



Technical Assistance Report

Project Number: 41676
December 2007

People's Republic of China: Capacity Building for Integrated Ecosystem Management in Ningxia Hui Autonomous Region

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 26 November 2007)

Currency Unit	–	yuan (CNY)
CNY1.00	=	\$0.14
\$1.00	=	CNY7.40

ABBREVIATIONS

ADB	–	Asian Development Bank
EA	–	executing agency
GEF	–	Global Environment Facility
IA	–	implementing agency
IEM	–	integrated ecosystem management
KPS	–	knowledge products and services
M&E	–	monitoring and evaluation
NFD	–	Ningxia Finance Department
NHAR	–	Ningxia Hui Autonomous Region
NPMO	–	Ningxia project management office
PRC	–	People's Republic of China
TA	–	technical assistance

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	General intervention
Sector	–	Agriculture and natural resources
Subsector	–	Water resource management, irrigation and drainage, environment and biodiversity
Themes	–	Environmental sustainability, capacity development
Subthemes	–	Natural resources conservation, institutional development

NOTE

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

Vice President	C. Lawrence Greenwood, Jr., Operations Group 2
Director General	H.S. Rao, East Asia Department (EARD)
Director	T. Shibuichi, Country Director, PRC Resident Mission (PRCM), EARD
Team leader	Z. Niu, Environment Officer, PRCM, EARD

I. INTRODUCTION

1 During the preparation of the loan for the Ningxia Integrated Ecosystem and Agricultural Development Project (the Project) in 2007, the Government of the People's Republic of China (PRC) requested technical assistance (TA) from the Asian Development Bank (ADB) for capacity building to support implementation of the Project. The TA will improve the capacity of stakeholders to implement the Project by mainstreaming an integrated ecosystem management (IEM) approach to achieving sound environmental benefits and sustainable rural livelihoods in the project area. The TA will also assist governments in identifying and replicating successful modules and approaches in similar regions within the PRC.

2 An ADB mission (the Mission) visited Ningxia province intermittently during October–November 2007 for TA fact-finding, conducted discussions with the Ministry of Finance, and reached an understanding with the Government of the PRC (the Government) on the impact, outcome, outputs, cost and financing, and implementation arrangements of the TA.¹ The design and monitoring framework for the TA is in Appendix 1.

II. ISSUES

3 ADB is preparing the Project jointly with the government of the Ningxia Hui Autonomous Region (NHAR), which will aim to improve environmental management for ecosystem rehabilitation, in support of sustainable rural incomes in the project area. Project interventions will introduce an IEM approach to provide sustainable livelihoods for the population in the targeted area. Components under the Project include: (i) building IEM and project management capacity, (ii) land and water resource management, (iii) improving rural livelihoods, and (iv) biodiversity and ecosystem conservation. The Ningxia Finance Department (NFD) will be the executing agency (EA) on behalf of the NHAR government. The Ningxia project management office (NPMO) will cover day-to-day administrative tasks. A lead group has been established and will oversee and coordinate government agencies responsible for institutional and sector priorities.² The Project will be implemented by four implementing agencies (IAs) and will include state-owned enterprises and state-sponsored public sector bureaus as project implementation units to carry out the subprojects.

4 As ADB's first demonstrative investment project under the PRC–Global Environment Fund (GEF) Partnership on Land Degradation in Dryland Ecosystems,³ the Project aims to develop models that are ecologically sound, economically viable, and can be replicated in other degraded ecosystems using IEM approaches. The Project is also the first ever large-scale investment to demonstrate IEM practices in the PRC. If successful, it will have a significant impact with respect to the removal of institutional and technical barriers to the management of natural resources and ecosystems, and showcase sustainable means of balancing economic development and environmental conservation. The Project will also contribute to new policies for rural regeneration under the Government's 11th Five-Year Plan for Social and Economic

¹ The TA first appeared in *ADB Business Opportunities* on 11 December 2007.

