



Technical Assistance Report

Project Number: 42192
September 2008

**India: Preparing the Integrated Flood and River
Erosion Management Project – Arunachal Pradesh**
(Cofinanced by the Multi-Donor Trust Fund under the Water
Financing Partnership Facility)

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 18 August 2008)

Currency Unit – Indian rupee/s (Re/Rs)

Re1.00 = \$0.023

\$1.00 = Rs43.35

ABBREVIATIONS

ADB	–	Asian Development Bank
APSG	–	Arunachal Pradesh state government
FFA	–	framework financing agreement
IFREM	–	integrated flood and river erosion management
IFREMP	–	Integrated Flood and River Erosion Management Project
MFF	–	multitranches financing facility
PFR	–	periodic financing request
PPTA	–	project preparatory technical assistance
TA	–	technical assistance
WRD	–	Water Resources Department

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	Targeted intervention (TI-G)
Sector	–	Agriculture and natural resources
Subsector	–	Water resource management
Themes	–	Sustainable economic growth, environmental sustainability, capacity development
Subthemes	–	Fostering physical infrastructure development, natural resources conservation, institutional development

NOTE

In this report, "\$" refers to US dollars.

Vice-President	B. N. Lohani, Vice-President-in-Charge (Operations 1)
Director General	K. Senga, South Asia Department (SARD)
Director	F. Roche, Agriculture, Natural Resources, and Social Services Division, SARD
Team leader	P. Bozakoy, Senior Water Resources Management Specialist, SARD

I. INTRODUCTION

1. The Asian Development Bank (ADB) has included in its country operations business plan 2007–2009¹ for India a loan for the North Eastern Integrated Flood and River Erosion Management Project covering Arunachal Pradesh and Assam. Under the Project Processing and Capacity Development technical assistance (TA) cluster, a project preparatory technical assistance (PPTA) was completed for Arunachal Pradesh² on 30 June 2008. To ensure implementation readiness, phase 2 of the design of the project and initial capacity building in the Water Resources Department (WRD) of Arunachal Pradesh state government (APSG) and local communities, will be undertaken under a follow-on PPTA.³ The design and monitoring framework is in Appendix 1, and the initial poverty and social analysis is in Appendix 2.

II. ISSUES

2. **Flood and River Erosion — Impacts and Challenges.** India's north eastern region covers 26.2 million hectares, with a population of over 40 million. About 75% of the region's geographical area, including 97% of Arunachal Pradesh, is located in the Brahmaputra River⁴ basin—one of the most flood-prone parts of the world. The most significant problems and the causes of flooding and river erosion are (i) the runoff from extremely heavy rainfall during the monsoon; and (ii) high sediment loads from upper watersheds, which are geologically young and unstable, and susceptible to landslides and earthquakes. Watershed degradation caused by unsustainable shifting cultivation and deforestation is also widespread. Recurring flooding and river erosion affect large segments of the population, degrade the limited productive land and the environment,⁵ and act as a disincentive for long-term investment in the state. As a result, economic growth is slowing down and the incidence of poverty is increasing, as marginal groups descend into poverty because of losses related to floods and river erosion. Arunachal Pradesh has high social and cultural diversity, with over 64% of its population of 1.2 million belonging to scheduled tribes. Although the state has immense potential for development of hydropower, tourism, and other natural resource-based industries, it remains largely untapped. Its per capita income is 85% of the national average and the poverty incidence (33.5%) is higher than the national level (27%).⁶

3. **Policy Initiatives.** A comprehensive policy framework for flood control has been in place since 1954, and has promoted short- to long-term programs for both structural and nonstructural measures. Recognizing the vast impact of floods and river erosion on the national economy, the National Water Policy⁷ emphasizes the need for integrated basin-based master planning for flood control and management; increased implementation of nonstructural measures such as flood forecasting and warning, flood plain zoning, and flood proofing to minimize flood-related losses and to reduce recurring expenditure on flood relief; and modernization and extension of the existing flood forecasting and flood warning systems. In 2004, the Government established a Task Force for Flood Management to implement these principles of the national water policy. The Government's 11th Five-Year Plan⁸ places high priority on protecting flood-prone areas and

¹ ADB. 2006. *India: Country Operations Business Plan 2007–2009*. Manila.

² ADB. 2006. *Technical Assistance to India for Project Processing and Capacity Development*. Manila (TA 4814-IND, Component 10 – Preparing the North Eastern Integrated Flood and Riverbank Erosion Management Project [Arunachal Pradesh]).

³ The TA first appeared in the business opportunities section of ADB's website on 28 August 2008.

⁴ The Brahmaputra River is 2,880 kilometers long and drains an area of 580,000 square kilometers, of which 51% is in the People's Republic of China, 8% in Bhutan, 34% in India, and 8% in Bangladesh. About 42% of its catchment area in India is covered by Arunachal Pradesh and 36% by Assam.

⁵ Annual reported damage between 1998 and 2004 amounted to \$55 million.

⁶ Government of India. *10th Five-Year Plan (2002–2007)*. Delhi.

⁷ Government of India. 2002. *National Water Policy*. Delhi.

⁸ Government of India. *11th Five-Year Plan (2007–2012)*. Delhi.

has projected expenditures of \$720 million equivalent for flood control. It also acknowledges the impact of global warming, as it is expected that floods will become more intense and frequent. To date, 16 million hectares of riverine land have been protected with flood embankments and other structures. A nationwide flood forecasting and warning system has also been set up.

4. In Arunachal Pradesh, efforts to address the problems were initiated by WRD, and have focused on structural works in critical locations to protect towns and productive agriculture land. So far, 40 schemes (including 19 town protection works) have been implemented, benefiting 54,000 ha. Nonstructural measures are yet to be implemented in Arunachal Pradesh. Watershed management efforts are under way, but there is little integration with integrated flood and river erosion management (IFREM) programs. More effective management systems for planning, implementation, monitoring, and maintenance are required—based on a firm understanding of the dynamic river processes, with build-in flexibility for timely and adequate responses. Substantial opportunities exist to enhance cost-effectiveness through improved planning, low-cost designs, and high implementation efficiency and transparency.

