



## Global Environment Facility

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May 25, 2004

Dear Council Member,

The ADB, as the Executing Agency for the project, ***China: PRC/GEF Partnership on Land Degradation in Dryland Ecosystems: Project I on Strengthening the Enabling Environment and Building Institutional Capacity***, has submitted the attached proposed project document for CEO endorsement prior to final approval of the project document in accordance with the ADB procedures.

The Secretariat has reviewed the project document. It is consistent with the proposal approved by the Council in October 2002, and the proposed project remains consistent with the Instrument and GEF policies and procedures. The attached explanation prepared by the ADB satisfactorily details how Council's comments and those of the STAP have been addressed. I am, therefore, endorsing the project document.

We have today posted the proposed project document on the GEF website at [www.gefweb.org](http://www.gefweb.org). If you do not have access to the Web, you may request the local field office of the World Bank or UNDP to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,

*for* Leonard Good  
Chief Executive Officer and Chairman

cc: Alternate, Implementing Agencies, STAP



## ASIAN DEVELOPMENT BANK

19 May 2004

Mr. Leonard Good  
Chief Executive Officer and Chairman  
Global Environment Facility  
1818H Street, NW  
Washington D.D. 20433  
U.S.A.

Dear Mr. Good,

**CEO Endorsement of ADB/GEF Capacity Building to Combat Land Degradation  
Project in the Peoples Republic of China (PRC)**

I am submitting this letter to seek GEF CEO endorsement of the ADB/GEF Capacity Building to Combat Land Degradation Project (the Project) in the People's Republic of China (PRC). The GEF Secretariat approved the inclusion of the Project within the GEF pipeline on 28 March 2001. The GEF Council, at its 15 October 2002 Session, approved a GEF grant of \$7.7 million to cofinance the Project at a total cost of \$15 million, of which \$1 million will be financed by an ADB TA. The Project was appraised and the attached Project document (Cover Note, Project Executive Summary, and Financial Arrangement) and grant negotiations with the Government were finalized on 22 April 2004. The Project is the first ADB/GEF project under the PRC-GEF Partnership on Land Degradation in Dryland Ecosystems, a long-term country programming framework (CPF) for \$150 million of GEF finance over the period 2003–2012 that was also approved by the GEF Council at the October 2002 meeting.

The Project final documentation complies with ADB/GEF reviews held at pipeline entry in March 2001 and at work program submission in August 2002. In addition, the GEF Secretariat has had the opportunity for close involvement in the process of formulating the CPF and the Project, including participation in workshops and informal reviews of draft documentation, and this has been greatly appreciated. In addition, written comments were received from the Council Members from Germany and Switzerland after the October 2002 Council Meeting. The final Project documentation addresses the issues raised by Council Members and a summary of the response is provided in Annex C of the Project Executive Summary.

We look forward to receiving your final endorsement of the GEF grant of \$7.7 million so that ADB can proceed to seek Board approval for the Project, which has been scheduled for 24 June 2004.

Sincerely yours,



Nessim J. Ahmad  
Director  
Environment and Social Safeguard Division  
Regional and Sustainable Development  
Department

cc: Mr. M. Touré, GEF Secretariat  
Mr. W. Lusigi, GEF Secretariat

## ADB/GEF PROJECT COVER PAGE

### 1. IDENTIFIERS

**Project Number:** 956  
**Project Name:** PRC: Capacity Building to Combat Land Degradation Project  
**Implementing Agency:** World Bank  
**Executing Agency:** Asian Development Bank (ADB)  
**National Executing Agency:** State Forestry Administration (SFA), PRC  
**National Implementing Agencies:** National Development and Reform Commission, Ministry of Finance (MOF), Ministry of Science and Technology, Ministry of Agriculture, Ministry of Water Resources, Ministry of Land and Resources, State Environmental Protection Administration, Chinese Academy of Sciences, Legislative Work Committee of the National People's Congress, and Legislative Affairs Office of the State Council.  
**Requesting Country:** People's Republic of China (PRC)  
**Eligibility:** The PRC is a party to UNCBD, UNCCD and UNFCCC  
**GEF Focal Area(s):** Multi-focal Area/ OP12  
**GEF Programming Framework:** OP12: Integrated Ecosystem Management

**2. SUMMARY.** The PRC-GEF Partnership on Land Degradation in Dryland Ecosystems 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. The investments envisaged in the 10-year CPF are estimated at about \$1.5 billion, of which GEF will provide \$150.0 million in grant assistance. The proposed Project is the first of a series of interventions planned under the CPF. It aims at strengthening the enabling environment and building institutional capacity for the integrated ecosystem management of drylands in six priority provinces and autonomous regions (Gansu, Inner Mongolia, Ningxia Hui, Qinghai, Shaanxi, and Xinjiang Uygur).

### 3. COSTS AND FINANCING

**GEF:** US\$7.70 million

**CO-FINANCING:** ADB: US\$1.00 million, Government: US\$6.30 million

**TOTAL PROJECT COSTS: US\$15.00 million**

### 4. OPERATIONAL FOCAL POINT ENDORSEMENT

Name: Mr. Yang Jinlin  
Organization: MOF

Title: GEF Operational Focal Point  
Date: 1 August 2002

### 5. ADB CONTACT

Name: Bruce Carrad, Principal Project Specialist, East and Central Asia Department,  
ADB

Telephone: 86-10-6642 6601

e-mail: bcarrad@adb.org



## PROJECT EXECUTIVE SUMMARY

### GEF COUNCIL WORK PROGRAM SUBMISSION

**AGENCY'S PROJECT ID:**

**COUNTRY:** People's Republic of China

**PROJECT TITLE:** PRC-GEF Partnership on Land Degradation in Dryland Ecosystems: Project 1, Capacity Building to Combat Land Degradation

**GEF AGENCY:** Asian Development Bank (ADB)

**OTHER EXECUTING AGENCY(IES):** STATE

**FORESTRY ADMINISTRATION (SFA)**

**(COORDINATED BY MINISTRY OF FINANCE (MOF)) PRC**

**DURATION:** 4 Years

**GEF FOCAL AREA:** Multi-focal Area/OP12

**GEF OPERATIONAL PROGRAM:** OP 12 -

Integrated Approach to Ecosystem Management

**GEF STRATEGIC PRIORITY:** CAPACITY BUILDING, SUSTAINABLE LAND MANAGEMENT, INTEGRATED APPROACH TO ECOSYSTEM MANAGEMENT

**ESTIMATED STARTING DATE:** July 2004

**IA FEE:**

FINANCING PLAN (US\$)	
GEF PROJECT/COMPONENT	
Project	7,700,000
PDF A	
PDF B	
PDF C	
<b>Sub-Total GEF</b>	7,700,000
<b>Co-FINANCING*ADB, \$1,000,000; GOVERNMENT, \$6,300,000</b>	
GEF Agency	
Others	
<b>Sub-Total Co-financing:</b>	7,300,000
<b>Total Project Financing:</b>	15,000,000
<b>FINANCING FOR ASSOCIATED ACTIVITIES IF ANY:</b>	
<b>ADB'S TA IS AN ASSOCIATED ACTIVITY, SHOWN SEPARATELY IN THE ADB PROJECT DOCUMENT</b>	
<b>LEVERAGED RESOURCES IF ANY:</b>	

**CONTRIBUTION TO KEY INDICATORS OF THE BUSINESS PLAN:**

\*Details provided under the Financial Modality and Cost Effectiveness section

**RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT(S):**

*Mr Yang Jinlin, GEF Operational Focal Point, Date: 1st August 2002*  
*Ministry of Finance (MOF)*

Approved on behalf of the ADB. This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for work program inclusion

Daniele Ponzi  
 IA/ExA Coordinator  
 Date: May 17, 2004

Bruce Carrad  
 Project Contact Person  
 Tel. and email: 8610 6601 ext 245;  
 bcarrad@adb.org

## PROJECT SUMMARY

- a) Project rationale, objectives, outputs, and activities. Drylands occupy 40% of the PRC's land area, and are home to over 100 million people. These areas have been extensively affected by land degradation (LD), with severe economic, social and ecological consequences, especially for the rural poor and ethnic minorities who inhabit the western region. Dust and sandstorms, originating within the drylands, adversely impact life and infrastructure within and outside the country's borders. Previous policies and poor land use practices are the primary causes of LD and the Government wishes to adopt a more integrated approach. The project objective is to assist the Government in combating LD, reducing poverty and restoring dryland ecosystems through strengthening the enabling environment, and developing institutional capacity. Key outputs include: (i) an improved policy and regulatory framework for combating LD; (ii) improved national and provincial institutional coordination mechanisms, and strengthened capacity, for strategic integrated ecosystem management (IEM) planning; (iii) improved provincial and county level operational arrangements for field level LD control; (iv) developing a provincial capacity for formulating LD control investment projects; (v) improved institutional coordination, and validated data collection methods, for monitoring and assessing LD; and (vi) effective country programme framework (CPF) implementation arrangements established. Key activities include: (i) reviewing and revising the legal and policy instruments for effective management; (ii) developing national and provincial institutional coordination mechanisms, and capacity, for strategic IEM planning; (iii) building provincial and county level capacity to facilitate community-based LD control plans; (iv) creating a provincial capacity to design LD control investment projects; (v) developing a national network mechanism for sharing the collection and analysis of national LD data sets, and building local capacity for comprehensive monitoring and assessment of LD within the drylands; and (vi) Partnership Coordination Office (PCO in MOF) and Project Management Office (PMO in SFA) at central and selected provincial/regional levels to implement the CPF.
- b) Key indicators, assumptions, and risks (from Logframe) Performance indicators include: (i) greater understanding of the root causes of LD. Introduction of IEM, including tools based on best practices and appropriate adaptive research; (ii) a more coherent, consistent and responsive framework of policies, legislation, regulations and procedures, including incentives for investment in combating LD; (iii) 11th Five-Year Development Plan (FYP, 2006–2010) will reflect a more integrated approach, including greater harmonization of sectoral plans and government budgets; (iv) improved administrative capacity, including enhanced coordination inside government and with other stakeholders; (v) local-level strategic plans for combating LD operational in six provinces/areas, including institutional arrangements, increased budgets and participatory processes; (vi) an effective and harmonized system of

land and ecosystem monitoring and evaluation system (M & E) in place; (vii) effective cofinancing mechanism for LD, bringing greater coordination and feedback between government and donors. The above primary impacts will lead to longer term gains from IEM investments under the CPF, and in turn lead to global benefits in terms of biological diversity conservation, reduction in the frequency and severity of dust and sand storms, and carbon sequestration. Key assumptions and risks are: (i) high-level central and provincial government commitment to an integrated approach; (ii) Steering Committee effectively coordinates the participating agencies and provinces; (iii) willingness to implement recommended reforms and coordinating mechanisms and agreed targets; and (iv) sustained donor commitment.

## **2. COUNTRY OWNERSHIP**

### **a) COUNTRY ELIGIBILITY**

The PRC is a party to UNCBD, UNCCD and UNFCCC.

### **b) COUNTRY DRIVENNESS**

The design of the project has been guided by a high level Steering Committee, chaired by Madam Jiang Zehui of the Peoples' Political Consultative Conference, and representing all the concerned major PRC government agencies. Given the multi-agency nature of the proposed activities and the direct link to the Western Development Strategy (WDS), the Steering Committee coordinates the eleven main agencies, comprising senior representatives from the National Development and Reform Commission, MOF, Ministry of Agriculture, Ministry of Water Resources, Ministry of Land and Resources, State Environmental Protection Administration, Chinese Academy of Sciences, SFA, Ministry of Science and Technology, Legislative Work Committee of the National People's Congress and the Legislative Affairs Office of the State Council.

MOF has played a major role in initiating and developing the CPF over the past three years, and will continue to supervise and financially support the implementation of Project 1. MOF's support ensures (i) a multi-sectoral overview which is essential for an IEM approach and which is difficult for SFA (or any other sector agency) to achieve; (ii) a focus on budget efficiency to ensure future cost-effectiveness and reduced duplication of expenditures by sector agencies; and (iii) a focus on the incentive structure, market-oriented reforms and institutional capacities needed for sustainable LD solutions. MOF will supervise SFA in its role as EA for the project to ensure a successful outcome.

The central and provincial PCO and PMOs have been actively involved in project formulation, and have jointly developed and reviewed the proposed component activities. Each of the participating provinces and autonomous regions (Xinjiang, Qinghai, Ningxia, Shaanxi, Gansu and Inner Mongolia) contributed province-specific proposals and these have guided the formulation of the overall project component activities at the local level. The Vice-Governors of each of the 6 provinces/regions for phase 1 of the CPF have given assurances of full cooperation as well as logistical and financial support. The provincial/regional leaders have endorsed developing a fully coordinated approach to LD control under the forthcoming 11<sup>th</sup> FYP, and welcome future LD investment projects following IEM principles.

The project responds to the PRC's land and natural resource management objectives, as outlined in its 10<sup>th</sup> Five Year Plan (FYP), as well as the objectives of the Government's Western Development Strategy and sectoral programs. It supports the Government's commitment to harmonize sectoral FYPs and rationalize budget expenditures to more effectively combat LD during the 11<sup>th</sup> FYP. It is consistent with the PRC's National Action Program to Combat Desertification (NAP); during Project 1, the NAP will be harmonized with the Partnership to develop a more comprehensive national approach.



### **3. PROGRAM AND POLICY CONFORMITY**

#### **a) FIT TO GEF OPERATIONAL PROGRAM AND STRATEGIC PRIORITY**

The project is consistent with the GEF Operational Strategy and specifically Operational Program 12: Integrated Ecosystem Management. The project is expected to lead to the progressive mainstreaming of global environmental objectives within the Western Development Strategy and the 11<sup>th</sup> Five-Year Development Plans. It is consistent with the GEF programmatic approach. LD control within the 6 participating provinces/regions will yield multiple benefits at local, national and global levels. In conformity with OP12 these benefits will cover multiple focal areas, notably biodiversity and carbon sequestration, as well as sustainably combating LD.

#### **b) SUSTAINABILITY (INCLUDING FINANCIAL SUSTAINABILITY)**

Strengthening the enabling environment and addressing the constraints to effective operational arrangements is the first priority for eventually overcoming LD. The adoption of an IEM approach will yield significant local, national and global benefits and, if well implemented, will provide incentives to stakeholders to continue the activities after project completion. Mainstreaming global environmental objectives within national and provincial development planning and budgetary systems will diminish the need for GEF and other external resources over time.

#### **c) REPLICABILITY**

The project is targeted at the need to develop potentially replicable responses to LD in representative priority dryland ecosystems. Establishing effective enabling policies and legislative instruments, and multi-sectoral institutional coordination mechanisms, are the keys to replicating project activities within the western region. Regular reviews and sharing of information on project experience will enabling the lessons learnt to be shared not only within the PRC and through the UNCCD networks with other countries facing similar dryland degradation problems.

#### **d) STAKEHOLDER INVOLVEMENT**

Extensive consultations on design have been held with all key institutions at the national and provincial levels, including field visits to potential project pilot/demonstration sites. Stakeholder consultations have included government administrative and technical agencies, donor organisations, NGOs and the private sector, as well as informal consultations with representative land users. Further regular stakeholder consultation exercises have been included in each of the component activities as a way of building consensus agreement on what needs to be done to address the problems of dryland ecosystem degradation.

#### **e) MONITORING AND EVALUATION**

A monitoring and evaluation system will be developed to monitor the progress of the project. This will include documentation on project implementation information for application into existing or proposed LD prevention and control projects. The project will be responsible for helping the PCO to set up a learning and adaptive management system to incorporate feedback from field experience and reforms and additional information as it becomes available. This will then be used to inform, modify and refine the program as it develops. This will be linked to an information collection and dissemination process to improve coordination and raise awareness of program-related issues.

#### 4. FINANCIAL MODALITY AND COST EFFECTIVENESS

The total cost of the project is estimated to be \$15,000,000 equivalent, of which \$2,652,900 will be in foreign exchange and \$ 12,347,100 equivalent in local currency. GEF grant financing will be administered by ADB in an amount of \$7,700,000 of which \$2,145,400 will be in foreign exchange and \$5,554,600 equivalent in local currency. ADB will contribute \$1,000,000 equivalent to cover \$507,500 of the foreign exchange cost and \$492,500 equivalent of the local currency costs, financed on a grant basis by the ADB-funded TA Special Fund. The Government will contribute the balance of the local currency cost of \$6,300,000 to cover remuneration and per diem of counterpart staff, office accommodation and supplies, local transport and communications, workshops and surveys and studies. A financial incentive for full and early compliance by provinces/regions will come from project contingencies (10% of base costs).

Cost effectiveness will be achieved through (i) an emphasis on reducing the overlaps and duplications in existing sector budgets. MOF has stressed that the recent high growth rate of national expenditures on LD control is unsustainable (a financial incentive for an IEM approach exists); (ii) mainstreaming of previously identified (but isolated) successes in LD control in the PRC, improving the chances of overall success; (iii) maximizing use of international best practices in integrated approaches to dryland ecosystem rehabilitation and monitoring/evaluation systems (e.g., from Australia, USA and Canada, and UN-supported international programs); (iv) working collaboratively to develop ecosystem zoning (e.g. with SEPA); and (v) maximizing use of local consultants, local knowledge, networking, and carefully selected use of international consultants and relevant international/bilateral agency expertise and experience.

Co-financing Sources				
Name of Co-financier (source)	Classification	Type	Amount (US\$)	Status*
ADB	ODA	TA	1,000,000	For Board approval, June 2004
Government	Budget	Budget	3,250,000	Approved
Government	Budget	In-kind	3,050,000	Approved
Sub-Total Co-financing			7,300,000	

\* Reflect the status of discussion with co-financiers. If there are any letters with expressions of interest or commitment, please attach them.

## **5. INSTITUTIONAL COORDINATION AND SUPPORT**

### **a) CORE COMMITMENTS AND LINKAGES**

### **b) CONSULTATION, COORDINATION AND COLLABORATION BETWEEN IAS, AND IAS AND EXAS, IF APPROPRIATE.**

The Gansu and Xinjiang Pastoral Development Project (World Bank-financed and due for approval in late 2003) will be the first loan financed investment project under the Partnership. ADB has programmed several project preparation TAs and subsequent loans in its Country Strategy and Program in 2004-2006. The International Fund for Agricultural Development has submitted a proposal for inclusion, and other donors have expressed interest in supporting the Partnership, once cofinancing modalities for these investments become clearer. Close donor coordination, including with the Global Mechanism to Combat Desertification, will continue to be a feature of the CPF.

### **c) PROJECT IMPLEMENTATION ARRANGEMENT**

The Executing Agency (EA) will be SFA, which has already set up a PMO headed by a full-time Project Manager. Staff representing all participating central agencies will join the PMO to ensure multi-sector coordination. The project will receive guidance at a senior level through the existing Steering Committee that will continue to coordinate the eleven key agencies (see section 2 (b)). The Steering Committee will meet each six months, or as appropriate. Important functions will be approval of the annual work program and annual report. Four advisory groups (policy and legal framework, LD monitoring and evaluation, institutional coordination and IEM) will assist the Steering Committee. The PCO in MOF will coordinate activities between the central agencies and respective provincial/regional governments and be responsible for overall TA overview, direction and monitoring, liaison with GEF and donor coordination. At province/regional level a flexible approach will be needed, under the overall responsibility of the respective Finance Bureau (provincial PCO), reporting to the Vice-Governor. Interagency groups (environment, forestry, soil and water conservation, agriculture) may be established at the county level to oversee field level implementation. The central PCO and PMO will share common office facilities in Beijing. At the provincial/regional level the PMO will be in the Forestry Bureau. A comprehensive joint review will be undertaken 12 months after the project starts and future implementation will be directed by its findings. All six components will start in July 2004 and be completed in July 2008; flexibility will be needed based on joint reviews of progress. The PCO & PMO will jointly submit an annual work plan and annual reports to be reviewed in annual meetings with the Steering Committee, GEF and ADB, and will be jointly responsible for the final report.

GEF will finance the services of 22 person-months of international consultants and 187 person-months of domestic consultants (Appendix 10). The consultants will advise the PCO, PMO and the three Advisory Groups in the areas of environmental law, natural resources economics, planning, participatory approaches, farmer field schools, geographical information systems and IEM project design. All consultants will be required to prepare specific reports based on the activities, and will assist, as appropriate, in the implementation of studies, workshops/seminars/meetings and training, under components 1 to 5. Consultants will be recruited through international and domestic

firms, and other suitable organizations, e.g., universities, research agencies, nongovernment organizations, or other specialized organizations. Individual specialists may be recruited on the basis of technical expertise. To the extent possible, procurement will be on the basis of competitive procedures. Under exceptional circumstances, where service providers are limited, direct selection may be applied, with the prior approval of ADB. Consultants will be recruited in accordance with ADB's Guidelines on the Use of Consultants and other arrangements satisfactory to ADB for engaging individual domestic consultants.

The objectives of the associated ADB-financed TA are to monitor the implementation of the overall CPF and to assist in implementation of the project. Key outputs will be advice, reports and recommendations on (i) "best practices" for IEM approaches to combating LD, including setting up an IEM expert group of domestic experts to promote networking amongst PRC scientists, researchers, and organizations and advise on project implementation; (ii) results of past LD interventions; (iii) planning of studies, workshops, seminars, and training programs; (iv) international scientific links to ongoing LD-relevant programs and projects; (v) identification of relevant projects and programs in the PRC and overseas; and (vii) compliance with appropriate ADB safeguard policies, including an indigenous peoples plan. The total cost of the TA is estimated at \$1,000,000, comprising foreign exchange of about \$507,500 and local currency of \$492,500 equivalent; Government will provide \$200,000 as counterpart funds. ADB's TA will be implemented over 36 months, and will finance 19 p-m of international and 103 p-m of domestic expertise. Consulting services will relate to monitoring and priority areas where international and national "best practices" will assist implementation (especially environmental law and policy, LD assessment, planning, and management). The EA will be the MOF, as the EA for the overall CPF. Consultants will be recruited in accordance with ADB's Guidelines on the Use of Consultants and other arrangements satisfactory to ADB for engaging individual domestic consultants. See Appendix 11, Project Document.

## Annex A: PROJECT INCREMENTAL COST MATRIX

### Incremental Costs and Global Environmental Benefits

Project	Baseline (B)	Alternative (A)	Increment (A-B)
<b>Component Output 1</b>			
<u>Policy, legal and regulatory framework improved</u>	<p>Outputs include:</p> <ul style="list-style-type: none"> <li>National and sector level policies on dryland degradation (LD) reviewed and harmonized.</li> <li>Improved quality of environmental laws and regulations, especially in six provinces/regions.</li> <li>Improved legal staff capacity, especially in six provinces/regions.</li> <li>More location-specific attention to land rights, ethnic minorities, participatory processes, ecosystem zoning, etc.</li> </ul>	<p>Outputs to ensure global benefits are:</p> <ul style="list-style-type: none"> <li>An enabling administrative, policy and legislative environment that promotes integrated ecosystem management (IEM) at regional, provincial/area and local levels.</li> <li>More logical linkages between policies and legislation.</li> <li>Improved incentives and market-based instruments to encourage private sector involvement.</li> </ul>	
<b>Global Environmental Benefits</b>	Global benefits will result from the strategic planning and legislative changes, but there would be missed opportunities for a comprehensive review of the current situation and actions that will target potential global benefits.	The component is based on current 'best practice' international environmental law and policy standards, principles and procedures that are outlined in current global strategies for the effective control of LD. <sup>1</sup> It offers a practical application of an approach for dryland regions and countries to follow and meet the national objectives and obligations of international commitments under conventions on Desertification (CCD), Biodiversity (BDC) and the UN Framework Convention on Climate Change. Increased integration of legal and institutional issues relating to LD into national policy and legislation. Improved regulatory conditions for IEM projects to combat LD, reduce dust storms, rehabilitate ecosystems, facilitate carbon capture, and conserve globally significant biodiversity.	
<b>Domestic Benefits</b>	Improved enabling environment and achievement of a consistent legal framework to address LD and reduce poverty in dryland areas.	Legal systems and institutions in six provinces/regions are significantly upgraded. Improvements in (i) institutional capacity; (ii) legal procedures/mechanisms; and (iii) quality of policy and regulatory advice.	
<b>Cost (\$ million)</b>	0.829	1.626	0.796
<b>Component Output 2</b>			
<u>National and provincial institutional coordination</u>	<p>Outputs include:</p> <ul style="list-style-type: none"> <li>Improved intersectoral coordination in six provinces/regions.</li> <li>Improved ecological knowledge and</li> </ul>	<p>Outputs to ensure global benefits are:</p> <ul style="list-style-type: none"> <li>Planning mechanisms set up for coordinating LD investments under 11th Five-Year Plan (FYP)</li> </ul>	

<sup>1</sup> See *Policy Issues: State of the Environment – UNEP's Policy on Land and Soil*, GMEF (UNEP/GC.21/INF/13, 4 January 2001); Proceedings of Pre-WSSD Environmental Law Conference, 2002, University of Natal, Pietermaritzburg, South Africa; H. Hurni and K. Meyer, *World Soils Agenda* (Geographica Bernensia on behalf of the International Union of Soil Sciences, 2002); Report on World Summit on Sustainable Development Johannesburg Declaration of the World Summit on Sustainable Development (A/CONF.199/20, 4 September 2002).