² The lead group is chaired by the responsible vice chairman of the Ningxia Hui Autonomous Region Government and comprises director general-level officials from relevant agencies for finance, development and reform, agriculture and animal husbandry, water resources, land and resources, forestry, environmental protection, poverty reduction, and the Yinchuan Municipal Government.

³ The PRC-GEF Partnership is a long-term country programming framework (CPF) that was approved by GEF's council in October 2002. The CPF covers a 10-year period (2003–2012) and seeks to combat land degradation, reduce poverty, and conserve biodiversity through capacity building investments and developing viable model investment projects (consistent with GEF's Operational Program 12 on integrated ecosystem management). The proposed NIEADP is the first investment project developed under the CPF.

Development (2006–2010). However, the use of IEM principles and approaches is new in the PRC and successful implementation of the Project is a big challenge for institutions that were not designed for integrated approaches. These weaknesses are compounded by the limited capacity of the EA and IAs. Consequently, there is a need to build the implementation capacity of the EA and IAs, and to strengthen institutional capacity to achieve effective coordination between sectors.

5 First, it is essential to define the roles and responsibilities of government agencies involved in the Project, including EA and IAs, and other project stakeholders. The NHAR government has formed a lead group that will ensure coordination across sectors and undertake to make decisions regarding key project plans, strategies, and policy issues. The lead group comprises senior officials from sector agencies (including planning, finance, agriculture, water resources, land resources, environmental management, and forestry) and municipal/county governments. The lead group has already been active in coordinating projects funded by the other donors and the mechanism has proven effective in coordinating multi-sectoral projects. Existing coordination relies on political instructions, however, with only limited use of scientific principles to resolve conflicts or competing interests. There is a need to strengthen the institutional capacity of the lead group through well-designed workshops and training to ensure existing mechanisms more effectively incorporate scientific assessments in (i) the coordination of project implementation, and (ii) the provision of guidance to enhance the sustainability of future ecological and economic development.

6 Second, there is a substantial need for EA and IA staff to build their capacity to design, manage, implement, monitor, and operate project interventions. None of the IAs have previous experience in implementing ADB and donor projects and currently lack IEM knowledge and operational capacity in terms of project management and safeguard policies. ADB's previous support⁴ has raised awareness of IEM among a relatively limited number of government officials, planners and technical experts. However, effective use of the IEM approaches and successful implementation of the Project require a critical mass of people with a good understanding of IEM and the capacity to plan and implement field-level interventions that aim to restore, sustain and enhance the productivity of ecosystem resources. Although there is increasing recognition among the EA and IAs that there are major problems to be addressed, they currently lack exposure to successful IEM-related practices and a detailed understanding of the ecosystems in the project area, as well as the economic value of the ecosystem functions and services provided. Lack of understanding and exposure to modern scientifically-based approaches⁵ to environmental management poses a significant risk to the success of the Project. Training is needed to improve EA and IA staff knowledge and skills to implement such an integrated and complicated project in a scientific and professional manner.

7 Third, the establishment of a monitoring and evaluation (M&E) system will allow the EA and IAs to easily monitor project implementation progress, evaluate project impacts, disseminate best project practices, and replicate models in other places and sectors. The M&E system can also identify project success stories and showcase the best examples of value additions to promote, transfer, disseminate, and support the uptake of knowledge, technology, best practices, and reform initiatives for possible replication and/or spillover to other provinces or entities.

⁴ These supports include (i) the ADB-GEF Capacity Building to Combat Land Degradation Project and (ii) the project preparatory TA to prepare the loan of Ningxia Integrated Ecosystem and Agricultural Development Project.

⁵ Scientific approaches include bottom-up management, cross-sectoral coordination, decision making based on M&E, and adaptive technologies and methods.

8 The proposed TA will support the development of capacity to assist the NHAR government to operationalize the IEM principles that underpin the Project and government programs. It will reduce the impact of the perceived complexity of the Project and improve the capacity of the EA and IAs to practice and mainstream integrated approaches. The proposed TA will improve IEM knowledge and the capacity of the EA and IAs through learning-by-doing as they implement the Project.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

9 The impact of the TA will be an improved institutional enabling environment to manage ecosystems through integrated approaches in Ningxia. The outcome of the TA will be strengthened capacity of the EA and IAs to implement, manage, monitor, and operate the Project. The TA will support the use of increasingly coordinated decision making necessary to implement the Project and identify and widely disseminate replicable models.