5. Based on initial progress, APSG intends to develop a comprehensive framework and programs for IFREM, following relevant national policies and recommendations. The main recommendations envisage (i) developing integrated and sub-basin IFREM plans, incorporating catchment management; (ii) constructing strategic structural measures in the critical areas of economic activity; (iii) introducing nonstructural measures including flood forecasting, warning systems, and flood zoning; (iv) strengthening the institutional capacity of WRD; and (v) developing affected communities' capacity to understand and address the risk environment better, based on their tribal traditional and indigenous coping mechanisms. In line with this initiative, APSG enacted the Water Resources Management Authority Act, 2006, which proposed the establishment of (i) a ministerial level state water council; (ii) a secretary level state water board, for which the chief engineer acts as secretary; and (iii) a state water management authority. However, implementation of the act has been slow in terms of setting up a state water council and state water board, and thus preparing the integrated water plan.

6. WRD is a key organization within APSG to support an IFREM framework and programs. While it has strong leadership and engineering skills to implement IFREM infrastructure works, its institutional functions, structure, resources, and management systems need to be upgraded to support an IFREM approach. This should be addressed by (i) supporting APSG to develop a state water resources policy and implement the provisions of the 2006 act—making the state water council and state water board operational; (ii) strengthening IFREM management systems, including the data and knowledge base and infrastructure maintenance, within the institutional framework; (iii) defining the specific roles of WRD and functional arrangements for IFREM; (iv) integrating community participation in IFREM operations; and (v) strengthening social and environmental safeguards management. Likewise, effective collaboration arrangements for a holistic IFREM approach, integrated with catchment management, should be defined—building on the existing setup of emergency disaster management and in line with emerging institutional arrangements for integrated water resources management.

7. **ADB Support.** ADB's country partnership strategy for India (2008–2012)⁹ recognizes the role of the water sector in promoting equitable economic growth, poverty reduction, and environmental sustainability. It also focuses on enhancing intra and inter-sectoral water resources management, and reducing flood and river erosion damage in states in the north eastern region through comprehensive risk management. ADB's Water Policy¹⁰ emphasizes developing state water policies, supporting water management institutions, promoting

⁹ ADB. 2008. *India: Country Partnership Strategy (2008–2012)*. Manila.

¹⁰ ADB. 2001. *Water for All: The Water Policy of the Asian Development Bank*. Manila

participatory water management, and introducing innovative solutions with good replication potential. WRD has initiated efforts to address flood and river erosion, focused on structural works in critical locations—towns and productive agriculture lands. However, nonstructural flood and river erosion measures and watershed management have yet to be implemented in state-wide IFREM programs. Key challenges facing the development and successful implementation of an IFREM strategy in Arunachal Pradesh are inadequate funding, low technical and management capacity within WRD, and limited cooperation between state and central government organizations.

8. Against this backdrop, APSG submitted a project proposal to establish and implement a comprehensive IFREM framework and programs at the state level for possible ADB financing. It includes a prioritized list of short-term IFREM infrastructure; a range of nonstructural IFREM measures; and associated strengthening of policy, planning, and institutional capacity. A multitranche financing facility (MFF) proposal—including a sector policy and institutional development road map, feasibility and safeguard assessments of five subprojects, institutional setup and implementation arrangements, and an investment program—has been prepared under the completed TA for possible ADB funding through the MFF modality. Building on this proposal, the follow-on PPTA will assist in strengthening the capacity of WRD and participating communities, and enhancing the investment project readiness in line with the project readiness criteria agreed between the Government and ADB. The PPTA will (i) undertake preliminary capacity building within WRD (with up to 15 technical staff being trained) and local communities to ensure institutional readiness to implement the investment program; (ii) refine the proposed investment program based on a clear strategic context outlined in the country partnership strategy, and prepare a framework financing agreement (FFA); (iii) prepare detailed engineering designs, contract packages, and procurement documents and arrangements for structural and nonstructural subprojects to be implemented under project 1 of the program (tranche 1 of the MFF); and (iv) prepare the first periodic financing request (PFR) relating to project 1.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The completed TA prepared an investment program to enhance IFREM in Arunachal Pradesh through (i) strengthened institutional capacity for IFREM in WRD and local communities in flood-prone areas; and (ii) comprehensive, cost-effective, sustainable, and adaptive structural and nonstructural measures for IFREM. The impact of the follow-up PPTA will be effective implementation of the investment program. The outcome will be improved readiness to implement and manage the MFF investment program.

10. Outputs of the PPTA will comprise:

- (i) an improved IFREM policy and regulatory framework;
- (ii) a refined strategic context, development road map, and investment program;
- (iii) a capacity development plan for WRD;
- (iv) WRD staff trained in key IFREM activities (including structural and nonstructural measures), and ADB project implementation and financial management procedures to facilitate effective investment program start-up;
- (v) frameworks for community participation in IFREM; and for social, resettlement, indigenous peoples, and environmental safeguards;
- (vi) detailed plans for community participation, social development and livelihoods enhancement, resettlement, and environmental protection in the areas of the five subprojects selected for implementation under project 1 of the investment program;
- (vii) pilot community-based flood management and livelihood enhancement initiatives;

- (viii) preselection of sample watershed areas for IFREM activities, including initial socioeconomic assessment, stakeholder consultation, and information campaigns;
- (ix) detailed engineering designs, drawings, specifications, procurement procedures, and bidding and contract documents for the five subprojects under project 1;¹¹
- (x) detailed designs for nonstructural IFREM measures and a program for implementation of nonstructural measures under the investment program; and
- (xi) a project FFA and the first PFR relating to project 1 (tranche 1).

B. Methodology and Key Activities

11. International and national consultants will be engaged to implement the PPTA. In close collaboration with WRD and related APSG agencies, the consultants will (i) enhance the policy, regulatory, and institutional environment for effective IFREM; and refine the IFREM road map and strategy; (ii) strengthen the capacity of WRD and local communities to increase their readiness to implement and participate effectively in the project; (iii) refine the investment program and all documents required to expedite loan processing within ADB; (iv) finalize engineering designs and contract and bidding documentation; and (v) provide detailed proposals and designs for IFREM nonstructural measures. A highly participatory and consultative approach will be followed in all PPTA activities. Relevant lessons from ADB operations experiences of other international organizations, and best international practices will be incorporated in the outputs of the PPTA.¹² The activities are grouped into two components.

1. Part A: Enabling Environment

12. This component will support establishing an enabling policy, regulatory, and institutional environment for IFREM. Key activities comprise (i) support to APSG to update and refine the state water policy, framework, strategies, IFREM strategy, and sector road map; (ii) support for establishing the state water council and state water board; (iii) design and implementation of public awareness and consultation campaigns; (iv) immediate strengthening of WRD's capacity to implement the project, and preparation of a long-term capacity development plan; (v) establishing guidelines and mechanisms for effective community participation in IFREM, including detailed procedures for community participation in the planning and implementation of flood and river erosion measures; and (vi) developing frameworks, schedules, and capacity building programs for resettlement, social, and environmental assessment and monitoring.