Project	Baseline (B)	Alternative (A)	Increment (A-B)
<i>strengthened</i>	<p>understanding of the IEM approach.</p> <ul style="list-style-type: none"> <li>Improved private sector involvement.</li> </ul>	<p>11th Five-Year Plan (FYP)</p> <ul style="list-style-type: none"> <li>PRC/GEF Partnership, CCD-National Action Plan (NAP), BCAP and related action plans are better integrated.</li> <li>11th FYP harmonizes sectoral plans and rationalizes budgets and expenditures; adopts IEM approach.</li> <li>Increased private sector involvement in combating LD.</li> </ul>	
<b>Global Environmental Benefits</b>	Global benefits will result from improved coordination and revised CCD-NAP, BCAP, and other action plans, but there are missed opportunities for fully integrated approaches that will target potential global benefits.	11th FFYP plan reflects a comprehensive and strategic approach to LD in each province/region. Enhanced possibility of developing IEM investment projects that effectively address LD, facilitate carbon capture, and strengthen globally significant biodiversity conservation. Integration of private sector opportunities into overall development process. A high-level cross-linking mechanism is established for interagency cooperation and collaboration on LD.	
<b>Domestic Benefits</b>	Improved planning results in increased efficiency in resource allocation, while improved intersectoral integration improves efficiency of resource use.	Improved and more effective allocation of resources, integrated approach leads to less duplication and overlap across sector agencies, and greater cooperation between provinces/regions. Improved sustainability of LD control activities.	
<b>Cost (\$ million)</b>	0.944	1.636	0.692
<b>Component Output 3</b>			
<i>Field level LD control</i>	<p>Outputs include:</p> <ul style="list-style-type: none"> <li>Local level strategic framework in place</li> <li>Local level strategic plans implemented in six provinces.</li> <li>Stakeholder involvement at local level.</li> <li>Participatory processes operational.</li> </ul>	<p>Outputs to ensure global benefits are:</p> <ul style="list-style-type: none"> <li>Plans supported by adequate budget provisions at provincial and county level.</li> <li>Institutional arrangements for stakeholder involvement in place at local level.</li> <li>Participatory processes adopted at local level as part of integrated approaches</li> </ul>	
<b>Global Environmental Benefits</b>	Some global benefits will result from the adoption of IEM approaches, but there are missed opportunities for comprehensive evaluation of the global benefits through the IEM approach	Global benefits are better demonstrated through integrated natural resource management, particularly with respect to controlling LD, facilitating carbon capture, and biodiversity conservation. Increased staff and farmer/herder awareness of the long-term gains to be had from sustainable development. Pilot approaches are more readily scaled up within Government's overall programs.	
<b>Domestic Benefits</b>	Strengthened institutional capacity at provincial and county level to plan and implement integrated natural resources management projects aimed at land degradation control.	Improved and more effective allocation of resources, integrated approach leads to less duplication and overlap across sector agencies, LD control activities more sustainable. Enhanced capacity to implement integrated natural resources management projects.	
<b>Cost (\$ million)</b>	2.429	4.299	1.870

Project	Baseline (B)	Alternative (A)	Increment (A-B)
<b>Component Output 4</b>			
<u>Improved capacity for integrated ecosystem management projects</u>	<p>Outputs include:</p> <ul style="list-style-type: none"> <li>Operational guidelines, manuals and procedures adopted, reflecting best practices.</li> <li>Provincial and local agencies capable of identifying, formulating and implementing IEM investment projects.</li> </ul>	<p>Outputs to ensure global benefits are generated will include:</p> <ul style="list-style-type: none"> <li>Improved knowledge base on IEM.</li> <li>Adaptive management incorporated into research and operational programs.</li> <li>Cofinancing arrangements are improved to provide the basis for greater concessional assistance to LD in drylands.</li> <li>IEM investment projects are designed taking into account the best practices in the PRC and overseas, and results of impacts of previous LD interventions at provincial level.</li> </ul>	
<b>Global Environmental Benefits</b>	Some global benefits will result from the adoption of best practices and improved capacity of local agencies, but missed opportunities for a comprehensive evaluation of global benefits of IEM.	Increased awareness of best practices and the global benefits of integrated natural resource management particularly with respect to controlling LD, facilitating carbon capture, and biodiversity conservation. IEM investment projects are identified for each province/region	
<b>Domestic Benefits</b>	Improved capacity at provincial and local levels to plan and implement integrated natural resources management projects aimed at land degradation control. Enhanced capacity to further develop integrated natural resources management projects.	Improved and more effective allocation of resources, LD control activities are more sustainable. Increased international awareness of and cooperation in control of LD. Lessons learned from international experience.	
<b>Cost (\$ million)</b>	0.459	1.073	0.614
<b>Component Output 5</b>			
<u>Monitoring and evaluation system operational</u>	<p>Outputs include:</p> <ul style="list-style-type: none"> <li>More coherent monitoring system in place</li> <li>National system of indicators (biophysical and socioeconomic) adopted and applied.</li> <li>Improved monitoring methodologies adopted.</li> </ul>	<p>Outputs to ensure global benefits are generated will include:</p> <ul style="list-style-type: none"> <li>Cross-sectoral/inter-agency network for monitoring operational.</li> <li>Network of monitoring sites established.</li> <li>Data and information dissemination process operational</li> <li>Use is made of international LD assessment programs and methodologies (e.g. FAO's LADA program in the PRC)</li> </ul>	
<b>Global Environmental Benefits</b>	Limited global benefits through sector-specific approaches to monitoring and evaluation of LD. Less data availability on, biodiversity and carbon capture information for policy-making and investment decisions.	Improved international awareness of LD status and trends in the PRC, resulting from improved data sharing, cooperation between agencies and agreed LD indicators. Accurate information on globally significant indicators available for decision makers, policy development and study by international organizations. Increased state of knowledge regarding ecosystems and sustainable development in western PRC.	
<b>Domestic Benefits</b>	High quality information can be used for extensive national debate on LD, biodiversity and carbon capture.	Improved acceptance of LD information for decision-making. Investment projects more accurately defined due to access	

Project	Baseline (B)	Alternative (A)	Increment (A-B)
	Improved inter-agency cooperation. Development of a shared information system and national reporting system with more reliable indicators.	to more accurate land degradation information. Management and technical staff use improved methodologies.	
<b>Cost (\$ million)</b>	0.931	3.033	2.102
<b>Component Output 6</b>			
<u>Program implementation arrangements</u>	Outputs include: <ul style="list-style-type: none"> <li>• PRC/GEF Coordination Office operational</li> <li>• Improved donor coordination</li> <li>• Monitoring and Evaluation system in place</li> <li>• Improved knowledge base and dissemination of information</li> </ul>	Outputs to ensure global benefits are generated will include: <ul style="list-style-type: none"> <li>• Donor projects incorporate global benefits to a greater degree</li> <li>• Donor projects more effectively coordinated</li> <li>• Improved knowledge base on integrated approaches</li> <li>• Coordination of aid donors results in greater availability of concessional finance for LD investments in dryland areas</li> </ul>	
<b>Global Environmental Benefits</b>	Some global benefits through raising the profile of global environmental issues and improved donor coordination	Development of Monitoring and Evaluation system includes learning and adaptive management to enhance timely implementation. Monitoring of the CPF. Improved cooperation and information sharing between major agencies in PRC results in long term gains in efficiency and effectiveness of LD investments and budget expenditures. Donor coordination leads to additional concessional financing for combating LD with greater likelihood of eventual significant global impacts.	
<b>Domestic Benefits</b>	Coordination Office situated in MOF has strong coordinating function that can influence the direction of Government and donor programs and projects	Increased communications and dissemination of information will support increased number of improved initiatives and provide public support for integrated approaches	
<b>Cost (\$ million)</b>	1.707	3.332	1.625
<b>TOTAL (\$ million)</b>	7.3	15.0 (inclusive of ADB's TA)	7.7



## Annex B: PROJECT LOGICAL FRAMEWORK

Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
<b>A. Goal</b>			
Combating land degradation (LD), reducing poverty, and conserving biodiversity in selected provinces and autonomous regions of the People's Republic of China (PRC).	<ul style="list-style-type: none"> <li>An enabling administrative, policy, and legislative environment to promote integrated ecosystem management (IEM) in key provinces/regions.</li> <li>Sustainable practices (decision making, administration, and land use management) that are ecologically sound, socially acceptable, and economically viable.</li> <li>Stakeholder participation and use of community-based and sustainable approaches to improved land use decision making, land management practices, and reducing poverty.</li> <li>International commitments met under conventions on desertification, biodiversity, and the United Nations Framework Convention on Climate Change.</li> <li>Over the longer term, local benefits will result from sustainable use of land, water, and forest resources in selected ecoregions, and global benefits will include biodiversity conservation, increased carbon capture, and reduced frequency and severity of sand and dust storms.</li> </ul>	<p>Reports on IEM reforms involving 11 major agencies, and six provinces/regions.</p> <p>Reports on institutional capacity and land use management in project areas.</p> <p>Community-based participatory approaches are established in selected project areas.</p> <p>Country reports under international conventions.</p> <p>Longer term regionwide land, socioeconomic, ecological, and biodiversity surveys. IEM investments in project areas in medium-term under the OP12 Country Programming Framework (CPF, 2003–2012)</p>	<p>High-level Government commitment, at central and all local levels, to better coordination between agencies and an IEM approach to combating LD.</p> <p>Baseline funding can be secured from budget allocations and other sources (e.g., loans and grants).</p> <p>Implementation capacity exists in provincial and local governments.</p> <p>Results of policy, legislative, and institutional reforms are implemented in time to influence the effective implementation of IEM demonstration projects under CPF, 2003–2012.</p>
<b>B. Purpose/Objective</b>			
Strengthening the enabling environment and developing institutional capacity for LD control.	<ul style="list-style-type: none"> <li>Greater understanding of the root causes of LD.</li> <li>Introduction of IEM, including tools based on best practices and appropriate adaptive research.</li> <li>A more coherent, consistent, and responsive framework of policies, legislation, regulations, and procedures, including incentives for investment in combating LD.</li> <li>11th Five-Year Development Plan (FYP, 2006–2010) will reflect a more integrated approach, including greater harmonization of sectoral plans and government budgets.</li> <li>Improved administrative capacity, including enhanced coordination inside government and with other stakeholders.</li> <li>Local-level strategic plans for combating LD operations in six provinces/areas, including institutional arrangements, increased budgets, and</li> </ul>	<p>Project reports, including international workshop on IEM.</p> <p>Revised policies, laws, and regulations .</p> <p>National and provincial 11th FYPs, 2006–2010</p> <p>Reforms and coordination mechanisms in place. Operational action plans to combat LD in place and funded.</p>	<p>High-level Government commitment, given strongly in the design phase, continues during implementation at central and provincial/area levels.</p> <p>Steering committee is able to effectively coordinate the leadership of the participating agencies and the provinces/regions.</p> <p>Willingness to implement recommended reforms, approaches and coordinating mechanisms.</p> <p>Sustained commitment of funding agencies.</p>

*Project Logical Framework — Continued*

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
	<p>participatory processes.</p> <ul style="list-style-type: none"> <li>An effective and harmonized system of land and ecosystem monitoring and evaluation system (M&amp;E) in place.</li> <li>Effective cofinancing mechanism for LD control, bringing greater coordination and feedback between government and funding agencies.</li> <li>The above primary impacts will lead to longer term gains from IEM investments under the CPF, and in turn lead to global benefits in terms of biological diversity conservation, reduction in the frequency and severity of dust and sand storms, and carbon sequestration.</li> </ul>	Coordinated M&E system for LD in place. Evaluation reports, training reviews, progress reports, and project completion report (PCR) IEM project reports. Project reports, guidelines, workshop proceedings, publications, study tour reports.	OP12-financed IEM projects are well coordinated. Best practices from these and other proven area-based approaches are accepted by Government as models for future LD investments. Full use is made of the new national ecozone classification system.
<b>C. Output/Component</b>			
1. Improving policy and laws for LD control.	<p>a. Recommended mechanisms and procedures result in improved quality and effectiveness of key environmental policies and laws, by 2008.</p> <p>b. Institutional capacity improved for legislative and policy aspects of LD management by 2008.</p> <p>c. Policy and regulatory advice and problem solving capacity improved by 2008.</p>	Completed reports on recommended procedures, relevant aspects of laws and regulations, and training programs for participating legal and other agencies. PCR.	Government sustains its commitment to reforming institutional, legal, and regulatory barriers, and to harmonize programs and budgets. Risk mitigation through the coordinating role of the steering committee, Ministry of Finance (MOF), the incorporation of reforms into the 11th FYP, and sensitization of decision-makers to best international practices.
2. Strengthening national and provincial coordination.	<p>a. Planning mechanisms set up for coordinating LD sector investments under the forthcoming 11th FYP by 2005–2006.</p> <p>b. IEM approach accepted for use during 11th FYP.</p>	<p>Project reports and PCR.</p> <p>Project reports and PCR.</p>	
3. Improving operational arrangements at provincial and county levels.	<p>a. Participatory processes begun to promote (i) common understanding of IEM principles, (ii) community involvement, and (iii) land use planning.</p> <p>b. LD strategies and action plans harmonized and IEM approach in place for six provinces/regions by 2008.</p> <p>c. Trained staff to support IEM development by 2006.</p>	<p>Project reports and PCR.</p> <p>Completed LD strategies and action plans. Project reports and PCR.</p>	Policy and regulatory reforms need to be in place in time to influence effective implementation of demonstration IEM projects. Risk mitigated by the development of measures to strengthen the enabling environment and build institutional capacity, and by continually emphasizing the importance of timely reforms to key decision-makers.
4. Capacity development for LD investment projects.	Provincial capacity for LD projects upgraded. Initial IEM investment projects identified for all participating provinces/regions by 2008.	Progress reports on first IEM project (World Bank/OP12 Gansu-Xinjiang Grasslands Dev. Project, 2003), and new IFAD/OP12 project for several provinces, for approval in 2005.	
5. Monitoring and evaluation system for LD.	Coordinated system for LD monitoring ensures that a national mechanism is operational for collecting, sharing, analyzing, and reporting LD related data by 2008.		Major risk that effective cooperation between agencies at all levels may not be achieved. To be mitigated by

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
6. Implementation arrangements for the CPF.	analyzing, and reporting LD related data by 2008. a. Project implementation capacity in place to support OP12 Partnership by 2005. b. Funding coordination mechanism in place to maximize concessional financing for OP12 Partnership by 2005.	Project reports and PCR. Project reports and PCR.	involving all stakeholders through national and local leading groups, coordination offices, and workshops promoting the proven advantages, including financial investments under the CPF, of a cooperative approach.
<b>D. Activities</b>			
1. Improving the Policy and Laws for LD Control  a. Toolbox: legislative, policy, institutional, ecology elements; computerizing toolbox.  b. Provincial procedures to assess and improve IEM principles in laws, regulations, and policy.  c. Assess and recommend ways to harmonize laws, regulations, and policy.  d. Develop capacity for implementation and surveillance of LD laws and policies.  e. Assess the role of EIA in LD control and improve implementing procedures.	a. Operational legal toolbox for LD management, 2004–2006. Operational digital version of toolbox, 2007.  b. Agreed provincial criteria, guidelines, mechanism covering sustainable land management, participation, monitoring, financial arrangements, and information exchange, 2006.  c. Recommendations to harmonize laws on desertification, grasslands, water and soil conservation, water, forestry, agriculture, land administration, environment protection, and environmental impact assessment (EIA). Legal and policy case studies completed, 2005.  d. Mechanisms and procedures for (i) coordination for natural resource management; (ii) provincial-level integration of eco-function zones with agricultural, forestry, desertification control, and other zones, 2005.  e. Monitoring and supervision mechanism for provincial standards and procedures on (i) farmland quality, (ii) grassland management and conservation, (iii) ecozone functions, (iv) water resources, and (v) land husbandry, 2006.	a. Published reports, project progress reports.  b. Project progress reports.  c. Reports covering each law and integrated impacts of all laws, published case studies.  d. Established mechanisms and procedures, including for EIA Act and provincial LD programs under 11th FYP.  e. Monitoring and supervision mechanism established; provincial standards and procedures set up.	Full cooperation of governments to improve quality of laws and policy.  Improvement of provincial legal and institutional systems is a high priority for effective LD management.  Recommended changes are acceptable and operational at central and provincial levels.  Recommended changes are acceptable and operational under 11th FYP, to comply with new national ecozone classification system.  Adequate resources and interest at all levels. To comply with new national ecozone classification system.

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
f. Assess and advise on legal and policy measures for private sector roles and public participation.	f. Rights of land users and administrators clarified. Improved compensation measures for land closure, conversion, and protection; measures for sustainable rural livelihoods on small holdings; improved public participation procedures, 2007.	f. Project progress reports.	Willingness of governments to accept advice provided.
g. Develop program for capacity building in legislative, policy, and institutional measures.	g. Training program for legal officers and draftsmen, judicial officials, policy makers, local organizations, non-government organizations (NGOs), and private sector. 8 workshops, 2005–2006.	g. Project progress reports.	Adequate interest of local-level officials and other organizations.
h. Training workshops in environmental law.	h. Training, including training of trainers. Central level: 2 training sessions; provincial level: 6 training sessions, 2004–2006.	h. Training program and trainees in each category.	
i. Study visits and exchanges.	i. Completed intensive training course for 15 people for 4 weeks, 2005. Completed exchanges for 12 people for 3 weeks, 2004–2006.	i. Project progress reports.	Suitable course can be organized for the participants.
j. Legal, Policy, Advisory Group.	j. Ten-member committee set up (2004) comprising central and provincial agencies and academics. 2 central meetings per year, 2004–2007. 6 Provincial level meetings.	j. Project progress reports.	Advisory Group proves to be effective in its role.
k. Study of options for training in environmental law related to LD in Western Region.	k. Completed feasibility options training study in 2005.	k. Project progress reports.	Adequate demand and an appropriate institutional arrangement exists.
l. Legal studies.	l. Amended LD-related laws and regulations, especially at provincial level. 3 studies, 2005–2008.	l. Project progress reports.	Studies are undertaken on high priority topics.
2. Strengthening National and Provincial Coordination			
a. Institutional review and recommendations for improved coordination mechanisms.	a. Institutional review by Institutions and Planning Expert Group. Mechanisms adopted for improved national and provincial interagency coordination, 2004–2006. Central: five workshops, 1 study; provincial: two workshops per province, 2004–2007.	a. Completed reviews and progress reports.	High-level political commitment given (vice-governors and vice-minister levels).

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
b. Introducing IEM for LD control into provincial and national 11th FYPs.	b. Central and provincial 11th FYP (2006–2010) feature LD control in line with IEM principles, 2004–2005. One international workshop on IEM, 2004. Two regional workshops, 2005.	b. 11th FYP specific and regional planning, Sept. 2005; 11th FYP documents.	NDRC and provincial development planning commissions fully support reform of LD approaches in 11th FYP.
c. Formulate regional and provincial LD strategies and action plans.	c. IEM strategies and action plans formulated for six provinces. Mechanism for private sector involvement in LD, 2004–2005. Central: one study, three training sessions and 1 seminar; provincial: 3 studies, 1 training session, one review meeting, 2004–2005.	c. Reviews of provincial IEM strategies and action plans.	Controlling LD is a high strategic priority for national and provincial development plans.
d. Assess economic costs and benefits of LD control.	d. Field study completed in selected areas to estimate economic impact of LD control measures, 2004–2005.	d. Completed studies.	Stakeholder institutions are willing to collaborate and coordinate activities.
e. Revisit the National Action Program to Combat Desertification (CCD-NAP).	e. CCD-NAP harmonized with PRC-GEF Partnership, Biodiversity Action Plan, and related action plans; improved funding coordination, 2004–2005. One central workshop and one workshop per province, 2004–2005.	e. Review of revised CCD-NAP.	Funding agencies are prepared to support activities outlined in the provincial IEM strategies and action plans. Willingness to update the CCD-NAP.
f. Workshops to review and promote strategic IEM planning.	f. Completed workshops and cadre of trained personnel in resulting increase of IEM, 2006. Three regional workshops, 2005–2006.	f. Workshop proceedings.	
g. Study tours/exchange visits.	g. One regional and one international study tour completed in 2005.	g. Progress reports.	The new skills learned are accepted by the trainees and their institutions.
h. Workshop paper presentations.	h. Four papers presented at international forums, 2005–2006.	h. Papers published.	
3. Improving Operational Arrangements at Provincial and County Level			
a. Assessment of operational arrangements, institutional capacity, and training needs.	a. 3 operational reviews by Institutions and Planning Expert Group. 6 provincial meetings, 2004–2007.	a. Completed report.	Rural communities see LD as a problem and are willing to work together to improve the management of their local land resources.
b. Development of guidelines, manuals, and training	b. Guidelines, training materials, and manuals developed, 1 study 2004–2005.	b. Progress reports.	The community-based participatory planning approach is accepted by

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
materials.			provincial and county government authorities.
c. Capacity building and training.	c. Trained local staff to formulate and implement LD control plans and investment projects. Central: three training sessions; provincial: two training sessions for each (2004–2005).	c. Trained staff.	Stakeholder institutions are willing to collaborate and coordinate field level activities.
d. Identification of the best field-level practices.	d. Review of best practices and catalogue of best field-level practices prepared, 1 central and 6 provincial studies (2005).	d. Competed reviews.	Individual research agencies are willing to collaborate with others to form interagency consortia.
e. Formulation of community-based participatory LD control plans.	e. LD control plans for each province (in selected sample counties), 18 (three per province). One training program per province, 2004–2007.	e. Finalized plans.	Government provides baseline finance and GEF provides incremental costs to demonstrate the participatory approach to IEM. Coordination with ongoing Government programs, as listed in Appendix 3, will be undertaken. Examples are (i) SFA's six key nationwide forestry programs, (ii) Ministry of Science and Technology's community-based rural development pilot projects, and (iii) Ministry of Water Resources small watershed comprehensive management demonstrations. Internationally-financed participatory projects (e.g., as listed in Table A5) will also be included as examples of "best practice" and may be visited by stakeholders during implementation (e.g., FAO's ongoing LADA program).
f. Implementation of community-based LD demonstrations.	f. LD control following IEM approach in sample of communities and/or villages per province, 2004–2007. Minimum of three sites per province.	f. Community LD control plans and demonstrations.	
g. Adaptive research (AR) and participatory technology development for LD control.	g. Minimum of 10 lump sum grants for research, 2004–2006.	g. Research consortia progress reports.	
h. Education program in IEM.	h. Provincial public environmental education programs on IEM in all six provinces, 2005–2007.	h. Education posters, handouts, and materials.	
i. Workshops on community-based LD control planning.	i. Two workshops per province completed, 2006.	i. Workshop reports.	
j. Study tours and exchange visits.	j. One international, one regional, and 18 provincial intercounty study tours completed in 2005–2006.	j. Progress reports.	
k. Workshop paper presentations.	k. Four papers presented at international forums, 2004–2007.	k. Progress reports.	
4. Capacity Development for LD Investment Projects			
a. Project identification and planning.	a. Existing LD projects documented. Potential projects identified. Central: three group meetings; provincial: 1	a. Completed reports.	New OP12 IEM investment projects will take into account (i) best practices

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
<p>group meeting for each (2004–2006).</p> <p>b. Training and capacity development in LD projects.</p> <p>c. Assess impact of LD projects and programs; cofinancing options study.</p> <p>d. Prepare LD projects based on IEM principles.</p> <p>5. Monitoring and Evaluation System for LD</p> <p>a. National coordination mechanism for coordinating and sharing LD data.</p> <p>b. Provincial GIS database development.</p> <p>c. Documentation of successful technologies and approaches for controlling LD.</p> <p>d. Local-level participatory LD assessment capacity building.</p>	<p>b. Training needs defined, training completed, and capacity developed (2004–2005). Two regional training workshops, 3 study tours, and 1 central study and 6 provincial studies on IEM projects (2004–2006).</p> <p>c. Six Provincial LD project impact studies completed, 2005–6. Reports presented to senior leaders. Cofinancing options study and agreed cofinancing mechanism, 2004.</p> <p>d. Provincial LD projects (one for each) designed to feasibility level based on IEM approach, GEF-eligible 3 workshops, 1 study (2004–2007).</p> <p>a. LD Monitoring and Evaluation Expert Group functional. Adaptive management mechanisms for sharing collection and analysis of LD related data at central and provincial levels. Central: four group meetings, one workshop, and one study on comprehensive LD assessment and validation for assessment tools and indicators. Provincial: four group meetings and one workshop (2004–2007).</p> <p>b. Provincial GIS units established, inclusive of training modules development and publication, and 2 training sessions, 2005. Support to provincial offices including equipment, vehicles, software, and on-the-job training, 2004–2007.</p> <p>c. Prepared and distributed best practices guidelines, customized selected database (5 studies), training workshops (one central and one per province), 2004–2006.</p> <p>d. Multi-agency cadre of provincial and county level technicians at local level participatory LD assessment. Four central training workshops. One</p>	<p>b. Training report.</p> <p>c. Six impact studies, cofinancing study report, and cofinancing mechanism.</p> <p>d. Six completed project feasibility studies, 2005–2007.</p> <p>a. Minutes of Expert Group.</p> <p>b. Progress reports.</p> <p>c. Progress reports.</p> <p>d. Progress reports.</p>	<p>from existing LD investments in the PRC and overseas, (ii) lessons from previous area-based participatory projects and approaches, and (iii) recent OP12 projects, including (a) World Bank Gansu-Xinjiang Grasslands Development Project, 2003, and (b) IFAD Poverty Reduction Project in Ningxia, Gansu, and Shanxi, 2005. PPTA grants are in ADB's Country Program for 2004, 2005, and 2006. Other funding support has been indicated.</p> <p>A willingness on the part of existing agencies engaged in LD-related monitoring surveys to coordinate and share data. Linkage with national research project on 11th FYP for Scientific Data Sharing Program, conducted by Ministry of Science and Technology.</p> <p>A need for comprehensive, consistent, and reliable assessments of LD at the national, provincial, and local levels.</p> <p>International standards for documenting successful technologies and approaches are accepted within</p>