B. Methodology and Key Activities

10 To support achievement of the outcome and contribute to the longer-term impact, the TA's key outputs will be (i) establishment of the coordination mechanism to support the existing lead group by clearly defining the responsibilities of the line agencies involved in loan implementation; (ii) development of training programs, training materials and training workshops for project planning, implementation, and management involving IEM principles and practices; (iii) development of expertise, knowledge products, and human resources for managing implementation and then sustaining the operation of interventions by the EA and IAs; and (iv) establishment of an M&E system to support sustainable project management by the EA and IAs.

11 Major activities under the first output will include (i) reviewing and assessing responsibilities of line agencies involved in the IEM and identifying measures to break through institutional barriers and improve coordination; (ii) preparing and delivering awareness-raising seminars and training for senior decision makers and the lead group members; (iii) holding an international workshop on integrated water resources management, particularly focusing on irrigation management in the Yinchuan Plain; and (iv) conducting an IEM study tour to the United Nations Development Programme (UNDP)/GEF IEM project in Xiamen involving member agencies of the lead group.

12 The second output will build capacity of the EA and IAs to implement the Project effectively by: (i) conducting problem tree analysis through participatory workshops to reduce the perceived complexity of the IEM approach and speed implementation of the Project; (ii) assisting the EA to coordinate IAs and the other stakeholders and prepare work plans on time for project implementation and for planning procurement, disbursement, financial management, resettlement and environmental monitoring and reporting; (iii) conducting training workshops on selected technical topics for IAs and farmers (e.g., irrigation management, wetlands conservation, biodiversity, grassland, animal husbandry, the wine industry, orchards, and marketing); (iv) delivering training workshops on operational skills for the EA and IAs in terms of ADB policies and requirements, including procurement, disbursement, financial management, resettlement, environment, and project performance management systems; and (v) designing and conducting study tours for key project staff in the EA and IAs.

13 The third output activities will include (i) identifying four to six specific research topics relating to the Project based on a needs assessment, and contracting for the agreed upon studies;⁶ (ii) developing staff exchange programs, primarily for IAs, and supporting fixed-term training for three to five staff members from selected IAs; (iii) developing both generic and sector-specific training materials; and (iv) identifying appropriate local experts to establish a pool of expertise for the development of future trainers.

14 The fourth output will develop an M&E system to help the EA manage the loan project more proactively and sustainably. NPMO and the IAs can easily use the system to document best project practices and successful modules, so as to facilitate replication of these in other regions with similar conditions, and to establish databases supporting policy making for scientific management of ecosystems. Major activities will comprise (i) designing a framework for the M&E system and establishing a baseline database, (ii) preparing briefing materials and brochures for information disclosure and dissemination, and (iii) conducting showcase workshops in the other parts of Ningxia to share project experiences and lessons.

15 The expected results and deliverables include (i) a training action plan to guide capacity building activities (e.g., workshops, seminars, training, study tours, and specific studies); (ii) a report on capacity assessment and training needs; (iii) a set of training materials, including public education publications; (iv) one international workshop on integrated water management, particularly focusing on participatory irrigation management and water use efficiency; (v) a series of training workshops on project implementation-related issues, and seminars on specific technical topics to promote understanding of IEM and its practices; (vi) study tours to visit other successful projects and approaches; (vii) a workshop to showcase lessons and experience to implement integrated projects; (viii) a dynamic M&E system that can be easily used and maintained by the EA and IAs to manage the loan project; and (viii) a pool of expertise and trainers, composed mainly of local experts.

16 Knowledge products and services (KPS) can be obtained through TA implementation. Major KPS will include seminar and/or workshop materials, study reports and/or published papers, the M&E system, and media reporting. Knowledge—including best practices, successful project stories, and replicable modules from loan design and implementation—will also be documented by the EA and IAs, and can be further shared and publicized in other areas with similar conditions. All KPS will be made available through appropriate channels. A detailed dissemination plan will be developed at the beginning phase of the TA.

