent) will apply on final compensation payable to each AP, except in cases where the AP has approached the judiciary for grievance redressal.

## **2. Income Restoration and Rehabilitation**

48. Income restoration schemes will be designed in consultation with APs. The strategy for income restoration needs to be prepared prior to land acquisition. Based on the information collected on income restoration activities from the census and the socioeconomic surveys, income restoration strategies will be framed and activities planned. The SIPMIU will consider the resource base of APs and their socio-economic characteristics and preferences to tailor individual income restoration schemes.

49. The basic objective of income restoration activities is to ensure that each AP will at least have the same or improved income and livelihood after the sub-project. Towards this, it is proposed that one member for each of the vulnerable households losing their livelihood, and who has the capacity and willingness to acquire a new set of skills would be eligible for assistance. The implementing NGO will, identify the number of eligible families and the individual beneficiaries based on the 100% census of the AHs and a training needs assessment through consultations with the APs. The plan for income restoration will be included as part of the micro-plan to be prepared by the NGO. The implementing NGO will frame a list of possible income restoration options in consultation with APs having examined local employment opportunities. Suitable trainers/local resources would be identified by the local NGO, seeking the assistance of local/regional training institutes, if required.

50. Income restoration activities are of two types (i) short-term; and (ii) long-term. Short-term income restoration activities are intended to restore AP's income in the period immediately

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<sup>11</sup> The prevailing market values, influenced by various factors such as location of land, connectivity, and classification/ land use, type of soil, crops grown, available irrigation and other facilities, etc.



before and after relocation focusing on relocation, and providing short-term allowances such as (i) subsistence/transitional allowance; and (ii) shifting assistance.

51. Long-term options depend on the degree of disruption to the economic activity. All vulnerable APs would be eligible for income restoration options. These will be derived from detailed socio-economic survey information, conducted as a part of the RP, and may include provision of income generating assets and/or training to operate them. The time frame will be decided based on the training to be provided, which will also be outlined in the RP. The implementing NGO will be responsible for provision of these assets and required training, with the help of SHGs, CBOs, and local institutions if necessary. The RP budget will reflect the cost of providing income generating assets and training. Strategies for promoting economic recovery of APs should also include skill upgrading through training. Project officials will ensure APs' access to Government schemes that could help them restore income and livelihoods.

52. Key steps to be undertaken in livelihood skill training of vulnerable households and responsibilities of agencies involved would be as follows:

- (i) Identification of affected, vulnerable households through the census survey of APs will be undertaken by the Social and Resettlement Unit of the SIPMIU,
- (ii) Identification of potential trainees and training needs assessment for vulnerable households, will require a detailed survey and assessment of literacy/educational level and/or skill sets available with one member nominated by the household for skill training. The needs assessment would also document income from various sources, assets, resources and coping strategies currently used by the household. The strategy would aim at improving/maximizing returns from the present occupation of the principal earning member or taking up a new/supplementary occupation aimed at achieving the right mix of activities in order to enable the household to improve/maintain its living standards. Training needs assessment would be undertaken by the NGO. Baseline details collected for individual households need to be carefully preserved in order to enable a post-training impact assessment.
- (iii) Identification of Local Trainers/Resource Persons or Training Institutes by the NGO will depend on the type of skill training required (as identified through the needs assessment survey).
- (iv) Livelihood Skill Training as well as training in budgeting/accounting, micro enterprise development training as well as micro-finance/revolving fund management training will be coordinated by the NGO. Training to suit the aptitude of identified trainees would be imparted. A time frame of a maximum of three months is envisaged for training.
- (v) Internal monitoring of training and submission of progress reports will be by the NGO.
- (vi) Special assistance for purchase of equipment/materials will be provided to each affected, vulnerable household. Purchase will be undertaken by the SIPMIU, assisted by the NGO, if required. Under this special assistance, implements/equipment like carpentry/plumbing tools etc. as well as raw material for a trade may be purchased.
- (vii) Post-training impact assessment is proposed to be conducted by an independent agency, a year after project implementation. The household asset base and socio-economic status would be compared with the pre-program scenario. Indicators would be developed during detailed design stage.

## I. BUDGETING AND FUND FLOW MECHANISMS

53. The cost of all compensation and resettlement works will be an integral part of the overall costs. Table 3 presents the estimated resettlement costs for the program cities based on sampling of sectoral sub-projects during program preparation.<sup>12</sup>

**Table 3: Summary of Land Acquisition and Resettlement Costs**

Sl. No.	Item	Agartala Amount (INR'000)	Aizawl Amount (INR'000)	Gangtok Amount (INR'000)	Kohima Amount (INR'000)	Shillong Amount (INR'000)	Total
1	Compensation for Loss of Land	27,480	25,642	10,898	9,179	90,820	164,020
2	Compensation for Loss of structures	6,114	-	-	9,331	401	15,846
3	Resettlement costs and assistances	7,886	2,769	8,261	3,141	3,556	25,612
4	Cost of Implementation of RP	6,750	6,750	2,194	6,750	6,750	29,194
5	Cost towards Un-quantified/ Unprecedented Adverse Social Impacts	4,823	41,144	23,489	9,129	10,153	88,738
	<b>Grand Total (in INR 000)</b>	<b>53,054</b>	<b>41,144</b>	<b>23,489</b>	<b>40,370</b>	<b>111,680</b>	<b>269,736</b>
	<b>In INR Million</b>	<b>53</b>	<b>41</b>	<b>23</b>	<b>40</b>	<b>112</b>	<b>270</b>

54. Most of the land identified for acquisition is under agricultural use. Ownership is either government or private, which implies a cost for acquisition. It may be noted that government land does not necessarily imply a transfer. If required, the Program will pay for the identified government land and the cost of crops and trees will be factored in. Acquisition is proposed in the non-/post-harvest season so that losses are minimized. Impacts on contract laborers and sharecroppers would also be minimized through this timing. All compensation payment will be provided to APs prior to award of contracts for civil works.

55. The sub-project funds will rest with the Requisitioning Authority (RA) and based on the valuation by the DLVC, the RA will deposit the required funds with the Deputy Commissioner, who will make payments to the APs.

## J. INSTITUTIONAL ARRANGEMENTS AND RESPONSIBILITIES

56. The Ministry of Urban Development (MOUD) is the national-level executing agency (EA) of the Program. An IPCC will be established in MOUD and will include a social officer. A National Steering Committee (NSC) will monitor fund use and overall implementation performance of the Investment Program. A State-level Executing Agency (SEA) will execute the part of the loan falling under respective State Governments. In each State there will be a State Steering Committee (SSC), and an Investment Program Empowered Committee (IPEC). SIPMIUs will be responsible for overall program implementation, monitoring, and supervision. The SIPMIU will have a Social and Resettlement Unit. An RO will head the Unit. ROs and implementing NGOs will be responsible for RP implementation. Roles and responsibilities are identified in Table 4.

57. For taking up implementation of RP, institutional arrangements including strengthening of existing institutional systems are required. Towards this, it is proposed that the SIPMIU's Social and Resettlement Unit will take care of redressing grievances and mitigating negative social impacts caused due to the project especially on APs. The Unit should have staff fully

<sup>12</sup> These costs do not include SIPMIU staff and consultants which are separately costed under the Program.

aware of provisions of RP, adequate understanding on norms and customs of and respect to the local people, especially the indigenous people (consistent with the IPDF in Supplementary Appendix Q).

**Table 4: Institutional Roles and Responsibilities**

Activities	Agency Responsible
<b>Sub-project Initiation Stage</b>	
Finalization of sites/alignments for sub-projects	SIPMIU
Disclosure of proposed land acquisition and sub-project details by issuing Public Notice	SIPMIU
Meetings at community/ household level with APs of land/property	NGO
Formation of Valuation Committees	SIPMIU
<b>RP Preparation Stage</b>	
Conducting Census of all APs	SIPMIU/NGO
Conducting FGDs/ meetings / workshops during SIA surveys	SIPMIU/NGO
Computation of Replacement Values of land/properties proposed for acquisition and for associated assets	VC/SIPMIU
Categorization of APs for finalizing entitlements	SIPMIU
Formulating compensation and rehabilitation measures	SIPMIU
Conducting discussions/ meetings/ workshops with all APs and other stakeholders for this	SIPMIU/NGO
Fixing compensation for land/property with titleholders	VC/SIPMIU
Finalizing entitlements and rehabilitation packages	SIPMIU
Disclosure of final entitlements and rehabilitation packages	SIPMIU/NGO
Approval of RP	IPCC/ADB
Sale Deed Execution and Payment	SIPMIU
Taking possession of land	
<b>RP Implementation Stage</b>	
Implementation of proposed rehabilitation measures	NGO/RO
Consultations with APs during rehabilitation activities	NGO/RO
Grievances Redressal	NGO/RO/GRC
Internal Monitoring	SIPMIU
External Monitoring	External Agency

AP=affected person, VC=Valuation Committee, FGD=focus group discussions, GRC = Grievance Redress Committee, NGO = nongovernment organization, SIPMIU = state-level investment program management and implementation unit, IPCC = investment program coordination cell, RO = resettlement officer, RP=resettlement plan, SIA=social impact assessment.

58. A Resettlement Officer (RO) will head the Social and Resettlement Unit. The RO will be entrusted with responsibilities to effectively implement the RP/Gender Action Plan/ IPDP/Community Development Plan complying with the safeguard provisions in the Program. The roles and responsibilities of the RO include but not limit to the following:

- (i) Coordinate implementation of R&R activities with the assistance of Unit staff.
- (ii) Coordinate training for the Unit staff for capacity building to implement the RP.
- (iii) Organize public awareness campaigns including resettlement provisions with the help of print and electronic media.
- (iv) Facilitate and coordinate joint verification survey of APs with the elected representatives as appropriate, finalize list of APs and inform them about tentative schedule of land acquisition/occupation.
- (v) Coordinate valuation of assets, such as land, trees of various species, agricultural crops, etc. facilitating a joint process involving elected representatives, NGOs and APs.
- (vi) Based on assessment of property values finalize compensation packages.
- (vii) Prepare procedures to be adopted for the land acquisition within the ambit of LA Act, 1894.
- (viii) Coordinate the land acquisition processes with the associated Government departments.
- (ix) Inform APs about entitlement matrix and compensation packages against different categories of losses.

- (x) Liaise with the District Administration and line departments (DRDA, DoRD, etc.) for dovetailing Government's schemes for income generation and development programs for APs.
- (xi) Make budgetary provisions for R&R activities.
- (xii) Coordinate, supervise and monitor disbursement of compensation.
- (xiii) Coordinate monitoring activities to be taken up for assessing progress in implementing the RP.
- (xiv) Facilitate the appointment of the external agency for impact evaluation and coordinate evaluation activities to be taken up by the agency.
- (xv) Prepare Terms of Reference (ToR) for procuring the external agency.
- (xvi) Facilitate appointment of consultant to carry out the studies and coordinate these.
- (xvii) Prepare quarterly monitoring reports for the Unit on the progress of RP implementation.
- (xviii) Participate in the GRC.

59. Apart from the RO the Unit will have other required staff for carrying out field level activities. The R&R Unit personnel are expected to perform their duties towards implementing the RP as follows:

- (i) Assist RO in preparing the Land Acquisition Plan Schedule.
- (ii) Assist RO in the process of Land Acquisition.
- (iii) Estimate assets of APs and community assets to be acquired.
- (iv) Have overall responsibilities for R&R activities in the field including listing APs after verification, recording of individual losses, informing APs about their entitlements, disbursement of compensation, providing assistances, etc.
- (v) Be responsible for implementing livelihood restoration programs for APs.
- (vi) Ensure the rehabilitation of temporarily acquired land with topsoil restored and overseeing arrangements for returning these lands to the owners after requirement is over.
- (vii) Co-ordinate with the NGOs appointed for implementation of the RP.
- (viii) Facilitate the opening of Joint Account in local banks to transfer the rehabilitation assistance for the APs and also organize distribution of cheque payment of compensation and rehabilitation assistance, through a transparent process or public meetings specially organized for distribution of cheques.
- (ix) Monitor physical and financial progress on RP implementation activities and report to the RO on sub-project progress.
- (x) Participate in regular meetings with APs, and if required,
- (xi) Organize quarterly meetings with the NGOs to review the progress of RP implementation.
- (xii) Prepare and print pamphlets on the policy for information dissemination.

60. The major RP implementation responsibilities vest with the NGOs. Towards this, partnership will be developed with these NGOs, which have local base and en masse acceptability. The responsibilities of these partnering organizations in RP implementation will include the following:

- (i) Work under close coordination of the R&R Unit staff to implement the RP.
- (ii) Involve the elected representatives and local leaders, wherever necessary to implement the RP to facilitate transparency in the process and public participation.
- (iii) Assist the SIPMIU/ULB in dissemination of the RP and other resettlement related information.
- (iv) Take lead in joint verification and identification of APs, enlist APs, counseling for livelihood restoration, dissemination of project policies, documents etc.
- (v) Participate in the valuation committee to determine the replacement value of land and structures of the APs.

- (vi) Carry out a census of the APs and identify the vulnerable households.
- (vii) Identify training needs of APs for income generation activities and ensure that they are adequately supported.
- (viii) Through counseling and awareness generation, resolve the grievances of APs.
- (ix) Put forth the unresolved grievances of APs to the GRC.
- (x) Generate awareness about livelihood restoration activities, and help APs make informed choices.
- (xi) Prepare micro-plans for RP implementation.
- (xii) Assist the R&R Unit in disbursement of compensation cheques.
- (xiii) Participate in public meetings as and when required.
- (xiv) Submit periodic RP implementation reports to the RO.

61. An impact evaluation study will be carried out in the context of RP implementation, for which the services of an external agency/consultant will be procured. The agency is expected to carry out the evaluation based on the following:

- (i) Work out indicators to evaluate RP implementation.
- (ii) Track the achievements/failures of the implementation process including major targets of compensation and assistance provision.
- (iii) Track APs in order to assess the restoration of incomes and standard of living of these APs in mid-term and post sub-project scenarios.
- (iv) Provide suggestions and inputs in the form of remedial measures to the R&R Unit in implementing the RP.
- (v) Prepare and submit mid-term and end-term impact evaluation reports and submit to the R&R Unit, the EA, and ADB.

## **1. Capacity Building of Staff of Social and Resettlement Unit**

62. Once the staff of the Social and Resettlement Unit is in place (through recruitment or on deputation) they are expected to expedite the process of RP implementation. For this, the staff should have adequate knowledge building relevant for their job. The staff of the Unit will take up implementation having built up their capacity to tackle issues of resettlement including finalizing of AP list, acquisition of temporary land, disbursement of compensation and assistance, monitoring project progress, etc.

63. For the capacity building of staff of the Unit SIPMIU will organize training programs. Services of consultant trainers may be procured for coordinating and imparting required trainings to the staff.

## **2. Co-ordination with other Agencies and Organizations**

64. The R&R Unit of the SIPMIU will establish networking relationships with line departments and other government and non-government organizations. The Revenue Department has a significant role in land acquisition proceedings and initiation of the resettlement process. Unless the compensation process is prompt and efficient, RP implementation will be delayed. The R&R Unit will (i) coordinate with the Revenue Department to expedite the land acquisition process, and (ii) interact with the various government agencies on issues pertaining to shifting of utility lines etc. Income restoration will be the sole responsibility of the Project Authority. The implementing NGO will facilitate linkages to be established with the agencies implementing centrally sponsored poverty alleviation programs to complement Program efforts in restoring the income of APs. Restoration of community assets, if needed, will require help from relevant Government departments. SIPMIU will develop lateral linkages to mobilize resources to benefit APs and to achieve the desired results expected from RP implementation. The representatives of these departments/agencies will be in contact with the R&R Unit, which will facilitate the integration of the various agencies involved in the R&R process.

### 3. NGO Participation

65. A good rapport with the affected community will facilitate satisfactory R&R of APs. Towards this, an experienced and well-qualified NGO in this field will be engaged to assist the SIPMIU in the implementation of the RP. NGOs hired for RP implementation will also be responsible for addressing HIV/AIDS, and core labor standards. The NGO to be procured should have experience in addressing such social issues.

66. The NGO will ensure that due entitlements flow to the APs in the most effective and transparent manner. The success of the NGO inputs will largely depend on their liaison with APs and other concerned government agencies. Other involved agencies are expected to collaborate with the Program, based on instructions from SIPMIU and in accordance with the RP. These arrangements have to be made during the first month of project implementation in order to set up the various committees and implementation mechanisms required for the Program.

### 4. Role of NGO

67. The role of the NGO in RP implementation will be that of a facilitator. The NGO will work as a link between the R&R Unit and the affected community. They will educate the APs on the need to implement the Program and sub-projects, on aspects relating to land acquisition and R&R measures and ensure proper utilization of compensation paid to the APs under the R&R entitlement package. After the approval of the micro plans, the NGO will issue identity cards to the entitled persons. The role of the NGO will be to facilitate the resettlement process. Its broad objectives will be to:

- (i) Build rapport with APs and SIPMIU.
- (ii) Educate APs on their rights, entitlements, and obligations under the RP.
- (iii) Ensure that APs receive their full entitlements.
- (iv) Where options are available, provide advice to APs on the relative benefits of each option.
- (v) Assist APs on grievance redress through the established system.
- (vi) Collect data as required to help SIPMIU monitor and assess progress.

68. Briefly, the NGO's activities will be to:

- (i) Develop project level plans for R&R in consultation with APs and communicate these to SIPMIU.
- (ii) Explain to APs about options available for their land and properties acquired for the Program.
- (iii) Assist the R&R Unit in making arrangements for the smooth relocation of the APs.
- (iv) Ensure proper utilization by APs of various compensations available under the R&R package.
- (v) Assist APs in getting benefits from various government development programs.
- (vi) Help APs redress grievances at the GRC.
- (vii) Train APs, if necessary, in acquiring literacy and income-generation related schemes.
- (viii) Provide appropriate field staff.
- (ix) Carry out any other responsibility that may be assigned by SIPMIU for the welfare of the affected communities.

### K. IMPLEMENTATION ARRANGEMENTS

69. All land required, for any particular sub-project/component, will be provided free of encumbrances to the contractor prior to handing over of site and the start of civil works. All land

acquisition and resettlement of APs is to be completed before the commencement of civil works. The implementation of RPs will include: (i) identification of cut-off date and notification; (ii) verification of losses and extent of impacts; (iii) finalization of entitlements and distribution of identity cards; (iv) consultations with APs on their needs and priorities; and, (v) resettlement and rehabilitation of the APs.

70. No civil works, for any particular component wherein land acquisition and resettlement<sup>13</sup> is involved, will begin until APs receive entitled and approved compensation packages. The implementation schedule for the RP is given in Table 5. APs will be given sufficient notice to vacate their property before civil works begins.

**Table 5: Schedule of Resettlement Implementation**

Activities	Quarter																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<b>Resettlement Planning</b>																		
Approval of RP by ADB and by	♦																	
Disclosure of RP		♦																
Distribution of RP Report and Brochure																		
Mobilizing Staff for Social/R&R Unit																		
Recruitment of NGO			♦															
Socio-economic survey by NGO and list of APs																		
Issue of identity cards																		
Identify and confirm poor and vulnerable APs																		
Form Grievance Redress Committee				♦														
Grievance Redressing Activities																		
<b>Land Acquisition, Temporary Land Occupation and Resettlement</b>																		
Announce start date of RP implementation through public notification																		
Disburse compensation payment and assistance for relocation																		
Arrangements for temporary occupation of lands																		
Rehabilitation of temporarily occupied lands																		
Handing over of lands to the contractor for construction <sup>14</sup>																		
<b>Livelihood and Income Restoration</b>																		
Disburse livelihood restoration assistance																		
Organize skill development training for vulnerable APs																		
<b>Monitoring &amp; Evaluation</b>																		
Capacity Building of R&R Unit	All through the RP implementation period																	
Internal monitoring	All through the RP implementation period																	
External monitoring	All through the RP implementation period																	

<sup>13</sup> For components that do not require land acquisition, or detailed designs, the civil works will be taken up at an early date.

<sup>14</sup> For components not involving land acquisition, the handing over of project sites to the contractor will be possible from the first quarter. For the other components involving land acquisition and resettlement, the project sites will be handed over for civil works by the fourth quarter.

## **L. MONITORING AND EVALUATION**

71. The implementation of RP will be monitored and there will be a mid-term and an end-term evaluation of project impacts on APs. Regular monitoring activities will be carried out internally by the SIPMIU. However, the evaluation study on program impacts will be assigned to an external evaluation agency/consultant. The mid-term and end-term impact evaluation will be conducted by outsourcing it to an agency/NGO/institution/consultant, which will do the work in close coordination with the Social/R&R Unit.

### **1. Internal Monitoring Mechanism**

72. The internal monitoring of the process of RP implementation will be carried out during the entire Program life. The monitoring activity will be carried out on a regular basis for assessing resettlement progress and identifying potential difficulties and problem areas. After 3-6 months of program initiation, the monitoring activity will be performed every quarter and progress reports thereof will be generated.

73. The Social/RP/IPDP/Gender/Poverty Unit of the SIPMIU will carry out internal monitoring. Quarterly progress reports will be prepared and submitted to the SIPMIU reporting actual achievements against the targets fixed with reasons for shortfalls, if any. All monitoring reports will have to be compiled within fifteen days at the end of each quarter. After reviewing the internal reports for a quarter the Unit will prepare the quarterly report at the end of that quarter and send it to the Project Director for his assessment. The R&R staff will be trained and motivated in carrying out these activities.

74. Broadly, the monitoring and evaluation system will involve:

- (i) Administrative monitoring: daily planning, implementation, trouble shooting, feed back and trouble shooting, individual AP file maintenance, progress reports.
- (ii) Socio-economic monitoring: case studies, using baseline information for comparing AP socio-economic conditions, evacuation, demolition, salvaging materials, morbidity and mortality, communal harmony, dates for consultations, number of appeals placed, etc.
- (iii) Impact evaluation monitoring—income standards restored/improved etc.

### **2. Monitoring Physical and Financial Progress in RP**

75. The internal monitoring will involve the following tasks:

- (i) Administrative monitoring to ensure that implementation is on schedule and problems are dealt with on a timely basis.
- (ii) Socio-economic monitoring during and after the relocation process utilizing the baseline information established by the socio-economic survey of APs undertaken during project preparation to ensure that people are settled and recovering.
- (iii) Overall monitoring whether recovery has indeed taken place successfully and in time.

76. Data from the baseline socio-economic surveys undertaken during program preparation stage will provide the benchmark for monitoring process to assess the progress and success of RP implementation. However, monitoring process will also include the following:

- (i) Communication to and noting reactions from APs.
- (ii) Information from APs on entitlements, options, alternative developments, etc.
- (iii) Valuation of properties.
- (iv) Usage of grievance redress mechanism.
- (v) Disbursement of compensation amounts and all assistances.



77. Monitoring will also cover the physical progress of RP implementation. This will include relocation of the APs and program affected community properties. The Unit will prepare quarterly progress reports.

### **3. Internal Monitoring Indicators**

78. The indicators for achievement of objectives under RP implementation are of two kinds:

- (i) Process Indicators: Indicating project inputs, expenditure, staff deployment, etc.
- (ii) Output Indicators: Indicating results in terms of numbers of affected people compensated, area of temporarily occupied lands restored with topsoil, number of APs provided with livelihood assistance grants, etc.