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
	study and 3 training workshops per province and equipment support at field level (2004–2007).		the six provinces.
e. Pilot monitoring and assessment.	e. Models for building provincial- and county-level capacity for participatory LD. Six pilot tests conducted, 2004–2006.	e. Progress reports.	Availability of government funds and staff at the provincial and county levels for LD assessment activities.
f. Senior officials consultations and expert workshops.	f. Completed workshops and/or consultations (one for central and one per province) to agree on M&E reforms, 2006.	f. Workshop proceedings and minutes of senior officials meetings.	
g. Workshop papers.	g. Four papers presented at international forums, 2005–2006.	g. Publications and papers.	Ongoing LADA program has identified three pilot sites in Inner Mongolia, one in Gansu, and one in Ningxia.
6. Implementation Arrangements			
a. Implementation support.	a. Completed steering committee meetings(4), national and 1 international study tours, donor roundtables(4), and other consultations with stakeholders(6). Training and 30 person-months staff exchanges (2004–2008).	a. Progress reports, donor feedback, and support.	High-level national and provincial interest and commitment to the Partnership are maintained.
b. Project coordination office (PCO) support.	b. Functioning PCO with capacity to coordinate PRC-GEF Partnership on Combating LD in Dryland Ecosystems (OP12) within the CPF (2003– 2012) and related operations. Target of \$40–70 million GEF OP12 projects with cofinancing, 2006. Local PCOs in each province coordinate between participating sector agencies and are linked to other provinces and/or regions in partnership. Network and links between LD projects, 2004–2008. Improved funding coordination mechanism by 2005.	b. Project newsletters, reports. CPF so far: (i) World Bank Gansu-Xinjiang Grasslands Development Project, 2003, \$10.5 million; (ii) IFAD Poverty Reduction Project in Ningxia, Gansu, and Shanxi, 2005 approval, for at least \$11 million; and ADB Project 1, \$7.7 million for approval in 2004. Total approximately \$30 million to date planned in GEF grants.	PCO at central and provincial levels are able to effectively do their work. Trained staff are available. Donor commitment is sustained.
c. Project management office (PMO) support.	c. Central PMO effectively established to manage implementation of the project and overall partnership. Local PMOs set up in each province also operate effectively and achieve targets, 2004–2008.	c. Progress reports. Annual workplans approved and implemented. Number of completed consultancies,	Linkage and communications with Office of Western Region, major infrastructure ministries, Poverty Alleviation Office set up for

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
	Management information and feedback system functioning, 2004–2006. Advisory expert groups functional and scientific networks to advise on implementation and impact of partnership. Four annual workplans and budgets approved.	contracts, studies and surveys, workshops and seminars, and study tours completed.	coordination. Media links are effective.
<b>E. Inputs – Project and ADB-Financed TA</b>			
Consultants (including under TA)	GEF-financed: international, 22 person-months; domestic, 187 person-months  ADB-financed: international, 19 person-months; domestic, 103 person-months  GEF: \$1.3 million  ADB: \$0.9 million	Contractual documents, Financial Agreement (PRC-ADB) covering implementation of GEF grant, ADB TA Agreement and related documents, procurement documents, project progress reports, and PCR.	Counterpart funds are fully available on time.  Personnel will be available from central and provincial and/or regional agencies to participate in training programs.
Subtotal	\$2.2 million		
Equipment, Software, Supplies, and Vehicles	\$1.1 million		
Surveys and Studies	\$1.5 million		
Workshops	\$2.5 million		
Training and Study Tours	\$2.8 million		
Incremental Staff	\$1.0 million		
Office Operations	\$1.9 million		
Pilot Projects	\$2.0 million		
<b>Total</b>	\$15.0 million (includes 10% contingencies)		

## **ANNEX C: RESPONSE TO PROJECT REVIEWS**

- a) Convention Secretariat
- b) Review by expert from STAP Roster
- c) Response to comments from Secretariat and other Agencies

Germany's comments: Five specific comments were made (i) avoiding overlap with the NAP; (ii) ensuring "learning by doing" is related to field projects; (iii) for legal and policy review work, make sure this is based on reviews of ongoing relevant projects; (iv) make sure coordination mechanisms are connected to the realities of field project experience; (v) stakeholder (including donor) experience needs to be organized around specific projects or interest will not be sustained. It was recommended that a stronger "learning by doing" focus is required, based on relevant field projects; and that a more active role by land users and their representatives and associations be provided, through participation in the planned monitoring and evaluation system.

Response: The Project will address these points through (i) Communications with the China Committee for Implementation of the Convention to Combat Desertification (CCICCD) regarding revisiting the NAP and involvement of the CCICCD in the process of conducting specific activities (workshops, discussions, studies) on revisiting the CCD-NAP. This is a complex undertaking that will take some time, but the CCICCD has stated its commitment to making progress and realises that this is in its own best interests; (ii) Coordination with ongoing Government programs, eg, (a) SFA's six key nationwide forestry programs; (b) Ministry of Science and Technology's community based rural development pilot projects; and (c) Ministry of Water Resources Small watershed Comprehensive Management demonstrations. Internationally-financed participatory projects will also be included as examples of "best practice" and will be visited by stakeholders during implementation; e.g. FAO's ongoing LADA program sites in Ningxia, Inner Mongolia and Gansu and relevant bilateral projects. Recently approved OP12 IEM investment projects will be visited as well, including (a) World Bank financed Gansu-Xinjiang Grasslands Dev. Project, 2003 and (b) IFAD's proposed Poverty Reduction Project in Ningxia, Gansu and Shanxi; (iii) documentation of relevant approaches and studies in legal and policy aspects in completed or ongoing projects in the PRC will be covered. Project design reflects a systematic approach as outlined in Capacity Building for Environmental Law in Asia and the Pacific Region, ADB, 2002; (iv) and (v) Community LD control plans will be formulated and field level demonstrations will be established based on participatory approaches reflecting successful techniques developed by completed and/or ongoing programs/projects, especially internationally-financed participatory projects (e.g. as listed in Table A8.1, Project Document), to be included as examples of "best practices". The Monitoring and Evaluation Advisory Group will be involved to provide field reality feedback and selected projects will be visited by stakeholders during implementation. Future IEM investment project feasibility study teams will also be given training based on

"best practices". Specific assurances have been given by the Government on stakeholder participation: The Government will ensure participatory processes, acceptable to the Government and ADB, to promote (a) understanding of IEM principles, (b) community involvement, (c) local level land use planning, and (d) social planning, including indigenous peoples.

Switzerland's comments: The project addresses key issues in the western region of China, such as reducing poverty and land degradation. It is an integrated approach to combat desertification with a long-term vision of 10 years, with an initial phase of 4 years 2003 -2006. Major concerns about the project are:

- (i) How to involve stakeholders (the project documents mention informal consultation with the land users). It might be advisable to also make this consultation formal, so that enhanced community-based resource management can be achieved.
- (ii) The link between the different ministries (especially Agriculture and Water) ; NGOs and communities will be very important, but might also bring some difficulties in terms of responsibilities and commitments (e.g. for soil and water conservation there is the Soil and Water Conservation Monitoring Centre which has a coordinating role within the Ministry of Water. How can the role of different coordinating bodies be clarified?)
- (iii) There might be a tendency to put too much emphasis on demonstration sites rather than on-farm implementation and monitoring.
- (iv) There is a lot of emphasis on the laws and law enforcement, which in some way conflicts with participatory stakeholder (esp. land users) involvement.
- (v) The methods for monitoring degradation and conservation would need to be done using a standard method; e.g. the WOCAT methodology, so that results can be exchanged nationally and even internationally.

Response:

- (i) Involving stakeholders. A key assurance given by the Government covers the use of participatory approaches and social guidelines. Specifically: the Government will ensure participatory processes, acceptable to the Government and ADB, to promote (a) understanding of IEM principles, (b) community involvement, (c) local level land use planning, and (d) social planning, including indigenous peoples. Such approaches will be used in all components, and will stress bottom-up approaches.
- (ii) Coordination. Three specific assurances address the difficult issue of achieving improved coordination: (a) Coordinated System for Land Degradation Monitoring for collecting, sharing, and analyzing and reporting LD related data; (b) Planning Coordination Mechanisms to be set up at the central and provincial/regional levels for coordinating LD investments under the forthcoming 11th FYP (2006–2010); and (c) Donor Coordination Mechanism to improve donor coordination for concessional financing for LD, including improved coordination between MOF and the Ministry of Commerce. The coordination and management arrangements have been developed, tested, and adjusted over the three-year preparation period and are now working well. The arrangements

comprise a high-level Steering Committee (coordinating 11 agencies), a PCO and PMO that share a common office, provincial PCOs/PMOs with similar structure to their central level counterparts, and four advisory groups. Appendix 10, Project Document provides the details.

(iii) On-farm implementation and monitoring. The project offers familiarization with proven techniques and "best practices" in dryland LD through visits for stakeholders to successful sites and project and related IEM demonstrations, workshops and training and adaptive research grants. Through future IEM investment projects this experience will be widened to include the extension of approaches and techniques to much larger areas. However, before this can be done on a large scale, it will have to be done on a small scale, with priority given to sensitization of leaders, planners as well as farmers/herders. Many previously successful pilot projects offer examples of what needs to be done. But these have not been scaled up into Government's programs. Documenting these past successes and measuring the cost/benefits of a range of interventions will assist in devising sustainable approaches.

(iv) Emphasis given to the legal framework. Project design reflects a systematic approach as outlined in Capacity Building for Environmental Law in Asia and the Pacific Region, ADB, 2002. Such an approach will minimize conflicts and give adequate stress to participation with all concerned stakeholders.

(v) Use of standard international approaches & methodologies, e.g., WOCAT and LADA, have been stressed throughout the documents and Government is supportive of using these approaches and their support systems (both domestic and international) wherever appropriate.

**ASIAN DEVELOPMENT BANK**

**RRP:PRC 36445**

**FINANCIAL ARRANGEMENT  
FOR A  
PROPOSED GLOBAL ENVIRONMENT FACILITY GRANT  
AND  
ASIAN DEVELOPMENT BANK TECHNICAL ASSISTANCE GRANT  
TO THE  
PEOPLE'S REPUBLIC OF CHINA  
FOR THE  
CAPACITY BUILDING TO COMBAT LAND DEGRADATION PROJECT**

**June 2004**

## CURRENCY EQUIVALENTS

(as of 14 May 2004)

Currency Unit	–	yuan (CNY)
CNY¥1.00	=	\$0.1208
\$1.00	=	CNY8.2772

## ABBREVIATIONS

ADB	–	Asian Development Bank
CAS	–	Chinese Academy of Sciences
CBD	–	Convention on Biological Diversity
CCD	–	Convention to Combat Desertification
CCD-NAP	–	Convention to Combat Desertification-National Action Program to Combat Desertification
CCICCD	–	Chinese Committee for Implementation of the Convention to Combat Desertification
CPF	–	country programming framework
DFID	–	Department for International Development
EIA	–	environmental impact assessment
GEF	–	Global Environment Facility
GIS	–	geographic information system
GTZ	–	Deutsche Gesellschaft für Technische Zusammenarbeit
IA	–	implementing agency
IEM	–	integrated ecosystem management
IFAD	–	International Fund for Agricultural Development
MOA	–	Ministry of Agriculture
MOF	–	Ministry of Finance
MWR	–	Ministry of Water Resources
OP12	–	Global Environment Facility Operational Program on Integrated Ecosystem Management
PCO	–	Project Coordination Office
PMO	–	Project Management Office
PRC	–	People's Republic of China
SEPA	–	State Environmental Protection Administration
SFA	–	State Forestry Administration
TA	–	technical assistance
UNDP	–	United Nations Development Programme
UNEP	–	United Nations Environment Programme
UNCCD	–	United Nations Convention to Combat Desertification
WB	–	World Bank
WDS	–	Western Development Strategy

## WIEGHTS AND MEASURES

ha	–	hectare
km	–	kilometer
km <sup>2</sup>	–	square kilometer
t	–	ton

## **NOTES**

- (i) The fiscal year (FY) of the Government and its agencies ends on 31 December. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2004 ends on 31 December 2004.
- (ii) In this report, "\$" refers to US dollars.

This report was prepared by Bruce Carrad (team leader), with assistance from R. Clendon, B. Sondjaja, Z. Niu, and W. Hong. Research and administrative assistance was provided by C. Mongcopa, and by Q. Du, L. Wang, and S. Li at the Asian Development Bank's People's Republic of China Resident Mission.

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SUPPLEMENTARY APPENDIXES (available on request)

- A. Framework Brief for the PRC-GEF Partnership on Land Degradation in Dryland Ecosystems
- B. Potential for Atmospheric Carbon Capture in Arid and Semi-Arid Land in the Western Region and Its Global Significance
- C. Summary of Internationally Funded Land Degradation, Environment, and Poverty Alleviation Projects in the Western Region
- D. Component 1: Improving the Policies, Laws, and Regulations for Land Degradation Control
- E. Component 2: Strengthening National and Provincial Institutional Coordination
- F. Component 3: Improving Operational Arrangements at Provincial, Autonomous Region, and County Levels
- G. Component 4: Capacity Development for Land Degradation Investment Projects
- H. Component 5: Monitoring and Evaluation System for Land Degradation
- I. Component 6: Implementation Arrangements for the Country Programming Framework
- J. GEF Executive Summary and Incremental Cost Matrix
- K. Financing Agreement
- L. Framework For Minority Peoples Development Plan
- M. Indicative Contract Packages

## PROJECT SUMMARY

<b>Country</b>	The People's Republic of China (PRC)
<b>Classification</b>	Poverty Classification: other Thematic: environmental protection
<b>Environment Assessment</b>	Category B. A summary of the initial environmental examination that was undertaken is a core appendix.
<b>Project Description</b>	<p>The PRC-Global Environment Facility (GEF) Partnership on Land Degradation in Dryland Ecosystems 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 investments envisaged in the 10-year CPF are estimated at about \$1.5 billion, of which GEF will provide \$150.0 million in grant assistance. The proposed Project is the first of an interventions series planned under the CPF, and the Project aims at strengthening the enabling environment and building institutional capacity for the integrated ecosystem management of drylands in six priority provinces and/or nationally and globally significant autonomous regions (Gansu, Inner Mongolia, Ningxia Hui, Qinghai, Shaanxi, and Xinjiang Uygur).</p>
<b>Rationale</b>	<p>The PRC's land area is 40% drylands. These drylands are home to over 100 million people and are extensively affected by land degradation, with severe economic, social, and ecological consequences, especially for the rural poor and ethnic minorities. Dust storms, originating within the drylands, adversely impact the environment within and outside the country's borders. Intensive land use policies and practices are the primary cause of land degradation. The Government wants to address this problem through adopting an integrated ecosystem management approach that is based on international and domestic best practices.</p>
<b>Objectives</b>	<p>Project objectives are to help the Government combat land degradation, reduce poverty, and conserve biodiversity through strengthening the enabling environment and developing institutional capacity.</p>
<b>Cost Estimates</b>	<p>The total project cost, including contingencies, taxes, and duties, is estimated at \$13.8 million equivalent, comprising \$2.1 million (about 15.2%) in foreign exchange and \$11.7 million equivalent (about 84.8%) in local currency costs.</p>

<b>Financing Plan</b>	GEF agreed to provide a \$7.7 million grant to finance about 56.0% of the Project's cost. The Government will finance \$6.1 million equivalent in local currency, or 44.0% of the total cost. The Asian Development Bank (ADB) will provide a \$1.0 million associated technical assistance grant from the Technical Assistance Special Fund to complement GEF and government financing. The Government will also contribute \$0.2 million to the technical assistance in counterpart funds.
<b>Estimated Commencement Date</b>	1 July 2004
<b>Estimated Project Completion Date</b>	1 July 2008
<b>Implementation Arrangements</b>	The overall project implementation period is 4 years. A high-level steering committee comprising representatives of 11 participating agencies and ADB has been functioning for the past 2 years to guide the design phase and will continue to guide project implementation. A central project coordination office was created in the Ministry of Finance and a project management office was established in the State Forestry Administration. Similar coordination and management arrangements were created in the six participating provinces and/or autonomous regions.
<b>Executing Agency</b>	The State Forestry Administration
<b>Procurement</b>	The goods and services to be financed under the GEF grant will be procured in accordance with ADB's <i>Guidelines for Procurement</i> under loan projects. The equipment and materials will be procured through local competitive bidding or direct purchase. Minor items estimated to cost less than \$100,000 may be purchased locally. The equipment and materials financed from ADB's technical assistance grant will be procured in accordance with ADB's <i>Guidelines for Procurement</i> for technical assistance projects.
<b>Consulting Services</b>	International and domestic consultants will be required to assist in project implementation. The international and domestic consultants required under the Project and associated technical assistance will be engaged in accordance with ADB's <i>Guidelines on the Use of Consultants</i> and other arrangements satisfactory to ADB for domestic consultant selection. Consultants financed under the GEF grant will be selected and recruited by the Government, following the procedures used for ADB loans. Consultants financed under the technical assistance will be recruited by ADB.
<b>Project Benefits and Beneficiaries</b>	Project benefits will accrue from an improved understanding of the root causes of land degradation and through the introduction of an integrated ecosystem management approach. The provinces and/or regions of the dry and impoverished western region

(Gansu, Inner Mongolia, Ningxia Hui, Qinghai, Shaanxi, and Xinjiang Uygur), which have high incidences of unemployment and poverty, will benefit from the development of consistent legal and regulatory frameworks, coordinated strategic planning mechanisms, participatory community planning processes at the local level, design capacity for land degradation interventions, and effective land degradation monitoring and evaluation systems. These benefits will lead to longer term gains from investments under the CPF that will affect the poor rural communities and diverse ethnic minority groups that are most affected by land degradation. National, provincial, and county governments will benefit through rationalizing budget expenditures for addressing land and natural resource degradation, which will result in improved efficiencies in resource allocation. Personnel from government agencies at national and local levels will benefit from the introduction of new approaches and capacity-building activities. The private sector will benefit from improved regulatory measures for investment and market-based services and policies provision. More effective use of development partner support will come from improved development partner coordination in addressing land and natural resource degradation. National and global benefits will accrue in (i) biodiversity conservation, given that many threatened ecosystems and species of global importance found in the western region will eventually be protected and conserved through adopting an integrated ecosystem management approach; (ii) transboundary dust storm reduction, given that these storms are expected to diminish in frequency and severity over the longer term, due to improved management in source areas; and (iii) agricultural land management improvement, given that this will occur in the western region and contribute to significant carbon capture by 2012. In addition, improved grassland, forest and woodland management in the western region has the potential to capture 87 million tons of carbon by 2012.

### **Risks and Assumptions**

The potential risks include slower than anticipated institutional and policy reform pace and investment project development. This would be mitigated under the Project by promoting a better understanding of the root causes of land degradation, upgrading the existing legal and regulatory framework for land degradation, and promoting participatory approaches. The principal assumptions are strong government ownership and political commitment to achieving a more efficient and cost-effective approach to combating land degradation under the forthcoming Eleventh Five-Year Plan (2006–2010).

### **Technical Assistance**

ADB will provide a \$1 million technical assistance grant to complement project interventions, strengthen interagency coordination, and monitor and evaluate the Project and the CPF. The technical assistance will be financed on a grant basis from ADB's technical assistance funding program.

90°00'E

120°00'E

- 1** Potential Global Biodiversity Hot Spot
- ⊛ National Capital
- ⊙ Provincial Capital
- City/Town

- National Road
- River
- Provincial Boundary
- International Boundary
- Boundaries are not necessarily authoritative.

# CAPACITY BUILDING TO COMBAT LAND DEGRADATION PROJECT IN THE PEOPLE'S REPUBLIC OF CHINA

RUSSIAN FEDERATION

RUSSIAN FEDERATION

KAZAKHSTAN

MONGOLIA

KYRGYZ  
REPUBLIC

HEILONGJIANG

JILIN

INNER MONGOLIA  
AUTONOMOUS REGION

LIAONING

BEIJING

HEBEI

Bohai Sea

Yellow Sea

INDIA

TIBETAN  
AUTONOMOUS REGION

GANSU

QINGHAI

SICHUAN

SHANXI

SHAANXI

HENAN

HUBEI

East  
China  
Sea

PROOF ONLY

## Globally Significant Ecoregion

- |                            |                            |
|----------------------------|----------------------------|
| Mountain Conifer Forests   | Conifer Forest             |
| Montane Conifer Forests    | Deciduous Forest           |
| Montane Steppe and Meadows | Plateau Alpine Steppe      |
| Alpine Shrub and Meadows   | Mountain Alpine Desert     |
| Sub-Alpine Meadows         | Taklimakan Desert          |
| Forest and Forest Steppe   | Eastern Gobi Desert Steppe |

90°00'E

0 100 200 300 400 500

Kilometers

120°00'E

## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on the proposed administration of a Global Environment Facility (GEF) grant to the Government of the People's Republic of China (PRC) for the Capacity Building to Combat Land Degradation Project. Even though the Project will be financed entirely by grant, loan processing and administration procedures are applied because of the complex policy and implementation issues involved, the necessity of Government ownership, the special organizational arrangements put in place by the Government for implementation, and the degree of ADB supervision required. The report also describes proposed technical assistance (TA) to support implementation of the Project. If the Board approves the proposed administration of the GEF grant, I, acting under the authority delegated to me by the Board, will approve the TA.

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

2. The Government of the PRC requested the Asian Development Bank (ADB) in 2000 to take a lead role in facilitating the preparation of the PRC-GEF Partnership on Land Degradation in Dryland Ecosystems. To this end, ADB provided five TA projects between 2000 and 2003 to develop the Partnership at the central, provincial, and regional levels,<sup>1</sup> resulting in a long-term country programming framework (CPF). This was the first such CPF, and it covers a 10-year period (2003–2012) and is described in a framework brief (Supplementary Appendix A) that was approved by the GEF council in October 2002. The CPF's primary focus is on six priority provinces and/or nationally and globally significant autonomous regions in the PRC's western region. These areas include Gansu, Inner Mongolia, Ningxia Hui, Qinghai, Shaanxi, and Xinjiang Uygur. Investment projects under the CPF over 10 years are estimated at \$1.5 billion.

3. The CPF underpins a PRC-GEF agreement to commit resources to a phased set of priority activities over a 10-year period, to combat land degradation in the western region. The CPF is under GEF's Operational Program 12 (OP12), which involves integrated ecosystem management,<sup>2</sup> and the CPF covers (i) critical policy, legal, and regulatory instruments and the institutional reforms needed to strengthen the enabling environment; (ii) Biodiversity Action Plan, Convention to Combat Desertification-National Action Plan (CCD-NAP), Ministry of Agriculture (MOA), Ministry of Land and Resources (MLR), Ministry of Water Resources (MWR), State Environmental Protection Administration (SEPA), and State Forestry Administration (SFA) relevant sector five-year development plan and strategy harmonization; (iii) project selection and

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<sup>1</sup> ADB. 2000. *Technical Assistance to the People's Republic of China for Global Environment Facility Partnership on Land Degradation in Dryland Ecosystems*. Manila.

ADB. 2000. *Technical Assistance to the People's Republic of China for Preparing National Strategies for Soil and Water Conservation*. Manila.

ADB. 2000. *Technical Assistance for Combating Desertification in Asia*. Manila. ADB. 2001. *Technical Assistance to the People's Republic of China for Optimizing Initiatives to Combat Desertification in Gansu Province*. Manila.

ADB. 2001. *Technical Assistance to the People's Republic of China for PRC-GEF Partnership on Land Degradation in Dryland Ecosystems*. Manila. The GEF Secretariat approved pipeline entry and the Project Development Facility—Block B grant on 28 March 2001.