2. Part B: Implementation Readiness

13. This component is aimed at enhancing the readiness and implementation arrangements of the investment program. It will refine the MFF investment program design, costs and financing, benefits and justification, safeguard frameworks, social and gender action plans, and implementation arrangements. It will prepare detailed designs, contract packaging, bidding documents, and advance actions for procurement (acceptable to ADB) for community works contracts. It will develop structural and nonstructural works contracts that follow ADB's *Procurement Guidelines* (2007, as amended from time to time) for subprojects selected for implementation under project 1. The subproject selection criteria and procedures for structural

¹¹ Detailed engineering designs will be financed by the Multi-Donor Trust Fund under the Water Financing Partnership Facility.

¹² The following relevant studies were provided by ADB's Operations Evaluation Department and are available at <http://evis.asiandevbank.org/>: ADB. 2007. *Country Assistance Program Evaluation (CAPE) for India*, Manila; ADB. 2007. *Project Performance Evaluation Report on Loan 1289-BAN: Khulna-Jessore Drainage Rehabilitation Project*. Manila; Hazarika, Sanjoy. 2006. *Living Intelligently with Floods*. Background paper for *India – Development and Growth in Northeast India: The Natural Resources, Water, and Environment Nexus*. New Delhi; and World Bank and Food and Agriculture Organization (FAO). 2007. *Hazard Risk Preparedness in Agriculture: Good Practice Examples from South and South East Asia*. Bangkok: FAO.

and nonstructural subprojects for the subsequent tranches will also be refined. To reflect the importance attached to community participation in the project, detailed plans will be developed for community-based IFREM, risk management, and community-based watershed conservation and mitigation strategies.

C. Cost and Financing

14. The total cost of the PPTA is estimated at \$1,130,000 equivalent. It will be financed on a grant basis by ADB's technical assistance funding program (\$150,000) and the Multi-Donor Trust Fund¹³ under the Water Financing Partnership Facility (\$750,000) and administered by ADB. APSG will finance the remaining \$230,000 equivalent through provision of office space, counterpart staff, surveys, and data collection and analysis. Specific cost estimates and a financing plan are in Appendix 3. The Government has been informed that approval of the PPTA does not commit ADB to finance the proposed investment program.

D. Implementation Arrangements

15. The Arunachal Pradesh Water Resources Department will be the Executing Agency for the PPTA and will appoint a PPTA director at the level of senior superintending engineer. APSG has established a secretary-level PPTA steering committee chaired by the chief secretary to guide preparation of the project.¹⁴ The PPTA will also seek the advice of relevant government agencies at key stages of PPTA implementation.¹⁵ ADB, through regular missions and the India Resident Mission, will monitor the PPTA to support timely implementation.

16. The PPTA will be implemented over 9 months from October 2008 to June 2009, including a break in the implementation schedule of 3 months to coincide with the peak flooding season when field activities are constrained by limited access to subproject sites. The break in implementation will provide time for the Government, APSG, and other agencies to review and consult on key draft policy, regulatory, and strategy documents prepared by the PPTA.

17. Consulting services will be provided for a total of 50 person-months, comprising 16 person-months of international consultants, and 34 person-months of national consultants. The outline terms of reference for consultants are in Appendix 4. The team will be engaged as individual consultants by ADB to obtain consultants with the most appropriate qualifications and experience for the unique conditions in the area. All consultants will be recruited following ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). The consultant team will submit to the Government, APSG, and ADB quarterly progress reports detailing activities undertaken and overall progress. In addition to progress reports, the consultants will submit the specific reports and documents identified in Appendix 4. Procurement of equipment will follow ADB's *Procurement Guidelines* (2007, as amended from time to time).

IV. THE PRESIDENT'S DECISION

18. The President, acting under the authority delegated by the Board, has approved (i) ADB administering a portion of technical assistance not exceeding the equivalent of \$750,000 to be financed on a grant basis by the Multi-Donor Trust Fund under the Water Financing Partnership Facility, and (ii) ADB providing the balance not exceeding the equivalent of \$150,000 on a grant basis to the Government of India for preparing the Integrated Flood and River Erosion Management Project – Arunachal Pradesh, and hereby reports these actions to the Board.

¹³ Contributors: the governments of Australia, Austria, and Norway.

¹⁴ Including planning, finance, disaster management, land, rural development, forestry, and agriculture.

¹⁵ Including the Ministry of Water Resources, Central Water Commission, Brahmaputra Board, and the Ministry of Development of North Eastern Region.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <p>Enhanced economic growth and population incomes because of reduced vulnerability to flood and river erosion, and loss of land in Arunachal Pradesh</p>	<ul style="list-style-type: none"> • Reduced flood and river erosion damages and poverty incidence to project areas (to be quantified by the technical assistance) • Long-term institutional strategy for effective integrated flood and river erosion management (IFREM) adopted • Sound arrangements established for participatory IFREM planning, implementation, and operation and maintenance • Actions taken to sustain operation and maintenance funding of IFREM infrastructure 	<ul style="list-style-type: none"> • State and district statistics on agriculture, incomes, and human development index • Arunachal Pradesh state government (APSG) consultation papers and reports • APSG statistical yearbooks • United Nations Development Programme Human Development Report for Arunachal Pradesh • Budget monitoring and evaluation reports 	<p>Assumptions</p> <ul style="list-style-type: none"> • Government of India (Government) and APSG support the proposed policy, regulatory, and institutional reforms • Government, APSG, and Asian Development Bank (ADB) agree on the terms and conditions of the loan agreement for the Integrated Flood and River Erosion Management Project (IFREMP) • Government and APSG provide required counterpart funding for IFREMP • Communities willing to participate in IFREMP activities <p>Risk</p> <ul style="list-style-type: none"> • Natural disasters beyond the design flood return period
<p>Outcome</p> <p>Improved institutional capacity and readiness to implement, manage, and sustain the IFREMP</p>	<ul style="list-style-type: none"> • Arunachal Pradesh Water Resources Department (WRD) staff trained in technical IFREM activities and ADB project implementation procedures • Enhanced IFREM awareness and commitment to IFREMP implementation in communities located in subproject areas identified under project 1 of the IFREMP 	<ul style="list-style-type: none"> • Project preparatory technical assistance (PPTA) consultants' reports • Consultations with relevant water and risk management organizations • Capacity building training and workshop evaluation reports • Relevant reports of the Assam IFREMP 	<p>Assumptions</p> <ul style="list-style-type: none"> • WRD staff receptive to training and revised IFREM-related functions • Communities receptive to IFREM awareness and capacity building and pilot initiatives • PPTA counterpart funding and facilities provided on schedule
<p>Outputs</p> <ol style="list-style-type: none"> 1. Improved IFREM policy and regulatory framework 2. Refined IFREM development road map, strategic context, and IFREMP investment program for funding by the multitranche financing facility (MFF) 	<ul style="list-style-type: none"> • Draft IFREM policy and regulatory framework established for government review • Capacity development plan completed • Training courses, workshops, and on-the-job 	<ul style="list-style-type: none"> • APSG consultation papers and reports • Consultations with relevant water and risk management organizations • PPTA consultants' reports • Relevant reports of the 	<p>Assumptions</p> <ul style="list-style-type: none"> • Local political and security conditions are conducive to the field activities of the PPTA • WRD and related agencies provide necessary support, particularly access to sites, data, information, and