79. Input and output indicators related to physical progress of the work will include items such as:

- (i) Training of SIPMIU, ROs and other staff completed
- (ii) Census, assets inventories, assessments and socio-economic studies completed
- (iii) NGO recruited and trained
- (iv) Grievance redress procedures in-place and functioning
- (v) Compensation payments disbursed
- (vi) Relocation of APs completed
- (vii) Employment provided to APs
- (viii) Community development activities completed
- (ix) Infrastructure repaired, water and sanitation facilities provided, etc.
- (x) Training of APs initiated
- (xi) Income restoration activities initiated
- (xii) Number of families displaced and resettled
- (xiii) Monitoring and evaluation reports submitted

80. A set of indicators will be used to monitor program objectives. These indicators will form the basis of the monitoring and evaluation of the implementation of the RP. The information collected through the household survey carried out for this study will provide benchmarks for comparison on the socio-economic status of the APs in the project implementation period.

81. This monitoring will give information about whether the project objectives are being met. A key objective will be the estimation of AP incomes and quality of lives. If the monitoring and documentation done during the first 6 months indicate that these objectives are not being achieved, more resources should be allocated. During implementation, benchmarks and indicators will be monitored to ensure that comparison is made against the socio-economic status including income streams, not just the fixed assets lost due to the Program.

### **4. External Impact Evaluation**

82. The broad objectives of the impact evaluation are as follows:

- (i) To assess whether APs have improved their living standards, in terms of income, housing condition, access to basic amenities, ownership of land and material assets.
- (ii) To monitor the schedules and achievement of targets.
- (iii) To evaluate whether the outcomes of social development objectives of the Program are being achieved.

83. An external Impact evaluation agency/consultant with prior experience in R&R and/or other social development programs will be engaged to carry out the evaluation of the implementation of the RP. The assignments can be taken up by a consultancy conversant in carrying out such evaluation studies. The independent agency will document: (i) restoration of income levels; (ii) changes and shifts in occupation pattern; (iii) changes in AP type of housing;

(iv) assessment of APs access to amenities, such as water, electricity, and transportation; and  
 (v) performance of NGO and SIPMIU in resettlement implementation. The independent agency will monitor sub-projects twice a year and submit reports directly to the EA and ADB.

84. After the implementation of the Program, the agency will carry out an end-term evaluation to assess the effectiveness of the implementation of the R&R provisions. The external impact evaluation will emphasize on assessment of achievements of Program targets and the change in quality of life of APs. For carrying out the evaluation assignment, the agency/consultant will develop the necessary evaluation indicators. All evaluations are expected to be done on the basis of selective indicators.

85. The external impact evaluation will be made on the issues as:

- (i) Restoration of income levels of APs.
- (ii) Changes and shifts in occupational pattern.
- (iii) Changes in asset ownership.
- (iv) Changes in types of housing of AP.
- (v) Assessing APs' access to amenities, such as water, electricity, transportation, etc.

86. The following **Table 6** tentatively lists the impact indicators to be studied to evaluate impacts after the Program is completed.

**Table 6: Impact Indicators for Evaluation**

Items	Impact Indicators	Frequency
Better Economic Conditions	<ul style="list-style-type: none"> <li>Income: Program related and Independent means but assisted by the Program</li> <li>Housing: Changes in quality over a period of time</li> <li>Food Security</li> <li>Changes in occupation</li> <li>Skill portfolio</li> <li>Migration profile</li> </ul>	<ul style="list-style-type: none"> <li>Implementation stage through monitoring.</li> <li>Implementation and post implementation stage through mid-term and end-term impact evaluation study</li> </ul>
Better Social Conditions	<ul style="list-style-type: none"> <li>Representation in Community Based Institutions</li> <li>Indicators of participation</li> <li>Empowerment</li> <li>School enrolment</li> <li>Health and morbidity</li> <li>Better available infrastructure: potable water, living space, sanitation, proper road and drainage facilities, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation stage through monitoring.</li> <li>Implementation and post implementation stage through impact evaluation study</li> </ul>

87. Evaluation study reports, one mid-term and one end-term will be generated based on the findings of the mid-term and end-term evaluation studies. The reports will have to be generated within one month after the studies are conducted. The mid-term evaluation report should highlight program achievements as per set targets for the period and specify whether any problem exists in the implementation of the RP. If such problems are encountered, then the reports should provide rectification measures for achieving targets in the next phase.

88. The end-term evaluation will reveal the actual target achievements of RP implementation by the SIPMIU. This report should take into account whether the Program has improved the quality of life of the city people, especially APs. Any lacunae in the process of RP implementation should also be stated with future strategies to overcome such situations so that project benefits can be utilized by the APs to the furthest extent.

## DRAFT INDIGENOUS PEOPLES DEVELOPMENT FRAMEWORK

### I. PROJECT BACKGROUND

#### A. Overview

1. The Investment Program will improve environment and well-being of urban residents in five capital cities<sup>1</sup> of the North Eastern Region. The Program will improve and expand urban infrastructure and services in cities, including its slums; and strengthen urban institutions' management and financing capacity. The Program's outputs include: (i) urban infrastructure and services improvement including the rehabilitation, improvement, and expansion of water supply, sewerage and sanitation, solid waste management, and slum infrastructure; and (ii) capacity building and investment program management.

#### B. Spread of Scheduled Tribes in Project Cities

2. All the states in the North Eastern Region of India have a high concentration of scheduled tribes both at the state level as well as in the urban areas. The concentration of scheduled tribes in the project cities is given in Table 1. The proportion of scheduled tribes varies amongst the cities. Also, a list of scheduled tribes (notified under Article 342 of the Constitution of India) present in the project cities has been compiled (Table).

**Table 1: Scheduled Tribes in Project Cities**

Project Cities	% of STs	Scheduled Tribes
Agartala	5	Tripuri (86), Jamatia (2.3), Halam (2.5), Chakma (2.2).
Aizawl	92	Lushai (98), Others (2)
Gangtok	26	Bhutia (85), Lepcha (13).
Kohima	61	Angami (29), AO (28), Sema (11), Lotha (10), Chakhesang (5), Rengma (4), Zeliang (2), Naga (1.7), Sangtam (1.4).
Shillong	48	Khasi (93), Garo (3), Lushai (2).

Source: Socio-Cultural Tables, Census of India for Respective States, 2001. Note: The figures in parentheses refer to proportion of the particular tribe amongst the total number of scheduled tribes in the project cities.

3. Extensive consultations with stakeholders were conducted. Focus group discussions, meetings and individual interviews were held involving stakeholders, particularly affected households; and a socio-economic survey was conducted. Socio-economic surveys show STs among city residents (6.5% in Agartala, 98.2% in Aizawl, 32.3% in Gangtok, 89.6% in Kohima, and 77% in Shillong). In all cities, initial screening for impact on IPs show that there are no impacts on IPs other than the fact that the Law define STs are part of a distinct indigenous group. In urban program areas of Agartala and Gangtok where STs do not constitute a majority of the population, the social, cultural, economic, and political characteristics of STs are no different from non-ST groups. In Kohima and Shillong where STs have strong attachments to natural resources, habitats, and ancestral territories, STs comprise mainstream or dominant society, and there is general homogeneity in social, cultural, economic, and political characteristics in the urban areas. Based on discussions with the respective state government officials and surveys on the Scheduled Tribes (STs), it was observed that STs have already been mainstreamed into the society.

4. NERCCIP will result in environmental and public health benefits to the population, STs and non-STs. The negative impacts on affected persons are mostly related to land acquisition. Negative impacts are addressed through resettlement plans (RPs) including specific

<sup>1</sup> Agartala, Aizawl, Gangtok, Kohima, and Shillong.

entitlements for vulnerable persons that include IPs. Based on the *National Policy on Scheduled Tribes* displacement of tribal people should be kept to a minimum and undertaken only after possibilities of non-displacement and least displacement have been exhausted. When displacement becomes inevitable, each scheduled tribe family having land in the earlier settlement shall be given land against land. This will be reflected in the entitlement matrix of the RP. In view of this, the likelihood of sub-projects affecting IPs is small and likely impacts are addressed by RPs. Further, sub-project design prioritizes rehabilitation over new construction of infrastructure, avoiding land acquisition and consequent resettlement, and sub-project siting in built-up areas. Despite the small likelihood, there is a possibility that certain sub-projects identified during program implementation may have some impact on STs.

### C. Legal and Policy Framework

5. The Ministry of Tribal Affairs, Government of India has drafted a National Policy on Scheduled Tribes (ST) to bring these tribes into the mainstream society through a multi-pronged approach for their all-round development without disturbing their distinct culture. The Policy stipulates that displacement of tribal people should be kept to a minimum and undertaken only after possibilities of non-displacement and least displacement have been exhausted. When displacement becomes inevitable, each scheduled tribe family having land in the earlier settlement shall be given land against land. To handle the problem of shifting cultivation, land tenure system is proposed giving tribals the right to land ownership so that they invest their energy and resources in checking soil erosion and fertility. The Policy seeks to tackle tribal land alienation by stipulating that:

- (i) Tribals have access to village land records.
- (ii) Land records be displayed at the Panchayat.
- (iii) Oral evidence be considered in the absence of records in the disposal of tribals' land disputes.
- (iv) States prohibit transfer of lands from tribal to non-tribal.
- (v) Tribals and their representatives are associated with land surveys

6. The constitutional provisions applicable with respect to the project cities in the context of the STs are (i) the sixth schedule<sup>2</sup> and (ii) Article 371 A<sup>3</sup> in the case of Kohima. Besides these constitutional provisions, there exist at the state level, legislations<sup>4</sup> that govern land acquisition, transfer, eviction, etc of tribal land. The provision of these legislations are integrated in the RF for the NERCCIP.

<sup>2</sup> **Sixth Schedule:** Of the five project cities, Shillong falls under the Sixth Schedule<sup>2</sup> of the Constitution of India. In **Shillong** (and also for the entire state of Meghalaya), the provisions of the Sixth Schedule as per Article 244 of the Constitution of India are applicable to the administration of the indigenous areas. This essentially means that the tribal area of Meghalaya will be governed not by other provisions of the Constitution relating to the States or Union Territories of the Union of India but by the provisions of the Sixth Schedule alone, which contain a self contained code for the governance of the tribal areas. The Autonomous District Councils, under paragraph 3 of the Sixth Schedule, have the powers to make laws. The Sixth Schedule gives the ADC power over management of land, watercourses, creation of village and town committees, public health, sanitation, appointment and succession of chiefs (Syiems) and headmen, inheritance of property, marriage and social customs.

<sup>3</sup> **Article 371 A of constitution of India:** In Nagaland, Article 371 A of the constitution of India is applicable. Article 371A of the Constitution specifies that no Act of Parliament in respect of (i) religious or social practices of the Nagas, (ii) Naga customary law and procedure, (iii) administration of civil and criminal justice involving decisions according to Naga customary law and (iv) ownership and transfer of land and its resources shall apply to the State unless its Legislative Assembly by a Resolution so decides.

<sup>4</sup> Such legislations exist in states of Nagaland and Meghalaya. In Nagaland, these acts include (i) the Nagaland Tribe, Area, Range and Village Council Act, 1966, (ii) the Nagaland Land (Requisition and Acquisition) Act 1965, and (iii) the Nagaland Eviction of Persons In Unauthorized Occupation of Public Land Act, 1971. Similarly, in Meghalaya the Meghalaya Transfer of Land (Regulation) Act, 1971 has been enacted.

7. The above policy and legal instruments are supplemented by ADB's Indigenous Peoples Policy (1998) for the implementation of NERCCIP. The policy ensures equality of opportunity for indigenous peoples. It aims to ensure that any ADB-assisted development interventions which will have any impact on indigenous peoples will be consistent with the needs and aspirations of affected indigenous peoples and compatible in substance and structure with affected IP's culture and social and economic institutions. The IPDF recognizes the vulnerability of indigenous peoples and it specifically ensures that any project intervention, whether positive or adverse will be addressed by the implementing agencies. Moreover, the implementing agencies will ensure that affected IPs will have opportunities to participate in and benefit equally from such project interventions.

## **II. OBJECTIVES OF IPDF AND APPROACH TO IPDP PREPARATION**

### **A. Identification of IPs**

8. ADB's Indigenous Policy uses the following characteristics to define indigenous people (i) descent from population groups present in a given area before territories were defined; (ii) maintenance of cultural and social identities separate from dominant societies and cultures; (iii) self identification and identification by others as being part of a distinct cultural group; (iv) linguistic identity different from that of dominant society; (v) social, cultural, economic, and political traditions and institutions distinct from dominant culture; (vi) economic systems oriented more towards traditional production systems rather than mainstream; and (vii) unique ties and attachments to traditional habitats and ancestral territories.

9. Likewise, the President of India under Article 342 of the Constitution uses the following characteristics to define indigenous peoples [Scheduled Tribes (ST)], (i) tribes' primitive traits; (ii) distinctive culture; (iii) shyness with the public at large; (iv) geographical isolation; and (v) social and economic backwardness before notifying them as a Scheduled Tribe. Essentially, indigenous people have a social and cultural identity distinct from the 'mainstream' society that makes them vulnerable to being overlooked or marginalized in the development processes. In the context of the project cities, where STs constitute the mainstream, the STs who have dependence on traditional mode of subsistence (for instance, shifting cultivation) and have no other alternative and modern means of subsistence, with distinctive culture and are characterized by socio-economic backwardness could be identified as Indigenous People's.

### **B. Approach to IPDP Preparation**

10. An Indigenous People Development Framework (IPDF) is a policy and procedural framework for Indigenous People Development Plans (IPDPs) that are developed for sub-projects and that are to be approved during Project implementation. Further, an IPDF sets out the indigenous people's policy together with the screening and planning procedures.

11. The need for a formulation of an IPDP will be established if the sub-projects to be funded under NERCCIP are screened as Category 'A' projects<sup>10</sup>. Category 'A' projects envisage significant impacts on IPs and they positively or negatively (i) affect their customary rights of use and access to land and natural resource; (ii) change their socio-economic status; (iii) affect their cultural and communal integrity; (iv) affect their health, education, livelihood and social security status; or (v) alter or undermine the recognition of indigenous knowledge.

12. If impacts are not significant, specific actions in favor of IPs can be incorporated within the Resettlement Plan (RP) formulated for the sub-project. This will include additional

assistance for IPs as vulnerable groups. This would ensure appropriate mitigation of adverse program impacts on IPs and enhancement of program benefits for IPs.

13. The IPDP policy framework is based on the overall local and national development strategies and ADB's *Policy on Indigenous Peoples* (1998). The principal objectives are to:

- (i) ensure IPs affected by any sub-project will benefit from the Program;
- (ii) ensure IPs inclusion in the entire process of preparation, implementation, and monitoring of program activities;
- (iii) ensure benefits of sub-projects are available to IPs more than or at least equal to other affected groups; this may require giving preference to IPs as vulnerable groups over others on certain benefits under the Program; and,
- (iv) provide a base for IPs in the area to receive adequate development attention.

14. An IPDP addresses the aspirations, needs and preferred options of the affected indigenous peoples taking into consideration the marginality status of tribal community and offers them development options while respecting their socio-cultural distinctiveness. The IPDP<sup>5</sup> aims at strengthening the existing capacity of the affected tribal community to participate and benefit from Project interventions. The key elements in an IPDP include: (i) All development plans for indigenous people should be based on full consideration of the options and approaches that best meet the interests of individuals and communities affected by the Project. (ii) Scope and impact of adverse effects be assessed and appropriate mitigation measures are identified. (iii) Project should take into account the social and cultural context of affected peoples, and their skills and knowledge relating to local resource management. (iv) During Project preparation, formation, and strengthening of indigenous peoples organization; communication to facilitate their participation in Project identification, planning, execution and evaluation should be promoted. (v) Where previous experience and knowledge of working successfully with indigenous peoples is lacking, pilot scale operations should be carried out and evaluated prior to the execution of full-scale efforts. (vi) Experienced community organizations, non-government organizations (NGOs), and consultants will be hired to prepare IPDP. (vii) Responsible agency will formulate IPDP implementation schedule, which will be periodically monitored by ULB officials as well as independent/external monitoring agency. (viii) Responsible agency will also prepare a budget for IPDP implementation and a Financing Plan to ensure smooth progress.

15. The IPDP will consist of a number of activities and will include mitigation measures of potentially negative impacts, modification of program design, and development assistance. Where there is land acquisition in IP communities, the Program will ensure their rights will not be violated and that they will be compensated for the use of any part of their land in a manner that is culturally acceptable to the affected IPs.<sup>6</sup> The IPDP will include:

- (i) Baseline data,
- (ii) Land tenure information,
- (iii) Local participation,
- (iv) Technical identification of development or mitigation activities,
- (v) Institutional arrangement,
- (vi) Implementation schedule,

<sup>5</sup> As per the ADB's F3/OP (13 May 2004), screening process categorizes projects by the significance of their impacts on IPs. It is recommended that for (i) Category 'A' projects: Impacts should be significant that require IPDP and/or IPDP; (ii) Category 'B' Projects: Impacts are limited that require specific action for IPs, specified in RP; and (iii) Category 'C' Projects: No impacts on IPs that require no special provision for them.

<sup>6</sup> Compensation will be consistent with the Resettlement Framework for the Program.

- (vii) Monitoring and evaluation, and
- (viii) Cost estimate and financing plan.

### III. STEPS FOR FORMULATING AN IPDP

16. The IPDP seeks to ensure that IPs are informed, consulted, and mobilized to participate in the sub-projects during IPDP preparation and ensure equitable sharing of program benefits. Participation can provide benefits with more certainty, and protect them from any potential adverse impacts of the sub-project. The main features of IPDP will be a preliminary screening process, a social impact assessment to determine the degree and nature of impact of each sub-project, and an action plan developed, if warranted. Consultations with and participation of IP communities, their leaders, and local government representatives will be an integral part of the overall IPDP.

#### A. Preliminary Screening

17. The Social, Resettlement, and Rehabilitation Unit of the State Investment Program Management and Implementation Unit (SIPMIU) will study all IP communities and villages within and in the vicinity of the proposed sub-project area. The SIPMIU will arrange public meetings at selected communities to provide information regarding the proposed sub-project. During these meetings, community leaders and other participants will be given an opportunity to present their views and concerns.

18. An initial screening will check for the following:

- (i) Name(s) of IP community group(s) in the area;
- (ii) Total number of IP community groups in the area;
- (iii) Percentage of IP community population in the area compared with the total population; and
- (iv) Number and percentage of IP households to be affected by the sub-project site.

19. An IP assessment checklist will be prepared. If the results of the preliminary screening (reviewed with assistance from the project consultants) show that there are IP households in the proposed sub-project area, a social impact assessment (SIA) will be conducted to capture IP issues and development opportunities that exist in the area.

#### B. Social Impact Assessment

20. The policy on indigenous people ensures that the process of initial social assessment includes specific consideration of indigenous peoples as a potentially affected population. If the initial social assessment identifies indigenous peoples specifically as a significantly and adversely affected population, or vulnerable to being so affected, it is required that an indigenous peoples plan acceptable to ADB is prepared by the Project proponent. The SIA will gather relevant information on demographic data; social, cultural, and economic situation; and both positive and negative social, cultural and economic impacts.

21. Information will be gathered through separate group meetings within the IP community, including IP leaders; group of IP men and women, especially those who live in the zone of influence of the proposed sub-project. Discussions will focus on positive and negative impacts of the sub-project as well as recommendations on the design of the sub-project. The PC appointed by the SIPMIU will be responsible for analyzing the SIA and for leading the development of an action plan with the support of IP community leaders. If the SIA indicates that

the potential impact of the proposed sub-project will be significantly adverse—threatening the cultural practices and IP sources of livelihood, or that the IP community rejects the sub-project works—the SIPMIU will consider other design options to minimize such adverse impacts. If IP communities support the sub-project an IPDP will be formulated.

### **C. Mitigation Measures**

22. All affected indigenous households will be provided with assistance, which would help them to improve their living standards without exposing their communities to disintegration. As vulnerable groups, they are entitled to receive special assistance not only to restore and improve their income and livelihood, but also to maintain their distinct cultural identity.

23. As indigenous peoples, they will have traditional land rights and these will be honored and the absence of land titles will not be a bar for receiving compensation and alternate land. Their compensation entitlements will be the same that are listed in the approved Resettlement Framework (RF) of the Program. The RF defines IPs as vulnerable people/ households.

24. If the sub-project impacts are not significant, and if they could be addressed by resettlement plans that will be prepared according to the agreed RF, 'specific actions' could be built into resettlement plans to safeguard their entitlements. This decision will depend on the severity of impacts on them. Such 'specific actions' are outlined in the RF.

### **D. Monitoring**

25. Monitoring and Evaluation (M&E) help ameliorate problems faced by project implementing agencies and develop solutions without delay. IPDP includes a set of monitoring indicators, for periodic assessment of planned activities, which will be reviewed during IPDP implementation. The NGO appointed by the SIPMIU will periodically report the assessment under these indicators and reports will be sent to the SIPMIU. The SIPMIU after initial check will send these reports to ADB for final evaluation.

## **IV. STRATEGY FOR INDIGENOUS PEOPLE PARTICIPATION**

26. Consultations and information disclosure will be undertaken to ensure that needs, priorities and preferences of IPs are adequately dealt with. The strategy of IPDP therefore would be to promote participation of the IPs, initiating and identifying people's need, priorities and preferences through participatory approaches. Consultations with and participation of IP communities, their leaders, ULBs/line agencies and SIPMIU representatives hence will be an integral part of the overall IPDP.

27. The affected IPs will be informed and consulted in preparing IPDP. Their participation in planning will enable them to benefit from the project and to protect them from any potential adverse impacts of the project. The IPDP prepared in consultation with affected IPs will be translated into local language<sup>7</sup> of IPs and made available to them before implementation with the assistance of NGOs (the NGOs appointed for conducting Community Development and Participation activities will implement the IPDP). The EA/SIPMIU will ensure that adequate funds will be made available for consultation and facilitation.

28. In the following paragraphs, a broad strategy for inclusion of IP s issues and information disclosure has been formulated.

<sup>7</sup> Bengali in case of Agartala, Mizo in case of Aizawl, Hindi/Nepali in case of Gangtok. In case of Kohima and Shillong, the IPDP in English language shall be notified to the public.



## A. Activities for inclusion of IPs' Issues

29. Involvement of IPs / indigenous groups in problem identification and design of solutions has to be ensured through the entire cycle of project interventions. Table 2 presents the activities to be undertaken by the implementation agency to ensure inclusion of indigenous issues in the main project.