<sup>2</sup> Integrated ecosystem management is a holistic approach to addressing the links between ecosystem functions and services (such as carbon uptake and storage, climatic stabilization and watershed protection, and medicinal products) and human social, economic, and production systems (such as crop production, nomadic and sedentary livestock raising, and infrastructure provision). This approach recognizes that people and the natural resources they depend upon, directly or indirectly, such as land, water, and forests, are inextricably linked. Rather than treat each resource in isolation, integrated ecosystem management offers the option of treating all elements of ecosystems together to produce multiple benefits. This way of managing the environment has been incorporated into a number of international conventions concerning environment and development, and international experience is beginning to demonstrate the benefits of this innovative approach.

design criteria for prioritized investment packages and TA to advance environmentally sustainable development and global environmental outcomes in selected ecoregions; (iv) capacity building for the implementation of integrated ecosystem management; and (v) project monitoring and evaluation. As outlined in the Framework Brief, the Government will contribute \$700 million and mobilize an additional \$615 million from development partners for baseline activities. GEF will contribute \$150 million in incremental financing for a series of GEF-eligible projects.<sup>3</sup>

4. The proposed Project constitutes an essential investment that will strengthen the enabling environment and build implementation capacity for the investment projects envisaged under the CPF. A joint fact-finding mission was fielded in April and July 2003 to discuss with the agencies concerned and other development partners the Project's objective, scope, design, and implementation arrangements. Project appraisal was undertaken in March 2004, to finalize the implementation and financing arrangements at the central, provincial, and local levels. As shown in appendixes 1 and 2, project development followed a participatory approach among all major stakeholders.<sup>4</sup>

## **A. Performance Indicators and Analysis**

5. Air, water, and land resource degradation threatens the life quality of the PRC's 1.30 billion people. Land degradation is fundamentally the most difficult of all environmental issues to address, and the PRC has many of the worst land degradation problems in the world, with over 40% of its land area, 3.0–4.0 million square kilometers (km<sup>2</sup>), adversely affected.<sup>5</sup> Reports from provincial offices and Chinese Academy of Sciences (CAS) field ecological monitoring centers indicate that trends in land degradation due to wind erosion and salinization and desertification<sup>6</sup> are increasing, with the expansion rate rising from around 1,500.0 km<sup>2</sup> per year in the 1950s to nearly 3,500.0 km<sup>2</sup> per year in the late 1990s.<sup>7</sup> Over 30% of the PRC's 4 million km<sup>2</sup> of grasslands are estimated to suffer from moderate to severe degradation, while demands for meat and other livestock products rise as urbanization and living standards increase. In arid areas, rapidly increasing livestock numbers exacerbate land degradation. The PRC's per capita arable land, which is at 0.11 hectares, is relatively low by world averages, and water availability is only one quarter of the world average.<sup>8</sup> Although the national data are inconsistent, ample

<sup>3</sup> As set out in the Framework Brief, the 10-year CPF has three phases: Phase 1 (2003–2005), under the Tenth Five-Year Plan; Phase 2 (2006–2010), matching the entire period of the Eleventh Five-Year Plan; and Phase 3, the first 2 years of the Twelfth Five-Year Plan (2011–2012). Under Phase 1, the indicative GEF investment grants are estimated at between \$40.0 and \$70.0 million. The World Bank-financed Gansu-Xinjiang Grasslands Development Project (\$10.5 million GEF grant) was approved in August 2003. The International Fund for Agricultural Development is expected to finance a poverty reduction project covering three provinces and/or regions, if this project is approved in 2005. ADB prepared the project currently under consideration for a \$7.7 million GEF grant. These three projects, in aggregate, are anticipated to use at least \$30 million in GEF grant funds.

<sup>4</sup> The Project first appeared in *ADB Business Opportunities* in September 2003.

<sup>5</sup> Land degradation, as used in this document, includes wind and water erosion; biomass loss in grasslands and overgrazing; forest clearing; and related disturbances to the hydrological balance that result in erratic river flows, excessive crop nutrient loss, soil fertility decline, poor soil drainage, and increased salt content.

<sup>6</sup> The Convention to Combat Desertification defines desertification as "land degradation in arid, semi-arid, and dry subhumid areas resulting from various factors, including climatic variations and human activities." The main factor causing the advance of deserts is wind erosion, although the actual causes of desertification are numerous.

<sup>7</sup> Despite inconsistent national data, provincial data show that from the 1950s to the 1990s the annual land degradation rate due to wind erosion and salinization and desertification increased from around 1,500 km<sup>2</sup> to almost 3,500 km<sup>2</sup>. The root causes are primarily human induced and are not the result of natural factors.

<sup>8</sup> World country averages per capita (2000) are 0.25 hectares for arable land and 8,000 cubic meters for renewable water availability, respectively.

evidence suggests that shrinking arable land area and increasing demand for higher agricultural incomes places pressure on farmers to extract higher yields from their land, at the expense of stable soil structure and adequate organic matter content, leading to increased soil erosion.<sup>9</sup>

6. Land degradation is accelerated by human activities. Degradation was particularly accelerated in the PRC over the past 50 years, due to well-intentioned policies that had negative environmental consequences. Examples include (i) converting grasslands for cropping and increased livestock grazing in marginal areas, especially in the western frontier; (ii) relocating people from more densely populated areas; (iii) developing industry on a large-scale in remote and generally water-deficient parts of the country, which allowed factories unlimited access to state-financed water supplies;<sup>10</sup> (iv) expanding irrigated agriculture into some of the driest parts of the country; and (v) keeping water prices low, thereby providing no incentive for farmers to adopt water efficient techniques. Inappropriate land use practices and labor mobility restrictions also had negative environmental impacts (appendixes 3 and 4).

7. Land degradation's social and economic consequences are profound and include notably lower household incomes and increased poverty in many rural communities, higher unemployment rates, and higher migration rates. These trends led to reduced agricultural and pastoral lands productive capacity; damaged roads and other infrastructure; and lost watershed protection functions, which resulted in increased productive land and reservoir sedimentation. Daily economic losses from land degradation are estimated at approximately \$21.2 million equivalent. Of this, water erosion contributed about 64%, wind erosion 6%, and organic matter loss and salinization 30%. Annual soil loss is estimated at 5 billion metric tons. Indirect economic loss from land degradation, including public health effects, is estimated at over four times direct economic loss.<sup>11</sup>

## 1. Western Region and its Global Significance

8. The western region comprises 12 provinces and/or autonomous regions, many of which are similar in physical size and population to some Asian countries. In human development terms, some of these provinces and/or autonomous regions would belong to the least-developed nations category.<sup>12</sup> The western region supports a population of over 285 million, including many of the country's poorest and most vulnerable people.<sup>13</sup> Low land productivity is caused in part by fragile soils, water scarcity,<sup>14</sup> and erratic rainfall patterns. Desertification is concentrated in the northern and northwestern regions, which lay in the arid, semiarid, and dry subhumid zones. A high degree of overlap exists between ecologically sensitive areas and

<sup>9</sup> ADB. 1991. *Technical Assistance to the People's Republic of China for Monitoring and Management of Fragile Ecosystems in Shanxi-Shaanxi-Inner Mongolia*. Manila.

<sup>10</sup> Li Peng. 2001. *China Daily*. 23 March, 2001. For the same value of industrial output, PRC factories use, on average, 5–10 times the amount of water used by developed countries' factories.

<sup>11</sup> Editorial. 2002. Ecological Damage Causing Economic Losses of about CNY 100 billion in Western Region. *Chinese Journal of Population, Resources and Environment* 12 (2). Beijing.

<sup>12</sup> United Nations Development Programme. 2002. *China Human Development Report 2002: Making Green Development A Choice*. New York: Oxford University Press.

<sup>13</sup> Of the 592 key poverty counties designated by the State Council Leading Group Office of Poverty Alleviation and Development in 2001, 375 are located in the western region. Absolute poverty (i.e., incomes below \$0.67 per day) in the western region at the end of 2002 afflicted over 17.0 million people, or approximately 62% of the PRC's rural poor. Of these people, 6.8 million live in Gansu, Inner Mongolia, Ningxia Hui, Qinghai, Shaanxi, and Xinjiang Uygur, the provinces and/or regions with the worst land degradation. On a \$1.00 per day basis, approximately 19.0 million poor people are in these six provinces and/or regions, or 16% of their total population of 117.0 million.

<sup>14</sup> As an example, groundwater levels in Gansu Province are dropping by up to 1 meter per year.



poverty counties in western PRC.<sup>15</sup> Predominantly rural, these areas have low population densities, large ethnic minority populations, high reliance on grazing and agriculture, high poverty incidence, huge mineral deposits, and very arid and fragile environments. Western PRC development is severely constrained by the area's massive territorial expanse, long distances between population centers and eastern markets, poor economic and social infrastructure, and low institutional capacity (below that of more advanced coastal areas).

9. The PRC has more of the world's known biodiversity than nearly all other countries and a higher proportion of endemic species. The PRC's biodiversity ranking places the nation in the world's top three. The PRC claims 30,000 seed plants species, 6,300 vertebrate species, and 3,862 fish species.<sup>16</sup> While the western region has fewer species than the rest of the country, its endemic species richness is higher than elsewhere and is associated with a high degree of extinction threat. Many plant and animal species are ancient or are becoming rare. They therefore have enormous scientific and commercial value for tourism, pharmaceuticals, or construction materials. About 700 endemic plant species (16% of all species in the PRC) and 199 endemic vertebrate species (28% of all species in the PRC) are currently recorded. Desert endemism, at 16–23%, is much higher than in most other parts of the PRC (2–14%). The six most degraded areas, Gansu, Inner Mongolia, Ningxia Hui, Qinghai, Shaanxi, and Xinjiang Uygur, have more than 5,000 recorded plant and animal species, which is less than one tenth of the rest of the PRC (less than 50,000 species, not including lower plants and invertebrates, fungi, bacteria, and actinomycetes), but have a higher percentage of endemics that are endangered in their range. The Qingzang Plateau, ecologically known as the last intact kingdom of animals in the world, has 43.7% of the PRC's terrestrial vertebrates and 40.0% of vascular plants (Appendix 4).

10. Dust and sandstorms are of national and global significance in relation to atmospheric conditions and were recorded for at least 1,000 years in the PRC and northeast Asia. Dust storms and sandstorms also increased from an average of 0.5 per year in the 1950s to 2.3 per year throughout the 1990s and increased in their severity. An average annual direct financial loss of \$157 million equivalent was estimated for the 1990s. Degraded grasslands, farmed areas with no vegetative cover at critical times of the year, and saltpans on the edges of dry saline lakes are the sources of dust storms in northwest and north PRC. The impact is felt in the PRC, Korea, and Japan.<sup>17</sup> Dust from the PRC was identified along the west coast of the United States. Six provinces and/or autonomous regions (Gansu, Inner Mongolia, Ningxia Hui, Qinghai, Shaanxi, and Xinjiang Uygur) have 97% of the wind-eroded land and desert. These areas are the source of dust storm activity originating in northern PRC, and they have 54% of water-eroded areas. Promoting sustainable resources management, establishing vegetation on degraded land, and promoting minimum tillage systems will reduce dust storms and improve atmospheric conditions through carbon capture above and below the earth.<sup>18</sup>

## 2. Programs to Combat Land Degradation

11. The Government recognizes that a major effort is needed to combat land degradation as

<sup>15</sup> Voegele, J. 2001. *Combating Desertification in Western China: A Policy Perspective*. Washington, DC: World Bank.

<sup>16</sup> State Environmental Protection Administration. 1998. *China's Biodiversity: a Country Study*. Beijing: China Environmental Science Press.

<sup>17</sup> According to the 23 March 2002 issue of *China Daily*, two March 2002 dust storms blew into Beijing 26,000 and 30,000 tons of sand and dust, respectively, causing increased respiratory problems for residents and extra cleaning costs for the city. Dust storms also occurred in March and April 2004.

<sup>18</sup> ADB. 2002. *Technical Assistance for Prevention and Control of Dust and Sandstorms in Northeast Asia*. Manila.

a national development priority. The Government's commitment to sustainable natural resource management is reflected in the Tenth Five-Year Plan (2001–2005). This plan calls for (i) attaching importance to the sustainable use of water resources; (ii) protecting land, forest, grassland, marine, and mineral resources; and (iii) improving environmental quality in rural and urban areas. In June 1999, the Government officially launched the Western Development Strategy (WDS), which has two main objectives: (i) reduce economic disparities between the western and other regions and (ii) ensure sustainable natural resource management. Key government plans and programs include the following:

- (i) **National Plan for Ecological Environment Construction (1998–2050).** This plan coordinates water and soil conservation with national economic development. The plan also aims to improve living standards and prevent water and soil loss.
- (ii) **Natural Forest Protection Program.** Under this program, industrial logging in natural forests was banned (beginning in 1998) in most PRC areas. The program applies to all forests in the western region and is the largest nationally funded forest conservation program.
- (iii) **National Land Conversion Program (2000–2008).** This program aims to reverse vegetation degradation and soil erosion by converting steep lands that are cultivated or barren into forest, shrub, or grassland cover.
- (iv) **Small Watershed Program of the Ministry of Water Resources.** This program will improve technical management of small- and modest-sized watersheds.
- (v) **Desertification prevention and control programs.** These programs include three north shelterbelt system programs, Plain Farmland Shelterbelt System Program, Taihang Mountain Afforestation Program, and National Program for Prevention and Control of Desertification. Shelterbelt forests in the middle and lower reaches of the Yangtze and Yellow rivers and Taihu lake catchments will also be affected by prevention and control programs.
- (vi) **CCD-NAP.**<sup>19</sup> This program focuses on 265 priority counties in western PRC. Implementation is over three phases: 2001–2010, 2011–2030, and 2031–2050. A key objective of CCD-NAP in its first phase is to control 22 million hectares of degraded land by 2010. An investment programs blue book, submitted in 2000 by provincial authorities to the Chinese Committee for Implementation of the Convention to Combat Desertification (CCICCD) for consideration and support by prospective development partners, lists 24 projects covering priority areas, with a total budget of \$1.26 billion. None of these projects attracted development partner financing, as they were seen as too traditionally forestry oriented.
- (vii) **Biodiversity Conservation Action Plan.** This plan was formulated in response to the Convention on Biological Diversity (CBD) and the Country Study Report on Biodiversity in China, which carried out comprehensive assessments of biodiversity, indexed endangered animals and plants, and put forward policy suggestions regarding the strengthening of national capacity for biodiversity protection and the sustainable use of biological resources.
- (viii) **National Wetlands Conservation Action Plan.** To enforce the Ramsar Convention on Wetlands, this plan covers the designation of important wetlands as national reserves.

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<sup>19</sup> CCICCD. April 2000. *China National Report on the Implementation of the UNCCD and National Action Program to Combat Desertification*. Beijing.

12. During the 1990s, total public investment in land degradation programs almost tripled, to over CNY54 billion.<sup>20</sup> Government expenditures in the six most degraded dryland areas (Gansu, Inner Mongolia, Ningxia Hui, Qinghai, Shaanxi, and Xinjiang Uygur) in 2002 were approximately equivalent to \$1 billion, almost twice the 2000 level. Despite this growth in expenditure, the Government is concerned about inefficiency and an uncoordinated approach to tackling cross-sector issues. Plans and programs are mostly designed and implemented by sector agencies working in isolation and with a top-down perspective, and, with few exceptions, these efforts achieved less than intended. Forestry programs dominate expenditures. From 2000 to 2010, approximately \$66 billion equivalent is projected to be spent on these programs.<sup>21</sup> A new forestry development strategy was issued in September 2003, and this gave greater attention to environment protection and even higher expenditure targets.<sup>22</sup> At the March 2004 National People's Congress, renewed emphasis was placed on rural development and environment protection.

13. Increased government awareness and commitment to addressing environmental challenges drew support from the international community, which is keenly aware of the global implications of the PRC's size and potential.<sup>23</sup> The PRC-GEF Partnership features prominently in the country strategy and program (2004–2006), and ADB organized regular development partner coordination roundtables.<sup>24</sup> Development partner grant value under the ninth and tenth five-year development plans is estimated to be \$100 million, whereas loan-funded projects under these plans are estimated to be \$50 million–100 million.

## **B. Analysis of Key Problems and Opportunities**

14. From dialogue with involved agencies over the past 3 years, the main problems and opportunities related to promoting integrated ecosystem management approaches and combating land degradation were identified. A problem analysis is given in Appendix 3. The proposed project that is described in Section III will make a start toward a long-term solution to overcoming these problems.

<sup>20</sup> ADB. 2002. *Technical Assistance for National Strategies for Soil and Water Conservation*. Manila.

<sup>21</sup> ADB. 2003. *Preparatory Work for a Technical Assistance Project on Forestry Economy*. Manila. The average annual expenditure in this period is projected to be CNY55 billion (over \$6 billion).

<sup>22</sup> Lan. X. 2003. China's Forestry Development is Converting to Ecological Development from Industrial Production. *Beijing Review* 46 (46): 21–23. The new strategy combines ongoing projects with new initiatives and gives more attention to sustainable ecological systems. In addition, the strategy advocates less reliance on fast-growing species and a projected total expenditure of \$96.9 billion equivalent in the 7 years to 2010. On this basis, annual expenditures will be \$13.8 billion equivalent and reach that level much faster than those previously announced.

<sup>23</sup> The PRC currently feeds 22.0% of the world's population, based on only 6.4% of the world's land area, 7.2% of the world's farmland, and 5.8% of the world's annual water resources.

<sup>24</sup> Participating organizations include the Australian Agency for International Development; Canadian International Development Agency; Department for International Development; European Union; Food and Agriculture Organization; Deutsche Gesellschaft für Technische Zusammenarbeit; International Fund for Agricultural Development; Japan Bank for International Cooperation; Japan International Cooperation Agency; Kreditanstalt für Wiederaufbau; United Nations Development Programme; United Nations Educational, Scientific and Cultural Organization; World Bank; and embassies of Italy, Netherlands, Norway, Sweden, and United States. At these meetings, participants expressed strong support for improved aid agency coordination to combat land degradation. ADB will provide support to the office and continue to support aid agency coordination in collaboration with the United Nations Development Programme. The Global Mechanism of United Nations Convention to Combat Desertification agreed to provide full support in mobilizing resources from bilateral, multilateral, and private sector organizations for the Partnership. Appendix 5 (Table A5) provides a list of some international development agency-supported land degradation projects.

## 1. Technical and Institutional Problems

15. While many institutions are involved in collecting national-level data on different land degradation types, no single agency collects all data required for a comprehensive understanding of land degradation processes.<sup>25</sup> Different agencies use different land degradation definitions or focus on certain aspects. A coordinated approach, using standard procedures to obtain information on trends in land degradation, is needed. This approach will allow decision making to be based on accurate and universally acceptable data. Technical research on combating land degradation was completed over the last 50 years, and some successful applications were developed (e.g., desert sand stabilization, to protect major transport links). However, little research was conducted to (i) understand root causes; (ii) measure existing approach impacts and cost-benefit ratios; (iii) design new and cost-effective approaches; or (iv) gather and analyze policy-relevant data for planning.

## 2. Incomplete Policy and Legislative Framework

16. Within the PRC's current wide range of policy and legislation, a substantial variability exists in the PRC's ability to recognize many different types of land degradation. Also, only a variable ability exists to implement the variety of programs needed for land degradation control. In recent years, the PRC recognized the benefits of taking a sustainable development approach, and natural resource and environmental law reform commenced.<sup>26</sup> Considerable effort will be needed to remove the gaps and overlaps in existing environmental policies, laws, and regulations at the central and provincial or regional levels. Local-level regulations are also not understood fully or enforced, land tenure arrangements are often uncertain, and land use rights for rural communities require further reform to promote a long-term perspective on natural resource use. Improving sustainable management policy and legislation quality and consistency are major challenges that the Government is focused on for the future.<sup>27</sup>

## 3. Limited Role of Markets

17. Despite some reforms, market-based services and incentives are inadequate to support sustainable resource use, and the private sector role is generally undeveloped. Rural financial markets are undeveloped, and most rural households do not have access to efficient or effective financial services. Although water tariffs now better reflect real cost, groundwater is still not priced at a level that enables depletion cost recovery.<sup>28</sup> Likewise, fees for communal land lease contracts do not generally reflect real land value and therefore encourage high input-low output land use approaches. Due to past severe food shortages, traditional production-oriented approaches resulted in a number of so-called perverse incentives that impinge directly or indirectly on land degradation. As the PRC is now a self-sufficient food producer, supply-driven

<sup>25</sup> Notably, SFA monitors desertification and forest cover; MWR monitors soil erosion and water resource quality and quantity; MOA monitors soil fertility and grassland quality; SEPA monitors ecological changes and biodiversity; Ministry of Land and Resources monitors changes in land use and land conversion; China Meteorological Administration monitors climate change and dust storms; and State Bureau for Surveying and Mapping monitors spatial data on infrastructure development.

<sup>26</sup> The process commenced in 1998 with the amendment of the Forestry Law and the Land Administration Law. Other major natural resource laws (water, grasslands, and agriculture) were revised in 2002, and other key legislation was introduced (e.g., environmental impact assessment, antidesertification).

<sup>27</sup> The International Union for the Conservation of Nature and ADB and other aid organizations are assisting the PRC in improving its environmental law quality, based on best international practices.

<sup>28</sup> Such distortions encourage extending irrigated areas into unsuitable environments, increasing salinization, and supporting an increasing livestock population, because of the availability of fodder.

production no longer needs to dominate development thinking. Private sector involvement can be increased in many ways.<sup>29</sup>

#### **4. Institutional Fragmentation**

18. Ecosystem elements are currently treated in isolation from each other, based on institutional mandates. And, as a result, no strong understanding exists of area-wide ecological systems and how to address these in a coordinated and systematic way. For example, water is treated differently depending on whether it is managed for livestock needs, irrigated agriculture, forestry purposes, or domestic consumption. Likewise, different agencies deal with soil erosion, depending on whether it is induced by water (MWR) or wind (SFA). This creates problems, because most ecosystems suffer from a combination of water-induced and wind-induced erosion. The agency responsible for desertification (SFA) is not responsible for the management of grasslands (MOA), despite the fact that grassland degradation is the major cause of desertification. The result is poor institutional coordination and no clear authority and control over natural resources, which leads to only limited impacts on environmental and poverty objectives. A high-level coordination mechanism is needed for an integrated central-, provincial-, or regional-level approach to land degradation control under the forthcoming Eleventh Five-Year Plan (2006–2010). Although government programs relied on sector-specific approaches to natural resource management, international experience from countries such as Australia, Canada, United States, and others strongly supports an integrated ecosystem management-style approach.<sup>30</sup>

#### **5. Inconsistency Between Sector Approach and Area Planning**

19. Land degradation control and ecosystem rehabilitation to date have emphasized top-down engineering solutions (i.e., ecological construction) on a sector basis (e.g., forestry, agriculture, and water resources). This approach typically has not involved extensive affected population participation or attacked the root causes of land and ecosystem degradation, as these relate to addressing poverty and providing alternatives to unsustainable land practices. Adopting a comprehensive framework, including public awareness programs, social and economic infrastructure, and sustainable livelihood promotion, is needed. Locality-specific land use planning remains poorly developed. Devolving responsibility for restoring degraded lands to the local level needs to be based upon (i) common understanding of integrated ecosystem management principles; (ii) bottom-up community participation; and (iii) appropriate land use planning tools and/or mechanisms that have the potential to be promoted at county and township levels in the Eleventh Five-Year Plan. A growing body of successful experience exists in the PRC with community-based participatory planning processes for rural development project design and implementation, often at the watershed or ecosystem level. At least 30

<sup>29</sup> ADB. 2002. *Technical Assistance for National Strategies for Soil and Water Conservation*. Manila. Examples include (i) rural enterprises using conservation farm and/or forest management practices; (ii) ecotourism and conservation-related businesses that are based on the region's rich biodiversity; (iii) sustainable financial systems that provide effective services to rural areas; (iv) offsite (downstream) beneficiary fees that pay for onsite (upstream) conservation (e.g., a levy on water user fees or hydroelectricity bills); (v) land degradation control that is funded from the development, operation, and maintenance costs of major infrastructure development projects involving roads, railways, dams, water transmission canals, irrigation facilities, hydropower plants, oil and gas pipelines, water systems (urban), etc., as erosion, sedimentation, flooding, or burial by drifting sand and/or landslides may threaten their long-term viability; and (vi) river basin or provincial level trust fund creation, financed through levies on offsite and/or downstream beneficiaries, to support land degradation control as part of the public contribution to the costs of upstream conservation.

<sup>30</sup> Yang, Youlin, Victor Squires, and Lu Qi, eds. 2001. *Global Alarm: Dust and Sandstorms from the World's Drylands*. New York: United Nations.

projects were identified; a common factor was international development agency support, where a participatory approach was required (Appendix 5). However, this approach is not yet mainstreamed into government programs or projects.

## **6. Inadequate Budget Resources and Financial Incentives at the Local Level**

20. Although government expenditures increased and investment mechanisms evolved as a result of the WDS, the counties most seriously affected by land degradation are the poorest, and they have low revenue bases. Local financial capacity to carry out locally planned, financed, and implemented investments is therefore weak. The financial capacity of the most degraded dryland provinces and/or regions to seek long-term financing from multilateral financial organizations and related grant cofinancing is also constrained by current policies that require local-level debt servicing. Debt financing is, logically, reserved for investments with adequate financial returns (such as infrastructure) and not public-good investments, such as land degradation control. While larger fiscal transfers from the central Government are vital, financial reforms and mechanisms are also needed. An improved development agency coordination mechanism would help maximize concession financing. Most grants come from bilateral agencies (coordinated by the Ministry of Commerce), whereas multilateral borrowing is controlled by the Ministry of Finance (MOF). Local planning and budgeting systems also need improved expenditure prioritization and efficiency. Financial incentives for provinces and/or regions to promote an integrated ecosystem management approach to combating land degradation are also needed.