C. Cost and Financing

17 The total cost of the TA is estimated at \$750,000 equivalent. ADB will finance \$600,000 on a grant basis through its TA funding program. ADB financing will cover consulting services, international and local travel, reports and communications, workshops, training and study tours, administration and support costs including translation expenses, and contingencies. The Government will finance the remaining \$150,000 equivalent, to cover the remuneration of counterpart staff, some local transport costs, the provision of office accommodation, and other logistical support costs. The detailed cost estimates are given in Appendix 2.

⁶ The research topic criteria and the methodology to select the entities to perform the research will be developed in association with the EA. The contracting of the studies will be done in accordance with ADB *Guidelines on the Use of Consultants* (2007, as amended from time to time).

D. Implementation Arrangements

18 The Ningxia Finance Department will be the Executing Agency for the TA. NPMO will cover detailed administrative tasks during the implementation period. The existing lead group will coordinate institutional and sector matters as required and ensure the TA contributes to the Project's long-term impact. The EA will ensure effective coordination between the TA and consultants to be engaged under the Project. The funds for workshops and seminars will be administered by the EA, and an advance payment facility will be considered under the TA.

19 The TA will be implemented over a period of about 36 months from May 2008 to May 2011, and will overlap with the implementation period of the Project. A detail working schedule will be developed at the inception phase. A total of 45 person-months of consulting services will be engaged under the TA, which includes 5 person-months of international consultant services and 40 person-months of national consultant services. Indicative consulting services will include (i) a domestic capacity development expert and workshop facilitator to develop the training program, conduct participatory workshops, and organize seminars, who will act as team leader and coordinate TA activities and liaise closely with ADB and the EA; (ii) an international training specialist to work with the team leader to prepare the training program, and in particular to design the international workshop on integrated water resources management; and (iii) an international and domestic monitoring and evaluation specialist to design the M&E system, including development of operational guidelines and a baseline database. Specific resource persons will be engaged on an as needed basis. Appendix 3 describes detailed terms of reference for the envisaged consulting services.

20 ADB, in consultation with the EA, will select and engage consultants in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). The consultants will be recruited on an individual basis due to (i) the range of expertise required on a short-term basis; (ii) the importance of individual qualifications and experience; and (iii) the nature of the assignments, which can be completed largely on an individual basis without the need for extra support from the consultant's home office. All consultants are required to work in Yinchuan of the NHAR during TA implementation. Reports on major milestones (i.e., inception, mid-term, and final reports) will be produced by the team leader. The other consultants will prepare reports for major events on a case-by-case basis.