**Table 2: Activities and Indicators of IPs' Involvement Issues**

Project Stages	Procedures	Process and Outcome Indicators	Remarks
Design Stage	Identify locations of dominant indigenous population in the sub-project sites.	IP screening checklist	To be carried out by SIPMIU with assistance from project consultants.
	Identification of indigenous community stakeholders at site	List of all Indigenous communities in the project areas	
	Sensitization and consultation through focus group discussions with indigenous communities	Documentation on number of discussions and minutes of the meetings	
	Identification of environmental and social issues of the indigenous population and possible impacts as a result of the project	Documentation of the issues.	
		Justifications for preparing IPDP	
	Consultations to establish existing concerns related to:	List of spatial and non-spatial issues	
	1. Land availability and Tenure		
	2. Access to urban infrastructure facilities		
	3. Representation in CBDs		
	4. Existing Government schemes		
Implementation Stage	5. Dependency on Minor Forest Produce (MFP) and common property resources		
	Discussions on possible intervention measures, through the project their likely impacts and safeguard measures (mitigation and monitoring) to be incorporated into the project activities.	List of safeguard measures	
	1. Loss of agricultural and homestead land	Enlistment of project impacts	
	2. Loss of structure and immovable assets		
	3. Loss of livelihood		
	4. Loss of common property resources		
	Consultations with indigenous groups for further suggestions	List of safeguards measures into the Draft Plan	
	Participatory approach to be taken up to involve IPs in finalizing projects, Resettlement Action Plan/ IPDP etc.	Measures to be taken in complying with the frameworks prepared for resettlement and IPDP.	
	Disbursement of entitlements as per the RP / IPDP / Framework.	Measures undertaken as suggested in RP/IPDP / Framework	NGO engaged for implementing RAP / IPDP will do that during project implementation
	Implementation of safeguards measures as per IPDP / Framework proposals	Measures undertaken as suggested in RP/IPDP / Framework	
Post Implementation Stage	Evaluation of the success of programs and safeguard measures undertaken	Indicators developed for evaluation of project impacts	Consultants engaged for impact evaluation study will do that after project completion
	Follow up activities based on lessons learnt	Listing of modified programs to be implemented for uplifting affected indigenous communities	

IP = indigenous people, IPDP = Indigenous People Development Plans, RP = resettlement plan, SIPMIU = State Investment Program Management and Implementation Unit.

30. Electronic version of the IPDP will be placed in the official website of the SIPMIU / State Government and the official website of ADB after approval of the IPDP by Government and ADB. Hard copies of the IPDP will be accessible to citizens and kept in the city library, SIPMIU and office of the ULBs/line agencies. The information of the IPDP including entitlements for IPs and implementation arrangements will be presented in the form of a brochure that will be circulated among the indigenous APs. Posters designed to mass campaign the basic tenets of the IPDP will be displayed at suitable locations for generating mass awareness.

## **V. BENEFITS AND MITIGATION OF ADVERSE IMPACTS**

31. The main thrust of IPDP is to address the development issues taking into consideration the marginality status of tribal community. The IPDP will offer development options addressing community based needs of indigenous people while respecting their socio-cultural distinctiveness. The IPDP aims at strengthening the existing capacity of the affected tribal community to participate and benefit from project interventions. Based on the impacts and their significance, affected IPs will be entitled to various compensation packages. These compensation entitlements will be the same that are listed in the approved Resettlement Framework of the program. As indigenous peoples, they will have traditional land rights and these will be honored and the absence of land titles will not be a bar for receiving compensation.

32. Additionally, as vulnerable group, they are entitled to receive special assistance, not only to restore and improve their income and livelihood but also to maintain their distinct cultural identity.

33. If the impacts of the sub-projects are not significant, the SIPMIU could decide to prepare a 'specific action' to address the IP issues without preparing IPDP. This decision will depend on the severity of impacts on them. A 'specific action' could take the form of a common community action plan where the indigenous peoples groups live with non-indigenous peoples in the same subproject location. Another 'specific action' is to incorporate IP issues and their benefits into the Resettlement Plan, if any.

## **VI. INSTITUTIONAL ARRANGEMENTS**

### **A. Institutional Arrangements for preparing and implementing IPDPs**

34. The Ministry of Urban Development (MOUD) is the national-level executing agency (EA) of the Program. An IPCC will be established in MOUD and will include a social officer. A National Steering Committee (NSC) will monitor fund use and overall implementation performance of the Investment Program. A State-level Executing Agency (SEA) will execute the part of the loan falling under respective State Governments. In each State there will be a State Steering Committee (SSC), and an Investment Program Empowered Committee (IPEC). SIPMIUs will be responsible for overall program implementation, monitoring, and supervision. The SIPMIU will have a Safeguards and Social Unit. An RO will be part of the Unit. ROs and implementing NGOs will be responsible for RP implementation.

35. The Safeguards and Social Unit of the SIPMIU shall be responsible for implementing the IPDP. The unit will be taking care of redressing grievances and mitigating negative social impacts caused due to the project on APs including those belonging to indigenous communities. The Unit should have staff fully aware of provisions of IPDP, adequate understanding on norms and customs of and respect to the local people, especially the indigenous people.

36. A Resettlement Officer/Social Development Specialist (RO) will be part of the Unit. The RO will be entrusted with responsibilities to effectively implement the RP/Gender Action Plan/IPDP complying with the safeguard provisions in the project. The roles and responsibilities of the RO include but not limit to the following:

- (i) Coordinate implementation of R&R activities with the assistance of Unit staff.
- (ii) Coordinate training for the Unit staff for capacity building to implement the RP.
- (iii) Organize public awareness campaigns on project including resettlement provisions with the help of print and electronic media.
- (iv) Facilitate and coordinate joint verification survey of APs with the elected representatives as appropriate, finalize list of APs and inform them about tentative schedule of land acquisition / occupation.
- (v) Coordinate valuation of assets, such as land, trees of various species, agricultural crops, etc. facilitating a joint process involving the elected representatives, NGOs and APs.
- (vi) Based on assessment of property values finalize compensation packages.
- (vii) Prepare procedures to be adopted for the land acquisition within the ambit of LA Act, 1894.
- (viii) Coordinate the land acquisition processes with the associated Government departments.
- (ix) Inform APs about entitlement matrix and compensation packages against different categories of losses.
- (x) Liaison with the District Administration and line departments (DRDA, DoRD, etc.) for dovetailing Government's schemes for income generation and development programs for the APs.
- (xi) Make budgetary provisions for R&R activities.
- (xii) Coordinate, supervise and monitor disbursement of compensation.
- (xiii) Coordinate monitoring activities to be taken up for assessing progress in implementing RP.
- (xiv) Facilitate the appointment of the external agency for Impact Evaluation and coordinate evaluation activities to be taken up by the agency.
- (xv) Prepare Terms of Reference (ToR) for procuring the external agency.
- (xvi) Facilitate appointment of the consultant to carry out the studies and coordinate them.
- (xvii) Prepare quarterly monitoring reports for the Unit on the progress of RP implementation.
- (xviii) Participate in the GRC.

37. The major IPDP implementation responsibilities vests with RP implementing NGO. The responsibilities of these NGOs in IPDP implementation will include the following:

- (i) Work under close coordination of the IPDP Unit staff to implement the IPDP.
- (ii) Facilitate transparency in process and public participation.
- (iii) Take lead in joint verification and identification of IPs, enlist IPs, counselling for livelihood restoration, dissemination of project policies, documents etc.
- (iv) Identify training needs of IPs for income generation activities and ensure that they are adequately supported.
- (v) Put forth the grievances of the IPs to the GRC.
- (vi) Generate awareness about the livelihood restoration activities, and help the IPs to make informed choices.
- (vii) Assist the IPDP Unit in disbursement of cheques.
- (viii) Participate in public meetings as and when required.

(ix) Periodical IPDP implementation report should be submitted to the RO.

38. The external impact evaluation agency appointed for RP implementation will also carry out monitoring and evaluation of the effectiveness of IPDP implementation through formulation of indicators. The program will have a Grievance Redressing Committee (GRC) for redressing the grievances of the APs, with emphasis on vulnerable communities in the project. Table 1 gives the institutional roles and responsibilities for preparation and implementation of IPDP.

**Table 3: Institutional Roles and Responsibilities**

S.No.	Activities	ULB/Line Agency	SIPMIU	Project consultants	NGOs	ADB	IP Community Involvement
1	Finalization of sites/alignments for sub-project components	Identify and finalize sites/alignments for sub-project components	SIPMIU will appoint project consultants (PC) for design and implementation of sub-project components	PC appointed by SIPMIU will provide technical help to ULB in finalizing sites/alignments			
2	Preliminary Screening (PS)						
a	Collecting and analyzing required information	SIPMIU will appoint a full time resource person to oversee IPDP activities, who will undertake PS					Co-operation and active participation of IPs is anticipated in IPDP activities
b	Preparation of PS report	Designated staff will prepare PS report, which will be sent to SIPMIU					
c	SIA recommendation		Based on PS report, and in compliance with ADB policy, SIPMIU will recommend SIA				
3	Social Impact Assessment						
a	Collecting and analyzing required information	Designated staff of SIPMIU agency will monitor SIA activities		PC appointed by SIPMIU will conduct SIA			IPs will be responsible for giving information to and participate with concerned officials
B	Preparation of SIA report			PC will prepare report and submit it to the SIPMIU			
C	Recommendation for IPDP preparation		Based on SIA report, and in compliance with the ADB policy, SIPMIU will recommend IPDP preparation				
4	Preparation of IPDP						
a	Formulation of mitigation measures and development of action plan	Designated staff will monitor IPDP preparation activities and will provide required help to PC		PC will prepare IPDP in consultation with affected IPs/community leaders			Affected IPs, IP leaders, CBOs will participate in formulation of mitigation

S.No.	Activities	ULB/Line Agency	SIPMIU	Project consultants	NGOs	ADB	IP Community Involvement
							measures and development of action plan
b	Disclosure of IPDP	Designated staff will participate in information disclosure meetings to finalize IPDP at community level	SIPMIU staff will participate in information disclosure meetings to finalize IPDP at community level	PC will conduct meetings for information disclosure and will provide required information during meetings	Local NGOs can be invited to bring transparency in information disclosure meetings		Affected IPs, IP leaders will participate and approve IPDP
c	Preparation of budget and financing plan	Designated staff will provide required necessary help to PC		PC will prepare IPDP budget and financing plan			
E	IPDP approval from ADB		SIPMIU after scrutinizing IPDP for compliance with ADB policy will submit it to ADB	As per ADBs comments, PC will revise IPDP and budget		Concerned staff at ADB will review and approve the IPDP document	
5	IPDP implementation	ULB/line agency will appoint NGO for IPDP implementation	SIPMIU will monitor IPDP implementation periodically along with an independent agency				

ADB = Asian Development Bank, IP = indigenous people, IPDP = Indigenous People Development Plans, SIA = social impact assessment, SIPMIU = State Investment Program Management and Implementation Unit.

## **VII. BUDGET FOR FORMULATING AND IMPLEMENTING IPDPS**

39. Each IPDP will have its own budget. The EA will provide sufficient resources to formulate an IPDP for each sub-project that will have impacts on IPs. A detailed budget will be prepared by the social, resettlement and rehabilitation unit taking into account all activities associated with the formulation and implementation of the IPDP. Such budgets will be an integral part of the program cost, and will be made available during program implementation.

## **VIII. PROGRAM FOR MONITORING AND EVALUATION**

40. Implementation of the IPDP will be monitored regularly. The SIPMIUs will establish a quarterly monitoring system involving the staff of the Social, Resettlement and Rehabilitation Unit, representative of affected IP groups, NGOs and CBOs to ensure participatory monitoring arrangements are followed. A set of monitoring indicators will be determined during IPDP implementation. The SIPMIU will prepare appropriate monitoring formats for effective internal and external monitoring and reporting requirements. Independent monitoring will be undertaken through NGOs and CBOs engaged by the EA in consultation with ADB to carry out external monitoring of the IPDP operations for the whole Program. Monitoring reports will be prepared twice a year during program implementation. These reports will be submitted to the EA and ADB for review. The SIPMIU will be responsible for determining if any follow-up actions are necessary and ensuring any necessary actions are taken regarding the implementation of IPDPS.

41. The Social, Resettlement and Rehabilitation Unit will implement the IPDP. As part of their duty they will carry out the monitoring and evaluation activities as prescribed in this section. The Unit staff will be trained and motivated in carrying out these activities. The mid-term and end-term impact evaluation will be conducted by outsourcing it to an Agency/NGO/Institution, which will do the work in close coordination with the Social, Resettlement and Rehabilitation Unit.

42. IPDP implementation will be closely monitored to provide officials at Social, Resettlement and Rehabilitation Unit with an effective basis for assessing resettlement progress and identifying potential difficulties and problem areas. Monitoring will be carried out by appropriate specialists within the Unit and reported regularly to the Social, Resettlement and Rehabilitation Unit on a quarterly basis. The internal monitoring will involve the following tasks:

- (i) Administrative monitoring to ensure that implementation is on schedule and problems are dealt with on a timely basis.
- (ii) Socio-economic monitoring during and after the relocation process utilizing the baseline information established by the socio-economic survey of APs undertaken during project preparation to ensure that people are settled and recovering.
- (iii) Overall monitoring whether recovery has indeed taken place successfully and in time.

43. Data from the baseline socio-economic surveys undertaken during the project preparation stage will provide the benchmark for the Monitoring process to assess the progress and success of the IPDP programme. However, Monitoring process will also include the following:

- (i) Communication to and noting of reactions from APs.
- (ii) Information from APs on entitlements, options, alternative developments and relocation timetables.
- (iii) Valuation of properties.
- (iv) Usage of grievance redress mechanism.
- (v) Disbursement of compensation amounts and all assistances.

44. Monitoring will also cover the physical progress of implementation of IPDP. This will include land acquisition of the AHs and project affected community properties. Quarterly reports will be prepared by the Unit on the progress of the IPDP provisions.

45. **Internal Monitoring Indicators:** the Social and Resettlement Unit will carry out internal monitoring. The indicators for achievement of objectives under the IPDP programme are of two kinds as stated below:

- (i) Process Indicators – Indicating project inputs, expenditure, staff deployment, etc.
- (ii) Output Indicators – Indicating results in terms of numbers of affected indigenous people compensated and resettled, training imparted, credit disbursed, etc.

46. **Reporting:** Reporting and monitoring formats will be prepared for an effective internal and external monitoring. These reports will be submitted to ADB for review and comments. Each IPDP will be submitted by EA to ADB for review and approval.



## ENVIRONMENTAL ASSESSMENT AND REVIEW FRAMEWORK (EARF)

### I. INTRODUCTION

1. The North Eastern Region Capital Cities Development Investment Program (NERCCIP) envisages achieving sustainable urban development in the Project Cities of Agartala, Aizawl, Kohima, Gangtok and Shillong through investments in urban infrastructure sectors. The urban infrastructure and services improvement is proposed in the following sectors (i) water supply, (ii) sewerage and sanitation, and (iii) solid waste management. The expected impact of the Investment Program, is increased economic growth potential, reduced poverty, and reduced imbalances between the NER and the rest of the country. The expected outcomes of the Investment Program will be an improved urban environment and better living conditions for the 1.65 million people expected to be living in the Investment Program cities by 2018. To this end, the Investment Program will (i) improve and expand urban infrastructure and services in the cities including in slums and (iii) strengthen urban institutional, management, and the financing capacity of the institutions, including the urban local bodies. Based on considerations of economic justification, absorptive capacity and sustainability of the implementing agencies, sub-projects have been identified in each city in the priority infrastructure sectors.

2. Though the Project aims to improve the environmental condition of urban areas, the proposed improvements of infrastructure facilities may exert certain adverse impacts on the natural environment. While developing urban infrastructure facilities, impacts during the construction stage are expected to be more severe than impacts during the operation phase, though for a short duration. Exceptions being some facilities such as solid waste landfills and sewage treatment plants, which may also exert adverse impacts during the operation phase, if due care is not taken.

3. The mandatory requirements applicable to the NERCCIP may also necessitate the proposed components to go through the environmental assessment process at an appropriate level. Hence, considering these issues and particularly to facilitate the State-level Investment Program Management and Implementation Units (SIPMIU) and the Executing Agencies (EA) with definite environmental criteria to be met for implementation of NERCCIP sub-projects and sub-components, this environmental framework has been prepared.

4. Above all, this exercise ensures that the NERCCIP, in its project cycle, will not deteriorate or interfere with the environmental sensitivity of a project area but rather improve environmental quality through development of infrastructure facilities. Moreover, any component included in NERCCIP shall comply with the environmental requirements of the Government of India (GoI), the respective state governments, and ADB. Details of components and sub-components financed under the NERCCIP are given below.

### II. OVERVIEW OF THE SUB-PROJECT COMPONENTS

5. The Investment Program will consist of two parts. **Part A** covers urban infrastructure and services improvement including the rehabilitation, improvement and expansion of (i) water supplies, (ii) sewerage and sanitation, and (iii) solid waste management. **Part B** covers provision of project management support, institutional development, capacity building and project administration.

## A. Part A: Urban Infrastructure and Services Improvement Components

### 1. Water Supply

6. Although 50-83% of the population of the Project cities have access to piped water supplies, the quality and quantity of water supplied falls substantially short of the expectations of the residents of all the cities, and the shortages that have emerged particularly in Agartala, Aizawl, Kohima and Shillong create severe hardship. In Aizawl and Kohima, water may be delivered during the dry season for only a few hours a week. In Shillong and Agartala, most consumers receive water a few hours a day but it cannot be used without boiling. In Gangtok, most consumers receive water more than six hours a day. Because there are abundant known water resources in all the cities except Aizawl, it is anticipated that it will be possible to improve water supplies to 12 hours per day or more in all the cities. The proposed components are:

### AGARTALA

7. **Distribution System.** Upgrading and rehabilitation of existing networks is proposed in the South and Central Zones, including extension of networks into presently uncovered areas. The improvements proposed include:

- a) Provision of 80% service coverage through installation of 99,600 metered service connections;
- b) Near-complete replacement of existing connections;
- c) Construction of 18 reservoirs with a capacity of 17.5 ML (7.5 ML for Southern Zone and 10 ML for Central Zone);
- d) Construction of 67 km of pumping mains to create a primary system with a length of 87 km;
- e) Construction of 140 km of secondary and tertiary pipelines to create a secondary and tertiary pipeline network of about 860 km;
- f) Construction of chlorinators at major reservoirs to supplement the treatment provided at the main treatment plant; and,
- g) Reduction in UFW (advance leak detection instrumentation) from more than 50% at present to about 30% by 2011.

8. **Source and Treatment Works.** The improvements proposed include:

- Central Zone – in the absence of the DPR, confirmation remains pending
- h) Provision of infiltration galleries at the College Tilla, which shall be connected to the existing intake wells; the infiltration gallery will improve the quality of water at all times and the quantity of water available when the river is almost dry.
- i) Augmentation of existing treatment capacity at College Tilla Water Treatment Plant: installation of pumping machineries at the intake well and construction of aeration cum pre-sedimentation tanks at the existing water treatment plants; and replacement of old and inefficient machinery and equipments.
- j) Provision of dedicated power supply in the river intake works, the treatment plants and the booster pumping stations to the reservoirs;
- k) Rehabilitation of 7 existing deep tube wells, and construction of 7 new ones;
- l) Rejuvenation of 7 iron removal plants (IRPs), and 3 new IRPs.
- m) Construction of 2 new groundwater treatment plants, and  
South Zone
- n) Rehabilitation of 18 existing deep tube wells, and construction of 2 new ones;
- o) Rejuvenation of 10 iron removal plants (IRPs), and 5 new IRPs.
- p) Construction of 5 new groundwater treatment plants, and

- q) Construction of sludge drying and disposal facilities as required at the two treatment plants.

## AIZAWL

**9. Source and Treatment Works.** Enhancement of the existing production capacity from 22.8 to 34.8 MLD has been undertaken with support by MDONER and JNNURM. This will provide sufficient capacity for up to 2015-2020, and therefore it is proposed that additional capacity increases be deferred to such date. However, whilst funds for most pumping and other equipment and machinery have been allocated, there is need to secure adequate power requirements. For this purpose, the following subcomponent is proposed:

- a) Provision of a dedicated power supply 132 KV line from grid system to the Tlawng river intake. The length of the separate power line is approximately 17 km in length.

**10. Distribution System:** Upgrading and rehabilitation of existing networks is proposed including extension of networks into presently uncovered areas. The improvements proposed include:

- b) Lengthening of service duration to 24 hours per day in some parts and 12 hours per day in all parts of the system;
- c) Provision of 100% service coverage and installation of 13,000 out of the 41,000 metered service connections (27,000 installed to date, pending balance due after completion of works);
- d) Complete replacement of the "bunched" connection system with a sub mains system;
- e) Complete replacement of 7 reservoirs and construction of 9 new reservoirs;
- f) Replacement of 22 km and construction of 15 km of primary pipelines;
- g) Replacement of 88 km and new construction of 42 km of secondary and tertiary pipelines;
- h) Construction of chlorinators at major reservoirs (2) to supplement the treatment provided at the main treatment plant; and
- i) Establishment of a NRW reduction program with the aim of reducing UFW from more than 35% at present to about 28% by 2014.

## GANGTOK

**11. Source and Treatment Works.** No augmentation is proposed for the existing source and treatment works, which are more than adequate for the next several decades.

**12. Distribution System.** Upgrading and rehabilitation of existing networks is proposed including extension of networks into presently uncovered areas. The improvements proposed include:

- a) Provision of 63% service coverage through installation of 19,000 metered service connections, or 38% of the master plan;
- b) Near-complete replacement of the "bunched" connection system with a sub mains system;
- c) Construction of 3 new reservoirs with a capacity of 1.9 ML to create a reservoir system with a capacity of about 7.3 ML, or 94% of the master plan;
- d) Construction of 31 kilometers of primary pipelines to create a primary system with a length of 65 kilometers, or 94% of the master plan;

- e) Construction of 38 kilometers of secondary and tertiary pipelines to create a secondary and tertiary pipeline network of about 81 kilometers, or 64% of the master plan;
- f) Construction of chlorinators (4) at major reservoirs to supplement the treatment provided at the main treatment plant;
- g) Reduction in UFW from 30-50% at present to about 28% by 2014; and,
- h) Establishment of a meter installation program.

## KOHIMA

### 13. **Source and Treatment Works. The improvements proposed under the Project include:**

- a) Replacement of old and inefficient machinery and equipment in the existing treatment plant, including replacement of clarifiers, filter media, structural assessments of reservoir and introduction of adequate bacteriological treatment through effective chlorination to ensure supply of safe quality water.

### 14. **Distribution System.** Upgrading and rehabilitation of existing networks is proposed including extension of networks into presently uncovered areas. The improvements proposed include:

- b) Near-full integration of the present PHED, private and village systems;
- c) Near-complete replacement of the "bunched" connection system with a submains system;
- d) Construction of 7 new reservoirs and replacement of 19 existing reservoirs with a capacity of 8.0 MLD;
- e) Construction of 17 kilometers of primary pipelines to create a primary system with a length of 31 kilometers;
- f) Construction and replacement of 90 kilometers of secondary and tertiary pipelines; and
- g) Establishment of a meter installation and UFW reduction program with the aim of reducing UFW from more than 50% at present to about 30% by 2013. This includes provision of bulk meters and leak detection equipment.

## SHILLONG

15. **Source and Treatment Works and Distribution System.** ADB is of the opinion that no improvements in the treatment works are required as present capacity would be adequate. Augmentation of source on long-term basis is being implemented by PHED as part of the JNNURM program. PHED has indicated that Government of India is to provide for water augmentation and distribution in Shillong and support from ADB, if any, would be minimal. Since no specific information has been submitted by PHED, an evaluation cannot be conducted. If the proposed allocation of \$14-15 million was to be required, ADB would exclusively focus on the conversion of the existing bunched connections to a conventional distribution system.