## **C. Key Lessons Learned**

21. From the Framework Brief and subsequent dialogue, consensus exists concerning international experience providing many lessons relevant to the PRC. In addition, the PRC's, ADB's, and other development agencies' experiences (Appendix 5) throughout the region are relevant. In brief, the main lessons learned include the following:

- (i) **Using best international practices.** International experience (e.g., acquired in Australia, Canada, and United States) teaches that interagency coordination is vital, as controlling land degradation requires a multidimensional approach with a long-term perspective. Comprehensive, scientific, and participatory approaches yielded excellent and long-term results in economic productivity and restored environmental quality in very large areas of previously degraded drylands. The high-level coordination arrangement that has operated for the past 3 years, with similar arrangements in each province and region, will guide CPF implementation at central, provincial, and regional levels. The Project will build the capacity to implement the 10-year CPF; facilitate future investment projects; and improve development agency coordination, which will increase concessional funding.
- (ii) **Creating an enabling environment.** Improving the quality of environmental policies, laws, and regulations, as will be done under the Project's first component, will assist in providing a more consistent and comprehensive provincial-level framework. Land tenure arrangements, land use rights, and market-based services and incentives that will support a wider private sector role are also supported, to promote a long-term perspective on natural resource exploitation.
- (iii) **Treating land degradation's causes.** Land degradation's root causes, and not just its symptoms, must be properly diagnosed and widely understood if treatments are to be designed that are effective and acceptable to rural people. Standard definitions, procedures, and indicators are needed to obtain and report information

on land degradation trends. Bottom-up processes, not top-down processes, are most effective at the ecosystem level, and they are likely to be more sustainable in the long term.<sup>31</sup> Farmers, herders, and researchers, as well as decision makers, all need to frankly exchange views. Devolving implementation responsibility to the local level and greater stakeholder participation in decision making are needed. Greater fiscal transfers to the lower levels of government and incentives to promote sustainable development are required. The Project includes participatory surveys, field demonstrations of integrated ecosystem management, project impact evaluations, applied research grants, economic research, land degradation strategy development, land degradation monitoring and evaluation system reform, and training and institutional capacity building at central and provincial levels.

- (iv) **Implementing flexible and responsive interventions.** Previous ADB TA activities show that clear targets; regular reviews; flexible approaches; and short time frames, to maintain momentum, must accompany future efforts to assist the Government in this complex area.<sup>32</sup> These features were incorporated into project design.

### III. THE PROPOSED PROJECT

#### A. Objectives

22. The CPF's overall goal (as set out in the Framework Brief) is to combat land degradation, alleviate poverty, and restore dryland ecosystems in the western region. The project objectives under the CPF are to strengthen the enabling environment and develop institutional capacity to combat land degradation (Appendix 1). The Project will work at the central level and in the six priority provinces and/or autonomous regions (Gansu, Inner Mongolia, Ningxia Hui, Qinghai, Shaanxi, and Xinjiang Uygur) that are most affected by dryland degradation. Each provincial government indicated high-level political support for the reforms needed in the enabling conditions (existing policies, legislative framework, institutional arrangements, harmonized plans, and budget allocation) that are essential for sustained progress in arresting land degradation.

#### B. Components and Outputs

23. The Project will comprise six components and their supporting activities, determined in discussion with the Government and other stakeholders. In addition to policy and institutional reforms, the Project will focus on assisting the Government in developing an integrated program to address land degradation through an integrated ecosystem management approach. Appendix 6 provides a component summary. Supplementary appendixes D to I provide the full component details.

<sup>31</sup> The successful Fujian Soil Conservation and Rural Development Project also provides practical lessons. ADB. 1995. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan and Technical Assistance Grants to the People's Republic of China for the Fujian Soil Conservation and Rural Development Project*. Manila.

<sup>32</sup> Sector agency reluctance to effectively collaborate, share information, or welcome ideas that implied thinking beyond agency-specific boundaries was the most difficult problem faced by previous TA activities. For instance, the completion report for PRC-GEF Partnership on Land Degradation in Dryland Ecosystems (TCR 3657-PRC) concluded that the TA was partly successful. The lessons learned from this TA include that "It is extremely difficult for any sector agency to coordinate other sector agencies in a multi-sector approach to combating land degradation. It [the difficulty in coordinating] amply illustrated that institutional problems are the main barrier to be overcome. Government has noted this and has taken positive steps toward strengthening inter-agency coordination and full-time management of the CPF."

## 1. Improving Policies, Laws, and Regulations for Land Degradation Control

24. Component 1 will support quality improvements in existing policies, laws, regulations, and procedures, including incentives for combating land degradation, especially at the provincial level. Three broad outcomes will be pursued, as summarized in paras. 25–27.<sup>33</sup>

25. **Developing Procedures and Mechanisms to Improve Law and Policy Quality and Implement Integrated Ecosystem Management.** Six related work areas will assess, develop, and recommend (i) a comprehensive legislative and ecological elements toolbox for legal, policy, and institutional arrangements for land degradation management, including the toolbox's computerization;<sup>34</sup> and (ii) standard provincial procedures based on best practices covering organizations, land management, community participation, financing arrangements, and regulatory and nonregulatory approaches enforcement; (iii) laws, regulations, and policies harmonization, covering grasslands and desertification; water and soil conservation; water, forestry, agriculture, and land administration; environmental protection; and environmental impact assessment (EIA); (iv) capacity building for laws and policies implementation and surveillance, focusing on developing an interagency coordination mechanism for decision making applicable to the Eleventh Five-Year Plan in each province and region; procedures for ecosystem function zones, to be integrated with other zones used in different sectors; procedures for implementation under the EIA law; and one mechanism to examine implementation and monitoring effectiveness; (v) EIA's role in land degradation control through practical procedures under the EIA law; and (vi) legal procedures for private sector involvement, including land tenure; land use rights; gender rights and market access; compensation measures for grassland closure; and preparation of measures to address sustainable livelihoods in consideration of poverty alleviation, minority groups, and gender rights.

26. **Building Capacity in Legislative and Policy Aspects.** Three linked work areas will be undertaken: (i) preparing a comprehensive capacity-building program in legislative, policy, and institutional measures to train key target groups, including legal officers, legal draftsmen, judicial officials, policy makers, government officials, and private individuals at the central, provincial, and regional levels; (ii) implementing training workshops at central and provincial levels on integrated ecosystem management's legal role, land degradation studies' legal aspects, policy and law links establishment, EIA, and judicial and legislative remedies access. Workshops would be provided through a PRC institution with a recognized capacity and include training of trainers and include relevant materials and presentations preparation;<sup>35</sup> and (iii) supporting a program of international visits, tours, and secondments for selected officials that will focus on innovative and relevant environmental laws and policies.

27. **Policy, Advice, and Problem Solving Support.** A legal and policy advisory group will be formed, comprising representatives of all involved provinces and/or regions and the central Government to guide implementation, including field visits and monitoring. In addition, a feasibility study will be undertaken. This study will examine the need for a permanent capacity

<sup>33</sup> Component 1's design and implementation arrangements reflect a systematic approach and the recommendations made in ADB. 2002. *Capacity Building for Environmental Law in Asia and the Pacific Region*. Manila.

<sup>34</sup> This will be a joint central and provincial exercise that is based on current land degradation problems, and it will be tested and implemented at the provincial level. The toolbox will act as a compendium of existing laws, regulations, and measures for implementation with an explanation of their capacity to implement integrated ecosystem management. Moreover, the toolbox will include recommendations to deal with land degradation.

<sup>35</sup> For example, Research Institute of Environmental Law at Wuhan University, or Beijing Normal University.



for environmental law training in dryland areas and identify the most cost-effective option for delivering such training. Last, special studies will be undertaken to assist with legal reform.<sup>36</sup>

## **2. Strengthening National and Provincial Coordination**

28. This component will ensure that the forthcoming Eleventh Five-Year Plan (2006–2010) reflects greater sector plan harmonization and introduces integrated ecosystem management approaches and budget allocation rationalization in the involved provinces and/or regions. To highlight the principles of integrated ecosystem management and promote mutual understanding among stakeholders of the concepts, key problems, and root causes of land degradation, an international workshop will be held in the first year of implementation. The workshop will (i) aim to assist policy makers as they work to better understand land degradation causes overseas and in the PRC and help them understand what worked, what did not work, and why; (ii) involve all key stakeholders and help identify their views of proposed interventions and phasing; and (iii) assist in developing advice concerning specific and regional guidelines for the Eleventh Five-Year Plan, which will be issued in September 2005.<sup>37</sup>

29. An institutions and planning expert group will be formed, comprising representatives of all involved agencies. The group will guide the implementation of components 2, 3, 4, and 6. For component 2, the group will assist in undertaking an institutional review and recommending appropriate measures, including a mechanism for improved central, provincial, and regional interagency collaboration and coordination. Other activities will include (i) formulating land degradation strategies at the province or region level; (ii) assessing the economic costs and benefits of land degradation control through field studies in selected areas; (iii) implementing a feasibility study examining the establishment of integrated ecosystem management training on a permanent basis; (iv) revisiting CCD-NAP, Biodiversity Action Plan, and other relevant action plans, to harmonize the approach being taken under the PRC-GEF Partnership; (v) initiating workshops to promote strategic integrated ecosystem management planning; and (vi) promoting regional and interprovincial study tours and exchanges on integrated ecosystem management.

## **3. Improving Operational Arrangements at Provincial/Autonomous Region and County Levels**

30. Component 3 will enhance provincial and county agencies' capacity to work with rural communities in bottom-up participatory planning and implementing field-level land degradation control through an integrated ecosystem management approach. Under institution and planning expert group guidance, other activities will include assessing existing operational arrangements, institutional capacity, and training needs; identifying field-level best practices; developing integrated ecosystem management guidelines, manuals, and materials for training; and demonstrating community-based land degradation control in a minimum of three selected areas per province or region. A minimum of 10 adaptive research grants will also be provided, on a competitive basis, for research agencies to conduct participatory research and use participatory technologies in combating land degradation. A public awareness campaign on the integrated ecosystem management approach will be undertaken, and workshops on community-based land degradation control, tours and/or exchanges for study, and publications will also be supported.

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<sup>36</sup> For example, including the Wild Animal Protection Law, Land Administration Law, and various regulations relating to the Desertification Prevention and Control Law, and Grasslands Law.

<sup>37</sup> The planning guidelines are recommended by NDRC to the State Council.

#### **4. Capacity Development for Land Degradation Investment Projects**

31. Developing the capacity to design, implement, and finance future investment projects, based on an integrated ecosystem management approach to combat land degradation, is a major element of the Project. In each province and region, the approach will (i) identify training needs; (ii) examine the impact of past land degradation investments (accurate feedback on the impacts, benefits, and efficiencies of different types of interventions, as could come via a coordinated monitoring and evaluation program, are not available);<sup>38</sup> and (iii) undertake feasibility studies of integrated ecosystem management project investments. These studies will cover high-priority investment projects, for possible ADB, GEF, or other development agency financing under the PRC-GEF Partnership.<sup>39</sup> To identify potential financing for these future investments, a study of cofinancing options will be undertaken to identify one or more modalities for combining loan financing, GEF grants, other concessional resources, and government support. An operational cofinancing modality is a precondition for each province and region to benefit from potential investments under the Partnership.

#### **5. Monitoring and Evaluation System for Land Degradation**

32. The component's major outputs will be (i) a national coordination mechanism for collecting, sharing, and analyzing land degradation-related data; (ii) the clarification of provincial- and county-level agency roles and mechanisms that will contribute to national-level land degradation assessments; (iii) a universally agreed definition of land degradation, including common definitions of specific land degradation types (e.g., wind erosion, water erosion, soil fertility decline, and biodiversity loss); common standards and indicators for national-level monitoring of specific land degradation types; and compatible software programs and standards, which will facilitate sharing of data sets.

33. Activities will be guided by an advisory group on land degradation monitoring and evaluation. The group will comprise experts from established participating main agencies. Activities will include establishing a geographic information system at each province and region; training in land degradation assessment; developing indicators for monitoring land degradation; and conducting related workshops, study tours, and exchange visits. At the national, provincial, and regional levels, a series of institutional stakeholder consultation and consensus building meetings would be held to reach agreement on new mechanisms for coordinating and sharing the collection and analysis of national-level land degradation datasets. At the community level, the direct stakeholders (land users, including farmers, foresters, herders, etc.) would be involved in pilot monitoring and assessment studies, participating actively in assessing the nature, severity, and impact of land degradation in their areas. Proven programs and techniques for assessing and monitoring land degradation in the PRC will be supported, including the Food and Agriculture Organization of the United Nations (FAO) and its successful Land Degradation Assessment (LADA) pilot program.

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<sup>38</sup> Shaanxi Province provided a list of 21 major land degradation projects, including foreign assisted projects. The province has no overview of the impact of these or other ongoing projects, nor does it have a view on the replicability of possible best practice results coming from foreign assisted projects. Provincial leaders stated that they would welcome a comparative impact evaluation of these projects as a guide to formulating future investments under the Eleventh Five-Year Plan.

<sup>39</sup> ADB programmed several project preparation TAs and subsequent loans for OP12 investments in 2004–2006. The agreed project eligibility criteria (in addition to existing GEF principles and criteria) are given in Appendix 4.

## 6. Implementation Arrangements for the Country Programming Framework

34. Capacity will be developed to support the 10-year CPF's implementation, including future integrated ecosystem management projects and development partner coordination. Logistical and technical support will be provided for the already established project coordination office (PCO) in MOF and the project management office (PMO) in SFA. The PCO and PMO will share a common office in Beijing. The office was opened in November 2003. Information exchange between projects, agencies, and other stakeholders will be a major activity to promote understanding of lessons learned, promote understanding of integrated ecosystem management's role, and improve cooperation and transparency. A program monitoring and evaluation system based on learning and adaptive management is being established in MOF. The system will ensure that project results and results of related projects are used to adjust the program.

### C. Special Features

35. **Support for the Long-Term Country Programming Framework.** The Project is the first step toward a long-term PRC-GEF Partnership on Land Degradation in Dryland Ecosystems, providing vital preliminary measures in support of future demonstration investments in integrated ecosystem management models for combating land degradation.

36. **Multiple Agencies and Provinces and/or Regions.** Eleven government agencies and six provinces and/or regions are involved in the Project. High-level coordination and consultation within the Government, backed up by high-level political support, is a preparatory phase feature and will continue into implementation.

37. **Institutional Reform.** Mechanisms are proposed for (i) high-level institutional coordination for ensuring an integrated approach centrally and at the provincial and regional levels for land degradation control; (ii) improved coordination between MOF and Ministry of Commerce to maximize concessional financing; (iii) one national coordination mechanism for collecting, sharing, and analyzing and reporting land degradation-related data; and (iv) participatory processes use that is acceptable for promoting understanding of integrated ecosystem management principles, community involvement, local-level land use planning, and social planning.

38. **Participatory Processes.** Based on international and domestic successes in addressing land degradation and rehabilitating degraded ecosystems, proven approaches and techniques will be promoted. These include promoting understanding of land degradation's root causes, strategic land degradation planning and ecosystem zoning, appropriate legal and regulatory systems, bottom-up stakeholder participation and multisector approaches, and sustainable land management incentives.

39. **Development Partner Coordination.** ADB convened regular development partner roundtables to share information on the Partnership's process and solicit input to the formulation of the CPF. This will continue during implementation until adequate government capacity is established. The PCO will coordinate development partners under the Partnership; disseminate information on program implementation; and convene regular development partner meetings, to facilitate the mainstreaming of development partner interventions into the Partnership.

40. **Processing and Implementation Modality.** The Project is unique in that it does not fall into either of ADB's traditional TA or loan categories. Loan processing procedures were followed

that provide for greater government implementation responsibilities and higher ADB supervision intensity.<sup>40</sup>

## D. Cost Estimates

41. The Project's total cost is estimated to be \$13.8 million equivalent, of which about \$2.1 million will be in foreign exchange and about \$11.7 million equivalent will be in local currency, inclusive of duties and taxes. Summary cost estimates for each component are given in Table 1. A financial incentive for full and early compliance by provinces and/or regions will come from project contingencies. Detailed cost estimates are given in Appendix 7.

**Table 1: Cost Estimates**  
(\$ '000s)

Component	Foreign Exchange	Local Currency	Total Cost
<b>A. Base Cost</b>			
1. Improving Policies, Laws, and Regulations	129.0	1,058.6	1,187.6
2. Strengthening Central and Provincial Cooperation	189.2	1,077.1	1,266.3
3. Improving Field-Level Operational Arrangements	343.2	3,426.2	3,769.4
4. Capacity Development for Land Degradation Investment Projects	207.0	713.5	920.5
5. Monitoring and Evaluation System	925.8	1,629.0	2,554.8
6. Implementation Arrangements	155.4	2,691.5	2,846.9
<b>Subtotal (A)</b>	<b>1,949.6</b>	<b>10,595.9</b>	<b>12,545.5</b>
<b>B. Contingencies<sup>a</sup></b>	195.8	1,058.7	1,254.5
<b>Total</b>	<b>2,145.4</b>	<b>11,654.6</b>	<b>13,800.0</b>

<sup>a</sup> Based on approximately 10% of base costs.  
Source: Asian Development Bank estimates.

## E. Financing Plan

42. The Project will be financed by GEF on a grant basis and administered by ADB in the amount of \$7.7 million equivalent, of which approximately \$2.1 million will be in foreign exchange and approximately \$5.6 million equivalent will be in local currency. GEF will finance 100% of the incremental costs required to obtain global benefits.<sup>41</sup> The Government will contribute the balance of the local currency baseline cost of \$6.1 million to cover counterpart staff remuneration and per diems; office accommodation and supplies; local transport and communications, workshops, and training; and all duties and taxes.

<sup>40</sup> These processes are appropriate, given the (i) complex policy and/or institutional reform agenda to improve land management in western PRC and the need for government ownership of this process; (ii) previous TA projects and the considerable dialogue that has taken place over a 3-year preparatory period; and (iii) specific organizational arrangements already put in place at the central and provincial levels.

<sup>41</sup> In GEF's terminology, baseline costs are the Project's "normal costs", whereas "incremental costs" are those required to obtain global benefits.

**Table 2: Financing Plan**  
(\$ '000s)

Source	Foreign Exchange	Local Cost	Total Cost	Percent
<b>A. Global Environment Facility</b>	2,145.4	5,554.6	7,700.0	55.8
<b>B. Government</b>				
1. Cash	0.0	3,250.0	3,250.0	23.6
2. In-Kind	0.0	2,850.0	2,850.0	20.6
<b>Subtotal (B)</b>	<b>0.0</b>	<b>6,100.0</b>	<b>6,100.0</b>	<b>100.0</b>
<b>Total Project Cost</b>	<b>2,145.4</b>	<b>11,654.6</b>	<b>13,800.0</b>	<b>100.0</b>

Source: Asian Development Bank estimates. Details are given in Appendix 7.

## F. Implementation Arrangements

43. **Overall Arrangements.** The coordination and management arrangements were developed, tested, and adjusted over the 3-year preparation period and are working well. The arrangements comprise one high-level steering committee,<sup>42</sup> one PCO and one PMO that share a common office, several provincial PCOs and PMOs with similar structures to their central-level counterparts, and three advisory groups. Appendix 8 provides the details.

44. **Project Coordination Office.** Headed by the Director General, Department of International Cooperation in MOF, the central PCO will (i) report to the Steering Committee; (ii) liaise with GEF, ADB, and international organizations; (iii) coordinate central agencies, dealing specifically with interagency issues; and (iv) provide guidance to the central PMO, through progress monitoring. The members of the central PCO will represent each of the agencies that are represented on the Steering Committee. In each province and region, respective finance bureaus will head provincial PCOs and report to vice governors.

45. **Project Management Office.** The PMO is headed by the Deputy Director General, Department of Science and Technology, SFA, which is the Project's Executing Agency. The office comprises representatives of the same agencies represented on the Steering Committee and in the PCO. The PMO will be responsible for (i) developing the annual work plan and implementing arrangements, with ADB and consultant support; (ii) managing all project components, including contract management and related activities; (iii) implementing and guiding, daily, the provincial PMOs; and (iv) managing funds disbursed by MOF from the central imprest account into the central PMO account (para. 51). These funds will be used for the activities specified in approved work plans. The PMO will also assist provincial PMOs in managing the funds released by MOF for the agreed provincial work plans. Moreover, the PMO will be responsible for supporting advisory groups. To this end, the PMO will undertake work planning and prepare reports and schedules. The PMO has six full-time staff members and four part-time staff members. The part-time staff members were recruited from participating agencies or by contract. The PMO office was set up in 2002 and moved to the Debao Hotel in November

<sup>42</sup> The Steering Committee will continue to coordinate the 11 participating agencies and 6 provinces and/or regions. The committee comprises senior representatives from the National Development and Reform Commission, MOF, MOA, MWR, Ministry of Land and Resources, SEPA, CAS, SFA, Ministry of Science and Technology, Legislative Work Committee of the National People's Congress, and Legislative Affairs Office of the State Council. Representatives from other agencies may be invited to join the Steering Committee, as appropriate (e.g., Office of the Leading Group for Western Region Development of the State Council). The committee will meet regularly. Important functions will be approving the annual work program and annual report. Advisory groups (e.g., policy and legal framework, land degradation monitoring and evaluation, and institutional coordination) will assist the Steering Committee.

2003.

46. **Provincial Project Coordination Offices, Project Management Offices, and Advisory Groups.** Each participating province and/or region established its own PCO and PMO arrangement. Provincial PCOs are headed by the Finance Bureau, and provincial PMOs are headed by the Forestry Bureau. In each case, these PCOs and PMOs report to their respective vice governors. Three advisory groups (i.e., policy and legal framework, land degradation monitoring and evaluation, and institutional coordination), each with 8–10 members, will be established at the central level, to assist in implementing the Project. The groups will report to the Steering Committee.

47. **Implementation Period.** All components are expected to commence in July 2004 and be completed in June 2008. Flexibility will be needed, based on joint reviews of progress, and a process approach will be adopted, over all, so that the implementation lessons can be used to direct future priorities. ADB will play an advisory role.<sup>43</sup>

48. **Procurement.** Goods and related services and equipment financed from the GEF grant will be procured in accordance with ADB's *Guidelines for Procurement*. Vehicles and materials will be procured through international shopping, with minor items (i.e., those estimated to cost less than \$100,000) being purchased locally, where appropriate. Equipment and vehicle costs total \$1.14 million equivalent, covering the central Government and six participating provinces and/or regions, and are financed by the GEF grant. See Appendix 9.

49. **Consulting Services.** GEF will finance the services of 22 person-months of international consultants and 187 person-months of domestic consultants (Appendix 10). The consultants will advise the PCO, PMO, and advisory groups in the areas of environmental law, natural resource economics, general planning, participatory approaches, farmer field schools, geographical information systems, and integrated ecosystem management project design. All consultants will be required to prepare specific reports based on the activities undertaken and will assist, as appropriate, in implementing studies, workshops, seminars, meetings, and training under components 1–5. Consultants will be recruited through international and domestic firms and other suitable organizations (e.g., top universities, research agencies, nongovernment organizations, or other specialized organizations). Individual specialists may be recruited on the basis of technical expertise. To the extent possible, procurement will be on the basis of competitive procedures. In exceptional circumstances, where service providers are limited, direct selection may be applied, with ADB's prior approval. Consultants will be recruited in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for engaging individual domestic consultants.

50. Typically, consultants financed by ADB funds or by funds administered by ADB would be engaged by ADB in accordance with Section 2.01 of the *Guidelines on the Use of Consultants*. For the reasons described in paragraph 1 above, it was considered that this Project would be more appropriately processed and administered by applying loan procedures. Among other things, the application of loan procedures shifts the responsibility for engaging consultants to the Government and the EA. Board approval will be sought for the application of loan processing and administration procedures for the Project and related retroactive financing.

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<sup>43</sup> ADB has strengthened its resident mission in Beijing for this purpose.

ADB has assessed the Executing Agency's capability and considers the Executing Agency to have the capacity and experience needed to handle consultant recruitment.<sup>44</sup>

51. **Project Financing Agreement and Negotiations.** The proceeds of the GEF grant, once formally approved by GEF, will be remitted to the Government by ADB, in accordance with (i) a memorandum of understanding between ADB and the GEF Secretariat; (ii) a financial procedures agreement between ADB and the World Bank, as trustee of the GEF Trust Fund; and (iii) the various terms and conditions set forth in a financing agreement to be entered into between the Government and ADB, which will record the agreement of the parties on how the GEF grant is to be administered. In particular, the agreement will provide for the proceeds of the GEF grant to be disbursed in the first instance into an imprest account to be established by MOF at a bank acceptable to ADB. The imprest account will be managed and replenished in accordance with ADB's *Loan Disbursement Handbook*, dated January 2001. The initial amount to be deposited into the imprest account will be based on the amount estimated to be required to implement the GEF-financed components of the Project over the first 6 months. MOF will disburse the GEF grant's proceeds to the PMO and the six provinces and/or regions, in accordance with the consolidated annual work and financial plans of the PMO and the six provinces and/or regions, which will be the PMO's responsibility to consolidate and submit to MOF.

52. **Advance Action and Retroactive Financing.** Advance action for recruiting consultants and procuring goods and services may be undertaken prior to effectiveness of the legal documentation. The Board will be asked to approve retroactive financing in an amount not exceeding \$700,000 for GEF expenditures incurred after 1 November 2003 relating to (i) office operations at the central and provincial levels, (ii) workshops and preliminary training, (iii) office equipment and incremental staff, and (iv) consultants selected and engaged after 11 March 2004. The Government has been advised that advance action and retroactive financing does not commit either GEF or ADB to finance the project.