IV. THE PRESIDENT'S DECISION

21 The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$600,000 on a grant basis to the Government of the People's Republic of China for Capacity Building for Integrated Ecosystem Management in Ningxia Hui Autonomous Region, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions /Risks
<p>Impact</p> <p>Improved institutional enabling environment to manage ecosystems through integrated approaches in the Ningxia Hui Autonomous Region.</p>	<p>Integrated approaches are extensively used in ecosystem management and agricultural development practices in the NIEADP area and the entire region.</p>	<p>PPR and ADB review missions</p>	<p>Assumption</p> <ul style="list-style-type: none"> • Government continues to commit integrated approaches
<p>Outcome</p> <p>Strengthened capacity of EA and IAs to implement, manage, monitor, and operate the Ningxia Integrated Ecosystem and Agricultural Development Project (the Project).</p>	<p>The Project is implemented effectively and its impacts are achieved adequately.</p>	<p>PPR and ADB review missions</p>	<p>Assumptions</p> <ul style="list-style-type: none"> • EAs and IAs actively cooperate • The Project gets strong support from governments • The Government has the resources and capacity to roll out the experience gained during the TA
<p>Outputs</p> <p>1. An effective coordination mechanism established in the existing lead group for the loan project by clearly defining the responsibilities of the line agencies involved.</p> <p>2. Training programs and training materials developed, and training workshops conducted in project design, planning, implementation, and management involving IEM principles and practices.</p> <p>3. Expertise, human resources, and knowledge products developed for managing and operating the loan project in the EA and IAs.</p>	<p>Lead group effectively coordinates institutional and sectoral issues during the Project implementation by 2008</p> <p>Lead group endorses the integrated spatial plan for Yinchuan piedmont ecosystem management, which will be carried out under the Project by 2010</p> <p>EA and IAs are familiar with ADB's policies and guidelines for procurement, disbursement, financial management, environment, and resettlement by end of 2008</p> <p>The Project is implemented smoothly. Its capacity building component is conducted effectively. The implementation schedule is achieved.</p> <p>An expertise pool is established; 3-5 staff from each IA are intensively trained as the key project staff to manage the loan project; 4-6 identified studies conducted.</p>	<p>TA progress report, feedback from workshops and study tours, KPS, and ADB review missions</p> <p>Feedback from training, workshops, and study tours, progress reports, ADB review missions, KPS, loan PPR</p> <p>ADB review missions, PPR, KPS, and training reports</p>	<p>Assumptions</p> <ul style="list-style-type: none"> • Information is made available, when needed • Government facilitates the required meetings and consultations • EA and IAs actively involved in TA activities <p>Risks</p> <ul style="list-style-type: none"> • Government is reluctant to support the integrated approaches • The Project implementation is delayed • There is a lack of ownership and support from the EA and IAs

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions /Risks
4. An M&E system developed to support sustainable project management by EAs and IAs.	The M&E system is established and the baseline data is collected and analyzed.	ADB review missions, M&E results and reports, KPS	
Activities with Milestones (Phase 1) Output 1: 1.1 Review and assess responsibilities of line agencies involved in IEM and identify measures to break through institutional barriers and improve coordination (by Dec 2008). 1.2 Prepare and deliver three awareness raising seminars and training for senior decision makers and the lead group members (one for each year). 1.3 Hold an international workshop on integrated water resources management, particularly focusing on irrigation management (Sep 2009). 1.4 Conduct an IEM study tour to the UNDP/GEF IEM project in Xiamen involving member agencies of the lead group (Nov 2008). Output 2: 2.1 Conduct participatory workshop on problem tree analysis to reduce the perceived complexity of the IEM approach and speed implementation of the Project (by June 2008); 2.2 Assist the EA in coordinating IAs and other stakeholders and prepare on-time submissions for the Project implementation, including procurement, disbursement, financial management, resettlement and environmental monitoring and reports (regularly). 2.3 Conduct training workshops for IAs and farmers concerned on selected technical topics (e.g., irrigation management, wetlands conservation, biodiversity, grassland, animal husbandry, the wine industry, orchards, and marketing) (regularly). 2.4 Conduct training workshops on operational skills for the EA and IAs with respect to ADB policies and requirements, including procurement, disbursement, financial management, resettlement, environment, and performance monitoring systems (regularly). 2.5 Design and conduct study tours for key project staff in the EA and IAs (by December 2008). Output 3: 3.1 Identify specific research topics relating to the Project, based on a needs assessment, and undertake studies on a contractual basis (by July 2010). 3.2 Develop sets of generic and sector-specific training materials (by December 2008). 3.3 Identify appropriate local experts to establish a pool of expertise and trainers (by July 2009). Output 4: 4.1 Design a framework for the M&E system and establish a baseline database (by December 2009). 4.2 Prepare brief materials and brochures for information disclosure and dissemination (by July 2010). 4.3 Conduct showcase workshops in the other parts of Ningxia to share project experiences and lessons (by December 2010).			Inputs ADB \$600,000 <ul style="list-style-type: none"> • Consultant services, 45 person-months: \$240,000 • International and local travel: \$30,000 • Reports, translation, and communications: \$30,000 • Workshops, seminars, and study tours: \$200,000 • Contractual research: \$40,000 • Administrative support: \$20,000 • Contingencies: \$40,000 Government \$150,000 <ul style="list-style-type: none"> • Office accommodation and transport: \$60,000 • Counterpart staff costs: \$50,000 • Workshops: \$20,000 • Miscellaneous local expenses: \$20,000

ADB = Asian Development Bank, GEF = Global Environment Facility, IEM = integrated ecosystem management, KPS = knowledge and services products; M&E = monitoring and evaluation, NPMO = Ningxia project management office, PPR= project performance report, PRC = People's Republic of China, TA = technical assistance, UNDP = United Nations Development Programme
 Source: ADB estimates.