## 2. **Sewerage and Sanitation**

16. Towards improvement of sanitation in the Project cities, a two-pronged approach comprising (i) construction of central piped sewerage and sewage treatment systems designed according to master plans but scoped in such a way as to constitute a minimal feasible investment and (ii) improvement of individual sanitation systems, particularly septic tanks and soak pits, where and until sewerage systems can be constructed is followed. Taking into

account that sanitary sewerage would be a new service in each of the Project cities except Gangtok, an effort was made to identify modestly sized components serving the worst-affected areas of each city as the first stage of development of the sewerage master plans. The project components are:

### **AIZAWL**

17. The proposed project comprises of (i) coverage of part of Zone I (more congested core area) of the four sewerage zones with an underground sewerage system and treatment and disposal facilities, and (ii) provision of low cost sanitation facilities to communities lacking basic access to sanitation facilities.

18. **Collection and Treatment.** The components proposed include:

- a) Provision for underground sewerage system for Zone I of the four sewerage zones (catering to about 17% of the projected city population for 2021) with 3,592 numbers of house hold connections comprising densely populated wards and areas vulnerable to landslides;
- b) Laying of 23 km of primary mains and 30 km of secondary collectors and mains along the existing road stretches and along hillsides where conveyance through gravity is possible.
- c) Construction of a sewerage treatment plant (STP) of 7 MLD capacity on the southeastern side of the city using bio tower with aerated lagoon technology.

19. **Low Cost Sanitation Facilities.** The components proposed include:

- d) Provision, under low cost sanitation programme, for construction of 6 community toilet blocks each, for those localities where the households do not have space to construct toilets within their premises.
- e) Provision, on a pilot scale, to cover about 1000 households by providing assistance for upgrading pit latrines and pour flush latrines and connecting to proposed sewers (preferential) and/or support to poor households outside the sewerage area in Aizawl to construct latrines and install septic tank facilities.

### **GANGTOK**

20. The Project proposes (i) extension of sewerage and sewage treatment facilities to zones 2 (Upper Burtuk, Burtuk, Penlong, Sicheygaon, Upper Chandmari) and 3 (Ward No1, 2, 3 and 10, Upper Chandmari, Chandmari, Upper Tathangchen and Syari), (iii) provision for connections and (iv) provision for low cost sanitation schemes to communities lacking basic access to sanitation facilities.

21. **Collection and Treatment.** The proposed components include:

- a) Construction of sewerage network in Zones 2 and 3, including about 24 km of primary lines, provision of around 8,000 household connections and new sewage treatment plant. The sewerage network shall be laid along the existing road stretches where conveyance through gravity is possible. Along stretches where gravity conveyance is not possible, the sewers are routed along the natural streams and nallahs.

22. **Low Cost Sanitation Facilities.** The proposed components include:

- b) Under the low cost sanitation component, proposals are made for construction of 6 community toilets blocks (6 water closets each) for communities who do not have land to construct toilets.
- c) Provision of financial assistance to 1,000 households for upgradation of existing pit latrines and pour flush latrines will be given on pilot basis and connection to the proposed sewer networks.

## KOHIMA

23. The project proposes a two-pronged approach comprising (i) coverage of substantial parts of the city with an underground sewerage system, and (ii) provision of low cost sanitation facilities in areas not served with sanitary sewerage.

24. **Proposed Sewerage System – Collection and Treatment.** The Project as presently designed provides for 6,700 service connections including areas worst affected by landslips representing about 28% of the city population:

- a) Construction of about 57 km of collectors and mains (29km in zone-I and 28km in Zone-2) which shall be laid along the existing roads and along stretches where conveyance through gravity is possible. Along stretches where gravity conveyance is not possible, the sewers are routed along the natural streams and nullahs.
- b) Construction of two sewage treatment plants using extended aeration systems (i) in the western side of GKPA which is about 2 km above the Agri forest ward towards the North (7 MLD capacity) and (ii) at the south eastern side of GKPA which is about 1 km away from the A.G. colony towards the east (5 MLD capacity).

25. **Proposed Low Cost Sanitation Facilities.** The Project provides for (i) community toilet blocks with 6 water closets each have been proposed at 6 'slum' locations and (ii) financial assistance to 1000 households for upgradation of existing pit latrines and connection to the proposed sewer network.

## SHILLONG

26. **Sewerage System.** Collection and Treatment: The proposed components are subject to demonstrating that sufficient water has been made available (project sanctioned) in project areas and include:

- a) Provision of 6536 nos. service connections to households; residing within Zone I, comprising the densely populated wards of the SMB;
- b) Laying of primary (33 km), secondary (60 km) networks. The sewerage network shall be laid along the existing roads along stretches where conveyance through gravity is possible. Along stretches where gravity conveyance is not possible, the sewers are routed along the natural streams and nullahs; and,
- c) Construction of an STP of 20 MLD capacity at western side of Mawlai village using aerated lagoon system followed by up flow settling tank.

27. **Low Cost Sanitation Facilities.** The proposed components include:

- d) Under the community-upgrading component of the project, proposals are made for construction of community latrines on a pilot scale for communities presently

lacking sanitation facilities. Community toilet blocks with 6 water closets each have been proposed at 6 'slum' locations;

- e) In addition, towards improving sanitation in slum areas, a provision has been made on a pilot scale to cover about 1000 households by providing assistance for conversion of pit latrines and pour flush latrines to flush latrines including connection to sewers. Extensive awareness campaigns towards sensitizing the communities on improved sanitation facilities are proposed through involvement of NGOs and dorbars.

### 3. Solid Waste Management

28. All of the Project cities dispose their wastes by open dumping. It is anticipated that it will be possible to improve existing collection levels to between 55% to 65% by 2011, depending upon the city, through improvements in primary and secondary collection facilities and through an intensive community awareness and consultation program, in consultation with NGOs. The proposed components are:

#### AGARTALA

29. The proposals include improvement of (i) primary and secondary collection efficiencies, (ii) existing system for transportation of wastes, and (iii) treatment and disposal of wastes in accordance with Solid Waste Handling Rules (SWHR).

30. **Improvement of Collection System.** The components proposed include:

- a) Introduction of house-to-house waste collection through source segregation to 15,000 households within the central zone of the city. This shall be done in three phases, with a target of 5,000 households per year for three years during the project implementation;
- b) Provision of 25 liter household bins and heavy duty PVC bags to be used for segregation of wastes;
- c) Provision of 1000 nos. 30 liter dustbins at public places;
- d) Provision of 700 wheelbarrows to be used by sweepers in central areas of the city; and,
- e) Provision of 70 nos. of 4.5 cu.m community dustbins to be used in areas where bell ringing or house-to-house service is not provided.

31. **Transportation facilities.** Operational improvements of the existing refuse vehicles through incorporation of more vehicles with proper tipping and hydraulic loading/unloading arrangements. The components proposed include:

- f) Provision of 5 medium duty tipper trucks for collecting the wastes from house to house with introduction of bell ringing system in the periphery areas to households along the main road;
- g) Provision for augmentation of existing fleet of tipper trucks for carrying waste loads from the transfer station to the landfill sites; and,
- h) Provision of 1 bulldozers, 1 tipper trucks, 1 JCBs and 1 loader bobcats for disposal site and composting plant operations.

32. **Treatment and Disposal.** The components proposed include

- i) Development of one new disposal sites either at Nagichora (South West) or at Paschim Noabadi (North-East) with proper arrangement of access, waste retention and leachate collection facilities;

- j) Detailed design of the new disposal sites and sanitary land filling system;
- k) Development of a compost plant of 50 TPD, and,
- l) Installation of an electronic weighbridges for improved vehicle management at the new disposal sites.

33. **Garage and transfer station.** The components proposed include

- m) One transfer stations of 600cu.m capacity at either (i) Malay Nagar at the south east portion to cater waste from the central and southern portion of GAPA towards ultimate disposal to Nagichora disposal site **or** at (ii) Indranagar at north east portion to cater waste from central and northern portion; and,
- n) Development of a new garage cum parking facility at transfer station to accommodate 24 refuse vehicles.

## AIZAWL

34. The proposals include improvement of (i) primary and secondary collection efficiencies (ii) existing system for transportation of wastes, and, (iii) treatment and disposal of wastes in accordance with Solid Waste Handling Rules (SWHR). The proposed components are:

35. **Improvement of Collection System.** Improvement of the existing SW collection system from 40% to 55% by 2011, through improvements in primary and secondary collection facilities and through an intensive community awareness and consultation program, in consultation with NGOs and CBOs;

- a) Introduction of house-to-house waste collection through source segregation on a pilot basis, initially to about 2000 households;
- b) Provision of 60 nos dumper placer bins in central public places;
- c) Provision of 2000 nos. of 25-litre household dustbins and 2000, heavy duty PVC bags to be used for segregation of wastes at source (non biodegradable);
- d) Provision of 200 nos. wheelbarrows to be used by sweepers in the central areas of the city; and,
- e) Provision of 16 nos., autovans with 6 container system;

36. **Transportation facilities.** Operational improvements of the existing refuse vehicles through procurement of vehicles with proper tipping and hydraulic loading/unloading arrangements:

- f) Provision of 6 nos. medium duty tipper trucks for waste collection through bell ringing service;
- g) Provision of 4 nos. dumper-placer trucks for collecting the wastes from community bins; and,
- h) Provision of 8 nos. of tractors with covered trolleys.

37. **Garage and transfer station.** The components proposed include:

- i) Development of a transfer station towards enhancing the operational efficiencies of the existing system. Transfer stations shall function as recovery centers for segregation of biodegradable portions from recoverables /recyclables; and,
- j) Construction of a new parking/garage/workshop facility to accommodate and maintain 24 refuse vehicles. The garage shall also be used for the maintenance of wheelbarrows and mechanized containers.

38. **Treatment and Disposal.** The components proposed include:

- k) Development of a new sanitary landfill site including establishment of a compost plant of 50MTPD capacity;



- l) Provision for the following measures towards environmental protection at the existing dumping site at Tuirial (i) adequate leachate collection facilities; and (ii) barrier wall to arrest wastes flowing into streams.
- m) Introduction of weighbridge at landfill sites at Mullungthu.
- n) Provision of 1 bulldozer, 2 tipper trucks, 2 JCBs and 1 loader bobcat for disposal site and compost plant operations.

## GANGTOK

39. The proposals include improvement of (i) primary and secondary collection efficiencies, (ii) existing system for transportation of wastes, and (iii) treatment and disposal of wastes in accordance with SWHR. The proposed improvements include:

40. **Improvement of Collection System:** The project envisages improvement of the existing SW collection system from 40% to 55% by 2012, through improvements in primary and secondary collection facilities and through an intensive community awareness and consultation program, in consultation with communities and NGOs. The specific improvements proposed in the improvement of collection systems include:

- a) Introduction of house-to-house waste collection through source segregation on a pilot basis, initially to about 2000 households.
- b) Provision of 1000 nos., 30 litre dustbins which shall be placed in central public places;
- c) Provision of 2000 nos., 25 litre household dustbins and 2000 Nos. heavy duty PVC bags to be used for segregation of wastes at source (non biodegradable).
- d) Provision 200 nos. wheelbarrows to be used by sweepers in the central areas of the city.
- e) Provision of 20 nos., 4.5 cu.m community dustbins in areas where bell ringing house-to-house waste collection is not provided.

41. **Transportation Facilities:** Operational improvement of the existing refuse vehicles through procurement of vehicles with proper tipping and hydraulic loading/unloading arrangements.

- f) Provision of 3 medium duty tipper trucks for waste collection through bell ringing service.
- g) Provision of 4 dumper placers for lifting the waste collected in mechanized containers.
- h) Provision of 3 large tipper trucks coupled with augmentation of existing fleet of tipper trucks for carrying waste load from transfer station to landfill sites.

42. **Garage and Transfer Station:** The proposed components include:

- i) Development of a transfer station at the junction of NH-31A and Indira Bypass towards increase in vehicle trips and area of coverage. The transfer station shall also function as recovery centre for segregation of biodegradable portions from the recoverables/ recyclables.
- j) Construction of new garage/workshop facility at the existing parking space of UD&HD for accommodation and maintenance of 24 refuse vehicles. The garage shall also be used for maintenance of wheelbarrows and mechanized containers.

43. **Treatment and Disposal:** The proposed components include:

- k) Development of a sanitary landfill at the proposed disposal site at Martam;
- l) Provision of 1 bulldozer, 1 tipper truck, 1 JCB for the disposal site and compost plant operations; and,

- m) Improve marketing of the composts that shall be produced at the Martam compost plant (under construction).

## KOHIMA

44. The proposals include improvement of (i) primary and secondary collection efficiencies, (ii) existing system for transportation of wastes, and (iii) treatment and disposal of wastes in accordance with SWHR. The proposed improvements include:

45. **Improvement of Collection System:** Improvement of the existing SW collection system, through improvements in primary and secondary collection facilities and through an intensive community awareness and consultation program, in consultation with the village councils and NGOs. The components proposed include:

- a) Introduction of house-to-house waste collection through source segregation on a pilot basis, initially to about 2000 households;
- b) Provision of 350 nos of 30 litre litter bins in central public places;
- c) Provision of 2000 nos. of 25-litre household dustbins and 2000, heavy duty PVC bags to be used for segregation of wastes at source (non biodegradable);
- d) Provision of 200 nos. wheelbarrows to be used by sweepers in the central areas of the city; and,
- e) Provision of 22 nos., 4.5 cum community dustbins in areas where bell ringing house-to-house collection is not provided;

46. **Transportation facilities.** Operational improvements of the existing refuse vehicles through procurement of vehicles with proper tipping and hydraulic loading/unloading arrangements:

- f) Provision of 4 nos. medium duty tipper trucks for waste collection through bell ringing service;
- g) Provision of 6 nos. dumper-placer trucks for collecting the wastes from community bins; and,
- h) Provision of 3 nos. of tipper trucks from carrying wastes from the transfer station to disposal sites.
- i) Repairs to Kohima existing waste collection fleet.

47. **Transfer Station and Disposal Facility.** The proposed components include:

- j) Development of a transfer station of 300 cu.m. capacity near the new Secretariat Complex for reduction of transportation time and fuel, which shall also function as recovery center to segregate wastes.

48. **Treatment and Disposal:** The proposed components include:

- k) A new sanitary landfill site is to be developed to reduce the load on existing land filling site and reduction of environmental nuisance.
- l) Composting of biodegradable parts of waste to recover the cost.
- m) Provision of 1 bulldozer, 2 tipper trucks, 2 JCBs and 2 loader bobcats for disposal site and composting plant operations.
- n) Construction of a parking/garage/workshop facility, for the refuse vehicles/wheelbarrow/ mechanized containers of about 20-24 vehicles.

## SHILLONG

49. The proposals include improvement of (i) primary and secondary collection efficiencies, (ii) existing system for transportation of wastes, and (iii) treatment and disposal of wastes in accordance with SWHR. The proposed improvements include:

50. **Improvement of Collection System:** Improvement of the existing SW collection system from 45% to 60% by 2014, through improvements in primary and secondary collection facilities and through an intensive community awareness and consultation program, in consultation with communities, dorbars and NGOs. The proposed components include:

- a) Introduction of house-to-house waste collection through source segregation on a pilot basis, initially to about 2000 households within the SMB area.
- b) Provision of 1000, 30 litre dustbins to be placed in public places;
- c) Provision of 2000, 25-litre household dustbins and 2000 Nos. heavy duty PVC bags to be used for segregation of wastes at source (non biodegradable);
- d) Provision of 250 wheelbarrows to be used by sweepers in the central areas of the city; and,
- e) Provision of 35 nos, 4.5 cum community dustbins to be used in areas where bell ringing or house-to-house service is not provided.

51. **Transportation Facilities:** Operational improvements of the existing refuse vehicles through incorporation of more vehicles with proper tipping and hydraulic loading/unloading arrangements.

- f) Provision of 5, medium duty tipper trucks for collecting the wastes from house to house with introduction of bell ringing system in the periphery areas to households along the main road;
- g) Provision of 7 new dumper placers for secondary collection. The medium tippers and dumper placers shall be used for carrying waste from the waste generating sources to transfer station; and,
- h) Provision of 6 large tipper trucks with 8-10 cu.m waste carrying capacity per trip. The larger tipper shall be used for carrying waste from transfer station to sanitary landfill sites.

52. **Garage and Transfer Station:** The proposed components include:

- i) Development of a transfer station at the existing disposal site at Mawlai towards increase in vehicle trips and area of coverage. The transfer station shall also function as recovery centre for segregation of biodegradable portions from the recoverables/ recyclables
- j) Construction of new parking/garage/workshop facility at Mawlai (the existing disposal site) for accommodation and maintenance of 24 refuse vehicles. The garage shall also be used for maintenance of wheelbarrows and mechanized containers.

53. **Treatment and Disposal:** The proposed components include:

- k) Development of a new sanitary landfill site, with adequate leachate collection facilities and environmental protection measures.
- l) Provision of 2 bulldozers, 2 tipper trucks and 1 JCBs for disposal site;
- m) Provision of environmental protection measures and short-term sanitary landfill facilities (approx. 6 acres) at the present disposal site at Mawlai, as intermediate protection measures till the new sanitary landfill site starts operation; and,

- n) Introduction of weighbridges at landfill sites to track waste supply to compost plant and fuel consumption.

## **B. Part B: Project Management and Capacity Building Components**

### **4. Investment Program Management, Institutional Development, Capacity Building and Training**

54. While NERCCIP will involve provision of urban infrastructure and services in the capital cities, long-term sustainability of the assets created, and effective planning and management of urban basic services in general, requires that key urban management issues be addressed by the Program.

55. Management of the implementation of the NERCCIP would be undertaken by the SIPMIU, responsible for overall project implementation. Provision is made under the project for funding the costs of the SIPMIU, as well as the cost of consultants to provide assistance in project management and related capacity building. Such support is considered essential to the implementation of the project, particularly in light of the lack of experience of the proposed executing and implementing agencies with projects this large, implemented through separate design and construction contracts.

56. Effective and sustained delivery of urban services will require that the existing ULBs be strengthened and new ULBs be created, that water supply, sewerage and solid waste management operations be operated in a much more effective and efficient manner, that own source funding of all urban services be very substantially enhanced and that urban land management be improved. These will require a variety of actions which are expected to range from conduct of community consultations and institutional surveys to preparation and implementation of legislation and regulations, reorganization of departments, modernization of human resource management systems and improvement of financial management systems. Some of the measures, such as creation of a new urban local body or a new water supply and sanitation agency, involve major changes and these will have to be conducted over a longer period of time. Support will be provided under the project for the necessary measures.

57. The proposed project management and capacity development for each city include:
- a) safeguards compliance studies;
  - b) community awareness programs,
  - c) compost marketing studies;
  - d) non-revenue reduction programs, power and water audits;
  - e) support for migration to a double entry accounting basis system in ULB;
  - f) support for preparation of a GIS based property tax system
  - g) private sector participation opportunities studies
  - h) water utility reform program focusing on asset management improvement.

## **III. GOVERNMENT OF INDIA AND STATE GOVERNMENT ENVIRONMENTAL ASSESSMENT AND REVIEW PROCEDURES**

### **A. Applicable Legislations**

58. The implementation of sub-projects proposed under NERCCIP will be governed by the Environmental Acts, Rules, Policies, and Regulations of the GoI and the respective state governments of the Northeast Region. These regulations impose restrictions on the activities to

minimize/mitigate likely impacts on the environment. The following are the environmental regulations applicable to NERCCIP (see Appendices for more information, particularly state programs):

- (i) The Water (Prevention and Control of Pollution) Act, 1974, amended 1988;
- (ii) The Water (Prevention and Control of Pollution) Rules, 1975;
- (iii) The Air (Prevention and Control of Pollution) Act 1981, amended 1987;
- (iv) The Air (Prevention and Control of Pollution) Rules, 1982;
- (v) The Environment (Protection) Act, 1986, amended 1991 and including the following Rules/Notification issued under this Act;
- (vi) The Environment (Protection) Rules, 1986, including amendments;
- (vii) The Municipal Solid Wastes (Management and Handling) Rules, 2000;
- (viii) The Hazardous Wastes (Management and Handling) Rules, 1989;
- (ix) The Bio-Medical Waste (Management and Handling) Rules, 1998;
- (x) Noise Pollution (Regulation and Control) Rules, 2000;
- (xi) Wild Life (Protection) Amendment Act, 2002;
- (xii) Environmental Impact Assessment Notification, 2006;
- (xiii) Environmental Standards of Central Pollution Control Board (CPCB);
- (xiv) The Indian Wildlife (Protection) Act, 1972, amended 1993;
- (xv) The Wildlife (Protection) Rules, 1995;
- (xvi) The Indian Forest Act, 1927;
- (xvii) Forest (Conservation) Act, 1980, amended 1988;
- (xviii) Forest (Conservation) Rules, 1981 amended 1992 and 2003; and
- (xix) Guidelines for Diversion of Forest Lands for Non-Forest Purpose under the Forest (Conservation) Act, 1980.

59. Any component included in NERCCIP shall comply with the above Government of India and any state government environmental laws, standards, rules and requirements. Key standards include those related to drinking water quality, air quality, effluent discharge, leachate quality, and protected areas. Compliance is required in all stages of the project including design, construction, and operation and maintenance.

## **B. Environmental Assessment Requirements**

60. The new EIA Notification of 2006 of GoI, which replaces the EIA Notification of 1994, requires environmental clearance for certain defined activities/projects. This Notification classifies the projects/activities that require environmental clearance (EC) into 'A' and 'B' categories depending on the impact potential and/or scale of project. For both category projects, prior environmental clearance is mandatory before any construction work, or preparation of land except for securing the land, is started on such project or activity. Clearance provisions are as follows:

- (i) Category 'A' projects require prior environmental clearance from the MoEF, Government of India<sup>1</sup>;
- (ii) Category 'B' projects require prior environmental clearance from the State

<sup>1</sup> For Category A projects, based on the preliminary details provided by the project proponent as per Notification, the Expert Appraisal Committee (EAC) of MoEF, determine comprehensive TOR for EIA studies. This TOR will be finalized within 60 days. On the recommendation of the EAC based on EIA studies, MoEF provides the EC.

- (iii) Environment Impact Assessment Authority (SEIAA)<sup>2</sup>; and This Notification provides that, any project or activity specified in Category 'B' will be treated as Category A, if located in whole or in part within 10 km from the boundary of protected areas, notified areas and inter-state and international boundaries<sup>3</sup>. Also, in the case where a SEIAA does not exist, Category B project will be reviewed by the MoEF and reclassified as Category A.

61. Consequently, the only NERCCIP subproject listed in the EIA Notification of 2006 Schedule of Projects Requiring Prior Environmental Clearance is solid waste facilities, otherwise referred to as Common Municipal Solid Waste Facilities (CMSWF). Common municipal solid waste management facilities qualify as Category B projects and are thus reviewed by the respective SEIAA. For solid waste facilities, the Government of India further ensures environmental safeguards through its Municipal Solid Waste Management and Handling Rules (SWMHR), 2000 as published under MoEF.

62. At the state government level, water treatment, sewage, and solid waste subprojects require approval by the State Pollution Control Boards (SPCB). The following approvals from SPCB are required: No Objection Certificates (NOC), Certificates of Establishment (COE) and Certificates for Operation (CFO).