53. **Anticorruption Measures.** The Project will comply with ADB's anticorruption policy, particularly in respect of the sections of ADB's *Guidelines for Procurement* and ADB's *Guidelines on the Use of Consultants* that relate to fraud and corruption. External auditors whose qualifications, experience, and terms of reference are acceptable to ADB will audit the project accounts annually, and the Executing Agency will submit audited reports in a timely manner.

54. **Accounting, Auditing, and Reporting.** The Executing Agency will maintain separate records and accounts that will identify the goods and services financed from the GEF grant's proceeds, the financing resources received, the expenditures incurred for the Project, and the use of local funds. The accounts will be established and maintained in accordance with sound accounting principles. The annual consolidated project accounts and related financial statements for the Executing Agency will be audited and translated by auditors acceptable to ADB. The audited reports and related financial statements will be submitted to ADB not later than 9 months after the end of the fiscal year to which they relate. The Government was

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<sup>44</sup> The Government took significant measures to support its implementation role, including: (i) accepting strong interdepartmental support from 11 agencies, under the high-level Steering Committee's guidance, over the past 3 years; (ii) accepting similar high-level support from the six participating provinces and/or regions, including direct financial commitments; (iii) establishing MOF's coordination role, as the overall executing agency for the OP12 Partnership on land degradation in Dryland Ecosystems; (iv) producing a financial contribution of \$6.1 million; and (v) putting in place extensive preparations, including opening the joint PMO and PCO office in the Debao Hotel in Beijing in November 2003, which is located next to GEF's country office.

informed of ADB's policy on the submission of audited accounts, which covers failure to submit audited accounts and financial statements within the due date. A formal warning will be issued for accounts more than 6 months overdue, and disbursements will be suspended for accounts that are 12 months overdue.

**55. Project Monitoring and Evaluation.** The Project requires regular and timely feedback between components and incorporation of new and updated information, as this becomes available. This will serve to adapt and refine individual components and activities to enhance their effectiveness and impact. The improved system for monitoring land and ecosystem degradation that constitutes component 5 of the Project will feed into the program monitoring system, notably in assessing the impacts on the program goal of combating dryland ecosystem degradation.

**56. Project Reports and Reviews.** The PCO and PMO will jointly submit an annual work plan and annual reports, to be reviewed in annual meetings with the Steering Committee, GEF, and ADB, and will be jointly responsible for the final report. The Executing Agency will prepare six monthly progress reports indicating progress made, problems during the period under review, steps taken or proposed to remedy the problems, proposed program of activities, and progress expected for the following quarter. The PCO will ensure that copies are consolidated and submitted to ADB. The Government and ADB will jointly review project implementation at least once a year, to identify and resolve major issues. Copies of annual reports, and other reports as required, will be provided to GEF. A comprehensive joint review will be undertaken 12 months after project commencement, and future implementation will be directed by its findings. Within 6 months of project completion, the PMO, with support from the provinces and/or regions, will submit a completion report that describes project implementation, costs (actual) incurred, benefits, and other information requested by ADB or GEF.

#### **IV. ASIAN DEVELOPMENT BANK-FINANCED TECHNICAL ASSISTANCE**

**57.** The ADB-financed TA's objectives are to monitor overall CPF implementation and assist in implementing the Project. Key outputs will be advice, reports, and recommendations on (i) best practices for integrated ecosystem management approaches to combating land degradation, including setting up an integrated ecosystem management expert group of domestic experts, to promote networking among PRC scientists, researchers, and organizations and advise on project implementation; (ii) past land degradation intervention results; (iii) studies, workshops, seminars, and training programs planning; (iv) international scientific links to ongoing land degradation-relevant programs and projects; (v) relevant projects and programs identification in the PRC and overseas; and (vii) appropriate ADB safeguard policies compliance, including an indigenous peoples plan. The total cost of the TA is estimated at \$1 million equivalent, comprising about \$507,500 in foreign exchange and roughly \$492,500 equivalent in local currency costs; the Government will provide \$200,000 as counterpart funds. The TA will be implemented over 36 months and will finance 19 person-months of international and 103 person-months of domestic expertise. Consulting services will relate to monitoring and priority areas where international and national best practices will assist implementation (especially environmental law and policy, land degradation assessment, planning, and management). The Executing Agency will be MOF, as the Executing Agency for the overall CPF. Consultants will be recruited in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for engaging individual domestic consultants. Details are provided in Appendix 11.



## V. PROJECT BENEFITS, IMPACTS, AND RISKS

### A. Benefits and Impacts

58. **Environmental.** Land degradation is perhaps the most difficult environmental challenge to address in the PRC. The problem's scale is huge, and many trends are worsening, especially in dryland environments. International experience strongly suggests that a comprehensive, long-term process based on a holistic approach is needed. The Project will assist the PRC in meeting its international commitments under the CCD, CBD, and United Nations Framework Convention on Climate Change. Consultations and disclosure of the policy and institutional interventions and mitigation measures to be used under the Project occurred during design (Appendix 4).

59. **Technical.** The Project has a major role to play in promoting integrated and participatory approaches to combating land degradation where, traditionally, sector oriented and top-down approaches have dominated. Internationally accepted best practices, based on ecosystem-level understanding and sound ecological and financial principles, will complement best PRC practices.

60. **Policy and Legal.** A structured basis will be provided for overcoming policy and legislative barriers that constrain land and natural resource management programs formulation and implementation. Overcoming policy contradictions and improving the quality of relevant laws and regulations, together with coordinated approaches at national, provincial, and local levels, will help establish the preconditions for restoring ecosystem productivity and reducing poverty.

61. **Institutional.** Personnel from government agencies at national and local levels will benefit from the introduction of new approaches and capacity-building activities. Private sector organizations will benefit from clearer market-oriented rules and incentives for investment in natural resources. Improved development partner coordination will lead to greater concessional resources being available to some of the poorest provinces and/or regions. Improved coordination mechanisms at national, provincial, and county levels; strengthened links between national and local levels; effective investment projects under the CPF; and effective operational arrangements will promote greater understanding, reduce duplication, and improve efficiency.

62. **Social.** The sustainability of the Project's benefits will depend on benefits being captured by rural land users. Increasing the ability of local communities, including those with indigenous peoples, to control their own resources will strengthen sustainability of project activities. The Project will use participatory processes acceptable to ADB and the Government to promote local ownership for improved management with local governments and the private sector (Appendix 12).

63. **Economic and Financial.** Financial and economic sustainability will be promoted by reduced duplication and waste of resources. Increased emphasis will be placed on (i) monitoring the impacts of government expenditures on land degradation trends; (ii) providing fiscal incentives; (iii) increasing private sector involvement in natural resource management; and (iv) using economic measures in environmental planning.

64. **Global.** Global benefits will eventually accrue in three areas through the measures that will be supported by the Project and will be further extended through other investments under the CPF. For carbon capture, improved agricultural land management in the western region has the potential to contribute over 25 million tons of carbon storage annually by 2012. Improved

grassland, forest and woodland management in the western region has the potential to capture 87 million tons of carbon by 2012.<sup>45</sup> The many threatened ecosystems and species of global importance found in the western region will be protected and conserved through targeting activities in critical ecoregions and integrating biodiversity conservation into improved ecosystem management. In terms of land degradation, prioritizing cost-effective interventions in those areas most susceptible to desertification, including those identified as source areas of transboundary dust storms and sandstorms will help reduce their frequency and severity in the longer term.

## B. Risks

65. **Interagency Cooperation.** Effective cooperation between agencies at all levels may not be achieved. This major risk is addressed by involving all stakeholders through national and local leading groups and coordination offices and workshops promoting the proven advantages—including financial investments under the CPF—of a cooperative approach. Local leaders will be targeted for training and awareness building under the Project.

66. **Institutional.** The risk exists that the Government will not sustain its commitment to pursue the necessary reforms to overcome institutional and legal and/or regulatory barriers or to harmonize programs and budgets. Risk mitigation will be achieved through the Steering Committee, the coordinating role of MOF, the incorporation of reforms into the Eleventh Five-Year Plan, and the use of best international practices.

67. **Policy and Legislative Reforms.** These will not be in place in time to influence effective implementation of demonstration projects. This risk is mitigated by the development and implementation of the Project at the beginning of the CPF and by continually emphasizing the importance of timely reforms to key decision makers.

68. **Integrated Ecosystem Management.** This cannot be effectively developed, tested, and demonstrated in high-priority localities, due to a lack of acceptance among stakeholders. Risk mitigation will be achieved through testing and demonstrating in practical and convincing terms the benefits of an integrated approach based on sound ecological principles. This may include incentive and compensation provisions. An international workshop in the first year will assist in promoting understanding and the use of integrated ecosystem management.

## C. Overall Assessment

69. Overall, the benefits and impacts of an integrated approach are expected to outweigh the costs. The CPF's 10-year period is thought to be adequate for this to occur.

## VI. ASSURANCES

70. The Government and SFA have given the following assurances, which are incorporated in the legal documentation:

- (i) **Counterpart Funds.** The Government will ensure that counterpart funds are provided in a timely manner, including funds from provincial and/or regional governments.

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<sup>45</sup> Details of carbon capture and biodiversity benefits are given in Supplementary Appendix B.

- (ii) **Coordination Arrangements and Mechanisms.** The Government will ensure adequate coordination of all participating central agencies and participating provincial and/or autonomous regional governments. In particular, (i) a national coordination mechanism will be established for collecting, sharing, analyzing and reporting land degradation-related data; (ii) high-level mechanisms will be set up at the central and provincial and/or autonomous regional levels for coordinating investments to control land degradation under the Eleventh Five-Year Plan (2006–2010); and (iii) a mechanism will be established to improve development partner coordination for concessional financing to combat land degradation, including improved coordination between MOF and the Ministry of Commerce.
- (iii) **Participatory Approach and Social Guidelines.** The Government will ensure the adoption of participatory processes, acceptable to the Government, and ADB, to promote (i) integrated ecosystem management principles; (ii) community development; (iii) local-level land use planning; and (iv) social planning, including for indigenous peoples.
- (iv) **Promoting Integrated Ecosystem Management.** To highlight integrated ecosystem management principles; promote mutual understanding among stakeholders of the key concepts, key problems, and root causes of land degradation; and support efforts to finance sustainable solutions, the Government will (i) set up an advisory group on integrated ecosystem management; (ii) support Project activities and networks, including for development partner coordination; and (iii) support workshops, including an international workshop during the first year of implementation.
- (v) **Advisory Groups.** The Government will ensure that four advisory groups are set up, namely (i) a legal and policy advisory group (component 1); (ii) an institutions and planning advisory group (components 2, 3, 4, and 6); (iii) a land degradation monitoring and evaluation advisory group (component 5); and (iv) an integrated ecosystem management advisory group, to promote networking among PRC scientists and organizations and advise the provinces and/or regions on participatory approaches to integrated ecosystem management.

## VII. RECOMMENDATION

71. I recommend that the Board approve (i) ADB administering a grant not exceeding the equivalent of \$7,700,000 to the Government of the People's Republic of China for the Capacity Building to Combat Land Degradation Project, (ii) the application of loan processing and administration procedures for the Project, and (iii) retroactive financing in an amount not exceeding \$700,000 as described in detail in paragraph 52 above.

Tadao Chino  
President

Date

## PROJECT LOGICAL FRAMEWORK

Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
<b>A. Goal</b>			
Combating land degradation (LD), reducing poverty, and conserving biodiversity in selected provinces and autonomous regions of the People's Republic of China (PRC).	<ul style="list-style-type: none"> <li>An enabling administrative, policy, and legislative environment to promote integrated ecosystem management (IEM) in key provinces/regions.</li> <li>Sustainable practices (decision making, administration, and land use management) that are ecologically sound, socially acceptable, and economically viable.</li> <li>Stakeholder participation and use of community-based and sustainable approaches to improved land use decision making, land management practices, and reducing poverty.</li> <li>International commitments met under conventions on desertification, biodiversity, and the United Nations Framework Convention on Climate Change.</li> <li>Over the longer term, local benefits will result from sustainable use of land, water, and forest resources in selected ecoregions, and global benefits will include biodiversity conservation, increased carbon capture, and reduced frequency and severity of sand and dust storms.</li> </ul>	<p>Reports on IEM reforms involving 11 major agencies, and six provinces/regions.</p> <p>Reports on institutional capacity and land use management in project areas.</p> <p>Community-based participatory approaches are established in selected project areas.</p> <p>Country reports under international conventions.</p> <p>Longer term regionwide land, socioeconomic, ecological, and biodiversity surveys. IEM investments in project areas in medium-term under the OP12 Country Programming Framework (CPF, 2003–2012)</p>	<p>High-level Government commitment, at central and all local levels, to better coordination between agencies and an IEM approach to combating LD.</p> <p>Baseline funding can be secured from budget allocations and other sources (e.g., loans and grants).</p> <p>Implementation capacity exists in provincial and local governments.</p> <p>Results of policy, legislative, and institutional reforms are implemented in time to influence the effective implementation of IEM demonstration projects under CPF, 2003–2012.</p>
<b>B. Purpose/Objective</b>			
Strengthening the enabling environment and developing institutional capacity for LD control.	<ul style="list-style-type: none"> <li>Greater understanding of the root causes of LD.</li> <li>Introduction of IEM, including tools based on best practices and appropriate adaptive research.</li> <li>A more coherent, consistent, and responsive framework of policies, legislation, regulations, and procedures, including incentives for investment in combating LD.</li> <li>11th Five-Year Development Plan (FYP, 2006–2010) will reflect a more integrated approach, including greater harmonization of sectoral plans and government budgets.</li> <li>Improved administrative capacity, including enhanced coordination inside government and with other stakeholders.</li> <li>Local-level strategic plans for combating LD operations in six provinces/areas, including institutional arrangements, increased budgets, and participatory processes.</li> </ul>	<p>Project reports, including international workshop on IEM.</p> <p>Revised policies, laws, and regulations .</p> <p>National and provincial 11th FYPs, 2006–2010</p> <p>Reforms and coordination mechanisms in place. Operational action plans to combat LD in place and funded.</p> <p>Coordinated M&amp;E system for</p>	<p>High-level Government commitment, given strongly in the design phase, continues during implementation at central and provincial/area levels.</p> <p>Steering committee is able to effectively coordinate the leadership of the participating agencies and the provinces/regions.</p> <p>Willingness to implement recommended reforms, approaches and coordinating mechanisms.</p> <p>Sustained commitment of funding agencies.</p> <p>OP12-financed IEM projects are well</p>

*Continued on next page*

Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
	<p>participatory processes.</p> <ul style="list-style-type: none"> <li>An effective and harmonized system of land and ecosystem monitoring and evaluation system (M&amp;E) in place.</li> <li>Effective cofinancing mechanism for LD control, bringing greater coordination and feedback between government and funding agencies.</li> <li>The above primary impacts will lead to longer term gains from IEM investments under the CPF, and in turn lead to global benefits in terms of biological diversity conservation, reduction in the frequency and severity of dust and sand storms, and carbon sequestration.</li> </ul>	LD in place. Evaluation reports, training reviews, progress reports, and project completion report (PCR) IEM project reports. Project reports, guidelines, workshop proceedings, publications, study tour reports.	coordinated. Best practices from these and other proven area-based approaches are accepted by Government as models for future LD investments. Full use is made of the new national ecozone classification system.
<b>C. Output/Component</b>			
1. Improving policy and laws for LD control.	<p>a. Recommended mechanisms and procedures result in improved quality and effectiveness of key environmental policies and laws, by 2008.</p> <p>b. Institutional capacity improved for legislative and policy aspects of LD management by 2008.</p> <p>c. Policy and regulatory advice and problem solving capacity improved by 2008.</p>	Completed reports on recommended procedures, relevant aspects of laws and regulations, and training programs for participating legal and other agencies. PCR.	Government sustains its commitment to reforming institutional, legal, and regulatory barriers, and to harmonize programs and budgets. Risk mitigation through the coordinating role of the steering committee, Ministry of Finance (MOF), the incorporation of reforms into the 11th FYP, and sensitization of decision-makers to best international practices.
2. Strengthening national and provincial coordination.	<p>a. Planning mechanisms set up for coordinating LD sector investments under the forthcoming 11th FYP by 2005–2006.</p> <p>b. IEM approach accepted for use during 11th FYP.</p>	<p>Project reports and PCR.</p> <p>Project reports and PCR.</p>	
3. Improving operational arrangements at provincial and county levels.	<p>a. Participatory processes begun to promote (i) common understanding of IEM principles, (ii) community involvement, and (iii) land use planning.</p> <p>b. LD strategies and action plans harmonized and IEM approach in place for six provinces/regions by 2008.</p> <p>c. Trained staff to support IEM development by 2006.</p>	<p>Project reports and PCR.</p> <p>Completed LD strategies and action plans. Project reports and PCR.</p>	Policy and regulatory reforms need to be in place in time to influence effective implementation of demonstration IEM projects. Risk mitigated by the development of measures to strengthen the enabling environment and build institutional capacity, and by continually emphasizing the importance of timely reforms to key decision-makers.
4. Capacity development for LD investment projects.	Provincial capacity for LD projects upgraded. Initial IEM investment projects identified for all participating provinces/regions by 2008.	Progress reports on first IEM project (World Bank/OP12 Gansu-Xinjiang Grasslands Dev. Project, 2003), and new IFAD/OP12 project for several provinces, for approval in 2005.	
5. Monitoring and evaluation system for LD.	Coordinated system for LD monitoring ensures that a national mechanism is operational for collecting, sharing, analyzing, and reporting LD related data by 2008.		Major risk that effective cooperation between agencies at all levels may not be achieved. To be mitigated by

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
6. Implementation arrangements for the CPF.	analyzing, and reporting LD related data by 2008. a. Project implementation capacity in place to support OP12 Partnership by 2005. b. Funding coordination mechanism in place to maximize concessional financing for OP12 Partnership by 2005.	Project reports and PCR. Project reports and PCR.	involving all stakeholders through national and local leading groups, coordination offices, and workshops promoting the proven advantages, including financial investments under the CPF, of a cooperative approach.
<b>D. Activities</b>			
1. Improving the Policy and Laws for LD Control  a. Toolbox: legislative, policy, institutional, ecology elements; computerizing toolbox.  b. Provincial procedures to assess and improve IEM principles in laws, regulations, and policy.  c. Assess and recommend ways to harmonize laws, regulations, and policy.  d. Develop capacity for implementation and surveillance of LD laws and policies.  e. Assess the role of EIA in LD control and improve implementing procedures.	a. Operational legal toolbox for LD management, 2004–2006. Operational digital version of toolbox, 2007.  b. Agreed provincial criteria, guidelines, mechanism covering sustainable land management, participation, monitoring, financial arrangements, and information exchange, 2006.  c. Recommendations to harmonize laws on desertification, grasslands, water and soil conservation, water, forestry, agriculture, land administration, environment protection, and environmental impact assessment (EIA). Legal and policy case studies completed, 2005.  d. Mechanisms and procedures for (i) coordination for natural resource management; (ii) provincial-level integration of eco-function zones with agricultural, forestry, desertification control, and other zones, 2005.  e. Monitoring and supervision mechanism for provincial standards and procedures on (i) farmland quality, (ii) grassland management and conservation, (iii) ecozone functions, (iv) water resources, and (v) land husbandry, 2006.	a. Published reports, project progress reports.  b. Project progress reports.  c. Reports covering each law and integrated impacts of all laws, published case studies.  d. Established mechanisms and procedures, including for EIA Act and provincial LD programs under 11th FYP.  e. Monitoring and supervision mechanism established; provincial standards and procedures set up.	Full cooperation of governments to improve quality of laws and policy.  Improvement of provincial legal and institutional systems is a high priority for effective LD management.  Recommended changes are acceptable and operational at central and provincial levels.  Recommended changes are acceptable and operational under 11th FYP, to comply with new national ecozone classification system.  Adequate resources and interest at all levels. To comply with new national ecozone classification system.

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
f. Assess and advise on legal and policy measures for private sector roles and public participation.	f. Rights of land users and administrators clarified. Improved compensation measures for land closure, conversion, and protection; measures for sustainable rural livelihoods on small holdings; improved public participation procedures, 2007.	f. Project progress reports.	Willingness of governments to accept advice provided.
g. Develop program for capacity building in legislative, policy, and institutional measures.	g. Training program for legal officers and draftsmen, judicial officials, policy makers, local organizations, non-government organizations (NGOs), and private sector. 8 workshops, 2005–2006.	g. Project progress reports.	Adequate interest of local-level officials and other organizations.
h. Training workshops in environmental law.	h. Training, including training of trainers. Central level: 2 training sessions; provincial level: 6 training sessions, 2004–2006.	h. Training program and trainees in each category.	
i. Study visits and exchanges.	i. Completed intensive training course for 15 people for 4 weeks, 2005. Completed exchanges for 12 people for 3 weeks, 2004–2006.	i. Project progress reports.	Suitable course can be organized for the participants.
j. Legal, Policy, Advisory Group.	j. Ten-member committee set up (2004) comprising central and provincial agencies and academics. 2 central meetings per year, 2004–2007. 6 Provincial level meetings.	j. Project progress reports.	Advisory Group proves to be effective in its role.
k. Study of options for training in environmental law related to LD in Western Region.	k. Completed feasibility options training study in 2005.	k. Project progress reports.	Adequate demand and an appropriate institutional arrangement exists.
l. Legal studies.	l. Amended LD-related laws and regulations, especially at provincial level. 3 studies, 2005–2008.	l. Project progress reports.	Studies are undertaken on high priority topics.
2. Strengthening National and Provincial Coordination			
a. Institutional review and recommendations for improved coordination mechanisms.	a. Institutional review by Institutions and Planning Expert Group. Mechanisms adopted for improved national and provincial interagency coordination, 2004–2006. Central: five workshops, 1 study; provincial: two workshops per province, 2004–2007.	a. Completed reviews and progress reports.	High-level political commitment given (vice-governors and vice-minister levels).