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
<p>3. Capacity development plan for WRD to be implemented under the IFREMP</p> <p>4. State workshops on IFREM strategy and implementation with key stakeholders organized</p> <p>5. WRD staff trained in key IFREM activities including structural and nonstructural measures, and ADB project implementation and financial management procedures to facilitate effective IFREMP start-up</p> <p>6. Frameworks for community participation in IFREM, and for social, resettlement, indigenous peoples, and environmental safeguards</p> <p>7. Detailed plans for community participation, social development, and livelihoods enhancement, resettlement, and environmental protection in the areas of the five subprojects selected for implementation under project 1 of the IFREMP (tranche 1 of the MFF)</p> <p>8. Pilot community-based flood management and livelihood enhancement initiatives</p> <p>9. Detailed engineering designs, procurement procedures, and contract and bidding documents for the five structural subprojects under project 1</p> <p>10. Detailed designs for nonstructural IFREM measures and a program for implementation of nonstructural measures under the IFREMP investment program</p> <p>11. First periodic financing request (PFR) relating to project 1 (tranche 1), and the framework financing agreement (FFA) for the IFREMP</p>	<p>training programs completed, evaluated, and documented</p> <ul style="list-style-type: none"> • Community participation, social, resettlement, indigenous peoples, and environmental frameworks completed • Detailed plans prepared for community participation in planning, construction, and maintenance of five subprojects under project 1 of the IFREMP • Community flood management and livelihood enhancement initiatives piloted and documented • Detailed engineering designs, specifications, procurement procedures, and contract and bidding documents prepared and ready for publication for structural measures under the five subprojects in project 1 of the IFREMP • Consultants' reports and draft IFREMP report and recommendation of the President prepared • FFA prepared and submitted to ADB • First PFR prepared, agreed, and submitted to ADB for financing under tranche 1 of the MFF 	<p>Assam IFREMP</p> <ul style="list-style-type: none"> • Brahmaputra master plan • Village and community records • ADB safeguard policies • Capacity building training and workshop evaluation reports 	<p>analyses</p> <ul style="list-style-type: none"> • Participatory process for subproject planning followed by all concerned • IFREM stakeholders effectively participate in consultative activities • Heavy monsoon rains may impact the PPTA field data collection and consultations

Activities with Milestones	Inputs
<p>1. By ADB</p> <ol style="list-style-type: none"> 1.1 Recruit consultants in coordination with the Government and APSG 1.2 Monitor and supervise PPTA activities regularly 1.3 Guide PPTA activities through inception and review missions 1.4 Facilitate necessary coordination and participatory processes <p>2. By APSG and Government</p> <ol style="list-style-type: none"> 2.1 Appoint counterpart staff 2.2 Supervise PPTA activities regularly through active coordination with the consultants 2.3 Provide office space and facilities as specified, data, information, documents, and other materials as required 2.4 Provide other support as reasonably required by the consultants and ADB <p>3. By Consultants</p> <ol style="list-style-type: none"> 3.1 Undertake specified PPTA activities in close cooperation with stakeholders, APSG, the Government (as required), and ADB 3.2 Prepare and submit to APSG, the Government (as required), and ADB all reports, plans, frameworks, detailed engineering designs, and contract bidding documents specified in PPTA terms of reference 3.3 Participate in and support all ADB review missions as required <p>4. By Stakeholders</p> <ol style="list-style-type: none"> 4.1 Participate in PPTA training, workshops, and capacity and awareness building activities 	<ul style="list-style-type: none"> • ADB will provide (i) \$900,000 grant financing, (ii) PPTA inception and review missions, and (iii) support and supervision as required from ADB Headquarters and the India Resident Mission • APSG will provide in-kind contributions estimated at \$230,000 equivalent comprising provision of (i) office space and facilities, (ii) counterpart staff, (iii) information and materials as required, and (iv) other counterpart support • Government and local stakeholders will contribute their time to participate in PPTA training and workshops and other consultations • Consultant inputs comprising (i) 16.0 person-months of international, and (ii) 34.0 person-months of national consultants engaged as individuals

INITIAL POVERTY AND SOCIAL ANALYSIS

Country/Project Title: India/Integrated Flood and River Erosion Management Project

Lending/Financing Modality: Multitranche Financing Facility Department/ Division: South Asia Department / Agriculture, Natural Resources, and Social Services Division

I. POVERTY ISSUES

A. Linkages to the National Poverty Reduction Strategy and Country Partnership Strategy

1. Based on the country poverty assessment, the country partnership strategy and the sector analysis describe how the project would directly or indirectly contribute to poverty reduction and how it is linked to the poverty reduction strategy of the partner country.

While the process of development in Arunachal Pradesh is recent, the state of development is encouraging. Income per head has increased and the rate of growth of income is high compared to the national average. The literacy rate has increased from 25% in 1981 to 54% in 2001. The health status has also improved. Nevertheless, overall, the north eastern region has a higher incidence of poverty. The human poverty index^a for Arunachal Pradesh is estimated at 39% compared to the national human poverty index of 33%. According to the 2001 census, the scheduled tribes' population constitutes about 65% of the total population of 1,098,000 people; the remainder belongs to the general category. Arunachal Pradesh is also characterized by linguistic diversity, with 42 languages being spoken. The people have an innate knowledge of the environment passed down from generation to generation, and have helped to protect the rich biodiversity of the state. Social cohesion and a strong sense of community spirit persist.