### **C. Forest Clearances**

63. Forest legislation in India dates back to enactment of the Indian Forest Act, 1927. This Act empowers the State Government to declare "any forest land or waste-land, which is the property of Government or over which the Government has proprietary rights or to the whole or any part of the forest-produce of which the Government is entitled", a reserved forest or protected forest. The State Government may assign to any village-community the rights of Government over a reserved forest - those are called village-forests. Act also allows Government control over forest and lands not being the property of Government.

64. Acts like clearing or break up of any land for cultivation or for any other purpose, damage to vegetation/trees and quarrying or removing any forest produce from reserved forest is prohibited. All these are also applicable to village-forests. For protected forests, with the provision of the Act, the State Government makes rules to regulate activities like: cutting of trees and removal of forest produce; clearing or breaking up of land for cultivation or any other purpose; and for protection and management of any portion of protected forest.

65. Forest (Conservation) Act, 1980 (amended in 1988) enacted by Government of India, restricts the dereservation of forests for use of non-forest purposes. According to the Act, State Government requires prior approval of Gol for the use of forest land for non-forest purposes (means the breaking up or clearing of any forest land) or for assigning least to any private person or agency not controlled by government. The Forest (Conservation) Rules, 2003 issued under this Act, provide specific procedures to be followed for conversion of forest land for non-forest purposes.

<sup>2</sup> The B category projects will be further divided by State Level EAC into B1 – that require EIA studies and B2 – no EIA studies. The State Level EAC will determine TOR for EIA studies for B1 projects within 60 days. On the recommendation of the State level EAC based on EIA studies, SEIAA provides the EC.

<sup>3</sup> (i) Protected Areas notified under the Wild Life (Protection) Act, 1972, (ii) Critically Polluted areas as notified by the Central Pollution Control Board from time to time, (iii) Notified Eco-sensitive areas, (iv) inter-State boundaries and international boundaries.

66. Limited sub-projects notably solid waste composting and landfills may require acquisition of forest land<sup>4</sup>. Linear subprojects like water supply rising mains/trunks mains may traverse forest lands. The forest land conversion will follow the "Guidelines for Diversion of Forest Lands for Non-Forest Purpose" under Forest (Conservation) Act, 1980. Compensatory afforestation is one of the most important conditions stipulated for diversion of forest land. The following proposals for conversion will be forwarded by the State Government to the MoEF, Gol:

- (i) Forest land involving up to 5 ha will be cleared by the Regional Office of the MoEF.
- (ii) Forest land involving more than 5 ha and up to 20 ha sent will be cleared by the Regional Office after referring the case to MoEF.
- (iii) Conversion of forest land (i) having density above 0.4 irrespective of the area involved, and, (ii) of more than 20 ha in the plains and 10 ha in the hilly region, irrespective of density, will be cleared by MoEF.
- (iv) Compensatory afforestation is compulsory for conversion:
- (v) Afforestation will be done over an equivalent area of non-forest land.
- (vi) As far as possible, the non-forest land for compensatory afforestation should be identified contiguous to or in the proximity of Reserved Forest or Protected Forest. If non-forest lands are not available in the same district other non-forest land may be identified elsewhere in the state.
- (vii) Where non-forest lands are not available, compensatory afforestation may be carried out over degraded forest twice in extent to the area being diverted.

67. Conversion of forest lands that are part of National Parks/Sanctuaries and Tiger Reserve areas (notified under Indian Wildlife (Protection) Act, 1972) is not permitted. In exceptional case, the State Government requires consent of the Indian Board of Wildlife for obtaining approval of the State Legislature for denotification of the area as a sanctuary.

68. Cutting of trees in non-forest land, irrespective of land ownership, also requires permission from the State Forest Department. Afforestation to the extent of two trees per each tree felled is mandatory.

#### **D. Other Environmental Regulations**

69. Under the Water (Prevention and Control of Pollution) Act, 1974 and/or the Air (Prevention and Control of Pollution) Act, 1981, the following sub-projects require Consent for Establishment (CFE) and Consent for Operation (CFO) from the respective State Pollution Control Board (SPCB). The CFE/CFO is issued upon project review and site visits. The Board issues the CFE before start of construction and the CFO after completion of construction and satisfying CFE conditions, if any. During the operation period, the effluent and air emissions must conform to the stipulated standards (CPCB Environmental Standards). The CFO is renewed every year based on the operation performance of the facility. The following sub-projects require SPCB consent for establishment and operation.

- (i) New or augmentation of water treatment plants (under the Water Act);
- (ii) New or augmentation of sewage treatment plants (under the Water Act);
- (iii) Solid waste composting and landfills (under the Water Act and the Air Act);
- (iv) Diesel generators (under the Air Act); and
- (v) Hot Mix Plants, Wet Mix Plants, Stone Crushers etc, if installed for construction

<sup>4</sup> The term 'Forest land' refers to land owned by the Forest Department; it may or may not include reserved forest, protected forest or any area recorded as forest in the government records.

(under the Air Act).

70. **Municipal Solid Waste (Management and Handling) Rules, 2000 of GOI.** These Rules issued under the Environment (Protection) Act, 1986 with the objective of regulating the management and handling of the municipal solid wastes applicable to all MSW subprojects. The important provisions are:

- (i) Solid waste generated in a municipal area shall be managed, including segregation, collection, transportation, and disposal in accordance with the Rules.
- (ii) The State Pollution Control Board will authorize waste processing and landfills.
- (iii) Solid waste processing and landfills shall meet design and operation specifications/standards specified under the Rules. These include site and facility design specifications, output compost characteristics, pollution control and monitoring programs, including closure of landfill site and post-care.

71. A summary of the environmental compliance requirements is presented in below in Table 1.

**Table 1: Environmental Compliance Requirements of NERCCDIP Sub-projects**

S. No	Component	Applicable Legislation	Compliance	Action Required
1	All components that require forest land acquisition	Forest (Conservation) Act, 1980 & Wildlife Act, 1972	Approval of the Ministry of Environment and Forests, GoI	Identification of non-forest land and afforestation program need to be formulated
2	Water treatment plant (WTP), and sewage treatment plant (STP)	Water (prevention and control of pollution) Act, 1974	No Objection Certificate (NOC), Consent for Establishment (CFE) and Consent for Operation (CFO) from SPCB	Based on project review and site inspection the SPCB provides CFE before construction. The disposal standards to be met during the operation will be stipulated. Subsequent to completion of construction, CFO is issued confirming compliance of CFE conditions, if any.
			Renewal of CFO during operation	Based on the performance of the STP and its compliance with the disposal standards CFO will be renewed every year.
3	All composting and landfill facilities	The Municipal Solid Wastes (Management and Handling) Rules, 2000	Authorization of proposed site by SPCB	Based on land use and surrounding surface and groundwater conditions authorization is issued
		Water (prevention and control of pollution) Act and Air (prevention and control of pollution) Act	NOC, CFE and CFO from SPCB	Same as indicated for STPs.
4	Common waste management facilities including composting, landfills, and transfer stations	The Environment (Protection) Act, 1986 EIA Notification, 2006 Category B	Requires environmental clearance from the State Environment Impact Assessment Authority (SEIAA).	Based on preliminary information and site visits, if required, project will be categorized as B1 or B2. B1 projects require EIA study for approval. If no SEIAA exists, then considered Category A and reviewed by MOEF.
5	Common waste management facilities within 10 km boundary	EIA Notification, 2006 Category A	Requires environmental clearance from the	Conduct EIA study. B1 and A projects require public consultation as part of EIA.



S. No	Component	Applicable Legislation	Compliance	Action Required
	of protected areas such as National Parks, Sanctuaries, notified areas and biosphere reserves		MOEF	

#### IV. ENVIRONMENTAL ASSESSMENT PROCEDURES TO BE USED FOR SUBPROJECTS

##### A. Implementation Arrangements

72. The national-level Executing Agency (NEA) for the Investment Program will be MOUD. An Investment Program Coordination Cell (IPCC) will be established in MOUD. IPCC will be responsible for overall management of the Investment Program in the five cities and will include social/environmental safeguard specialists whose tasks include monitoring Program implementation and reviewing and screening the subprojects submitted by States in accordance with subproject selection criteria, including the environmental provisions. A national level Steering Committee (NSC) will be set up by GOI within three months of loan effectiveness to monitor the use of funds under MFF and overall implementation performance of the Investment Program.. The IPCC will be assisted by a Project Management Consultant (PMC) to provide support and coordination for environmental assessment and review procedures. A State-level Executing Agency (SEA) in each State will be responsible for executing the part of the loan falling under the respective State Governments.

73. A consolidated State Investment Program Management and Implementation Unit (SIPMIU) will be established in each of the five SEAs and headed by a Program Director (PD). SIPMIU will oversee the Program's environment and resettlement planning. This includes the preparation of all documentation needed for decision-making, contracting, and supervision of work and providing progress-monitoring information to the PD. The SIPMIU shall comprise of a Safeguards and Social Cell staffed with an Environmental Officer (EO). The EO shall be responsible for implementing the environmental safeguard provisions in the project including (i) ensuring environmental criteria for subproject selection in the EARP (also see Table A11.2) are followed, (ii) ensuring mitigation requirements are in contractor bidding documents, and (iii) liaising with various Central and State government agencies on compliance matters. The SIPMIU will appoint and manage Construction Contractors (CC) to build elements of the infrastructure who are required to submit Environmental Implementation Plans (EIPs) for SIPMIU approval.

74. The SIPMIU will be assisted by the DSMC, who will design the infrastructure, manage tendering of contracts, and supervise the construction process. An Environmental Specialist (ES) in the DSMC will be responsible for addressing the environmental issues in the project components during design and implementation. The ES will ensure all mitigation requirements are in contractor bidding documents and EIPs, and will supervise the effective implementation of environmental provisions during construction. In addition, the ES will assist the IPMU on the procurement needs and other project implementation aspects and shall play a central role in ensuring capacity building on environmental management of the IPMU, Contractor and Line Departments through capacity development support and training.

75. DSMC will submit periodic monitoring and implementation reports to SIPMIU, who will take follow-up actions, if necessary. SIPMIU will submit monitoring reports to the PD who will then submit to ADB. SIPMIU will also prepare annual monitoring reports for IPCC and assist IPCC in preparing

an annual monitoring report to ADB. The annual report is to focus on the progress of implementation of the EMP and EARP and issues encountered and measures adopted, follow-up actions required, if any, as well as the status of Program compliance with subproject selection criteria, and relevant loan covenants. IPCC will seek clearance for submission and disclosure of the annual environmental monitoring report to ADB.

**Table 2: Institutional Roles and Responsibilities**

SIPMIUs	ADB
<b>Subproject Identification stage</b>	
Environmental safeguard specialists in SIPMIU and IPCC screen subprojects based on Subproject selection Criteria	
<b>Detailed Design stage</b>	
SIPMIUs to review design changes and if these warrant classification of the change, initiate the EA process in accordance with the EARP, revise the IEE/EIA/EMP in accordance with detailed design changes as warranted;	ADB to review the changes, the suggested classification, if required; revise IEE/EIA/EMP based on detailed design changes, as warranted.
<b>Pre-construction stage</b>	
<ul style="list-style-type: none"> <li>SIPMIU (through its DSMC) to conduct Rapid Environmental Assessment (REA) for each sub-components using checklists</li> <li>Based on the REA, categorize the project based on ADB's Guidelines</li> <li>To fulfill ADB requirements. DSMC will assist the SIPMIU in conducting EIAs for Category A and IEEs for Category B sub-projects. If warranted from IEE review, an EIA to be conducted and a SEIA to be prepared and submitted. An REA may also trigger an EIA. For Category C sub-projects no EIA or IEE is required, the SIPMIU to provide generic mitigation measures, if any, to be implemented.</li> <li>SIPMIU (through DSMC) will review the EIA/IEE Reports and will submit to MoUD and ADB for review and approval.</li> <li>SIPMIU (through its DSMC) to fulfill GoI and State environmental requirements including: Environmental Clearance (EC) for common compost and landfill sites (EIA to be conducted for A and B1 category according to the TOR determined by MoEF/State-level EAC); CFE and CFO for STPs, compost plants and land fills, water treatment plants, diesel generators and authorization for compost and landfill sites from respective SPCB; and Forest clearances.</li> <li>For the subprojects that require EC, the ToR determined by concerned agency shall be included in the IEE/EIA study so as to fulfill the GoI and ADB requirements with single document.</li> <li>SIPMIU (through DSMC) to conduct public consultation and disclosure during IEE/EIA process and comments shall be reflected in the IEE/EIA report.</li> <li>PMC to monitor the disclosure and public consultation.</li> <li>SIPMIU will apply for any CFO renewals if required.</li> </ul>	<ul style="list-style-type: none"> <li>ADB reserves the right to review the project document and IEE reports, as necessary. ADB (and MoUD) to review the REA checklists and reconfirm the categorization. The ADB will review and approve IEE/EIA reports of: (i) all Category A and Category B-sensitive subprojects; (ii) subprojects with a capital cost of more than \$10 million, and (iii) all subprojects with solid waste landfill and sewerage collection/treatment components. Notwithstanding these thresholds, in each tranche ADB will review at least one subproject of the sectors being implemented under respective tranche. In addition, the updated and finalized IEE/EIA reports of all tranche 1 subprojects will be reviewed and cleared by ADB prior to approval and issuance of tender documents during detailed design stage.</li> </ul>
<ul style="list-style-type: none"> <li>After confirmation of approval of IEE/EIAs, SIPMIU with the assistance of Project Consultants to disclose the SIEE/SEIA (for Category B-sensitive and Category A projects) and EMP to the public as required by ADB Guidelines. SIEE/SEIA reports are to be made available to the public for Category B-sensitive and Category A projects 120 days before ADB Board consideration. All IEEs/EIAs are available to the public upon request.</li> </ul>	

SIPMIUs	ADB
<ul style="list-style-type: none"> <li>Project Consultants (DSMC), on behalf of SIPMIU, to incorporate mitigation measures in project design, specified in IEE/EIA study.</li> <li>SIPMIU with the assistance of Project Consultants (DSMC) to identify and incorporate environmental mitigation and monitoring measures into contract documents.</li> </ul>	
<b>Construction stage</b>	
<ul style="list-style-type: none"> <li>SIPMIU and DSMC to monitor the implementation of mitigation measures by Contractor.</li> <li>DSMC to prepare monthly progress reports including a section on implementation of the mitigation measures and submit to SIPMIU for review</li> <li>SIPMIU to review the progress reports to ensure that the all mitigation measures are properly implemented.</li> <li>SIPMIU to consolidate the monthly reports and submit quarterly reports to MoUD and ADB for review.</li> <li>DSMC will conduct environmental quality monitoring during construction stage (ambient air and noise, and water quality).</li> <li>SIPMIU to assist IPCC prepare the annual monitoring report on environment by focusing on the progress in implementation of the EMP and EARP and issues encountered and measures adopted, follow-up actions required, if any. SIPMIU will submit annual monitoring report to IPCC which in turn will include in the report, the status of Program compliance with subproject selection criteria, and with relevant loan covenants. IPCC will seek clearance for submission and disclosure of the annual environmental monitoring report to ADB.</li> </ul>	<ul style="list-style-type: none"> <li>ADB (and MoUD) to review the reports and provide necessary advice as needed to the SIPMIU. ADB to review the annual monitoring report and to post this on ADB website</li> </ul>
<b>Operation Stage</b>	
<ul style="list-style-type: none"> <li>ULB/SIPMIU to conduct monitoring, as specified in the environmental monitoring plan.</li> <li>The SPCB to monitor the compliance of the standards regarding drinking water quality, ground water, ambient air, leachate quality and compost quality including incineration standards, if applicable.</li> <li>SPCB to fulfill all responsibilities as outlined in the Solid Waste Management Handling Rules, 2000.</li> </ul>	

## B. Environmental Criteria for Sub-project Selection

76. It may be mentioned that none of the components will have significant negative impacts, which is mainly attributed to the nature of components, which will primarily improve the environmental condition. In the case sensitive features (i.e., water bodies) may exist near or in the vicinity of project sites, careful siting and engineering of project components coupled with clearly defined operation and maintenance procedures are specified to mitigate adverse environmental impacts. In addition, fulfilling the GoI and the state governments' requirements will ensure environmental safeguards for the most potentially impacting facilities namely STP and solid waste disposal sites. The other components are unlikely to have negative impacts; however, the selection criteria indicated in Table 3 should be followed while identifying and finalizing Project components.

**Table 3: Environmental Criteria for Sub-project Selection**

Component	Criteria
Overall selection criteria (applicable to all components)	<ul style="list-style-type: none"> <li>• Will avoid resettlement/relocation. If unavoidable the extent of resettlement will be minimized.</li> <li>• Will not result in destruction of or encroachment onto protected areas, including reserved forests or biodiversity conservation hotspots (identified in the State Biodiversity Strategy and Action Plans).</li> <li>• Will not result in destruction/disturbance to historical and cultural places/values.</li> <li>• Will avoid conversion of prime agriculture areas for component establishment.</li> <li>• Will not involve social conflicts.</li> <li>• Will reflect inputs from public consultation and disclosure for site selection.</li> </ul>
Water supply	<ul style="list-style-type: none"> <li>• Adequate buffer around treatment plants and pumping stations to alleviate noise and other possible nuisances.</li> <li>• Will not result in excessive abstraction of water affecting downstream water users and other beneficial water uses for surface and ground water.</li> <li>• Will ensure adequate protection from pollution of intake works or wells.</li> <li>• Will not utilize raw water of very poor quality evidenced by the presence of high levels of pathogens and /or mineral contents</li> <li>• Ensure occupational safety measures for the safe handling of chlorine, including wash area, as well as proper handling as not to result in inadequate/poor treatment and chlorination.</li> <li>• Will ensure proper and adequate treatment and disposal facilities for increased volumes of wastewater generation.</li> <li>• Will ensure networks and distribution systems are designed considering vulnerability to landslides and earthquakes.</li> <li>• Will not involve the use or handling of asbestos cement (AC) pipes. Existing AC pipes, if any, will be left as it is, but project team cause to ensure that pipes will be marked appropriately.</li> <li>• Will ensure location of water treatment plant will take into account the present and future demands, direction and rate of growth of the service area and potential deterioration of source quality in the future.</li> <li>• Will ensure location of water treatment plant will follow the natural hydraulic gradient so that the service area can be supplied by gravity</li> <li>• Will be located above the one in 100 year design flood level of the maximum flood level experienced if records are insufficient for flood analysis.</li> <li>• Include treatment of all backwash and sludge resulting from water treatment plants and acceptable to discharge standards of the SPCB before disposal.</li> </ul>
Sewerage and sanitation	<ul style="list-style-type: none"> <li>• Will ensure sewage treatment plant (STP) site selection is not in (i) close proximity to inhabited areas; (ii) flood and landslide prone areas; and (iii) effluent disposal points close to water intake or water usage points.</li> <li>• Sub-projects will be implemented only with consent of State Pollution Control Board (SPCB).</li> <li>• Will ensure sewage pumping station locations avoids sensitive receptors (e.g. proximity of high density residential, schools, hospitals, etc.).</li> <li>• Will ensure networks and distribution systems are designed considering vulnerability to landslides and earthquakes.</li> <li>• Will ensure low cost sanitation measures proposed do not increase vulnerability to landslides or result in pollution of groundwater.</li> <li>• Subproject sewage treatment technology and low-cost sanitation schemes are appropriate to the site and local culture, and do not require sophisticated O&amp;M, but will ensure treatment as per the disposal standards. Air/odor dispersion will be considered during detailed design to reflect appropriate technology, design, and required mitigation measures.</li> </ul>
Solid waste management	<ul style="list-style-type: none"> <li>• Site selection will be based on the provisions (Specifications of Landfills) of Municipal Solid Waste (Management and Handling) Rules, 2000 (Government of India). Will ensure compliance with Municipal Solid Waste (Management and Handling) Rules, 2000 (Government of India).</li> <li>• Will ensure no land use conflicts.</li> <li>• Sub-projects will be implemented only with Environmental Clearance from the government, and consent from the State Pollution Control Board (SPCB).</li> <li>• Sub-projects will not be constructed in areas where the groundwater table is less than 2 meters below ground level.</li> </ul>

### C. Environmental Assessment Procedures for Subprojects

77. Subprojects proposed under NERCCIP must comply with GoI legislation, state government, and ADB policy as summarized above. In practice SIPMIU will liaise with the NERCCIP, SEIAA, MoEF and the ADB Regional Department (RD) to determine the specific requirements for environmental assessment of each subproject. If the environmental criteria shown in the above table are followed in the selection and development of subprojects, then most should have relatively minor environmental impacts. The principal steps in each process are described below.

## **1. ADB Environment Policy**

### **a. Environmental Classification**

78. According to ADB Environment Policy the environmental classification of subprojects is determined by the Environment and Social Safeguards Division (ESSD) of ADB. The possible outcomes are:

- (i) **Category A.** Sub-project components that are projected to have potentially significant adverse environmental impacts. An environmental impact assessment (EIA) is required;
- (ii) **Category B.** Sub-project components that are projected to have some adverse environmental impacts, but they are expected to be less significant than those associated with category A projects. An IEE is required to determine whether an EIA is warranted. If an EIA is not needed, the IEE is regarded as the final environmental assessment report; and
- (iii) **Category C.** Sub-project components that are unlikely to have adverse environmental impacts. No EIA or IEE is required, although environmental implications are still reviewed.

79. The classification of a project is reviewed on completion of the studies and may be revised if appropriate by ADB's Chief Compliance Officer.

### **b. Preparation of Initial Environmental Examinations (IEEs)**

80. An IEE is conducted if the sub-project is likely to have minimal impacts, which can be easily predicted and evaluated, and for which mitigation measures prescribed easily. IEE study is also used to confirm whether the subproject requires an Environmental Impact Assessment (EIA) to evaluate and/or mitigate negative environmental impacts. IEEs generally rely on secondary sources of data and information, and in general no specific field surveys are conducted to establish the baseline environmental profile. Each Category B sub-project under NERCCIP requires an IEE. The content and format of the IEE is in Annex 7.

### **c. Preparation of Environmental Impact Assessments (EIAs)**

81. Given the sub-project selection criteria prescribed in the above table it is most unlikely that subprojects prepared for funding under NERCCIP is classified as Category A, requiring an EIA. An EIA fulfils the same purpose as an IEE, but requires an in-depth analysis because of the potential significance of environmental impacts from the project. An EIA requires: comprehensive analysis of the potential impacts; works to be carried out to formulate practical

mitigation measures; in-depth economic evaluation of impact to screen and evaluate the best alternative; and an in-depth analysis to prepare an environmental management plan.

**d. Environmental Management Plans (EMPs)**

82. ADB requires that an EMP must be developed as part of the EIAs, and IEEs of Category B Sensitive projects. EMPs describe the environmental management measures that will be carried out to mitigate negative impacts or enhance the environment during implementation of a project, and the environmental monitoring to be conducted to ensure that mitigation is provided and is effective in reducing impacts, or to determine the long-term impacts of a project. EMPs for Category A and B sensitive subprojects should outline specific mitigation measures, environmental monitoring requirements, and related institutional arrangements, including budget requirements. The preparation and content of EMP is given in ADB Environmental Assessment Guidelines, 2003.