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COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
A. Asian Development Bank (ADB) Financing ^a	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	100.0
ii. National Consultants	140.0
b. International and Local Travel	30.0
c. Reports, Translation, and Communications	30.0
2. Workshops, Seminars and Study Tours ^b	200.0
3. Contractual Researches ^c	40.0
4. Miscellaneous Administration and Support Costs ^d	20.0
5. Contingencies	40.0
Subtotal (A)	600.0
B. Government Financing	
1. Office Accommodation and Transport	60.0
2. Remuneration and Per Diem of Counterpart Staff	50.0
3. Others ^e	40.0
Subtotal (B)	150.0
Total	750.0

^a Financed by ADB's technical assistance funding program.

^b Includes one international workshop on integrated water resources management, three awareness-raising seminars and training for senior decision makers and the lead group members, one participatory workshop for problem tree analysis, 8-10 executing agency/implementing agency (EA/IAs) seminars, one lead-group study tour to the United Nations Development Programme/Global Environment Facility IEM project and four executing agency/implementing agency domestic study tours.

^c Includes four to six identified research topics.

^d Includes knowledge and services products dissemination.

^e Includes local costs of workshops (\$20,000), and other miscellaneous local expenses (\$20,000)

Source: ADB estimates.

TERMS OF REFERENCE FOR CONSULTANTS

A. Capacity Development Specialist/Team Leader (national, 24 person-months)

1 The team leader will be a specialist in capacity development focusing on project management. The specialist should have experience in Asian Development Bank (ADB) or World Bank-funded projects in rural and/or agricultural areas involving natural resources management, irrigation, and agro processing. He/she should be experienced in design and implementation capacity building activities to support implementation of the loan project, including training, participatory workshops, study tours, and monitoring and evaluation (M&E). The ability to work in English is required. The team leader will be responsible for overall coordination of the technical assistance (TA) assignments and will work closely with the Ningxia Finance Department (NFD) and have primary responsibility for preparing work programs, coordinating with the Ningxia project management office (NPMO) and ADB, preparing reports and submitting them on time, organizing workshops, and facilitating stakeholder consultations. The team leader's responsibilities are as follows:

- (i) Coordinating and programming TA activities. A detailed TA work program should be prepared in consultation with NFD and NPMO, including training workshops, seminars, study tours, and studies. The TA work program should be developed according to the implementation schedule for the Ningxia Integrated Ecosystem and Agricultural Development Project (the Project) through effective coordination with the consultants under the Project.
- (ii) Project management and planning. The consultant should assist the NPMO to create a common understanding among all stakeholders of the integrated ecosystem management (IEM) approach being taken by the Project. They should hold stakeholder discussions and seminars to train senior decision makers, stakeholders and/or beneficiaries, implementing agencies (IAs), sub-borrowers and NPMO project staff.
- (iii) Organizing and leading participatory problem tree analysis to fully understand any constraints to implementation of the loan project in terms of IEM features in the Project area, and identifying ways to reduce complexity and assist implementation efficiency. The analysis should cover: (a) institutional arrangements; (b) coordination of stakeholders; (c) promoting a common understanding of the Project and its intended outcome; (d) work planning, phasing and reporting; (e) public participation and awareness.
- (iv) Working with the executing agency (EA) for the TA to identify topics as needed and developing the criteria for the research topics and the methodology to select the entities to perform the research;
- (v) Preparing reports to NFD and ADB on key events, including the inception report, mid-term report, and final report.
- (vi) Assisting the NPMO to recruit consultants financed under the Project in compliance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time).
- (vii) Assisting the NPMO and sub-borrowers with procurement in compliance with ADB's *Procurement Guidelines* (2007, as amended from time to time).
- (viii) Assisting the NPMO and sub-borrowers with safeguard implementation in compliance with ADB's safeguard policies.
- (ix) Assisting the NPMO and sub-borrowers in training financial management staff with respect to loan implementation and project management.