Over 90% of Arunachal Pradesh consists of mountainous and hilly terrain cut by narrow tributary river valleys. A third of the net state domestic product comes from the primary sector—agriculture. Except for a few tribes with land in river valleys where paddy cultivation is done on mostly rain-fed terraced land during the monsoon season, most agricultural production is based on shifting cultivation (or *jhumming*) for subsistence purposes only. The state's strategy for economic growth emphasizes improved intrastate and interstate connectivity, rural and agricultural growth, social development, and hydropower and tourism development, while preserving the social integrity and culture of the tribal population.

Effective integrated flood and river erosion management (IFREM) is essential in the state's scarce plain areas, where productive agricultural land and urban and township areas are located. Causes of significant flooding and river erosion are the runoff from extremely heavy rainfalls during monsoon, which may coincide with floods in the main rivers and high loads of silt from the upper watersheds in the Himalayas, where the Brahmaputra River originates. Sudden breaching of temporary dams formed by landslides in the upper reaches of the tributaries also contributes to sudden devastating flash floods. There is no operational flood warning system. Watershed degradation caused by shortening cycles and reduced fallow periods in shifting cultivation and deforestation is widespread. The national water policy^b emphasized nonstructural measures, and incorporated an integrated approach with basin-wide watershed management and stakeholder participation.

The economic costs and social disruption associated with flooding have been rising. This is partly due to increasing human occupation and associated economic activity in the scarce floodplains. In-migration into the state is indicated by a rising "general" population compared with the tribal population, settling in the risky flood plains for agricultural production purposes much in the same way as they do in the floodplains of the Brahmaputra and on *char* (sandbar) islands. The inflow of migrant labor has led to the introduction of new technology in agriculture. Migrant workers have brought the knowledge of wet rice cultivation, and this meant the extension of permanent cultivation in many river valleys and plateaus. Only a few tribes—such as the Apatani, Kamptis, and Singpho of Lohit district—practice permanent cultivation or cultivated paddy on terraced land as opposed to shifting cultivation. It is believed that these migrant workers are an important segment of the agricultural labor force extending the permanent cultivation of land that used to be uncultivated.

B. Targeting Classification

1. Select the targeting classification of the project:

General Intervention Individual or Household (TI-H); Geographic (TI-G); Non-Income MDGs

2. Explain the basis for the targeting classification: The project is located in one of the poorest states in India. Arunachal Pradesh per capita income is 85% of the national average and poverty incidence (33.5%) is higher than the national level (27%).^c

C. Poverty Analysis

1. If the project is classified as TI-H, or if it is policy-based, what type of poverty impact analysis is needed? Not applicable.

2. What resources are allocated in the project preparatory technical assistance (PPTA)/due diligence?

Besides river erosion control structures, the project will develop (i) frameworks for community participation in IFREM, and for social, resettlement, indigenous peoples, and environmental safeguards; (ii) detailed plans for community participation, social development and livelihoods enhancement, resettlement, and environmental protection in the areas of the five subprojects selected for implementation under project 1 of the investment program (tranche 1 of the multitranches financing facility [MFF]); and (iii) pilot community-based flood management and livelihood enhancement initiatives. Therefore, participatory social and economic analysis is required to analyze strategies to meet the development needs and priorities of the tribal population and other segments of society. As Arunachal Pradesh is a special category state, the role of development processes and the involvement of the Government and local community participation practices will be pursued to determine sensitive, nondisruptive, social, and culturally sensitive implementation modalities.

Key questions of the development process in Arunachal Pradesh remain land tenure and land ownership of the tribal population, and the changing pattern in the gender division of labor. This will be further assessed in the context of the technical assistance and the ensuing project. While the challenge for the tribal population will be land titling under a communal land holding system, the challenge for women and particularly tribal women will be to secure land ownership. A social analysis already under preparation will also examine the communal landholding structure and to what extent the proposed investment program will affect traditional landholding patterns. Most structural activities will be undertaken on rivers that are regarded as communal land, where access is guided by usufruct rights. In this context, community-based approaches will be given priority.

3. If GI, is there any opportunity for pro-poor design (e.g., social inclusion subcomponents, cross subsidy, pro-poor governance, and pro-poor growth)? Please see item 2 above.

II. SOCIAL DEVELOPMENT ISSUES

A. Initial Social Analysis

Based on existing information:

1. Who are the potential primary beneficiaries of the project? How do the poor and the socially excluded benefit from the project? The major beneficiaries are the poor tribal communities located at the rapidly eroding and frequently flooded riverbanks, where limited agricultural land is available for cultivation.

2. What are the potential needs of beneficiaries in relation to the proposed project? Social surveys indicated that improved flood and river erosion security will have positive impacts on farming activities and farm incomes. Limited access to markets and health facilities were identified as other key issues.

3. What are the potential constraints in accessing the proposed benefits and services, and how will the project address them? The project will reduce flooding and river erosion, and will protect private assets and public infrastructure. However, in the past limited community participation, lack of transparency in subproject planning, poor construction quality of protection structures were the key limiting factors to fully access the benefits of projects implemented by the Water Resources Department. The proposed project will ensure full participation of beneficiaries and local communities in the entire project cycle—planning, design, implementation, and maintenance. The project participation strategy will involve (i) project-specific institutional and implementation arrangements aiming at close guidance and supervision of the project consultative approach by a multidisciplinary project management team and specialized nongovernment organizations; (ii) awareness campaigns and capacity strengthening programs targeting key stakeholders; (iii) specific actions aimed to empower the participating communities and vulnerable groups and raise their living standards; and (iv) community-based income-generating activities linked to watershed rehabilitation and management.

B. Consultation and Participation

1. Indicate the potential initial stakeholders. – Key stakeholders are the tribal rural communities and the urban poor located in the flood-prone areas.

2. What type of consultation and participation (C&P) is required during the PPTA or project processing (e.g., workshops, community mobilization, involvement of nongovernment organizations, and community-based organizations, etc.)? The follow-up technical assistance (PPTA) will complete the stakeholder analysis undertaken during the component technical assistance and refine the community participation strategy based on the realities and the special development needs of Arunachal Pradesh — considering the state's special political and economic situation and the rights of the tribal population to land and participation in project activities.