**e. Public Consultation and Information Disclosure**

83. According to ADB's Environment Policy public consultation is mandatory as part of environmental assessment (EA) of Category A and Category B projects, and best practice approaches should be followed. Public consultation for Category A projects need to be carried out during the early stage of EA preparation and throughout the project implementation to address any environmental issues that affect the local communities, NGOs, governments, and other interested parties. For all Category A projects, the Environment Policy requires public consultation at least twice: once during the early stages of EIA field work and once when the draft EIA report is available, and prior to loan appraisal by ADB. For Category B Projects it is recommended that public consultation be carried out during the early stages of the EA process and throughout the project implementation to address any environmental issues that affect the local communities, NGOs, governments, and other interested parties. It is important that consultation with stakeholders occurs at an early stage of EA preparation, and throughout project implementation. A variety of approaches can be adopted, which are described in detail in the ADB EA Guidelines. As a minimum, stakeholders should be consulted regarding the scope of the environmental study before work has commenced in earnest, and should then be informed about the likely impacts of the subproject and proposed mitigation once the draft IEE or EIA report is under preparation. The report should record the views of stakeholders and indicate how these have been taken into account in project development. There are a variety of approaches for such contacts including public meetings, focus group discussions, workshops, public information campaigns, etc, and several methods should be used in order to reach all sectors of society, as well as institutional stakeholders, NGOs etc.

84. Information is disclosed through public consultation and more formally by making documents and other materials available in a form and at a location in which they can be easily accessed by stakeholders. This normally involves making draft reports available at public locations in the town and providing a mechanism for the receipt of comments, and making documents available more widely by lodging them on the ADB and the EA's website. Normally summaries of the IEE or EIA (SIEE, SEIA) are provided, and the full documents are made available on request. For Category A or B sensitive projects the SEIA or SIEE must be made available to the public at least 120 days before ADB's Board of Directors considers the loan.

**f. Review of Environmental Assessment:**

85. ADB will review draft final reports of:

- (i) All Category A and Category B-sensitive subprojects;
- (ii) Subprojects with a capital cost of more than \$10 million, and
- (iii) All subprojects with solid waste landfill and sewerage collection/treatment components.
- (iv) Notwithstanding these thresholds, in each tranche ADB will review at least one subproject of the sectors being implemented under respective tranche. In addition, the updated and finalized IEE/EIA reports of all tranche 1 subprojects will be reviewed and approved by ADB during detailed design stage.

86. The final IEE or EIA documents and summaries (SIEE, SEIA) are submitted to ADB by the SIPMIU for consideration by the Bank's Board of Directors. The SEIA for Category A and SIEE for Category B-sensitive are posted on the webs at least 120-days before ADB Board of Director considers the loan and before approval of such projects. Completed reports are made available worldwide by ADB through the ADB website. Full IEE and EIA are available upon request.

## 2. Gol Environmental Clearance Procedures

87. The requirements of national environmental laws that apply to NERCCIP subprojects are summarized in Section III above. This indicates that in terms of compliance, subprojects may be of three types: (i) Subprojects that attract the EIA Notification; (ii) Subprojects that require clearance/no objection certificates or consent from competent Government agencies; and (iii) subprojects that require no environmental authorization. The procedures for subprojects (i) and (ii) are as follows:

### a. Environmental Classification

88. Under the Gol EIA Notification, 2006 the environmental classification of projects is determined by MoEF, and there are two possible outcomes:

- (i) **Category A.** A subproject is classified as Category A if it is likely to have significant negative impacts and is thus one of the types of project listed in this category in the EIA Notification. Such projects require EIA, plus Environmental Clearance (EC) from MoEF;
- (ii) **Category B.** A subproject is classified as Category B if it is likely to have fewer negative impacts and is listed in this category in the EIA Notification. These projects require EC from the State Environment Impact Assessment Authority (SEIAA), who classify the project as B1 (requiring EIA) or B2 (no EIA), depending on the level of potential impacts. Projects classified as B2 require no further study. If an SEIAA does not exist all Category B projects are considered Category A requiring clearance from MoEF.

**b. Preparation of Environmental Impact Assessments (EIAs)**

89. An EIA is mandatory for Category A and B1 projects. Projects in Category A are those with major negative impacts (such as power plants, chemical manufacturing, etc), so it is very unlikely that any subprojects developed under NERCCIP would fall into this group. However, certain subprojects (eg common landfills and sewage treatment plants) are included in Category B, and these may be classified by SEIAA as B1. These would then require EIA.

**c. Environmental Monitoring and Environmental Management Plans (EMP):**

90. The EIA Notification requires that the EIA includes a comprehensive program for monitoring the effectiveness of mitigation measures. This should specify measurement methodologies, frequency, locations, data analysis, reporting schedules, emergency procedures, detailed budget and procurement schedules. An Environmental Management Plan is also required, identifying mitigation measures and specifying administrative arrangements to ensure that mitigation measures are implemented and their effectiveness is monitored after approval of the EIA. A budget for the EMP should also be provided.

**d. Public Consultation and Information Disclosure:**

91. Public consultation and disclosure is required for A and B1 projects and consists of (i) a public hearing at or near the proposed site, and (ii) responses in writing from stakeholders. The public hearing is conducted by the appropriate State Pollution Control Board. Disclosure is also handled by SPCB, who lodge the Summary EIA report on their website and invite responses from stakeholders. The Draft EIA report is available on request until the public hearing.

**e. Review of Environmental Assessment Reports by Government Agencies:**

92. After completion of the public consultation the proponent addresses all material concerns expressed during consultation and disclosure, by appropriate changes in the draft EIA and EMP, which are then submitted for approval. The report is reviewed by an Expert Appraisal Committee (EAC), constituted by MoEF for Category A projects and SEIAA for B1 projects. The EAC provides its recommendation to the appropriate authority, which then decides on the basis of the recommendation whether to issue or deny the Environmental Clearance (EC). An issued EC will normally include certain conditions, with which the proponent must comply.

**f. Post Environmental Clearance Monitoring:**

93. Under the EIA Notification it is mandatory for the project proponent to submit half-yearly compliance reports in respect of the stipulated EC conditions.

**g. Other Mandatory Environmental Requirements**

94. Subprojects that include Sewage Treatment Plants (STP), Water Treatment Plants (WTP), landfill and composting facilities, or hot/wet mix plants and stone crushers (if required for construction) may attract the Water (Prevention and Control of Pollution) Act 1974, and/or the Air (Prevention and Control of Pollution) Act 1981. If this is the case, consent will be required from SPCB for Consent for Establishment as well as Consent for Operation (CFO). Landfills and compost plants additionally require site authorization from SPCB under the Municipal Solid Waste (Management and Handling) Rules 2000.



95. After obtaining EC (if required by the EIA Notification), the project proponent submits to SPCB the necessary application forms, plus maps and other documents describing the site and the project and process. CFE/CFO is issued upon review of documents, supplemented by site visits. The Board issues CFE before the start of construction and CFO on completion of construction, provided CFE conditions, if any, are satisfied. During the operation period the effluent, air emissions, noise levels, etc must conform to applicable environmental standards as required by the appropriate legislation. The CFO is considered for renewal every year based on the operational performance of the facility.

96. The main responsibility of implementing the subprojects in compliance with the above guidelines and policies lies with the Executing Agency (EA) through its SIPMIU. The roles and responsibilities of various institutions involved in NERCCIP are summarized in the Table 2 above. Table 4 below summarizes ADB and Gol procedures during subproject processing.

97. Based on the above criteria, components identified will ensure that the Project does not result in any potential adverse environmental impacts, which will in turn categorize the Project as 'B'. As established in the IEE of the sample sub-projects, most of the impacts are typical construction related impacts, which could be mitigated by appropriate mitigation measures. Most of the components, therefore, could be categorized as either 'B' or 'C' that does not warrant an EIA study. In any case, if an IEE (or an REA) warrants further study, an environmental impact assessment (EIA) should be conducted.

98. However, to take note of those Project components which may probably induce significant environmental impacts due to its location or process, the following procedure is suggested. The sub-project components under this category are: (i) sewage treatment plant; and (ii) solid waste processing and disposal facility. For these components it is recommended to conduct a rapid environmental assessment (REA) to check the Project category. Environmental impact assessment (EIA) shall be conducted for "A" category while initial environmental examination (IEE) to be conducted for "B" category.

**Table 4: ADB and Gol Environmental Procedures during Subproject Processing**

Project Stage	ADB	Gol <sup>5</sup>
Subproject Identification	REA Checklist	Categorization (A or B) according to Schedule and General/Specific Conditions in Gol Environmental Protection Rules, 2006.
	Categorization (A/B-sensitive/B/C)	Application for Prior Environmental Clearance (EC) after the identification of the prospective site, or before commencing any construction, or land preparation. Category A requires EC from MOEF. Category B requires EC from SEIAA. In the absence of SEIAA or SEAC, Category B treated as Category A.
	Meets subproject selection criteria	Screening (for Category B) subject by SEAC. Categorized as B1 (requires full EIA) or B2 (does not require full EIA).
Environmental Assessment /Project	IEE/EIA (EMP for Category A and B-sensitive)	Scoping and TOR for EIA (A or B1) with scrutiny by EAC. TOR (or

<sup>5</sup> Refer to the Gol EIA Notification, 2006 for full description of government procedures.

Design		rejection of EC) finalized by EAC or SEAC within 60 days. Approved TOR posted on MOEF or concerned SEIAA website. EIA includes EMP.
	Public Consultation—For Category A at least twice: once during the early stages of EIA field work and once when the draft EIA report is available, and prior to loan appraisal by ADB. For Category B Projects it is recommended that public consultation be carried out during the early stages of the EA process and throughout the project implementation to address any environmental issues that affect the local communities, NGOs, governments, and other interested parties.	Public Consultation for Category A and B1 projects (as per Appendix IV of EPR, 2006). and consists of two components: (i) public hearing conducted by SPCB or UTPCC within 45 days of a request from the applicant, and (ii) Obtain written responses.
	<p>Disclosure: For Category A: The information about the project's environmental issues as well as technical data needs to be transferred into a form and language(s) accessible to those being consulted. The SEIA is made available to the public through the depository library system, and are placed on the ADB website and also posted on the ADB's website no later than 120 days prior to the Board considerations. The full EIA is also made available to interested parties upon request.</p> <p>For Category B: The information about the project's environmental issues as well as technical data needs to be transferred into a form and language(s) accessible to those being consulted. For projects deemed environmentally sensitive, SIEEs are made available to the public through the depository library system, and are placed on the ADB website no later than 120 days prior to the Board considerations. For other category B projects, the environmental analysis is posted on the ADB website as part of the RRP. The full IEE reports are also made available to the interested parties upon request.</p>	Draft EIA publicized widely before hearing. Notice of public hearing within 7 days of date. 30 days for public responses. Incorporate concerns expressed into the draft EIA and EMP.
	Mitigation measures specified in IEE/EIA study incorporated in project design.	
	Identify and incorporate environmental mitigation and monitoring measures into contract documents.	
Appraisal	Revised environmental documents. Loan covenants prepared.	Appraisal of application completed by EAC or SEAC within 60 days of receipt of final EIA report.
Approval	<p>Gol and the States to ensure that the design, construction, operation and implementation of all sub-project facilities is carried out in accordance with the environmental assessment and review procedures and Initial Environmental Examinations (IEEs) for core sub-components agreed upon between the Government and ADB, and complies with the Government's environmental laws and regulations and ADB's Environment Policy (2002). The Government will ensure</p> <p>ADB to review and clear EIA/IEE prior to approval</p>	<p>MoUD to review the REA checklists and reconfirm the categorization.</p> <p>EC Decision within 40 days of the receipt of the recommendations of the EAC or SEAC or within 105 days of the receipt of the final EIA. Where EIA is not required, within 105 days of the receipt of the complete application and requisite documents</p>

	and issuance of tender documents during detailed design stage.  SEIA/SIEE (B-sensitive) disclosed to public. EIA/IEE made available upon request.	
Procurement/ Contract Award	Obtain necessary environmental clearances, consents, and NOCs prior to contract award. Contractors submit Environmental Implementation Plans (EIP) based on EIA/IEE findings to be incorporated into bidding documents and civil award contracts.	Necessary EC obtained prior to commencing any construction, or land preparation. NOCs, CFE and CFO from respective SPCB; and Forest clearances.
Implementation	EMP implementation reflected in PAM. Periodic monitoring reports. Annual monitoring report from IPCC.	Project must submit half-yearly compliance monitoring reports on 1 <sup>st</sup> June and 1 <sup>st</sup> December. All compliance reports are public documents and displayed on website of concerned regulatory authority

State Level Expert Appraisal Committee (SEAC), Expert Appraisal Committee (EAC), Ministry of Environment and Forest (MOEF), State Environment Impact Assessment Authority (SEIAA), State Pollution Control Board (SPCB), Union Territory Pollution Control Committee (UTPCC), No Objection Certificates (NOCs).

## **VI. CONFIRMATION THAT ENVIRONMENTAL ASSESSMENT AND REVIEW PROCEDURES CONFORMS TO ADB'S ENVIRONMENTAL AND SOCIAL SAFEGUARD POLICIES**

100. The Environmental Assessment and Review Framework developed in the above section are based on the applicability of various Acts/Rules/Guidelines of GoI/ states and ADB. The framework clearly specifies the procedures to be followed for each component as per the ADBs requirements. Based on the findings and recommendations of the IEE of sample sub-project cities, most of the sub-project components are categorized as B and C. However to ensure the environmental safeguard for important project components of (i) sewage treatment plant; and (ii) solid waste processing and disposal facility, which may have certain impacts due to its location, a rapid environmental assessment will be conducted using ADBs REA checklist to determine the sub-project category. In case a sub-project is categorized as 'A', EIA will be conducted. Hence, the proposed review procedure will ensure that environmentally benign project implementation while satisfying ADB's Policies.

101. ADB social safeguards are contained in a number of policies, of which those of most importance in relation to NERCCIP are the policies on Environment (2002), Involuntary Resettlement (1995), Indigenous Peoples (1998) and Gender and Development (1998). Guidance on the practical implementation of these and other social safeguards is provided in several documents including the Handbook on Resettlement a Guide to Good Practice (1998), Guidelines for Social Analysis of Development Projects (1991), Handbook for Incorporation of Social Development in Projects (1994), and others.

102. The PPTA through which NERCCIP was prepared included detailed studies on Involuntary Resettlement, Gender and Indigenous Peoples, and Resettlement Framework which describes how these issues would be addressed in development and implementation of subprojects in the future. Together with the Environmental Assessment and Review Framework (EARF) described in this document, these documents ensure that subprojects and the NERCCIP as a whole comply with ADB policies.

103. The Resettlement Framework includes a section confirming how the procedures comply with the Bank's social safeguard policies. Table 5 below shows how the EARF complies with the environmental safeguard policies and is based on a table provided in the Environmental

Assessment (EA) Guidelines (2003), which summarizes the environmental assessment requirements for project loans (because under MMF the first tranche is considered as a project). The Table lists the individual EA requirements and indicates where in the EARF the procedure to be followed is described.

**Table 5: Confirmation that the EARF confirms to ADB Environmental Safeguard Policies**

Project Category	Basic EIA Requirements	Approach described in EARF Paragraph No. <sup>6</sup>
A: Potential for significant adverse environmental impacts	Preparation of EIA and EIA report	35
	Public consultation (at least twice)	40, 41
	Preparation of EMP and budget	47
	SEIA circulated to ADB Board	41
	SEIA disclosed to the public	41
	EIA available to public on request	41
B: Some adverse environmental impacts but less significant than Category A	Preparation of IEE and IEE report	37
	Public consultation	40, 41
	If project is environmentally sensitive:	
	SIEE circulated to ADB Board	41
	SIEE disclosed to the public	41
	Preparation of EMP and budget	39
	IEE available to public on request	41
C: Unlikely to have adverse impacts	If not circulated SIEE is attached to RFP as a core appendix	-
	No IEE or EIA	35
	Environmental implications summarized in RRP	-

ADB = Asian Development Bank, EARF = Environmental Assessment and Review Framework, EIA = Environmental Initial Assessment, EMP = Environmental Management Plan, IEE = Initial Environmental Examination, RRP = Report and Recommendation to the President, SEIA = Summary Environmental Initial Assessment, SIEE = Summary Initial Environmental Examination.

## VII. STAFFING REQUIREMENTS AND BUDGET

104. The Project Consultants, appointed and overseen by the SIPMIU, shall prepare the EIA/IEE as per the ADB guidelines. A time frame of 30 days may be sufficient to prepare an IEE report and about 80 days may be required for preparation of an EIA report. The Environmental Engineer of SIPMIU shall prepare the REA checklists. The public consultation and information disclosure shall be conducted through the Community Awareness and Participation Program (CAPP). During implementation, ULB/ implementing agencies will also require the services of Project Consultants to inspect the implementation of mitigation measures identified and to perform all necessary activities identified IEE including monitoring plan.

105. The SIPMIU will implement this EARF. The SIPMIU (through its DSMC) will be responsible for conducting the IEE studies for Category B sub-projects and EIA studies for Category A sub-projects based on ADB's Environmental Policy and EAG. DSMC will also be responsible for: incorporation of mitigation measures in design and construction; and, baseline and construction-stage environmental quality monitoring. SIPMIUs with the assistance of PMC will review and approve IEEs or EIAs, and will monitor the implementation of environmental monitoring plan and environmental management plan where required. The construction contractors will implement mitigation measures in construction. Implementation of mitigation and monitoring measures during the operation and maintenance (O&M) will be the responsibility of

<sup>6</sup> Table 4 summarizes the environmental safeguard procedures for ADB and government

the respective IAs. Government regulatory agencies such as SPCBs will also monitor the environmental performance in compliance with government standards and regulations. Therefore there will be no additional costs for long-term environmental monitoring for the project.

106. Costs required for operating the Environmental Assessment and Review Framework should cover the following activities:

- (i) Conducting IEE or EIA studies, preparing and submitting reports and public consultation and disclosure;
- (ii) Implementation of Environmental Monitoring Plans (EMP).

107. For budgeting purposes it is assumed that all subprojects will be classified as Category B by ADB (requiring IEE) and B1 by SEIAA (requiring EIA). In practice the SIPMIU should aim to produce a single document that serves both purposes to avoid duplication of effort, and this should be achievable given the comprehensive nature of ADB's IEE requirements.

108. Generally an IEE relies on the collection of existing data in order to describe environmental conditions in the project area, and it is not expected that new surveys would be conducted. The work thus involves the collection and analysis of data on the existing environment and the proposed project, assessment and mitigation of impacts, preparation of a monitoring plan or EMP and budget, public consultation, and preparation of the IEE report and summary.

109. IEEs conducted for the first tranche of sub-projects suggest that implementation of a typical monitoring plan or EMP will require a full time Environmental Safeguards Specialist over the life of the project to oversee environmental management. Long-term monitoring of key environmental parameters including air and water quality is required by the SPCB as per their mandated responsibilities; SPCB data will be monitored by ADB during the project. As SPCB will conduct this routine monitoring, there will be no additional costs for long-term monitoring for environmental management.

**Table 6: Staffing and Cost of EARF Implementation**

Item	Quantity	Unit Cost	Total Cost	Sub-total
		USD	USD	USD
<b>1. SIPMIU (5 total, one for each state)</b>				
Environmental Safeguards staff	72 man months/staff X 5 states = 360 man months	\$400 unit	\$144,000	\$144,000
<b>2. DSMC (5 total, one for each state)</b>				
Environmental Specialists (ES) (Domestic consultant)	22 man months/ES X 5 states = 110 man months	\$3,000 unit	\$330,000	
	Travel (11 trips)/ES X 5 states = 55 trips	\$600	\$33,000	
	Per Diem for 22 man months/ES X 5 states = 110 man	\$1,200	\$132,000	

Item	Quantity	Unit Cost	Total Cost	Sub-total
	months			
				\$495,000
<b>3. PMC at MoUD</b>				
Safeguards Specialists (Domestic consultant)	9 man months X 6 years = 54 man months	\$3,000	\$162,000	\$162,000
<b>4. Other Expenses</b>				
Environmental Assessments	Tranche 1 & Tranche 2 X 5 states	Tranche 1 (\$5,000); Tranche 2 (\$20,000)	\$125,000	\$125,000
Public Consultations	Tranches 1,2,& 3 X 5 states	Tranche 1 (\$10,000), Tranche 2 (\$30,000), Tranche 3 (\$40,000)	\$385,000	\$385,000
<b>TOTAL</b>				<b>\$1,311,000</b>

DSMC = Design, Supervision, and Management Consultants, IEE = Initial Environmental Examination, PMC = Program Management Consultants, SIPMIU = State Investment Program Management & Implementation Unit, SPCB = State Pollution Control Board, Environmental Monitoring Plan (EMP)

## **DRAFT PERIODIC FINANCING REQUEST # 1**

Date:

To: Asian Development Bank  
6 ADB Avenue  
Mandaluyong City, Metro Manila

ATTENTION: Director General, South Asia Department  
Fax No. +632 632 24444

Sir:

**RE: North Eastern Region Capital Cities Development Investment Program: Periodic Financing Request #1**

Please refer to the Framework Financing Agreement (FFA) for the North Eastern Region Capital Cities Development Investment Program dated 14 May 2009 between Asian Development Bank (ADB) and India. Expressions defined in the FFA shall have the same meanings herein.

Pursuant to the provisions of the FFA, India requests ADB to process this Periodic Financing Request (PFR) for a tranche, in the form of a loan from its ordinary capital resources. The proposed financing amounts, terms, conditions, and financing plan are specified in Attachment hereto. Descriptions of the projects/components for which financing is hereby requested are also set out in Attachments 1 to 5.

By: India

(original signed)

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Ms. Anuradha Thakur  
Director, Department of Economic Affairs

**Project Description** The subprojects/components proposed for financing under the requested PFR are:

- 1) Part A: Improved Urban Infrastructure and Services
  - (a) Water Supply: replacement of water source and treatment works and equipment purchase in Agartala; rehabilitation and improvement of water storage and storage facilities in Aizawl and Kohima; full rehabilitation and expansion of the water storage and distribution system in Gangtok (including unbunching and transformation into a submains system).
  - (b) Solid Waste Management: construction of a new disposal site and a compost facilities in Kohima and provision of a small emergency landfill site for Shillong.
- 2) Part B: Capacity Building, Civic Awareness, and Investment Program Management
  - (a) Investment Program management: consulting services for program management and design and supervision in Agartala, Aizawl, Gangtok, Kohima and Shillong.
  - (b) Capacity building: consulting services for institutional development in Agartala and Shillong.
  - (c) Community awareness and participation programs: in all 5 Program cities.
  - (d) Incremental Administration.

Details are in Annex 1.

**Cost Estimates and Financing Plan** The total costs of the subprojects/components are estimated at \$42.8 million, inclusive of taxes, duties, and financing charges on the loan during construction. Detailed cost estimates and financing plan are in Annex 2.

Cost Estimate and Financing Plan (\$ million)

	ADB	India	Total
Base Cost			
Part A	10.5	3.2	13.7
Part B	16.9	0.1	17.0
Taxes	0.0	4.2	4.2
Contingencies	2.6	0.4	3.0
Financing charges	0.0	4.8	4.8
Total	30.0	12.8	42.8

Note: Due to rounding, figures may not add up.