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
b. Introducing IEM for LD control into provincial and national 11th FYPs.	b. Central and provincial 11th FYP (2006–2010) feature LD control in line with IEM principles, 2004–2005. One international workshop on IEM, 2004. Two regional workshops, 2005.	b. 11th FYP specific and regional planning, Sept. 2005; 11th FYP documents.	NDRC and provincial development planning commissions fully support reform of LD approaches in 11th FYP.
c. Formulate regional and provincial LD strategies and action plans.	c. IEM strategies and action plans formulated for six provinces. Mechanism for private sector involvement in LD, 2004–2005. Central: one study, three training sessions and 1 seminar; provincial: 3 studies, 1 training session, one review meeting, 2004–2005.	c. Reviews of provincial IEM strategies and action plans.	Controlling LD is a high strategic priority for national and provincial development plans.
d. Assess economic costs and benefits of LD control.	d. Field study completed in selected areas to estimate economic impact of LD control measures, 2004–2005.	d. Completed studies.	Stakeholder institutions are willing to collaborate and coordinate activities.
e. Revisit the National Action Program to Combat Desertification (CCD-NAP).	e. CCD-NAP harmonized with PRC-GEF Partnership, Biodiversity Action Plan, and related action plans; improved funding coordination, 2004–2005. One central workshop and one workshop per province, 2004–2005.	e. Review of revised CCD-NAP.	Funding agencies are prepared to support activities outlined in the provincial IEM strategies and action plans. Willingness to update the CCD-NAP.
f. Workshops to review and promote strategic IEM planning.	f. Completed workshops and cadre of trained personnel in resulting increase of IEM, 2006. Three regional workshops, 2005–2006.	f. Workshop proceedings.	
g. Study tours/exchange visits.	g. One regional and one international study tour completed in 2005.	g. Progress reports.	The new skills learned are accepted by the trainees and their institutions.
h. Workshop paper presentations.	h. Four papers presented at international forums, 2005–2006.	h. Papers published.	
3. Improving Operational Arrangements at Provincial and County Level			
a. Assessment of operational arrangements, institutional capacity, and training needs.	a. 3 operational reviews by Institutions and Planning Expert Group. 6 provincial meetings, 2004–2007.	a. Completed report.	Rural communities see LD as a problem and are willing to work together to improve the management of their local land resources.
b. Development of guidelines, manuals, and training	b. Guidelines, training materials, and manuals developed, 1 study 2004–2005.	b. Progress reports.	The community-based participatory planning approach is accepted by

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
materials.			provincial and county government authorities.
c. Capacity building and training.	c. Trained local staff to formulate and implement LD control plans and investment projects. Central: three training sessions; provincial: two training sessions for each (2004–2005).	c. Trained staff.	Stakeholder institutions are willing to collaborate and coordinate field level activities.
d. Identification of the best field-level practices.	d. Review of best practices and catalogue of best field-level practices prepared, 1 central and 6 provincial studies (2005).	d. Competed reviews.	Individual research agencies are willing to collaborate with others to form interagency consortia.
e. Formulation of community-based participatory LD control plans.	e. LD control plans for each province (in selected sample counties), 18 (three per province). One training program per province, 2004–2007.	e. Finalized plans.	Government provides baseline finance and GEF provides incremental costs to demonstrate the participatory approach to IEM. Coordination with ongoing Government programs, as listed in Appendix 3, will be undertaken. Examples are (i) SFA's six key nationwide forestry programs, (ii) Ministry of Science and Technology's community-based rural development pilot projects, and (iii) Ministry of Water Resources small watershed comprehensive management demonstrations. Internationally-financed participatory projects (e.g., as listed in Table A5) will also be included as examples of "best practice" and may be visited by stakeholders during implementation (e.g., FAO's ongoing LADA program).
f. Implementation of community-based LD demonstrations.	f. LD control following IEM approach in sample of communities and/or villages per province, 2004–2007. Minimum of three sites per province.	f. Community LD control plans and demonstrations.	
g. Adaptive research (AR) and participatory technology development for LD control.	g. Minimum of 10 lump sum grants for research, 2004–2006.	g. Research consortia progress reports.	
h. Education program in IEM.	h. Provincial public environmental education programs on IEM in all six provinces, 2005–2007.	h. Education posters, handouts, and materials.	
i. Workshops on community-based LD control planning.	i. Two workshops per province completed, 2006.	i. Workshop reports.	
j. Study tours and exchange visits.	j. One international, one regional, and 18 provincial intercounty study tours completed in 2005–2006.	j. Progress reports.	
k. Workshop paper presentations.	k. Four papers presented at international forums, 2004–2007.	k. Progress reports.	
4. Capacity Development for LD Investment Projects			
a. Project identification and planning.	a. Existing LD projects documented. Potential projects identified. Central: three group meetings; provincial: 1	a. Completed reports.	New OP12 IEM investment projects will take into account (i) best practices

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
<p>group meeting for each (2004–2006).</p> <p>b. Training and capacity development in LD projects.</p> <p>c. Assess impact of LD projects and programs; cofinancing options study.</p> <p>d. Prepare LD projects based on IEM principles.</p> <p>5. Monitoring and Evaluation System for LD</p> <p>a. National coordination mechanism for coordinating and sharing LD data.</p> <p>b. Provincial GIS database development.</p> <p>c. Documentation of successful technologies and approaches for controlling LD.</p> <p>d. Local-level participatory LD assessment capacity building.</p>	<p>b. Training needs defined, training completed, and capacity developed (2004–2005). Two regional training workshops, 3 study tours, and 1 central study and 6 provincial studies on IEM projects (2004–2006).</p> <p>c. Six Provincial LD project impact studies completed, 2005–6. Reports presented to senior leaders. Cofinancing options study and agreed cofinancing mechanism, 2004.</p> <p>d. Provincial LD projects (one for each) designed to feasibility level based on IEM approach, GEF-eligible 3 workshops, 1 study (2004–2007).</p> <p>a. LD Monitoring and Evaluation Expert Group functional. Adaptive management mechanisms for sharing collection and analysis of LD related data at central and provincial levels. Central: four group meetings, one workshop, and one study on comprehensive LD assessment and validation for assessment tools and indicators. Provincial: four group meetings and one workshop (2004–2007).</p> <p>b. Provincial GIS units established, inclusive of training modules development and publication, and 2 training sessions, 2005. Support to provincial offices including equipment, vehicles, software, and on-the-job training, 2004–2007.</p> <p>c. Prepared and distributed best practices guidelines, customized selected database (5 studies), training workshops (one central and one per province), 2004–2006.</p> <p>d. Multi-agency cadre of provincial and county level technicians at local level participatory LD assessment. Four central training workshops. One</p>	<p>b. Training report.</p> <p>c. Six impact studies, cofinancing study report, and cofinancing mechanism.</p> <p>d. Six completed project feasibility studies, 2005–2007.</p> <p>a. Minutes of Expert Group.</p> <p>b. Progress reports.</p> <p>c. Progress reports.</p> <p>d. Progress reports.</p>	<p>from existing LD investments in the PRC and overseas, (ii) lessons from previous area-based participatory projects and approaches, and (iii) recent OP12 projects, including (a) World Bank Gansu-Xinjiang Grasslands Development Project, 2003, and (b) IFAD Poverty Reduction Project in Ningxia, Gansu, and Shanxi, 2005. PPTA grants are in ADB's Country Program for 2004, 2005, and 2006. Other funding support has been indicated.</p> <p>A willingness on the part of existing agencies engaged in LD-related monitoring surveys to coordinate and share data. Linkage with national research project on 11th FYP for Scientific Data Sharing Program, conducted by Ministry of Science and Technology.</p> <p>A need for comprehensive, consistent, and reliable assessments of LD at the national, provincial, and local levels.</p> <p>International standards for documenting successful technologies and approaches are accepted within</p>

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
	study and 3 training workshops per province and equipment support at field level (2004–2007).		the six provinces.
e. Pilot monitoring and assessment.	e. Models for building provincial- and county-level capacity for participatory LD. Six pilot tests conducted, 2004–2006.	e. Progress reports.	Availability of government funds and staff at the provincial and county levels for LD assessment activities.
f. Senior officials consultations and expert workshops.	f. Completed workshops and/or consultations (one for central and one per province) to agree on M&E reforms, 2006.	f. Workshop proceedings and minutes of senior officials meetings.	
g. Workshop papers.	g. Four papers presented at international forums, 2005–2006.	g. Publications and papers.	Ongoing LADA program has identified three pilot sites in Inner Mongolia, one in Gansu, and one in Ningxia.
6. Implementation Arrangements			
a. Implementation support.	a. Completed steering committee meetings(4), national and 1 international study tours, donor roundtables(4), and other consultations with stakeholders(6). Training and 30 person-months staff exchanges (2004–2008).	a. Progress reports, donor feedback, and support.	High-level national and provincial interest and commitment to the Partnership are maintained.
b. Project coordination office (PCO) support.	b. Functioning PCO with capacity to coordinate PRC-GEF Partnership on Combating LD in Dryland Ecosystems (OP12) within the CPF (2003– 2012) and related operations. Target of \$40–70 million GEF OP12 projects with cofinancing, 2006. Local PCOs in each province coordinate between participating sector agencies and are linked to other provinces and/or regions in partnership. Network and links between LD projects, 2004–2008. Improved funding coordination mechanism by 2005.	b. Project newsletters, reports. CPF so far: (i) World Bank Gansu-Xinjiang Grasslands Development Project, 2003, \$10.5 million; (ii) IFAD Poverty Reduction Project in Ningxia, Gansu, and Shanxi, 2005 approval, for at least \$11 million; and ADB Project 1, \$7.7 million for approval in 2004. Total approximately \$30 million to date planned in GEF grants.	PCO at central and provincial levels are able to effectively do their work. Trained staff are available. Donor commitment is sustained.
c. Project management office (PMO) support.	c. Central PMO effectively established to manage implementation of the project and overall partnership. Local PMOs set up in each province also operate effectively and achieve targets, 2004–2008.	c. Progress reports. Annual workplans approved and implemented. Number of completed consultancies,	Linkage and communications with Office of Western Region, major infrastructure ministries, Poverty Alleviation Office set up for

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Design Summary	Performance Indicators and Targets	Monitoring Mechanisms	Key Assumptions and Risks
	Management information and feedback system functioning, 2004–2006. Advisory expert groups functional and scientific networks to advise on implementation and impact of partnership. Four annual workplans and budgets approved.	contracts, studies and surveys, workshops and seminars, and study tours completed.	coordination. Media links are effective.
<b>E. Inputs – Project and ADB-Financed TA</b>			
Consultants (including under TA)	GEF-financed: international, 22 person-months; domestic, 187 person-months  ADB-financed: international, 19 person-months; domestic, 103 person-months  GEF: \$1.3 million  ADB: \$0.9 million	Contractual documents, Financial Agreement (PRC-ADB) covering implementation of GEF grant, ADB TA Agreement and related documents, procurement documents, project progress reports, and PCR.	Counterpart funds are fully available on time.  Personnel will be available from central and provincial and/or regional agencies to participate in training programs.
Subtotal	\$2.2 million		
Equipment, Software, Supplies, and Vehicles	\$1.1 million		
Surveys and Studies	\$1.5 million		
Workshops	\$2.5 million		
Training and Study Tours	\$2.8 million		
Incremental Staff	\$1.0 million		
Office Operations	\$1.9 million		
Pilot Projects	\$2.0 million		
<b>Total</b>	\$15.0 million (includes 10% contingencies)		

## CHRONOLOGY

1. The Government of the People's Republic of China (PRC) requested the Asian Development Bank (ADB) in 2000 to take a lead role in facilitating the preparation of the PRC-Global Environment Facility (GEF) Partnership on Land Degradation in Dryland Ecosystems, under Operational Program 12, which involves integrated ecosystem management (IEM). ADB provided several technical assistance (TA) projects to develop the Partnership at the central, provincial, and regional levels.<sup>1</sup> These projects resulted in a country programming framework (CPF). A high-level steering committee guided the development of the Partnership.<sup>2</sup> The CPF, including the draft Project, was described in a *Framework Brief* that was approved by GEF's council during an October 2002 meeting.

2. In April 2003, the first phase of the Government-ADB joint Fact-Finding Mission was held in Inner Mongolia and Shaanxi. The second phase was held after Sudden Acute Respiratory Syndrome outbreak was brought under control and included visits to the remaining four provinces and/or autonomous regions in July 2003. Written submissions were sought from each province and/or region, to gauge their priorities and commitment levels. Detailed presentations were given by ADB in all areas, and high-level discussions were held with provincial leaders. Strong interest was shown in the integrated ecosystem management approach. To provide additional documentation, several staff consultants were engaged to work with ADB staff members and Government representatives in August and September 2003.

3. The high-level Steering Committee approved the Project's final outline on 8 September 2003. A staff review committee meeting was held on 23 October 2003. The meeting's participants decided that the Project should be processed in accordance with loan rather than TA processing procedures, because loan procedures provide for greater implementation responsibilities by the Government and higher supervision intensity. Use of loan processing procedures was endorsed by the Strategy and Policy Department in January 2004. In November 2003, new offices of the central project coordination office and project management office were opened in the Debao Hotel (rooms 427 and 428, respectively). A management review meeting was held on 18 February 2004. Appraisal was undertaken 2–11 March 2004 in Beijing, with a wrap meeting at the Ministry of Finance on 16 March 2004. At appraisal, a meeting was held with high-level representatives of the Steering Committee, and these representatives indicated the strongest possible support of the Government.

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<sup>1</sup> ADB. 2000. *Technical Assistance to the People's Republic of China for Global Environment Facility Partnership on Land Degradation in Dryland Ecosystems*. Manila.

ADB. 2000. *Technical Assistance to the People's Republic of China for Preparing National Strategies for Soil and Water Conservation*. Manila.

ADB. 2000. *Technical Assistance for Combating Desertification in Asia*. Manila.

ADB. 2001. *Technical Assistance to the People's Republic of China for Optimizing Initiatives to Combat Desertification in Gansu Province*. Manila.

ADB. 2001. *Technical Assistance to the People's Republic of China for PRC-GEF Partnership on Land Degradation in Dryland Ecosystems*. Manila. The GEF Secretariat approved pipeline entry and the Project Development Facility—Block B grant on 28 March 2001.

<sup>2</sup> The process supported by these TAs was instrumental in facilitating dialogue among 11 key central agencies, including National Development and Reform Commission, Ministry of Finance, Ministry of Agriculture, Ministry of Water Resources, Ministry of Land and Resources, State Environmental Protection Administration, Chinese Academy of Sciences, Ministry of Science and Technology, Legislative Work Committee of the National People's Congress and the Legislative Affairs Office of the State Council, and the State Forestry Administration on the need for an integrated ecosystem management approach to address land degradation in the western region. A steering committee, which was chaired by Vice Chair of the Committee of Population, Resources and Environment of the Chinese People's Political Consultative Conference and comprised senior representatives of the agencies listed, directed the work of a program management office and its staff.

## PROBLEMS ANALYSIS

Problems	Causes	Ongoing Government Actions	Proposed Project Support	Proposed Project Inputs
Incomplete understanding of technical and institutional problems relating to land degradation (LD), and the integrated ecosystem management (IEM) approach	<p>Lack of awareness of root causes of land degradation (e.g., policy conflicts, poor land management, poverty, multi-sector problem)</p> <p>Little systematic monitoring of social, economic, and environmental impact</p> <p>Little understanding of previous experience to combat LD</p> <p>Focus on sector-level technical solutions, not sustainable development</p> <p>Top-down “engineering” solutions (“ecological construction” is expensive and dominates government programs)</p> <p>Limited projects at watershed or ecosystem level in Government programs</p> <p>Little research on sustainable practices for new approaches in designing and on generating policy-relevant data for planning</p>	<p>National land resources monitoring and assessment (every 5 years) organized by the Ministry of Land and Resources (MLR)</p> <p>National soil erosion survey (every 5 years) conducted by the Ministry of Water Resources (MWR)</p> <p>National desertification survey (every five years) conducted by State Forestry Administration (SFA)</p> <p>National consultative program: Strategy Study on Water Resources for 21st Century Sustainable Development of China, conducted by the Chinese Academy of Engineering (2001–2004)</p> <p>Key national consultative program: Ecological Environment Rehabilitation and Sustainable Development of Western Region, conducted by the Chinese Academy of Sciences (2003–2005)</p> <p>LD Assessment in Drylands pilot projects supported by FAO</p> <p>Ministry of Science and Technology, Scientific Data Sharing Program</p>	<p>National coordination mechanism for coordinating and sharing LD data</p> <p>Provincial geographic information system (GIS) database development</p> <p>Best practice studies of successful technologies and approaches for controlling LD</p> <p>Pilot monitoring and assessment</p> <p>Identification of best field-level practices</p> <p>Development and testing of field assessment tools and indicators for LD</p> <p>National and international study tours and exchange visits</p> <p>Senior officials, consultants, and expert workshops</p> <p>Publications</p>	<p>International and domestic consultants and experts</p> <p>Training and workshops, including international workshop on IEM in year one</p> <p>Feasibility studies</p> <p>LD monitoring and evaluation advisory group</p> <p>Central and provincial steering committee</p> <p>Project coordination office (PCO) and project management office (PMO)</p>
Incomplete policy and legislative framework	<p>Compartmentalized policies, plans, institutions, and laws</p> <p>Weak institutional cooperation and coordination mechanism</p> <p>Laws containing gaps and overlaps</p> <p>Quality and consistency of policies and legislation for sustainable natural resources management need to be improved</p> <p>Local regulations not understood fully or enforced</p>	<p>Revising Land Administration Act and Wild Animal Protection Act</p> <p>Drafting Animal Husbandry Law</p> <p>Legislative planning and design of Western Region Development Promotion Law</p> <p>Drafting Implementation Provisions for Combating Desertification Law</p> <p>Preliminary investigation and study for Soil and Water Conservation Law reform; other environmental law reform</p>	<p>Introduce and develop legislative tools and procedures</p> <p>Review effectiveness of laws and policies related LD</p> <p>Assess and improve legal and policy measures for private sector roles and public participation</p> <p>Legal studies to laws, regulations reformation</p> <p>Capacity building for legislative, policy, and institutional measures</p>	<p>International and domestic consultants and experts</p> <p>Local legal staff</p> <p>Training and workshops</p> <p>Legal, Policy Advisory Group</p> <p>Options study and legal studies</p> <p>Central and provincial steering committee</p> <p>PCO at central and provincial</p>

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*Problems Analysis – Continued*

<b>Problems</b>	<b>Causes</b>	<b>Ongoing Government Actions</b>	<b>Proposed Project Support</b>	<b>Proposed Project Inputs</b>
	Weak enforcement arrangements of LD related laws Uncertain land tenure	environmental law reform  Functional zoning of ecosystem in the western region (2002–2005)  Management Rules of Water Resources Functional Zone (2002–2005)  Provincial regulations planning and drafting on specific issues	institutional measures  Study tours and exchange program  Training and workshops in environmental laws  Organize a legal and policy advisory group	and provincial level  PMO at central and provincial level
Limited role of markets	Inadequate market-based services and incentives to support sustainable resource use  Undeveloped role of the private sector  Weak rural financial market services  Lack of effective coordination between planning and budgeting  Non-economic pricing of natural resources	Four Waste Lands sale for ecological recovery since the 1980s  Private investment to encourage policies for combating desertification and ecological rehabilitation  Reform of rural financial and taxation system is being discussed  Water rights, marketing, and pricing study started in 2002  China Council for International Cooperation on Environment and Development, economic and policy studies on natural resources	Study tours and exchange visits  Senior officials, consultants, and expert workshops  Presentation of papers in international workshops  Economic research into LD control  Incentive-based approach  Impact of LD investments  Legal and policy framework improved for greater private sector role	International and domestic consultants and experts  Training and workshops  Feasibility studies, policy studies related to options for cofinancing of LD investments, and incentives  Central and provincial steering committee  PCO and PMO  Support for NGOs, including training
Institutional and sector-driven fragmentation	Ecosystem elements treated based on institutional mandates (e.g., soil erosion by MWR, desertification by SFA)  Weak awareness of integrated ecosystem management (IEM)  Lack of institutional coordination  Lack of supportive evaluation for rationalized budgets and cost effectiveness assessment in expenditures  Undeveloped planning system especially of multi-agency related issues	Chinese Committee for Implementation of the Convention to Combat Desertification established and involved 16 ministries and/or commissions  Western Development Strategy was initiated in 1999  Programming guidelines for land and resources exploitation and use in western regions to be in force  Investigation and studies on Sectoral 11th Five-Year Plan  Preliminary preparation for National 11th Five-Year Development Plan  National Plan for Ecological Environment Construction	Institutional review and recommendations for improved coordination mechanisms  Mainstreaming IEM for LD control into provincial and national 11th Five-Year Plans  Formulate regional and provincial LD strategies and action plans  Feasibility study of IEM training in the PRC  Revisiting the National Action Program to Combat Desertification  Workshops to review and promote strategic IEM planning	International and domestic consultants and experts  Training and workshops  Institutions and Planning Advisory Group  Feasibility studies  Central and provincial Steering Committee  PCO and PMO

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*Problems Analysis — Continued*

<b>Problems</b>	<b>Causes</b>	<b>Ongoing Government Actions</b>	<b>Proposed Project Support</b>	<b>Proposed Project Inputs</b>
	Too centralized sectoral authorization arrangements	Environment Construction (1998–2050)  National land use overall programming  Investigation, study, and pilot test for integrated water resources management  Steering committee and PCO, respectively, involved 11 agencies for partnership established in 2000	Study tours and/or exchange visits  Workshop paper presentations	
Inconsistency between national approach and area planning	Undeveloped public participation process  Institutional conflicts and rivalry  Low level of NGO involvement  Inadequate farmer training and education at local levels  Inadequate approaches for locality-specific land use planning	Tarim River Basin Comprehensive management funded by central Government and commenced in 2001  Heihe River Basin comprehensive management funded by central Government and commenced in 2002  Ecological Function Zoning program – national project started in 2000 by State Environment Protection Administration  Internationally-financed participatory projects (e.g., as listed in Table A5) included as examples of “best practice.”	Local level participatory LD assessment capacity building  Formulation of community-based participatory LD control plans  Adaptive research (AR) and participatory technology development for LD  Capacity building and training  Training and capacity development in LD projects  Study tours and exchange visits  Senior officials consultants, and expert workshops	International and domestic consultants and experts  Training and workshops  Institutions and Planning Advisory Group  Feasibility studies  Central and provincial steering committee  PCO and PMO
Inadequate budget resources and financial and incentives	Massive expenditure on sector approach (mostly forestry); rate of expenditure may be unsustainable and impact is only partial.  Lack of effective coordination between planning and budgeting  Local governments lack a revenue base and are not able to repay lending for LD investments  Ineffective funding coordination	Projects to restore grazing land to grassland with an investment of CNY24.7 billion (\$3.0 billion) (2001–2005)  Massive sector investment in forestry (in the range of \$6–13 billion annually) (2000–2010)	Cofinancing options study  Project planning  Adaptive management  Assess economic costs and benefits of LD control  Project monitoring and evaluation information system	International and domestic consultants and experts  Training and workshops  Feasibility studies  Central and provincial steering committee  PCO and PMO



## SUMMARY INITIAL ENVIRONMENTAL EXAMINATION

### A. Introduction

1. The overall goal of the People's Republic of China (PRC)-Global Environment Facility (GEF) Partnership on Land Degradation (LD) in Dryland Ecosystems is to reduce land degradation, alleviate poverty, and restore dryland ecosystems in the western region. The Partnership's specific purpose is to assist the Government in establishing an effective integrated ecosystem management system<sup>1</sup> that will generate global benefits from enhanced biodiversity conservation and carbon capture and reduce poverty through sustainable use and equitable benefit sharing. The goal of the Project is to reduce LD, alleviate poverty, and restore dryland ecosystems in the western region. The Project will provide major environmental benefits and will not have direct negative environmental impacts that need to be mitigated. It was classified as environmental category B (nonsensitive) because the highly degraded and impoverished western region has globally significant biodiversity and the Project will positively influence the policy and regulatory framework and build institutional capacity to implement future environmental projects and programs. Accordingly, a summary initial environmental examination was prepared following the Asian Development Bank's (ADB's) requirements for environmental assessment. The purpose of this examination was to identify the Project's environmental benefits and evaluate remaining areas of concern and measures to address them. The examination was prepared based on detailed discussions at the central level (2001–2003), field visits (to all participating areas in 2002–2003) and investigations, and detailed discussions with staff members of the concerned agencies at central, provincial, and regional levels and other related agencies and was reviewed by technical subject matter specialists and experts.

### B. Project Description

2. The PRC-GEF Partnership is a long-term country programming framework (CPF) that was approved by GEF's council during an October 2002 meeting. The CPF (2003–2012) seeks to combat LD through investments that will strengthen the enabling environment, build institutional capacity, and demonstrate viable investment project models under GEF's Operational Program 12 on integrated ecosystem management. The total cost of the 10-year CPF is estimated at about \$1.5 billion equivalent, of which GEF will provide \$150 million for eligible investments. The Project, which was also approved by GEF's council in October 2002, will strengthen the enabling environment and build institutional capacity to adopt an integrated approach. The Project will result in an improved policy and regulatory framework for combating LD. In addition, the Project will enhance national and provincial coordination mechanisms and strengthen capacity for strategic integrated ecosystem management planning, improve provincial and field-level LD control, improve provincial capacity for formulating LD control investment projects, improve nationwide LD monitoring and assessment, and apply effective CPF implementation arrangements.

3. Drylands occupy 40% of the PRC's land area and are home to over 100 million people. These areas are extensively affected by LD, with severe economic, social, and ecological consequences, especially for the rural poor and ethnic minorities who inhabit the western region. Dust storms, originating within the drylands, adversely impact life and infrastructure within and outside the country's borders. Previous policies and poor land use practices are the primary causes of LD, and the Government wishes to adopt a more integrated approach to this increasing problem. Although government expenditures significantly increased in recent years,

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<sup>1</sup> Integrated ecosystem management is defined in footnote 2 of the main text.

the sector approach being implemented by different agencies (e.g., those concerned with forestry, agriculture, and water resources), through separate and uncoordinated programs, is too expensive and not working effectively. International experience strongly suggests that a more integrated and coordinated approach, on an ecosystem basis, is required. Key problem areas to be addressed were identified as (i) incomplete understanding of technical and institutional problems, (ii) incomplete policy and legislative framework, (iii) limited role of markets, (iv) institutional and sector-driven fragmentation of existing efforts to address LD, (v) inconsistent sector approach and area planning, and (vi) inadequate budget resources and financial incentives at the local level.

4. Based on analysis of key problems and opportunities, it was recognized that introducing an integrated ecosystem management approach to sustainable development is a long-term goal. Accordingly, it was identified that the objective of the Project should be to assist the Government in combating LD, reducing poverty and restoring dryland ecosystems, through strengthening the enabling environment and developing institutional capacity. The Project will work at the central level and in the six priority provinces and/or autonomous regions that are the most degraded dryland areas of the western region: Gansu Province, Inner Mongolia Autonomous Region, Ningxia Hui Autonomous Region, Qinghai Province, Shaanxi Province, and Xinjiang Uygur Autonomous Region. These localities are the main focus for the CPF's first phase. Each area has indicated high-level political support for the reforms needed in the enabling conditions (existing policies, legislative framework, well-coordinated institutional arrangements, harmonized plans, and existing budgets) that are essential for sustained progress in arresting LD. To accomplish the Project's objective, six coordinated components and their supporting activities are (i) improving the policy, laws, and regulations for LD control; (ii) strengthening national and provincial coordination; (iii) improving operational arrangements at provincial and county levels; (iv) developing capacity for LD investment projects; (v) establishing a coordinated monitoring and evaluation system for LD; and (vi) implementation arrangements for the CPF.

### C. Description of the Environment

5. **General.** The western region comprises 12 provinces and autonomous regions, many of which have a physical size and population similar to some Asian countries and could be compared with least-developed nations. The western region supports a population of at least 350 million, including many of the country's poorest and most vulnerable people. Low productivity is caused in part by fragile soils, water scarcity, and erratic rainfall patterns. Desertification is concentrated in the northern and northwestern regions, which lay in the arid, semiarid, and dry subhumid zones. There is a high degree of overlap between ecologically sensitive areas and poverty counties in western PRC. Predominantly rural, these areas have low population densities, large ethnic minority populations, high reliance on grazing and agriculture, high poverty incidence, huge mineral deposits, and very arid and fragile environments. Development is severely constrained by the area's massive territorial expanse, long distances between population centers and eastern markets, poor economic and social infrastructure, and low institutional capacity (lower than that in coastal areas).