Through the active participation of community groups, drawing on strong community spirit, ownership of and support for IFREM and the investment program will be strong. How to best involve community action in flood and erosion control for structural and nonstructural measures will be refined, taking into account that structural measures (such as river embankments, revetments, and spurs) require regular maintenance and need complementary nonstructural measures to be made more effective. Under the technical assistance, detailed plans will be developed for community participation, social development, livelihood enhancement, resettlement, and environmental protection in the areas of the five subprojects selected for implementation under project 1 of the

investment program. Since most of the community groups were never exposed to the development process and have no experience with working together for development projects, it is proposed to pilot test community-based flood management and livelihood enhancement initiatives in micro watersheds under this technical assistance to be scaled up under the follow-on loan.

3. What level of participation is envisaged for project design?

- Information sharing Consultation Collaborative decision making Empowerment

4. Will a C&P plan be prepared? Yes No

C. Gender and Development

1. What are the key gender issues in the sector/subsector that are likely to be relevant to this project/program?

The challenge for women and particularly tribal women in the development process will be to secure land ownership. A result of increasing population density and intensification of agriculture is that shifting cultivation systems with collective ownership over land are usually transformed into a system of peasant production of private landownership using animals for land cultivation and transport. These changes may have significant impact on the position of women, as private landownership may lead to the transfer of land to males and marginalization of women in production activities which in turn leads to their marginalization in society and the household. Although there is no matriarchy in Arunachal Pradesh, women hold a high and respectable position. They work on equal terms with the men in *jhumming* and make their influence felt in the tribal councils.

2. Does the proposed project/program have the potential to promote gender equality and/or women's empowerment by improving women's access to and use of opportunities, services, resources, assets, and participation in decision making? Yes No Please explain.

Yes, a gender action plan has been prepared under the component technical assistance and will be further refined during the follow-up PPTA. The PPTA will refine the gender action plan to ensure that women, particularly tribal women will participate and equally benefit from investment program activities. It will also analyze the changes in the communal land holding structure and to what extent the investment program will affect traditional land holding patterns. The pilot community-based flood management, and livelihood enhancement initiatives will be based on micro-watershed since developing and managing the natural resource base works best when associated with livelihood activities and time saving techniques for women that improve income and reduce their daily drudgeries. Such initiatives have been successfully tested in the context of the hill tribal cultures of the Himalayas.^d

3. Could the proposed project have an adverse impact on women and/or girls or to widen gender inequality?

- Yes No

III. SOCIAL SAFEGUARD ISSUES AND OTHER SOCIAL RISKS

Issue	Nature of Social Issue	Significant/Limited/No Impact/Not Known	Plan or Other Action Required
Involuntary Resettlement	While no physical dislocation is anticipated, flood and river erosion mitigation measures might result in protection structures being built on river banks and the flood plains. The TA will prepare a comprehensive Resettlement Framework under multi-tranche financing facility (MFF) lending arrangements and a short resettlement plan for Project 1 of the investment program. Land acquisition and compensation falls under the jurisdiction of the Land and Revenue Department. Agricultural land is communally held and is not subject to cadastral surveyed. Under the Land Settlement and Revenue Act, 2001, preparations are being made for a cadastral survey. Land ownership data is not available.	Not significant.	<input type="checkbox"/> Full Plan <input type="checkbox"/> Short Plan <input checked="" type="checkbox"/> Resettlement Framework <input type="checkbox"/> No Action <input type="checkbox"/> Uncertain

Issue	Nature of Social Issue	Significant/Limited/ No Impact/Not Known	Plan or Other Action Required
	The rules and institutional mechanisms governing access to land vary from tribe to tribe and place to place. Rivers are being used by farmers for agricultural purposes under usufruct rights.		
Indigenous Peoples	<p>The tribal population is estimated at 65% and inhabits the hills and mountain areas. An Indigenous People Development Framework under the MFF lending modality will be developed, if necessary. However, as the majority of target beneficiaries of the investment program will be tribal, their right to inclusion and development should be reflected in the participatory strategy for Project 1 of the investment program.</p> <p>The PPTA will look carefully at the impact of the proposed interventions on the tribal population, their equal benefit sharing, and their equal participation in investment program activities.</p>		<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input checked="" type="checkbox"/> Indigenous Peoples Framework <input type="checkbox"/> No Action <input type="checkbox"/> Uncertain
Labor <input type="checkbox"/> Employment Opportunities <input type="checkbox"/> Labor Retrenchment <input type="checkbox"/> Core Labor Standards	None		<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
Affordability	None		<input type="checkbox"/> Action <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
Other Risks and/or Vulnerabilities <input type="checkbox"/> HIV/AIDS <input type="checkbox"/> Human Trafficking <input type="checkbox"/> Others (conflict, political instability, etc.), please specify.			<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
IV. PPTA/DUE DILIGENCE RESOURCE REQUIREMENT			
<p>1. Does the TOR for the PPTA (or other due diligence) include poverty, social and gender analysis and the relevant specialist/s? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, please explain why?</p> <p>2. Are resources (consultants, survey budget, and workshop) allocated for conducting poverty, social and/or gender analysis, and C&P during the PPTA/due diligence? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, please explain why.</p>			

^a The human poverty index measures deprivation in health, education, and economic provision as outlined in the United Nations Development Programme. 2002. *Human Development Report of 2002*. New York: Oxford Press.

^b Government of India. 2002. *National Water Policy*. Delhi.

^c Government of India. *10th Five-Year Plan (2002–2007)*. Delhi.

^d International Centre for Integrated Mountain Development (ICIMOD). 2004. *Lessons in Watershed Management in the Hindukush Himalaya*. Kathmandu, Nepal.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
A. Asian Development Bank ^a and Multi-Donor Trust Fund under the Water Financing Partnership Facility ^b Financing	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	476.0
ii. National Consultants	220.0
b. International and Local Travel	
i. International Travel	40.0
ii. Local Travel ^c	44.0
2. Surveys and Studies	
a. Technical Studies ^d	25.0
b. Resettlement Surveys and Assessment	10.0
c. Environment Studies	10.0
3. Workshops, Seminars, and Training ^e	10.0
4. Administrative and Support Services	
a. Office Operation	10.0
b. Administration and Support Staff	10.0
c. Equipment and Furniture ^f	5.0
5. Contingencies	40.0
Subtotal (A)	900.0
B. Government	
1. Office Facilities and Administrative Support	60.0
2. Counterpart Staff	35.0
3. Local Travel for Counterpart Staff	35.0
4. Studies, Surveys, and Data Analysis	100.0
Subtotal (B)	230.0
Total (A+B)	1,130.0

^a Financed by the Multi-Donor Trust Fund under the Water Financing Partnership Facility (\$750,000) and the Asian Development Bank's technical assistance funding program (\$150,000).