<b>Loan Amount and Terms</b>	The request is for a loan of \$30.0 million from the ordinary capital resources of the Asian Development Bank (ADB) provided under ADB's London interbank offered rate (LIBOR)-based lending facility, with a 25 year term including a grace period of 5 years, an interest rate determined in accordance with ADB's LIBOR-based lending facility, and such other terms and conditions as agreed in the FFA, and further supplemented under the Loan and Project Agreements. The Government of India will make the loan proceeds available to each of the state governments in blend of Government grant (90%) and Government loan (10%).
<b>Period of Loan Utilization</b>	The Project is expected to be completed by 31 October 2015. No disbursements from the loan account will be requested or made later than 30 April 2016.
<b>Advance Contracting</b>	Advance contracting is requested for (i) civil works, (ii) equipment and materials, and (iii) recruitment of consultants.
<b>Retroactive Financing</b>	Retroactive financing is requested for (i) civil works, (ii) equipment and materials, (iii) recruitment of consultants, and (iv) project administration and implementation expenditures not exceeding the amount of \$6.00 million, incurred before loan effectiveness, but not earlier than 12 months before the signing of the loan agreement.
<b>Implementation Arrangements</b>	The National Executing Agency will be the Ministry of Urban Development (MOUD). The State level Executing Agencies will be Urban Development Department (UDD) for Tripura and Nagaland, Urban Development and Poverty Alleviation Department (UDPAD) for Mizoram, Urban Affairs Department (UAD) for Meghalaya and Urban Development and Housing Department (UDHD) for Sikkim.
<b>Procurement and Consulting Services</b>	The Procurement Plan is attached as Annex 3.
<b>Confirmation of Continuing Validity of and Adherence to Provisions of FFA, Previous Agreements, and the Design and Monitoring Framework</b>	<p>India confirms that the understandings set out in the FFA have been adhered, and remain true to date.</p> <p>The following conditions have been complied with:</p> <ul style="list-style-type: none"> <li>(i) Empowered Committees and SIPMIUs are in place in all 5 States;</li> <li>(ii) Endorsement of social and environmental safeguards documents has been provided by all 5 States and MOUD;</li> <li>(iii) Conditions relating to the implementation of urban institutional, financial, regulatory, and operational reform agenda will be due after PFR1.</li> </ul> <p>A Design and Monitoring Framework for tranche 1 is in Annex 4.</p>

**Readiness of the Project for Implementation**

All subprojects for all cities have been identified and appraised by ADB and the Government.

All safeguard and other due diligence requirements for 1<sup>st</sup> tranche (PFR) subprojects have been endorsed and disclosed in ADB's webpage.

Calls for Expressions of Interest for 8 consulting packages have been launched and RFPs issued in 6 RFPs have been issued.

Statutory clearances have been applied for in all States and 2 contracts could soon be tendered.

**Safeguards**

The following safeguard documents were prepared and attached as Annex 4.

- Environment: (i) Initial Environmental Examination for Rehabilitation of Water Schemes in Agartala, Aizawl and Kohima; (ii) Initial Environmental Examination for Kohima's Solid Waste Management Scheme; (iii) Initial Environmental Examination for Shillong's Sanitary Landfill Site; (iv) Initial Environmental Examination for Gangtok's Water Supply Rehabilitation Scheme.
- Resettlement: Resettlement Plan for Gangtok Water Supply Rehabilitation Scheme.
- Indigenous People: N/A (all the subprojects under this PFR have no impact on indigenous peoples)

## DETAILED PROJECT DESCRIPTION

1. The Northeastern Region Capital Cities Development Investment Program (NERCCDIP) will assist the Government of India (GOI) in increasing economic growth potentials and reducing poverty in the five States (i.e., Tripura, Mizoram, Meghalaya, Nagaland and Sikkim) in the North Eastern Region (NER) by rehabilitating/improving the existing infrastructure and constructing new urban services facilities in each of the capital cities (i.e., Agartala, Aizawl, Gangtok, Kohima, and Shillong) of the five States. NERCCDIP will support investment in water supply systems, sanitation and sewerage systems, and solid waste management services provision. NERCCDIP management and implementation support to the national and state level Executing Agencies, and capacity building assistance to relevant urban institutions including urban local bodies (ULB) to catalyze the implementation of the urban reform agenda. By financing urban infrastructure and capacity building programs in the capital cities in the NER, the NERCCDIP is expected to redress imbalances between the NER and the rest of India, as stated in the GOI's 10<sup>th</sup> and 11<sup>th</sup> Five-year Plan.

2. Each capital city of the five States assisted under NERCCDIP has prepared city growth strategies and updated infrastructure master plans as part of NER Capital Cities Development Road Map which identifies subprojects and funding requirements to achieve the 20-year targets/goals in each capital city in 6 urban sub-sectors and proposes an institutional and financial reform agenda for each capital city. The ADB has appraised most of the subprojects prioritized for implementation within the next 7 years. The appraised subprojects in the 5 capital cities constitute part of Investment Program and Road Map (included as Schedule 1 to the Framework Financing Agreement (FFA)), meet the selection criteria for NERCCDIP (included as Schedule 3 to the FFA), satisfy the ADB's safeguard requirements and demonstrate economic viability and financial sustainability. Among the appraised subprojects, included under the first PFR<sup>1</sup> are only those which are ready for implementation in terms of safeguard and technical aspects, institutional capacity, and cost recovery perspectives. Therefore, subprojects which require land acquisition or large expansion/new constructions, are not technically recommended for implementation in the initial stage given the sequential nature of the program, and have not been included under the first PFR. Six sub-projects (five cities) under Part A, urban infrastructure and services improvements, are requested for financing under this PFR. Under Part B, financing of (i) the whole community awareness and participation programs in the five capital cities, part of capacity building programs, (ii) a fraction of Investment Program Management and Monitoring Consultants, (iii) Design, Construction Supervision and Management Consultants in all cities, and (iv) Institutional Development Consultants in Agartala and Shillong are included in the first PFR. The detailed description on subprojects and components under this PFR is provided below.

### Part A: Urban Infrastructure and Services Improvements

3. **Water Supply:** Emergency refurbishment and rehabilitation activities relating to water supply subprojects in Agartala, Aizawl, Gangtok and Kohima are included under the first PFR. Works related to improvement in distribution systems, existing as well as expansion to uncovered areas, through construction of new distribution networks and reservoirs, as well as the works related to removal of cable/bunched pipelines by laying looped distribution pipelines

<sup>1</sup> The strategy beyond tranche 1 focuses on ensuring that (i) sufficient capacity building of the State agencies is provided up front; and (ii) that all States become fully familiarized with ADB's procurement, contract management, administration and disbursements processes and procedures, through the implementation of small schemes. This will enable all 5 States to be simultaneously prepared for implementation of major civil works under Tranches 2 and 3.

and provision of new consumer service lines are to be financed in the subsequent PFRs (other than for Gangtok).

4. The subproject in Agartala will include: (i) support for conducting the NRW reduction program (including bulk meters; (ii) replacement of existing 24 tube wells (in South and Central Zones); (iii) Replacement of 17 iron removal plants (in South and Central Zones). The subproject in Aizawl will include: (i) support for conducting the NRW reduction program; (ii) provision and installation of household meters (13,000); (iii) supply and installation of chlorinators at major reservoirs (2) and (iv) replacement of zonal reservoirs (3). The subproject in Gangtok will include: (i) supply and installation of chlorinators at major reservoirs (4); (ii) construction of 3 new reservoirs with a capacity of 1.9 ML, (iii) construction of approx. 31 kilometers of primary pipelines and 38 km of secondary and tertiary pipeline network; (iv) an NRW reduction program. The subproject in Kohima will include (i) support for conducting the NRW reduction program; (ii) replacement of 8 zonal reservoirs; (iii) refurbishment of existing treatment plant; and (iv) supply and installation of 2/3 chlorinators at major reservoirs.

5. **Solid Waste Management:** Solid waste management subprojects in Kohima and Shillong are included in the first PFR. The former subproject is comprehensive in nature and will serve as an example for future replication. Shillong small landfill scheme, represents a short term emergency measure leading to secure immediate improvements in environmental and system efficiency. In Kohima, the first PFR will finance land development activities, compost plant and associated equipment and civil works relating to the construction of the sanitary landfill. In Shillong, the PFR will finance the construction of a small sanitary landfill site and provision of small associated equipment.

## **Part B: Capacity Building, Civic Awareness, and Investment Program Management**

6. **Civic Awareness and Community Participation:** Civic awareness and community participation program in all the five capital cities are required under the first PFR, as they need to be conducted early during NERCCDIP's implementation to exert substantial effects on the general public. The programs will include: (i) dissemination of information on the expected improvements from NERCCDIP; (ii) educational programs on water conservation and good practices in solid waste and septic management; and (iii) awareness campaign on cost implication of the improved urban services and civic forum for urban reforms.

7. **Investment Program Management:** This component will provide consultancy support for National and State Executing Agencies to manage and implement the Program. These consultancy packages are: Program management and monitoring consultants to assist the Investment Program Coordination Cell at MOUD and State Investment Program Management and Implementation Units (SIPMIUs); and design, construction supervision and management consultants (DSMC) to assist the SIPMIUs.<sup>2</sup>

8. **Others:** Part of capacity building programs to achieve (i) creation and strengthening of urban local bodies in the five capital cities, (ii) gradual introduction of service delivery agencies for water supply and sewerage services, and (iii) implementation of financial management reforms, are also included in the first PFR. Institutional Development Consultants (IDCs) for Agartala and Shillong will be financed from this PFR.<sup>3</sup> About half of all land acquisition and resettlement is expected to be completed within the initial two years of implementation.

<sup>2</sup> This includes Design, Construction Supervision and Management Consultants in each of the 5 States, as well as Investment Program Management and Monitoring Consultants within MOUD.

<sup>3</sup> IDCs for Aizawl, Gangtok and Kohima are expected will be financed under PFR2 (provided all requirements are fulfilled).

Incremental administration costs including salaries of counterpart staff, and operation and maintenance cost are all financed by the Government and hence budgeted as counterpart funding.

**DETAILED COST ESTIMATES AND FINANCING PLAN**  
**Table 1: Cost Estimate and Financing Plan for Tranche 1 under MFF by Component Activity**  
(\$ 000)

Items	Total Cost	ADB Financing	SG/ULB Financing	Total Financing
<b>1. Base Cost<sup>a</sup></b>				
<b>A. Agartala, Tripura</b>				
Water supply	1,340.7	1,084.5	256.2	1,340.7
Sewerage	0.0	0.0	0.0	0.0
Solid waste management	0.0	0.0	0.0	0.0
Design, supervision and management consultants <sup>b</sup>	2,229.2	2,229.2	0.0	2,229.2
Financial and institutional development consultants <sup>c</sup>	1,176.2	1,176.2	0.0	1,176.2
Project implementation and administration	572.5	572.5	0.0	572.5
Tax and duties	723.7	0.0	723.7	723.7
<b>Base Costs after Taxes and Duties</b>	<b>6,042.4</b>	<b>5,062.4</b>	<b>980.0</b>	<b>6,042.4</b>
<b>B. Aizawl, Mizoram</b>				
Water supply	2,342.4	1,957.0	385.4	2,342.4
Sewerage	0.0	0.0	0.0	0.0
Solid waste management	0.0	0.0	0.0	0.0
Design, supervision and management consultants <sup>b</sup>	2,369.6	2,369.6	0.0	2,369.6
Financial and institutional development consultants <sup>c</sup>	0.0	0.0	0.0	0.0
Project implementation and administration	572.5	572.5	0.0	572.5
Tax and duties	722.8	0.0	722.8	722.8
<b>Base Costs after Taxes and Duties</b>	<b>6,007.3</b>	<b>4,899.1</b>	<b>1,108.1</b>	<b>6,007.3</b>
<b>C. Gangtok, Sikkim</b>				
Water supply	4,832.8	3,496.7	1,336.1	4,832.8
Sewerage	0.0	0.0	0.0	0.0
Solid waste management	0.0	0.0	0.0	0.0
Design, supervision and management consultants <sup>b</sup>	2,206.8	2,206.8	0.0	2,206.8
Financial and institutional development consultants <sup>c</sup>	0.0	0.0	0.0	0.0
Project implementation and administration	572.5	572.5	0.0	572.5
Tax and duties	1,061.2	0.0	1,061.2	1,061.2
<b>Base Costs after Taxes and Duties</b>	<b>8,673.3</b>	<b>6,276.0</b>	<b>2,397.3</b>	<b>8,673.3</b>
<b>D. Kohima, Nagaland</b>				
Water supply	1,254.4	977.5	276.8	1,254.4
Sewerage	0.0	0.0	0.0	0.0
Solid waste management	3,511.3	2,624.7	886.7	3,511.3
Design, supervision and management consultants <sup>b</sup>	2,214.8	2,214.8	0.0	2,214.8
Financial and institutional development consultants <sup>c</sup>	0.0	0.0	0.0	0.0
Project implementation and administration	572.5	572.5	0.0	572.5
Tax and duties	1,048.8	0.0	1,048.8	1,048.8
<b>Base Costs after Taxes and Duties</b>	<b>8,601.8</b>	<b>6,389.5</b>	<b>2,212.3</b>	<b>8,601.8</b>
<b>E. Shillong, Meghalaya</b>				
Water supply	0.0	0.0	0.0	0.0
Sewerage	0.0	0.0	0.0	0.0

Items	Total Cost	ADB Financing	SG/ULB Financing	Total Financing
Solid waste management	427.0	336.9	90.1	427.0
Design, supervision and management consultants <sup>b</sup>	2,196.8	2,196.8	0.0	2,196.8
Financial and institutional development consultants <sup>c</sup>	1,176.2	1,176.2	0.0	1,176.2
Project implementation and administration	572.5	572.5	0.0	572.5
Tax and duties	590.4	0.0	590.4	590.4
<b>Base Costs after Taxes and Duties</b>	<b>4,962.9</b>	<b>4,282.4</b>	<b>680.5</b>	<b>4,962.9</b>
<b>F. Ministry of Urban Development</b>				
Investment program management consultants	473.8	473.8	0.0	473.8
Investment program coordination and administration	139.2	0.0	139.2	139.2
Tax and duties	78.9	0.0	78.9	78.9
<b>Base Costs after Taxes and Duties</b>	<b>692.0</b>	<b>473.8</b>	<b>218.1</b>	<b>692.0</b>
<b>2. Contingencies<sup>d</sup></b>				
<b>A. Agartala, Tripura</b>				
Physical contingency	80.5	63.7	16.8	80.5
Price contingency	390.8	374.2	16.6	390.8
<b>Subtotal</b>	<b>471.3</b>	<b>438.0</b>	<b>33.4</b>	<b>471.3</b>
<b>B. Aizawl, Mizoram</b>				
Physical contingency	137.4	112.1	25.3	137.4
Price contingency	360.4	338.2	22.3	360.4
<b>Subtotal</b>	<b>497.8</b>	<b>450.3</b>	<b>47.5</b>	<b>497.8</b>
<b>C. Gangtok, Sikkim</b>				
Physical contingency	312.1	224.4	87.6	312.1
Price contingency	565.5	465.0	100.5	565.5
<b>Subtotal</b>	<b>877.5</b>	<b>689.4</b>	<b>188.2</b>	<b>877.5</b>
<b>D. Kohima, Nagaland</b>				
Physical contingency	299.6	223.3	76.3	299.6
Price contingency	537.6	457.7	80.0	537.6
<b>Subtotal</b>	<b>837.2</b>	<b>680.9</b>	<b>156.3</b>	<b>837.2</b>
<b>E. Shillong, Meghalaya</b>				
Physical contingency	26.1	20.2	5.9	26.1
Price contingency	324.5	319.9	4.6	324.5
<b>Subtotal</b>	<b>350.6</b>	<b>340.1</b>	<b>10.5</b>	<b>350.6</b>
<b>F. Ministry of Urban Development</b>				
Physical contingency	0.0	0.0	0.0	0.0
Price contingency	18.1	18.1	0.0	18.1
<b>Subtotal</b>	<b>18.1</b>	<b>18.1</b>	<b>0.0</b>	<b>18.1</b>
<b>3. Financial Charges During Implementation<sup>e</sup></b>				
Agartala, Tripura	819.7	0.0	819.7	819.7
Aizawl, Mizoram	818.6	0.0	818.6	818.6
Gangtok, Sikkim	1,201.8	0.0	1,201.8	1,201.8
Kohima, Nagaland	1,187.8	0.0	1,187.8	1,187.8
Shillong, Meghalaya	668.6	0.0	668.6	668.6
Ministry of Urban Development	89.3		89.3	89.3
<b>Subtotal</b>	<b>4,785.8</b>	<b>0.0</b>	<b>4,785.8</b>	<b>4,785.8</b>

Items	Total Cost	ADB Financing	SG/ULB Financing	Total Financing
<b>Grand Total</b>	<b>42,818.0</b>	<b>30,000.0</b>	<b>12,818.0</b>	<b>42,818.0</b>

ADB = Asian Development Bank, SG = state governments, ULB = urban local bodies

<sup>a</sup> In end 2008 prices. Purchasing power parity was used as the base assumption to establish a foreign exchange rate forecast during project implementation years, as suggested in the Guidelines for the Financial Governance and Management of Investment Projects Financed by the Asian Development Bank.

<sup>b</sup> Figures for design, supervision and management consultants contains costs of surveys for (i) detailed engineering design, (ii) resettlement, (iii) environmental assessment, and (iv) benefit monitoring and evaluation.

<sup>c</sup> Figures for financial and institutional development consultants contains costs of assistance to (i) accounting reform, (ii) development of geographic information system-based property tax, and (iii) asset management improvement.

<sup>d</sup> Physical contingencies computed at 10% for civil works; and 5% for equipment. Price contingencies are computed at 0.5% for domestic inflation and at 0.4%–1.4% for international inflation.

<sup>e</sup> Includes interest and commitment charges. Financing charges are estimated, assuming an interest rate computed at the six-months London interbank offered rate and a spread of 20 basis point and a commitment fee of 0.15%. (<http://www.adb.org/Media/Articles/2007/12313-asian-loans-charges/>)

Source: Asian Development Bank estimates.



**Table 2: Cost Estimate and Financing Plan for Tranche 1 under MFF by Disbursement Categories**  
(\$ 000)

Disbursement Categories	Total Cost	ADB Financing	SG/ULB Financing	Total Financing
<b>1. Agartala, Tripura</b>				
Civil Works	865.7	609.4	256.2	865.7
Equipment	475.1	475.1	0.0	475.1
Consulting services <sup>a</sup>	3,405.4	3,405.4	0.0	3,405.4
Safeguards compliance	0.0	0.0	0.0	0.0
Project Implementation and administration	572.5	572.5	0.0	572.5
Tax and duties	723.7	0.0	723.7	723.7
Contingencies <sup>c</sup>	471.3	438.0	33.4	471.3
Financing charges	819.7	0.0	819.7	819.7
<b>Subtotal</b>	<b>7,333.4</b>	<b>5,500.4</b>	<b>1,833.0</b>	<b>7,333.4</b>
<b>2. Aizawl, Mizoram</b>				
Civil Works	1,301.9	916.5	385.4	1,301.9
Equipment	1,040.5	1,040.5	0.0	1,040.5
Consulting services <sup>a</sup>	2,369.6	2,369.6	0.0	2,369.6
Safeguards compliance	0.0	0.0	0.0	0.0
Project Implementation and administration	572.5	572.5	0.0	572.5
Tax and duties	722.8	0.0	722.8	722.8
Contingencies <sup>c</sup>	497.8	450.3	47.5	497.8
Financing charges	818.6	0.0	818.6	818.6
<b>Subtotal</b>	<b>7,323.7</b>	<b>5,349.5</b>	<b>1,974.3</b>	<b>7,323.7</b>
<b>3. Gangtok, Sikkim</b>				
Civil Works	4,513.8	3,177.7	1,336.1	4,513.8
Equipment	319.0	319.0	0.0	319.0
Consulting services <sup>a</sup>	2,206.8	2,206.8	0.0	2,206.8
Safeguards compliance	0.0	0.0	0.0	0.0
Project Implementation and administration	572.5	572.5	0.0	572.5
Tax and duties	1,061.2	0.0	1,061.2	1,061.2
Contingencies <sup>c</sup>	877.5	689.4	188.2	877.5
Financing charges	1,201.8	0.0	1,201.8	1,201.8
<b>Subtotal</b>	<b>10,752.7</b>	<b>6,965.4</b>	<b>3,787.3</b>	<b>10,752.7</b>
<b>4. Kohima, Nagaland</b>				
Civil Works	3,930.7	2,767.2	1,163.5	3,930.7
Equipment	835.0	835.0	0.0	835.0
Consulting services <sup>a</sup>	2,214.8	2,214.8	0.0	2,214.8
Safeguards compliance	0.0	0.0	0.0	0.0
Project Implementation and administration	572.5	572.5	0.0	572.5
Tax and duties	1,048.8	0.0	1,048.8	1,048.8
Contingencies <sup>c</sup>	837.2	680.9	156.3	837.2
Financing charges	1,187.8	0.0	1,187.8	1,187.8
<b>Subtotal</b>	<b>10,626.8</b>	<b>7,070.5</b>	<b>3,556.3</b>	<b>10,626.8</b>
<b>5. Shillong, Meghalaya</b>				

Disbursement Categories	Total Cost	ADB Financing	SG/ULB Financing	Total Financing
Civil Works	304.3	214.2	90.1	304.3
Equipment	122.6	122.6	0.0	0.0
Consulting services <sup>a</sup>	3,373.0	3,373.0	0.0	3,373.0
Safeguards compliance	0.0	0.0	0.0	0.0
Project Implementation and administration	572.5	572.5	0.0	572.5
Tax and duties	590.4	0.0	590.4	590.4
Contingencies <sup>c</sup>	350.6	340.1	10.5	350.6
Financing charges	668.6	0.0	668.6	668.6
<b>Subtotal</b>	<b>5,982.1</b>	<b>4,622.5</b>	<b>1,359.6</b>	<b>5,982.1</b>
<b>6. Ministry of Urban Development</b>				
Civil Works	0.0	0.0	0.0	0.0
Equipment	0.0	0.0	0.0	0.0
Consulting services <sup>a</sup>	473.8	473.8	0.0	473.8
Safeguards compliance	0.0	0.0	0.0	0.0
Project Implementation and administration	139.2	0.0	139.2	139.2
Tax and duties	78.9	0.00	78.9	78.9
Contingencies <sup>c</sup>	18.1	18.1	0.0	18.1
Financing charges	89.3	0.0	89.3	89.3
<b>Subtotal</b>	<b>799.4</b>	<b>491.9</b>	<b>307.5</b>	<b>799.4</b>
<b>Grand Total</b>	<b>42,818.0</b>	<b>30,000.0</b>	<b>12,818.0</b>	<b>42,818.0</b>

ADB = Asian Development Bank, SG = state governments, ULB = urban local bodies

<sup>a</sup> Figures for consultants include equipments, surveys and training programs to be procured by the consultants.

<sup>b</sup> Includes interest and commitment charges. Financing charges are estimated, assuming an interest rate computed at the six-months London interbank offered rate and a spread of 20 basis point and a commitment fee of 0.15%. (<http://www.adb.org/Media/Articles/2007/12313-asian-loans-charges/>)

<sup>c</sup> Physical contingencies computed at 10% for civil works; and 5% for equipment. Price contingencies are computed at 0.5% for domestic inflation and at 0.4%–1.4% for international inflation.