- (x) Reviewing candidates' qualifications with NFD and shortlisting potential experts for the provincial human resources pool, and providing guidance and advice regarding expertise and working procedures, if necessary.
- (xi) Considering, on the basis of the implementation experience and in conjunction with other team members, how the results of the work can be replicated in other parts of Ningxia and elsewhere in the PRC, and making suitable proposals.

B. Training Expert (international, 2 person-months)

2. The international training expert will work with the team leader to develop the training program. The training expert will contribute in particular to the design and conduct of the proposed international workshop on integrated water resources management. He/she should be experienced in participatory approaches to conducting workshops and training. The expert can work from their home base on training program development at the outset of the TA, but will work in Ningxia for the international workshop period. The expert will document lessons from training and workshop exercises in knowledge products and services, such as best practice notes or training manuals. The responsibilities of the expert include:

- (i) Working with the capacity development specialist to advise on the training program, including training, seminars, workshops, and study tours.
- (ii) Coordinating closely with the water resources management specialists engaged under the loan project in designing and conducting the international workshop on integrated water resources management. Detailed tasks would include (a) developing the workshop agenda and the international announcement; (b) identifying international participants and preparing invitations; (c) preparing handouts and presentation materials; (d) facilitating the workshop; (e) preparing the workshop proceedings; and (f) summarizing the workshop results in terms of reporting to EA and ADB.
- (iii) Reviewing reports and documents from the training activities, if necessary.

C. Monitoring and Evaluation Specialist (international 3 person-months, national 3 person-months)

3. The M&E specialist will assist NFD to (i) develop a personal computer-based M&E system that the NPMO and implementing agencies can easily use to document best project practices and successful modules, with the goal of eventually replicating these in other regions with similar conditions; and (ii) to establish databases supporting policy making to manage ecosystems more scientifically. Detailed duties of the M&E specialist include:

- (i) Developing the M&E system, which should (a) be based on Microsoft Access and/or Excel, and (b) be supported with the baseline database from the loan implementation practices.
- (ii) Coordinating with the working group for the NIEADP performance monitoring system (PPMS) under the Project to ensure critical indicators and criteria of the M&E system are consistent with the PPMS, and to allow data sharing between the two systems, if necessary.
- (iii) Developing operational manuals on use of the M&E system for managing databases, analysis, and output production (e.g., for modules, best practices, and specific sets of data) for the IAs and NPMO project management staff.
- (iv) Conducting preliminary workshops to introduce and train the IAs and NPMO in the use and management of the M&E system, based on the operational manuals.

- (v) Preparing presentation materials as necessary to publicize the framework of the M&E system via technical journals, workshops, and/or other channels.
- (vi) Preparing reports to NFD and ADB for key events.

D. Miscellaneous Experts and Resource Persons (national, 13 person-months)

4. Unallocated resources will allow flexible arrangements for additional expert input during the TA period, mainly to access expertise in ADB's operational policies for project management, procurement, disbursement, financial management, and environmental, resettlement and social safeguards. Engagements will be determined based on needs, and considering inputs from consulting services under the Project. Candidates can be directly accessed from the Operational Capacity Building and Value Addition TA through award of additional contracts, if necessary.⁷

¹ ADB. 2007. *Technical Assistance to the People's Republic of China on Operational Capacity Building and Value Addition*. Manila. The TA aims to strengthen the capacity of EAs and IAs to plan, design, implement, manage, monitor, and operate ADB-financed projects. The TA will help streamline project implementation procedures and disseminate, selectively transfer, share, and take up knowledge, technology, best practices and/or reform initiatives achieved through successful implementation of ADB-financed projects. Various experts will be engaged to deliver training for EAs and IAs.