^b Contributors: the governments of Australia, Austria, and Norway. A total of \$750,000 to be administered by the Asian Development Bank.

^c Travel within India. Includes vehicle rental and operation, and local airfares.

^d Includes satellite imagery, technical investigations, and numerical and physical modeling.

^e Includes training and workshops for the Water Resources Department and the Arunachal Pradesh state government staff, and communities in the five subproject areas in project 1.

^f Supplementary equipment (computers and peripherals, satellite internet connection, handheld global positioning system (GPS), etc.). The equipment purchased for the project preparatory technical assistance phase 1 will also be used for phase 2. All the equipment purchased (phase 1 and phase 2) will be handed over to the Executing Agency after the completion of the TA studies.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. General

1. The project preparatory technical assistance (PPTA) will finalize the preparation of the Integrated Flood and River Erosion Management Project for Arunachal Pradesh. Consulting services will include the experts in Table A4.1; and will undertake the tasks outlined here, which may be adjusted by the Asian Development Bank (ADB) as needed, in consultation with Arunachal Pradesh state government (APSG) and the Government of India (the Government). An international river engineering specialist will act as team leader and a national design specialist will be deputy team leader.

Table A4.1: Consulting Services Inputs

Category	Person-Months
A. International	
1. Team Leader/River Engineering	6.0
2. Community-Based Disaster Risk Management/Capacity Building	4.0
3. Procurement/Construction Contracts/Bidding	2.0
4. Water Policy/Regulatory Framework	2.5
5. Project Economics and Finance	1.5
Subtotal (A)	16.0
B. National	
1. Deputy Team Leader/Design Specialist	9.0
2. Geotechnical Engineering	2.0
3. Procurement/Construction Contracts/Bidding	3.0
4. Flood Management	3.0
5. Community-Based Flood Risk and Watershed Management	3.0
6. Social Development, Indigenous Peoples, and Resettlement	3.5
7. Social Surveys and Analysis	2.0
8. Water Policy/Regulatory Framework	3.0
9. Environment	2.0
10. Project Economics and Finance	1.5
11. Legal Specialist	2.0
Subtotal (B)	34.0
Total	50.0

B. Scope of Services

1. Part A: Enabling Environment

a. Policy, Regulatory, and Institutional Environment

2. The PPTA will enhance the policy, regulatory, and institutional environment for effective integrated flood and river erosion management (IFREM) by

- (i) updating the assessment of APSG performance in IFREM made in the PPTA phase 1;
- (ii) reviewing Arunachal Pradesh's draft water resources policy,¹ and proposing amendments to reflect the key principles of integrated water resources management and IFREM for consideration by APSG;

¹ Not yet published.

- (iii) reviewing the Arunachal Pradesh Water Resources Management Authority Act, 2006, and the status of the state water council, state water board, river basin authorities, and integrated state water plan proposed for preparation under the act; and where appropriate, recommending amendments to the act and the institutional framework established therein, specifically in the area of IFREM, for consideration by APSG;
- (iv) supporting APSG in preparation and implementation of a public awareness and consultation campaign for the policy to ensure adequate representation and participation of local flood-affected communities; and
- (v) outlining participatory planning and implementation guidelines to be followed under the investment program.

b. Water Resources Department and Local Community Capacity Building

3. The PPTA consultants will strengthen the capacity of the Water Resources Department (WRD) of APSG to enhance its readiness to implement the project, and prepare a long-term capacity development plan for the department. Specific tasks needed to expedite project start-up will include:

- (i) assisting WRD in preparation of its vision and mission statements, institutional development strategy including institutional structure, responsibilities, staff resources, financing and management;
- (ii) training of selected WRD staff (about 15 technical staff) in river morphology, geotechnical engineering, and river engineering designs;
- (iii) reviewing and refinement of frameworks, activity schedules, and capacity building programs prepared under the component technical assistance for the application of the Government's and ADB's requirements in indigenous peoples, involuntary resettlement, and environmental safeguards;
- (iv) establishing guidelines, mechanisms, and monitoring checklists for effective community participation in IFREM, including detailed procedures for (a) assessing communities' willingness and capacity to participate; (b) selecting representatives for community committees; (c) establishing committees as legal entities to enter into works contracts with WRD; and (d) engaging communities in the design, planning, implementation, and monitoring of performance of structural and nonstructural flood and river erosion measures;
- (v) building local communities' awareness of IFREM, and mobilizing communities to participate in and contribute to the costs of IFREM activities and voluntary community donation of land for construction of subprojects in their areas;
- (vi) social mobilization and poverty and gender action plans;
- (vii) training in ADB project implementation procedures covering disbursement, procurement, financial management, etc.;² and
- (viii) advising on the establishment of project offices at project and subproject levels, safeguard management and monitoring and evaluation units, and the requirements for support of these units by consultants and/or contracted staff.

4. The consultants will prepare a general framework, mechanisms, and activity schedule for consultation with and mobilization of the participating local communities to take part in IFREM effectively. In addition, the consultants will prepare a framework, mechanisms, and activity schedule specific to each of the communities that will be affected by and participate in

² Basic training in ADB implementation procedures will be provided through ADB's Indian Resident Mission. This will be supplemented, as necessary, as the PPTA proceeds by the consultants.

the five structural subprojects and relevant nonstructural measures to be developed under project 1 (tranche 1).

5. **Safeguards Assessments.** Safeguards frameworks and related plans have been prepared by the technical assistance,³ completed in June 2008 following ADB's policies on involuntary resettlement, indigenous peoples, and the environment; the *Operations Manual* section on involuntary resettlement;⁴ and APSG and government policies. In respect of environmental impacts, frameworks and plans have been prepared in accordance with the Government's environmental impact assessment (EIA) notification⁵ and ADB's *Environmental Assessment Guidelines*.⁶ The PPTA will update these safeguard frameworks and plans, and will prepare/update programs for institutional capacity building for agencies involved in social and environmental assessments and resettlement.