Source: Asian Development Bank estimates.

## PROCUREMENT PLAN – FIRST PFR

Project Name North Eastern Region Capital Cities Development Investment Program	Loan Number 35290
Loan/Grant Amount US\$ 200 million	National Executing Agency: Ministry of Urban Development
Date of first Procurement Plan: May 2009	State Executing Agency: State-level Urban Development Departments
	Date of this Procurement Plan May 2009

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

#### A. Project Procurement Thresholds

Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works	
Method	Threshold
International Competitive Bidding for Works	Equal or above US\$5,000,000
International Competitive Bidding for Goods	Equal or above US\$1,000,000
National Competitive Bidding for Works	Below US\$ 5,000,000
National Competitive Bidding for Goods	Below US\$ 1,000,000
Shopping for Works	Below US\$ 100,000
Shopping for Goods	Below US\$ 100,000
List here any other methods of procurement approved for use (see Section III of the Procurement Guidelines)	Not applicable

#### B. ADB Prior or Post Review

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
ICB Works	Prior	
ICB Goods	Prior	
NCB Works	Prior	
NCB Goods	Prior	
Shopping for Works	Post	
Shopping for Goods	Post	
List other methods of procurement		Not applicable

Recruitment of Consulting Firms		
Procurement Method	Prior or Post	Comments
Quality and Cost Based Selection (QCBS)	Prior	Value ≥ \$100,000
Least Cost Selection (LCS)	Prior	Value < \$100,000; NGOs may be recruited to conduct surveys, community awareness and participation using this method.
Single Source Selection (SSS)	Prior	Not under PFR1
Recruitment of Individual Consultants		
Individual Consultants	Prior	

**C. Consulting Services Contracts Estimated to Cost More Than US\$ 100,000**

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 (base cost)	Recruitment Method (cost ratio)	Advertisement Date (quarter/year)	International or National Assignment	Comments
<b>Agartala</b>					
Package A1 – Agartala DSMC	\$2.23 million	QCBS (80:20)	Q4 2008	National	Recruited by Tripura's UDD/SIPMIU
Package A2 – Agartala IDC	\$1.17 million	QCBS (80:20)	Q4 2008	National	Recruited by Tripura's UDD /SIPMIU
<b>Aizawl</b>					
Package B1 – Aizawl DSMC	\$2.37 million	QCBS (80:20)	Q4 2008	National	Recruited by Mizoram's LAD /SIPMIU
<b>Gangtok</b>					
Package C1 – Gangtok DSMC	\$2.21 million	QCBS (80:20)	Q4 2008	National	Recruited by Sikkim's UDHD /SIPMIU
<b>Kohima</b>					
Package D1 – Kohima DSMC	\$2.21 million	QCBS (80:20)	Q4 2008	National	Recruited by Nagaland's UDD/SIPMIU
<b>Shillong</b>					
Package E1 – Shillong DSMC	\$2.20 million	QCBS (80:20)	Q1 2009	National	Recruited by Meghalaya's UAD/SIPMIU
Package E2 – Shillong IDC	\$1.17 million	QCBS (80:20)	Q1 2009	National	Recruited by Meghalaya's UAD /SIPMIU
<b>MOUD</b>					
Package F - IPCC PMCC	\$0.47 million	QCBS (80:20) for PFR1	Q4 2008	National	Recruited by MOUD /IPCC
<b>Various survey packages</b>					
NGOs, surveys, independent assessment, awareness campaigns etc	estimated \$10,000-100,000	LCS	N/A	National	Recruited by SIPMIUs

DCMS = Design and Construction Supervision and Management Consultants, LAD = Local Administration Department, PMCC = Program Management and Coordination Consultants; MOUD = Ministry of Urban Development; UDD = Urban Development Department, UAD = Urban Affairs Department, UDHD = Urban Development and Housing Department; NCB = National Competitive Bidding, ICB = International Competitive Bidding, S=Shopping, QCBS= Quality and Cost Based Selection, CQS = Consultants Qualification Selection, LCS = Least Cost Selection

Notes:

1. DSMC, IDC and PMCC contract values have been estimated as base costs inclusive of all costs for surveys, operating expenses, training and equipment (exclusive of contingencies and taxes).

**D. Goods and Works Contracts Proposed under PFR1**

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

## LIST OF CONTRACT PACKAGES

S.No	Contract Packages	Number of Package	Total Cost in \$ Million	Procurement Method	Expected Date of Advertisement	Prior review Required
1	<b>AGARTALA</b>					
	<b>Water Supply</b>					
	<b>a. Civil, Mechanical, Electrical Works</b>					
1.1	TW&IRP/WS/AGT/T1/NCB Replacement of 25 tube wells, 17 IRPs and associated chlorinators	1	0.9	NCB	July' 09	Y
	<b>b. Materials and Equipments</b>					
1.2	LD/WS/AGT/T1/SHP Procurement of leak detection equipment and ancillary supplies, testing and training	1	0.08	SHP	June' 09	N
2	<b>AIZAWL</b>					
	<b>Water Supply</b>					
	<b>a. Civil, Mechanical, Electrical Works</b>					
2.1	OHT1/WS/AIZ/T1/NCB Construction of 7 (replacement) ground level RCC zonal tanks	1	0.97	NCB	Jun' 09	Y
	<b>b. Materials and Equipment</b>					
2.2	CHL/WS/AIZ/T1/NCB Supply and Installation of Chlorinators	1	0.17	NCB	Jun' 09	Y
2.3	WM1/WS/AIZ/T1/NCB Supply, installation and testing of 13,000 HH meters	1	0.70	NCB	Jun' 09	Y
3	<b>GANGTOK</b>					
	<b>Water Supply</b>					
	<b>a. Civil, Mechanical, Electrical Works</b>					
3.1	OHT1/WS/GTK/T1/NCB Construction of 3 new ground level RCC zonal tanks	1	0.29	NCB	Aug'09	Y
3.2	P&S/WS/GTK/T1/NCB Supply, laying and jointing of 29 km DI pipes for main feeder pipe lines, 38 km of secondary and tertiary network pipe lines and 18,000 connections	1	5.07	ICB	Aug'09	Y
3.3	EMZ5/WS/GTK/T1/NCB Construction of sump of 10.5 m diameter, pump house and supply and installation of 2 pump sets of 45 kw	1	0.06	SHP	Aug'09	N
	<b>b. Materials and Equipments</b>					
3.4	CHL/WS/GTK/T1/NCB Supply and Installation of Chlorinators	1	0.16	NCB	Aug' 09	Y

<b>4</b>	<b>KOHIMA</b>					
	<b>Water Supply</b>					
	<b>a. Civil, Mechanical, Electrical Works</b>					
4.1	OHT1/WS/KOH/T1/NCB Construction of 19 (replacement) ground level RCC zonal tanks	1	0.32	NCB	Jul' 09	Y
4.2	WTP/WS/KOH/T1/NCB Refurbishment of the 1.5 MLD treatment plant	1	0.35	NCB	Jul' 09	Y
	<b>b. Materials and Equipments</b>					
4.3	CHL/WS/KOH/T1/NCB Provision for procurement and installation of chlorinators	1	0.12	NCB	Jul' 09	Y
4.4	WM/WS/KOH/T1/ICB Provision for Supply, Installation Testing of 30 Electro Magnetic Bulk Meters (+5 year maintenance)	1	0.19	NCB	Jul' 09	Y
4.5	UFW/WS/KOH/T1/NCB Carrying UFW assessment and repairs	1	0.25	NCB	Dec' 09	Y
	<b>Solid Waste</b>					
	<b>a. Civil, Mechanical, Electrical Works</b>					
4.6	CP&LF/SWM/KOH/T1/NCB Civil works and procurement of equipment for development of sanitary landfill, compost plant and internal access	1	4.55	NCB	Jun'09	Y

<b>5</b>	<b>SHILLONG</b>					
	<b>Solid Waste Management</b>					
	<b>a. Civil, Mechanical, Electrical Works</b>					
5.1	LF&R/SWM/SHI/T1/NCB Procurement of equipment and ancillary supplies, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff for short term landfill site at Mawlai's site (approx. 6 acres) as well as 1 bulldoze	1	0.41	NCB	Jul'09	Y

AGT = Agartala; AIZ = Aizawl; CHL = chlorinators; CP&LF = compost plant and landfill site; GTK = Gangtok; KOH = Kohima; LD = leak detection; LF&TG = landfill and transfer station; NCB = national competitive bidding; OHT = overhead tanks; P&S = primary and secondary distribution; SHI = Shillong; SHP = shopping; T1 = tranche 1; SWM = solid waste management; TW&IRP = tube wells and iron removal plants; UFW = unaccounted for water; WM = water meters; WS = water supply; WTP = water treatment plant.

**Notes:**

1. Contract values have been estimated as base costs (exclusive of contingencies).

## DESIGN AND MONITORING FRAMEWORK – FIRST PFR

Design Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Risks/ Assumptions
<b>Impacts</b>  Improved environment and well-being of urban residents in the five program cities	<ul style="list-style-type: none"> <li>Contribution to reducing regional disparities and improved well-being as measured by the States' infrastructure index by 2017.</li> <li>Significant contribution to meeting MDG7 targets in program cities (halving by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation) in 5 Program capital cities.</li> <li>Reduced incidence of waterborne disease in Program areas (halved by 2017).</li> <li>All significant water bodies in the immediate vicinity of the 5 program cities fully meet by 2017 Class B and/or Class D standards (<a href="http://cpcb.nic.in/Water_Quality_Criteria.php">cpcb.nic.in/Water_Quality_Criteria.php</a>)</li> </ul>	Central, State and local government statistics  Household consumer expenditure and employment surveys  2011 census (next scheduled census)  BPL surveys  Baseline and completion socio-economic surveys  Program environmental surveys  Investment Program completion report and Tranche completion reports.	<b>Assumptions</b>  Continued political support for development in NER  Urban infrastructure improvements will attract enough private sector investments into the program cities and NER.  <b>Risks</b>  Parallel development in other key areas for the NER not materialized in a timely manner
<b>Outcome</b>  Sustainable an increased access to better urban services in five program cities.	<p><b>Improved Water Supply Service:</b>  Increased service reliability resulting from emergency rehabilitation of deficient units in Agartala, Aizawl and Kohima and full de-bunching of distribution system in Gangtok by 2013.   Unaccounted for water reduced to a reasonable level around 30% by 2015;</p> <p><b>Solid Waste Management Service:</b>  Population of 0.3 million provided with solid waste collection treatment and sanitary disposal practiced in five cities and;   Full compliance with India's Solid Waste Management and Handling Rules in Kohima and Shillong by 2014.</p> <p><b>State and ULB Project Capacities</b>  Project development, implementation and management capacity of state (UD and PHED) and ULB level developed as demonstrated by capability to independent prepare feasibility and detailed studies, and handle consultancy management, procurement and compliance with safeguards requirements by 2015.   Agartala and Shillong municipalities are empowered as defined by 74th Constitutional Amendment Act and MOAs signed with MOUD by 2014.</p>	State and local government statistics and reports  2011 census  BPL surveys  IPCC and SIPMIUS progress reports  ADB review mission reports  NGO reports  JNNURM Progress Reports on Urban Reform  Baseline and completion socio-economic surveys  Investment Program completion report and Tranche completion reports.	<b>Assumptions</b>  Local governance is improved, and institutional issues resolved to effectively operate and manage improved urban services  Funding is mobilized for operations, maintenance and replacement of project facilities  <b>Risks</b>  Lack of sufficient skilled staff to operate and manage urban services in the program cities  Natural disaster (e.g., major flood and landslides) in the program cities  Environmental regulations not strictly enforced

Design Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Risks/ Assumptions
<b>Outputs</b>  Part A: Improved urban infrastructure and services  A.1 Water supply expanded and rehabilitated	By end 2013 <ul style="list-style-type: none"> <li>• <b>Agartala</b> (South and Central Zones): source augmentation and distribution through provision of (i) rehabilitation of 24 tube wells, (ii) rehabilitation of 17 IRPs and (iii) NRW program.</li> <li>• <b>Aizawl</b> (i) replacement of 7 reservoirs (ii) chlorinators at major reservoirs (2), (iii) NRW program and (iii) 13,000 metered connections.</li> <li>• <b>Gangtok</b>: (i) repairs to rapid sand filtration at WTP, (ii) replacement of the "bunched" connection system (though 31 km of primary mains and 38 km of secondary pipelines), (iii) construction of 3 new reservoirs, (iv) chlorinators at major reservoirs (4) and (v) NRW program and (vi) 19,000 metered connections.</li> <li>• <b>Kohima</b>: (i) refurbishment of existing WTP, (ii) replacement of 8 reservoirs and, (iii) provision of chlorinators at major reservoirs (2) and (iv) NRW program.</li> </ul>	SIPMIU/IPCC quarterly progress reports  Budgets and annual work plans  IPPMS reports  ADB review mission reports  Disbursement records  Tranche completion and commissioning certificates  Baseline and completion socio-economic surveys	<b>Assumptions</b> Public awareness campaign will develop support for replacement of connections and provision of meters  Consumers will prefer central piped water supplies to alternative sources.  Poor will be connected and be able to afford both the connection and the service  <b>Risks</b> Further deterioration of water supply systems may cause cost increases and scope changes  Integration of various water systems into the central system in each program city may be delayed
A.2 Solid waste management systems developed	By end 2013 <ul style="list-style-type: none"> <li>• <b>Kohima</b>: (i) development of a compost plant (50 TPD) and (ii) sanitary landfill site; (iii) construction of garage/transfer station and approach road; (iv) primary and secondary equipment.</li> <li>• <b>Shillong</b>: (i) development of short-term sanitary landfill site; and (ii) construction of transfer station.</li> </ul>		<b>Assumptions</b> Public awareness campaign will encourage households to dispose their wastes in designated places and voluntarily segregate their wastes  Private operators will find composting profitable  Poor will be served and able to afford the service  <b>Risks</b> Environmental clearances not completed in a timely manner
Part B: Institutional Development and Investment Program Management Strengthened  B.1 Urban institutional, financial, and service delivery reforms undertaken and municipal capacities strengthened	By end 2013 <ul style="list-style-type: none"> <li>• (i) ULB in Shillong reconstituted and municipal election held; (iii) ULBs in Tripura and Meghalaya strengthened.</li> <li>• Double entry accounting systems installed and financial systems computerized in AMC and SMB.</li> <li>• Property tax strengthened to yield at least 0.5% of property value in AMC and SMB.</li> <li>• GIS installed/updated and operational for application in priority areas in AMC and SMB</li> <li>• Planning process/legislation amended to strengthen development controls and sanitation regulations Tripura and Meghalaya</li> </ul>	SIPMIU/IPCC quarterly progress reports  Budgets and annual work plans  IPPMS reports  Review mission reports  Disbursement records  Tranche completion report  Records of consultations and meetings	<b>Assumptions</b> Reforms will lead to higher efficiency, transparency and accountability  Public will participate in election  Roles of existing villages and dorbars can be suitably incorporated in proposed structures  Political leaders and high rank bureaucracy will support reforms for creating financially viable service providers and tariff reforms



Design Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Risks/ Assumptions
	<ul style="list-style-type: none"> <li>• Municipal (AMC and SMB) staff trained in operation and maintenance of services, financial management, regulation enforcement</li> </ul>	Financial statements of agencies and ULBs  Baseline and completion socio-economic surveys	Staff is available with expertise and experience required for various infrastructure sectors and management tasks  <b>Risks</b> Tariff reforms hampered due to lack of general public and politicians' understanding  Village and dorbars leaders may disagree on the new urban governance arrangements
B.2 Public utility management Improved	By 2014, in Agartala and Shillong <ul style="list-style-type: none"> <li>• Dedicated city water and sewerage circles/units established.</li> <li>• Asset management systems improved and performance-based operational systems introduced for water, sewerage and solid waste management services; as measured by benchmarking indicators in IPPMS and 2009 baseline.</li> <li>• Sustainable user charge structure including volumetric water charges, sewerage charges and solid waste management charges implemented. Recovery to be no less than as agreed under JNNURM MOAs by 2012 and full O&amp;M costs in all cities by 2015.</li> <li>• PSP studied and tried in selected subprojects.</li> </ul>		
B.3 Public Awareness Increased	In all 5 cities <ul style="list-style-type: none"> <li>• Public and village leaders acceptance of ULB creation as shown in support for election process.</li> <li>• Broad understanding of the need for and compliance with service charges.</li> <li>• Segregation at source by no less than 50% of the population.</li> </ul>		
B.4 Investment Program Capacity Developed	In all 5 cities <ul style="list-style-type: none"> <li>• On-the-job capacity building program prepared for implementation</li> <li>• SIPMIU capacity on consultant recruitment/management, procurement and contract management, and disbursement management developed.</li> <li>• Capacity of regional offices enhanced for project and performance monitoring</li> <li>• SIPMIU and ULB capacity built for obtaining environmental clearance, developing monitoring programs, and reporting to secure compliance with the laws of the country.</li> <li>• SIPMIU capacity enhanced to manage and expedite land acquisition and resettlement processes in agreement with ADB and the Government.</li> <li>• Feasibility and detailed engineering designs, and due diligence (economic and financial analyses; environmental assessments, resettlement and indigenous peoples plans) documentation prepared for tranches 2 and 3.</li> <li>• Construction supervision undertaken for all tranches.</li> </ul>		

Design Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Risks/ Assumptions
	<ul style="list-style-type: none"> <li>Entire Program management for all States conducted.</li> </ul>		
<b>Activities with milestones</b>			<b>Inputs</b>
<b>Preparatory Activities</b> 0.1 IPCC in MOUD and SIPMIUs in States established and core staff appointed by Oct 2008. 0.2 Short-listing for consultancies completed by January 2009 and appointments by September 2009 0.3 Process of land acquisition of private lands and resettlement (in agreement with ADB's <i>Involuntary Resettlement Policy</i> [1995]) initiated by December 2008. 0.4 IPCC formulates protocols on (i) project performance monitoring system, (ii) reporting, and (iii) accounting and auditing February 2009. 0.5 Requests for environmental clearance submitted/obtained from SPCB/CPCB by Feb 2009. 0.6 Engineering designs for the 1 <sup>st</sup> tranche to be completed by July 2009 and tendered by SIPMIUs by September 2009. 0.7 Initiate the implementation of the GAP			<b>TOTAL - Tranche 1</b> (\$ Million) ADB 30.0 GOI 12.8 <b>Grand Total 42.8</b>
<b>1.1 Drinking Water Supply Improvements (Tranche 1)</b> 1.1.1 Undertake baseline surveys (with gender disaggregated data) (Q2 2009) 1.1.2 Environmental clearances obtained from SPCBs (Q2 2009) 1.1.3 Detailed engineering design for water main and distribution systems completed (Q2 2009) 1.1.4 NRW programs agreed by 2Q 2009; bulk and household meter contracts tendered and awarded (Q3-Q4 2009); and NRW baselines established in all four project towns (Q1 2010) 1.1.5 Bidding documents tendered and evaluated, and contractors selected (Q3 2009-Q2 2010) 1.1.6 Construction activities completed (Q4 2013) 1.1.7 Water units commissioned and O&M turned over (Q2 2014)			
<b>1.2 Solid Waste Management Improvements (Tranche 1)</b> 1.2.1 Benefit monitoring survey conducted for four project towns (Q2 2009); 1.2.2 Environmental clearances obtained from SPCBs (Q2 2009) 1.2.3 Detailed engineering design completed (Q3 2009) 1.2.4 Awareness campaigns (Q4 2009 – Q4 2010), compost marketing studies, PSP studies and by (Q10 2009) 1.2.5 Bidding documents tendered and evaluated, and contractors selected (Q3 2009-Q2 2010) 1.2.6 Construction activities completed (Q4 2013) 1.2.7 Solid waste management units commissioned and O&M turned over (Q2 2014)			
<b>2.1 Subproject Preparation and Implementation</b> 2.1.1 SIPMIUs/DSMCs undertake preliminary designs and reassess project viability (economic, financial etc) for Tranche 2 and 3 by September 2010 and September 2011, respectively. 2.1.2 Undertake detailed designs and prepare all associated documentation (IEEs, RPs, bidding documents) and submit to ADB/IPCC for review and consolidation by January 2011 and January 2012 for each tranche 2 and 3 subprojects. 2.1.2 Secure all lands for subproject construction under Tranche 2 and Tranche 3 by March 2010 and 2011, respectively. 2.1.3 Obtain all required environmental clearances and NOCs by March 2010 and 2011 (tranche 2 and 3), respectively. 2.1.4 Complete tender and award of all contracts under Tranche 2 and Tranche 3 by June 2011 and June 2012, respectively. 2.1.5 Undertake construction and equipment installation supervision for all tranches till mid 2015.			
<b>2.2 Institutional Strengthening and Capacity Building</b> 2.2.1 Project implementation programs initiated in all 5 States by Q23 2009 and completed by mid 2015. 2.2.2 NRW reduction programs institutionalized in all towns by Q4 2011. 2.2.3 IDCs recruited for Agartala and Shillong (Q3-Q4 2009). 2.2.4 Drafting of regulations, preparation and implementation of institutional development			

Design Summary	Performance Indicators/Targets	Data Sources/Reporting Mechanisms	Risks/ Assumptions
plans and operating procedures, decentralization of urban services to ULBs initiated by Mar 2009 for Agartala and Shillong. 2.2.5 Improvement of financial management and accounting and computerization initiated by March 2009 and completed in all 2 towns by end 2012. 2.2.6 Operational improvement of urban infrastructure services: Development of operation management programs, staff trained, and implementation is ongoing for Agartala and Shillong. 2.2.7 Development of volumetric charges and other user fees to make services affordable and financially sustainable initiated in for Agartala and Shillong by December 2010. 2.2.8 Support for design and implementation of stronger property tax systems in all Program cities, and introduction of revisions to property taxes in Agartala and Shillong initiated by July 2010.			

ADB = Asian Development Bank, BPL = baseline poverty line (may vary based on Central Government, State Government and/or UN methodologies); GIS = Geographical Information Systems, GOI = Government of India, IPCC = Investment Program Coordination Cell, IPPMS = Program Performance Management System, MOA = memorandum of agreement; MOUD = Ministry of Urban Development, NRW = non-revenue water; O&M = Operation and Maintenance, SIPMIU = State Investment Program Management and Implementation Unit, STP = sewerage treatment plant, ULB = Urban Local Body, WSS = Water supply and Sanitation.

### **INITIAL ENVIRONMENTAL EXAMINATIONS FOR SUBPROJECTS**

Attached as follows:

- (i) Initial Environmental Examination for Rehabilitation of Water Schemes in Agartala, Aizawl and Kohima
- (ii) Initial Environmental Examination for Kohima's Solid Waste Management Scheme
- (iii) Initial Environmental Examination for Shillong's Sanitary Landfill Site
- (iv) Initial Environmental Examination for Gangtok's Water Supply Rehabilitation Scheme

### **RESETTLEMENT DOCUMENTS FOR SUBPROJECTS**

Attached as follows:

- (i) Resettlement Plan for Gangtok's Water Supply Rehabilitation Scheme