2. Part B: Implementation Readiness

a. Investment Program and Loan Documentation

6. The consultants will review and refine the investment program design, costs and financing, benefits and justification, safeguards frameworks, social and gender action plans, and implementation arrangements. They will assess the relevance of the investment program in the context of the proposed IFREM strategy and sector road map; and will prepare a management system for monitoring and evaluation, quality control, and safeguards management. Based on this assessment, they will prepare documents required to expedite loan processing (including a draft report and recommendation of the President, framework financing agreement, and the first periodic financing request relating to project 1 of the program). While formulating the multitranche financing facility (MFF) investment proposal, the consultants will incorporate in the project design the relevant lessons identified from previous experience, and will also propose monitoring indicators and baseline data for benchmark information that will be incorporated in the design and monitoring framework.

b. Subproject Selection, Design, and Contract Documentation

7. In respect of subprojects selected for implementation under project 1 of the investment program, the consultants will

- (i) review and refine as necessary the subproject selection criteria review prepared under the component technical assistance;
- (ii) review subproject designs and technical specifications;
- (iii) design and supervise the implementation of consultations, studies, surveys, and investigations required for detailed subproject designs, and for finalization of social, resettlement, and environment safeguard documents;
- (iv) prepare detailed designs, drawings, technical specifications, contract packaging, bidding documents, and advance actions for procurement appropriate for community works contracts and civil works contracts that follow ADB's *Procurement Guidelines* (2007, as amended from time to time);
- (v) propose arrangements and procedures for improved quality of construction supervision and sustainable operation and maintenance of the facilities; and

³ ADB. 2006. *Technical Assistance to India for Project Processing and Capacity Development*. Manila (TA 4814-IND, Component 10 – Preparing the North Eastern Integrated Flood and Riverbank Erosion Management Project [Arunachal Pradesh]).

⁴ ADB. 2006. *Operations Manual*. Section F2/BP: Involuntary Resettlement. Manila.

⁵ The Environment (Protection) Act, 1986, amended 1991 and EIA Notification, S.O. 60(E) of 27 January 1994.

⁶ ADB. 2003. *ADB Environmental Assessment Guidelines*. Manila.

- (vi) prepare a detailed plan for procurement of goods, services, and civil works for tranche 1; and requests for proposals for consulting services and nongovernment organizations.

c. Nonstructural Measures

8. The consultants will provide detailed designs for IFREM nonstructural measures based on proposals made during the PPTA phase 1, to be implemented under the project, including (i) flood forecasting and warning mechanisms for selected catchments, including a network of rainfall gauges; (ii) pilot flood emergency planning and management (prevention, preparedness, response, and recovery) starting with the selected catchments; (iii) community-based flood risk management; and (iv) flood education models suitable for different sociocultural (tribal) areas and flood and river erosion problems. The scope for developing and implementing other nonstructural measures (land-use zoning, building and development planning, and financial measures such as flood insurance) under the project needs to be examined in detail, given their potential implications for other state and national policies, regulations, and institutions. The PPTA consultants will also initiate policy dialogue with APSG in relation to the efficient implementation and operationalization of the proposed structural nonstructural measures.

d. Integrated Community-Based Management

9. To reflect the importance attached to community participation in the project, the consultants will prepare detailed plans for integrated community-based management in relation to flood and river erosion, including (i) defining the risk environment, (ii) developing community-based structural and nonstructural mitigation strategies, (iii) community watershed conservation activities, and (iv) guidelines for community-based planning and implementation and maintenance.

C. Reporting, Training, and Workshops

1. Reporting

10. The consultant services team leader (or deputy team leader in his/her absence) will submit quarterly progress reports to APSG, the Government, and ADB detailing activities undertaken during the month concerned and overall progress in the PPTA in respect of outputs specified in the design and monitoring framework and consultants' terms of reference. In addition, the consultant team will prepare the reports and documents⁷ specified in Table A4.2 according to the schedule indicated.

Table A4.2: Reporting Schedule

Report	Due after Month
1. Inception report, refined methodologies, work plan, and staff schedule	1
2. Draft IFREM policy, regulatory, and institutional framework for review and consultation by all stakeholders	1.5
3. Refined IFREM sector development road map	2
4. Capacity development plan for WRD to be implemented under the project	2.5
5. Frameworks for community participation in IFREM activities	3
6. Frameworks for social, indigenous peoples, involuntary resettlement, and environmental safeguards	3
7. Detailed plans, implementation arrangements, and associated safeguard frameworks for community participation in the construction and maintenance of the five subprojects identified for financing under project 1 of the program	4

⁷ About 15 copies of each draft and final reports will have to be prepared by the PPTA team.

Report	Due after Month
8. Detailed engineering designs, drawings, specifications, bidding documents, and contract documents for the five subprojects	5
9. Detailed designs for nonstructural IFREM measures	6
10. Draft RRP and FFA for the investment program, and the first PFR relating to project 1 (tranche 1 of the MFF).	9

FFA = framework financing agreement, IFREM = integrated flood and river erosion management, MFF = multitranche financing facility, PFR = periodic financing request, RRP = report and recommendation to the President, WRD = Water Resources Department.

Source: Asian Development Bank.

2. Training, Workshops, and Study Tour

11. The PPTA will promote consultations with stakeholders at the national, state, and local levels; water management organizations; tribal communities; and relevant rural institutions. Participatory planning, design, and implementation will be applied to mobilize the effective input of local community organizations and to promote partnership and a sense of ownership. To facilitate capacity building in WRD and affected communities in order to ensure project implementation readiness, the consultant team will deliver short training courses, one-to-one on-the-job training, and mentoring of WRD technical and financial staff. Up to 15 WRD staff are expected to be trained during the period. They will also hold workshops for WRD and community leaders to build awareness and capacity to prepare and implement community participation and social development and livelihood enhancement programs; and frameworks for indigenous peoples, resettlement, and environmental safeguards.

12. The PPTA will also organize a study tour for WRD staff and APSG staff from related agencies, to visit countries in the region that experience similar flood and river erosion problems. A total of up to 10 staff for a period of 10 days is proposed for the tour that will be financed from a separate grant fund.

D. Facilities to be Provided by APSG

13. Through WRD, APSG will provide the following facilities to the PPTA team: (i) access to subproject sites, survey and design data, development project reports, records, and other information required for the PPTA; (ii) the office space, equipment, furniture, and facilities used by the recently completed technical assistance; and (iii) seven counterpart technical staff that will work with the consultants throughout the duration of the PPTA.