6. **Global Significance.** The PRC has more of the world's known biodiversity than nearly all other countries on earth and a higher proportion of endemic species than any other.<sup>2</sup> Steppe and desert ecosystems have disproportionately higher rates of endemism (16–23%) than most

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<sup>2</sup> See footnote 16 of the main text.

other ecosystems (2–14%). The PRC's other regions have less than 50,000 species, not including invertebrates, lower plants, fungi, bacteria, and actinomycetes.

7. The existing 85 established nature reserves in the western region cover all of the ecoregions identified in the World Wildlife Fund classification of ecoregions, although much of the biodiversity lies outside protected areas. The greatest threat to biodiversity in the PRC is habitat loss through desertification and forest and woodland clearance and other forms of land and vegetation degradation. As natural habitats shrink and become fragmented, individual species are increasingly threatened by direct or indirect exploitation, and may face extinction.

8. Dust storms have global significance for atmospheric conditions. Degraded grasslands, large-scale mechanized farming, and saltpans on the edges of dried-up saline lakes are the sources of dust storms in northwest and north PRC. The impact is felt not only in Beijing but also on the Korean peninsula and in Japan. Dust from the PRC was identified along the west coast of the USA. The Project's six provinces and/or autonomous regions have 97% of the PRC's wind-eroded and desert land, which is the source of all dust storm activity originating in northern PRC, and have 54% of the country's water-eroded areas. Establishing vegetation on degraded land and promoting zero and minimum tillage systems will reduce dust storms and improve atmospheric conditions through carbon capture above and below the earth.

9. **Consequences of LD.** The social and economic consequences of LD are profound, and they include notably lower household incomes, increased poverty in many rural communities, higher unemployment, and increased migration. These trends have led to reduced agricultural and pastoral land productive capacity; damaged roads and other infrastructure; and lost watershed protection functions, resulting in increased productive land and reservoir sedimentation. Estimates of economic losses due to LD are provided in paragraph 7, main text.

10. **Poverty, Ethnicity, and Population Growth.** In 2001, the Government redefined poverty counties. The breakdown of poverty counties by provinces and/or regions involved in the project is Gansu (43), Inner Mongolia (31), Ningxia Hui (8), Qinghai (15), Shaanxi (50), and Xinjiang Uygur (27). The total of 174 counties represents 29% of the national total of 592. In Gansu and Xinjiang Uygur, for example, the proportion of people living below the \$1 per day income line is 27% and 23%, respectively. The capacity of these counties to finance their own development and expand their economic base is very limited. The poor become increasingly vulnerable where their local biophysical environment has deteriorated. Women suffer more than men from LD in terms of health, nutrition, employment, and income. In 2000, the population of ethnic groups in the western region was 76.5 million, or 21.5% of the total population in the west and 71.9% of the total minority population nationwide. Within the six target provinces, there are three ethnic autonomous regions: Inner Mongolia Autonomous Region, Ningxia Hui Autonomous Region, and Xinjiang Uygur Autonomous Region. For historical reasons, ethnic minorities mostly live in remote and often mountainous areas that have harsh natural environments and a high incidence of poverty. The poverty incidence where ethnic minorities are dominant is more than 10%, compared with about 4% for Han dominant communities.<sup>3</sup>

11. Despite recent central policies, institutional fragmentation adversely affected the effectiveness of poverty alleviation and LD control programs. Provincial poverty alleviation offices have direct responsibility for program implementation, but they are largely ineffective, as responsibilities are spread over several government departments, leading to coordination

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<sup>3</sup> Zhao, Xi . 2001. *Research on the Hard Points and Strategic Choices of Rural Poverty—Relief in the West of China*. Southwestern Finance University Press. Beijing.

difficulties. In the forestry sector, for example, there is no effective mechanism that enables poverty alleviation initiatives to be integrated into the ecological construction programs of provincial forestry bureaus.

12. For information on population growth and ethnicity, see Appendix 12, paragraph 6.

13. **Previous Production-Oriented Policies.** Policies initiated in the early 1980s have strongly influenced land management in rural localities in the western region. As a result, the income gap between better-off and poorest groups has widened over the past 20 years. In addition, more so-called wasteland is being cultivated by farmers, to increase production to pay for education, medical, and tax expenses. Lack of stable land-use rights by farmers in the western region also contributes to excessive cultivation that, in turn, exacerbates LD. Official migration for agriculture in the ecologically fragile western region also contributed to LD. For example, near Qinghai Lake, the degraded landscape is a source of seasonal dust storms.

#### D. Screening of Environmental Issues

14. **General.** Key environmental issues identified are presented in some detail in the main text of this report. The broad scope of the Government's past and ongoing efforts to combat LD is acknowledged in paras. 11 and 12 of the main text. The sector-specific nature of massive current expenditure has led to concerns of less than optimal impact and the need for an integrated ecosystem management approach and improved coordination of LD efforts. The identified key problem areas (paras. 14 to 20 of the main text) have been agreed with the Government, and these will be systematically addressed under the Project. The essential environmental, technical, legal and policy, institutional, social, financial, and economic issues have been identified at the central, provincial, and regional levels in the project area. Of these, the essential institutional coordination mechanisms represent the greatest challenge. The Government expressed its intention to aggressively pursue the reforms to be supported by the Project under the forthcoming Eleventh Five-Year Plan.

15. **Critical Ecoregions.** *China's Biodiversity: A Country Study* (footnote 16, main text) reinforced the need to prioritize specific ecosystems and species as critical biodiversity regions. More recently, the World Wildlife Fund developed a classification of ecoregions that has a higher level of resolution to assess biodiversity features and priorities.<sup>4</sup> Ecoregions are defined as relatively large units of land or water containing a distinct assemblage of natural communities and species, with boundaries that approximate the original extent of natural communities prior to major land-use change. Existing conservation status (if known), physical accessibility, general assessment of LD, and degree of threat have also been taken into account.<sup>5</sup>

16. **Pilot Sites.** The CPF's first phase (2003–06) targets specific areas within the six provinces and/or regions with high priority for combating LD from national and global environment perspectives. The relevant areas were identified according to the following agreed criteria: (i) global environmental significance (as stated in the Biodiversity Conservation Action Plan); (ii) severe LD (as highlighted in the Convention to Combat Desertification National Action Plan); (iii) potential for poverty reduction and economic development (as evidenced by agricultural or rural development prospects); (iv) opportunity to develop potentially replicable

<sup>4</sup> David M. Olson, etc. 2001. Terrestrial Ecoregions of the World: A New Map of Life on Earth. *BioScience* 51 (11):933-938. Available: [www.worldwildlife.org/ecoregions](http://www.worldwildlife.org/ecoregions)

<sup>5</sup> The conservation status and ecological characteristics of the six provinces and/or regions are provided in Supplementary Appendix A. These ecologically sensitive ecoregions show a strong correlation with poverty.

responses for integrated ecosystem management (existence of significant areas with similar characteristics); and (v) ownership by the local government, as indicated by a decision to allocate counterpart funds.

**17. Project Selection Criteria.** The following eligibility criteria will be used in screening potential future investment projects: (i) addresses enabling legal and regulatory framework conditions that enhance incentives and enforcement mechanisms for improved ecosystem management; (ii) demonstrates an integrated and participatory approach, rather than a sector-based approach, and fosters increased coordination among line agencies; (iii) involves local communities and all stakeholders fully in identifying, designing, planning, implementing, and monitoring sustainable ecosystem management projects; (iv) tests innovative and coordinated institutional arrangements, technology systems, land use planning tools, adaptive management approaches, and public-private partnerships; (v) achieves a synergy among biodiversity conservation, carbon sequestration, and LD control objectives through sustainable agriculture and rural development activities, with an emphasis on locally appropriated benefits and sustainable livelihoods; and (vi) includes a structured monitoring and evaluation component to generate lessons for potential replication.

## **E. Potential Environmental Impacts and Mitigation Measures**

**18. Improving the Policies and Laws for LD Control.** The quality of environmental policy, legislation, and regulations will be improved through a structured approach to the formulation and implementation of land and natural resources management programs. This will help establish the preconditions for restoring ecosystem productivity and reducing poverty. Specific measures include (i) establishing procedures and mechanisms that will improve the quality of law and policy needed to implement integrated ecosystem management; (ii) promoting capacity building and education in legislative and policy aspects of LD management; and (iii) accepting specialist policy, legal, and regulatory advice and problem solving support, including a legal and policy advisory group to guide the implementation (Supplementary Appendix D).

**19. Improving National and Provincial Coordination.** Future agricultural and natural resources planning and management needs will be based on sound ecological principles. The benefits from an effectively coordinated approach to LD management under the forthcoming Eleventh Five-Year Plan (2006–2010) would be significant and include greater sector plans harmonization, integrated ecosystem management approaches mainstreaming, and budget allocations rationalization in the involved provinces and/or regions. An institutions and planning expert group will be formed, comprising representatives of all involved agencies, to guide the implementation of components 2, 3, 4, and 6. Other specific activities under this component are (i) formulation of LD strategies at the province and/or region level; (ii) measurement of the economic costs and benefits of LD control through field studies; (iii) implementation of a feasibility study on establishing integrated ecosystem management training on a permanent basis in the PRC; (iv) harmonization of the approach being taken with the PRC-GEF Partnership by revisiting the National Action Plan to Combat Desertification, the Biodiversity Action Plan, and other relevant action plans; (v) implementation of workshops to promote strategic integrated ecosystem management planning, including an international workshop in the first year; and (vi) facilitation of study tours and exchanges on integrated ecosystem management. Details appear in Supplementary Appendix E.

**20. Improving Operational Arrangements at Provincial/Autonomous Region and County levels.** Specific measures will be introduced to improve the field-level capacities to work with rural communities in bottom-up participatory planning and implementation of field-

level LD control through an integrated ecosystem management approach. Under the guidance of the institutions and planning expert group, other activities will include assessing existing operational arrangements, institutional capacity, and training needs; identifying field-level best practices; developing integrated ecosystem management guidelines, manuals, and training materials; and demonstrating community-based LD control in a minimum of one selected area per province and/or region. A minimum of 10 adaptive research grants will also be provided for research agencies, on a competitive basis, for participatory research and technologies to combat LD. A public awareness campaign on the integrated ecosystem management approach and workshops on community-based LD control, study, tours and/or exchanges, and publications will be supported. Supplementary Appendix F provides details.

**21. Building Capacity for LD Investment Projects.** Developing the capacity to design, implement, and finance future investment projects is a major element of the Project. In each province and/or region, the Project will (i) identify training needs, (ii) examine the impact of past LD investments, and (iii) undertake feasibility studies of integrated ecosystem management project investments. These studies will cover high-priority investment projects for possible ADB, GEF, or other development partner financing under the PRC-GEF Partnership. To identify potential financing for these future investments, a study of cofinancing options will be undertaken to identify one or more modalities for combining loan financing, GEF grants, other concessional resources, and government support. An operational cofinancing modality is a precondition for each province and/or region to benefit from potential investments under the Partnership (Supplementary Appendix G).

**22. Monitoring and Evaluation of LD.** Guided by an advisory group on monitoring and evaluation that has already been formed, specific measures under the Project will include establishing a geographic information system at each province and/or region; performing LD assessment training; developing indicators for monitoring LD; and implementing workshops, study tours, and exchange visits. At the national, provincial, and regional levels, a series of institutional stakeholder consultation and/or consensus-building meetings would be held to reach agreement on new mechanisms for coordinating and sharing the collection and analysis of national-level LD datasets. At the community level, the direct stakeholders (including farmers, foresters, and herders) would be involved in pilot monitoring and assessment studies and would actively participate in assessing the nature, severity, and impact of LD in their local areas. Proven programs and techniques for assessing and monitoring LD in the PRC will be supported, including the Food and Agriculture Organization of the United Nations and its successful LD Assessment pilot program. Outputs of the component will be (i) creation of a national coordination mechanism for collecting, sharing, and analyzing LD-related data; (ii) clarification of the role and mechanisms for provincial and county agencies to contribute to national LD assessments; and (iii) acceptance of a universally agreed definition of LD, including common definitions of specific LD types (e.g., wind erosion, water erosion, soil fertility decline, and biodiversity loss); common standards and indicators for national-level monitoring of specific LD types; and compatible software and standards to facilitate the sharing of data sets (Supplementary Appendix H).

**23. Building Capacity to Implement the Country Programming Framework.** Capacity will be developed to support the implementation of the 10-year CPF, including future integrated ecosystem management projects and development partner coordination. Logistical and technical support will be provided for the already established project coordination office in MOF and the project management office that was set up in SFA for day-to-day management. These offices were established to share a common location. Information exchange between projects, agencies, and other stakeholders will be a major activity to promote understanding of lessons

learned and integrated ecosystem management's role and improve cooperation and transparency. A program monitoring and evaluation system based on learning and adaptive management is being set up in MOF to ensure that the results of the Project and related projects are used to adjust the program (Supplementary Appendix I).

24. Table A4 summarizes the six main areas of policy and institutional intervention under the Project and their impacts. The role of public consultation in all areas of project design is noted in Table A4.

## **F. Institutional Requirements and Environmental Monitoring**

25. To ensure that all applicable national and local environmental laws and regulations, as well as the requirements of ADB, are adhered to during project implementation, it is required that the project management office and project coordination office should monitor the project implementation and report to GEF and ADB annually. A major review will be undertaken at the end of the first year of implementation to determine progress. Personnel from government agencies at national and local levels will benefit from the introduction of new approaches and capacity-building activities. Private sector organizations will benefit from clearer market-oriented rules and incentives for investment in natural resources. Improved development partner coordination will lead to greater concessional resources being available to some of the poorest provinces and/or regions. Improving coordination mechanisms at national, provincial, and county levels; strengthening links between national and local levels; implementing investment projects under the CPF; and developing effective operational arrangements will promote greater understanding, reduce duplication, and improve efficiency.

## **G. Conclusion**

26. The Project will have no direct adverse physical impacts on the environment. However, to ensure that the policies, standards, and guidelines to be developed under the Project bring maximum benefits and to avoid potential indirect impacts that might stem from implementation of inappropriate approaches, it is essential that all agencies be adequately consulted on the annual work plan, progress reviews, and monitoring and feedback efforts. The Project will assist the PRC in meeting its international commitments under relevant international conventions, including those addressing desertification, biodiversity conservation, and climate change.

**Table A4: Policy Matrix**

<b>Policy Intervention</b>	<b>Economic and Social Outcomes</b>	<b>Environmental Impact</b>	<b>Mitigation Measures<sup>6</sup></b>
1. Improving policy and laws for land degradation (LD) control	The quality of environmental policy, legislation, and regulations will be improved at central, provincial, and regional levels. This will help establish the preconditions for restoring ecosystem productivity and reducing poverty. Improved incentives for private sector roles and broader access to services will result.	A logical and consistent regulatory framework provides the basis for improved LD control measures and enhanced institutional capacity to regulate and monitor compliance, including requirements of international conventions.	The legal and policy advisory group will overview priorities and work plans. A structured approach to develop institutional and policy measures will be developed. Training workshops, legal studies, and study tours will be conducted.
2. Improving national and provincial coordination	A coordinated approach to LD under the Eleventh Five-Year Plan (2006-2010) will be taken. Integrated ecosystem management will lead to improved effectiveness and efficiency of public investment programs and more sustainable development.	Improved knowledge of integrated ecosystem management, strategic planning, and participatory approaches will lead to better decision making for management of degraded areas.	Institutional and planning advisory group will be established. <sup>7</sup> LD strategies will be developed at provincial and/or regional levels. Revisions of sector-based action plans, economic assessments, and training and workshops will be carried out.
3. Improving field operational arrangements	Local level capacities to plan and implement an integrated ecosystem management approach to LD control are improved in selected areas.	Future development projects and programs are better aligned with ecosystem capacities and community needs.	Best practices are identified. LD control plans are created. Research grants are given. Public education, study tours, workshops, and training are carried out.
4. Building capacity for LD investment projects	Demonstration projects based on an integrated ecosystem management approach is designed and funded. Assessments of past LD projects is completed and lessons are learned.	Mainstreaming of previously identified (but isolated) successes in LD control in the PRC occurs, improving the chances of overall success.	Past LD approaches are documented and evaluated. Feasibility studies of integrated ecosystem management projects are conducted. A cofinancing options study is conducted.
5. Monitoring and evaluation of LD	More detailed understanding of trends in LD and the systems in place to take long-term corrective action occurs.	Effective, coordinated monitoring and evaluation system for LD is implemented to guide future decisions and resource allocation.	Advisory group on monitoring and evaluation is established. Coordination mechanism for major agencies on data, definitions, standards, and reporting is created. Training and workshops are conducted.
6. Building capacity to implement the CPF	Multisector planning and operational capacities are supported to address LD at the central level and in six provinces and/or regions in first phase of country programming framework. Development partner coordination is improved.	Increased resource transfer (Government and development partners) for LD programs occurs, due to more focused approach.	Joint management and coordination office is set up. Coordination of LD projects, agencies, and other stakeholders occurs. Development partner coordination mechanism is created.

<sup>6</sup> The policy and institutional reform measures to be taken under the Project have undergone detailed review through consultation with all involved agencies at the central and provincial levels. All specific measures have also been reviewed by independent subject matter experts in the areas of environmental law, land degradation control, land degradation monitoring and evaluation systems, cofinancing activities, and capacity-building efforts.

<sup>7</sup> This advisory group will cover components 2, 3, 4, and 6.



## SUMMARY OF INTERNATIONAL DEVELOPMENT AGENCY EXPERIENCE IN LAND DEGRADATION PROJECTS IN THE WESTERN REGION

### A. Background

1. International development assistance in land degradation (LD) in the PRC has been significant, varied, and over a long period. Information presented is based on a survey of projects in the Western Region during the PRC Government's *Ninth* (1996 to 2000) and *Tenth* (2001 to 2005) *Five Year Plans*, and has been obtained from websites hosted by international development agencies, supplemented by specific enquiries, including at roundtable meetings held at Asian Development Bank's PRC Resident Mission over 2001–2003. Projects are described under various headings, including agriculture, grassland management, forestry, water and soil conservation, water-saving, biodiversity conservation, rural development, desertification control and environmental management. No donor-assisted projects are described using the term "LD control". Various terms are used to describe poverty alleviation. Supplementary Appendix C provides summary details of 128 projects that have been financed by 10 bilateral and 9 multilateral agencies.<sup>1</sup> Table A5 lists 34 of these projects, financed primarily with international assistance, that have particular relevance to future investments in an integrated management approach to combat LD.

2. As a result of this effort, there is a growing body of successful experience with the use of community-based participatory planning processes for the design and implementation of different types of rural development projects. Experience in the PRC has shown that adopting a participatory approach to identify and analyze the problems and developing locally appropriate solutions can produce tangible production benefits. One report for ADB TA 3548 PRC identified some 30 projects that had practical experience with the use of participatory planning and development approaches.<sup>2</sup> A common factor in all of these projects is that they were supported by international development agencies, where adoption of a participatory approach was a requirement for receiving financial and technical support. The approach has yet to be adopted within projects and programs funded totally from government budget resources. The adoption of participatory planning and technology development methods is still the exception rather than the rule. Only a limited cadre of research and extension workers at the national, provincial, and county levels has been trained and have the necessary skills to work in a participatory manner with rural communities in the planning and implementation of improved natural resource management activities.

3. For Government-financed projects, sector-specific investments are the normal approach, administered through sector agencies. Some interventions have been successful, based on technical research on combating LD over the last 50 years (e.g., desert sand stabilization to protect major roads and rail links). However, little research has been done on sustainable practices for designing new approaches, policy-relevant data for planning, and issues and problems related to replicating successes and avoiding failures. With few exceptions, projects have not been designed to address the multisector dimensions required to overcome LD. Consequently, the capacity to design and implement integrated ecosystem management investments has not been developed. Developing the capacity to design, implement, and finance future investment projects, based on an integrated ecosystem management approach to combat LD is an important element of the Project.

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<sup>1</sup> The 128 projects summarized in Supplementary Appendix C comprise 67 bilateral projects and 61 multilateral projects.

<sup>2</sup> ADB. 2002. *Technical Assistance for National Strategies for Soil and Water Conservation*. Manila.

4. Government is aware of the value of international experience and has encouraged innovative approaches within the PRC. Reviews of ongoing Government programs by teams including leading international experts, such as those supported through the China Council for International Cooperation on Environment and Development, have played a catalytic role in stimulating debate over the impact of LD investments and sustainable development.<sup>3</sup>

## **B. Project Approach**

5. The Project will build on past successes in the six provinces and/or regions by sensitizing state, provincial, and local government policy makers and senior officials to the benefits of a participatory approach. It will also build a cadre of participatory researchers, extension workers, and planners by training them in the concepts, principles, and practice of participatory appraisal and planning for LD control and restoring ecosystem productivity. The aim of such training would be to reorient their thinking, and current top-down working methods, and provide them with the skills and tools needed to work in partnership with rural communities for the planning and implementation of locally appropriate ecosystem management activities.

6. The overall impact will be assessed for a selection of projects and approaches identified (e.g. from Table A5).<sup>4</sup> Accurate feedback on past LD investments, including the costs, benefits, and efficiencies of different types of interventions is currently not available to guide future investment options. Provincial leaders in each area have expressed interest in such information. A study of concessional financing options for combating LD will also be undertaken.

7. In each province and/or region a trained team will undertake at least one feasibility study of potential investments, in line with the agreed criteria as set out in Appendix 4. Relevant project documents as source materials include, for example, (i) Gansu-Xinjiang Pastoral Development Project (World Bank-GEF OP12), Staff Appraisal Report, 13 August 2003; (ii) Drylands Ecological Conservation and Rehabilitation Project (International Fund for Agriculture Development and World Food Program candidate project for GEF OP12 and OP15, 2003); (iii) Tarim River Basin Comprehensive Management Project (Central Government, 2001); and (iv) Heihe River Basin Comprehensive Management Project (Central Government, 2002). Also relevant is the Ecosystem Functions Zoning program, which commenced in 2000 and is being implemented by the State Environment Protection Administration.

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<sup>3</sup> Xu Jintao, Katsigris, E and White, T. 2002. *Implementing the Natural Forest Protection Program and the Sloping Land Conversion Program: Lessons and Policy Recommendations*. China Council for International Cooperation on Environment and Development. Beijing. 2002.

<sup>4</sup> Shaanxi Province provided a list of 21 major LD projects, inclusive of foreign-assisted projects. See footnote 38, main text.

**Table A5: Some Land Degradation Projects in the Western Region**

<b>Project Name</b>	<b>Donor</b>	<b>Sector/Location</b>
Gansu and Xinjiang Pastoral Development <sup>a</sup>	GEF, WB	LD, Livestock, Agriculture/Gansu, Xinjiang
National Capacity Needs Self-Assessment for Global Environmental Management	GEF	Desertification, Biodiversity/National
Nature Conservation and Flood Control in the Yangtze River Basin	GEF, UNDP	LD, Water Resources/Sichuan, Shaanxi
Capacity Building of Clearing House Mechanism	GEF, UNEP	Biodiversity/National
Lop Nur Nature Sanctuary Biodiversity Conservation	GEF, UNEP	Biodiversity/Xinjiang
Prevention and Control of Dust and Sandstorms in Northeast Asia	GEF, ADB	Desertification, LD/Xinjiang, Inner Mongolia (IMAR)
Drylands Ecological Conservation and Rehabilitation Project <sup>a</sup>	GEF, IFAD, WFP	LD, Poverty/Ningxia, Gansu
Water Sector Development	DIFD	Water Resources, LD/Gansu, Shaanxi, Ningxia
PRC-GEF Partnership on LD in Dryland Ecosystems <sup>a</sup>	ADB, GEF	LD/Western provinces
Poverty Reduction in Grasslands Improvement Programs	DFID, ADB	Poverty, Livestock/Ningxia, Gansu, IMAR
Poverty Reduction in Key Forestry Conservation Programs	DIFD, ADB	Poverty, Forestry/Shaanxi, Sichuan, Jiangxi, Hebei
China-Netherlands Poverty Alleviation Project	Dutch Government	Forestry, Water resources/Anhui, Jiangxi
Biodiversity Protection and Community Development in IMAR	CIDA	Biodiversity/IMAR
Sustainable Agriculture Development: IMAR	CIDA	LD, Agriculture/IMAR
Hebei Dryland Phase II	CIDA	Agriculture/Hebei
China Council for International Cooperation on Environment and Development (CCICED)	CIDA	Multi-sector/National
Water and Agriculture Management in Hebei	AusAID	Water Resources/Hebei
Grassland Management Program	AusAID	Livestock/IMAR, Hebei
Monitoring and Management Information System for Three North Shelter Belt Afforestation Program	GTZ	Forestry/Northern provinces
Participatory Approaches in Agriculture and Forestry	GTZ	Agric., Forestry/Sichuan, Hubei, Shaanxi
Basic and Further Training in the Forestry Sector	GTZ	Forestry/Sichuan, Hubei, Shaanxi
Model Planning Project for Water Saving Measures in Large-scale Irrigation Schemes	JICA	Water Resources, Agric./IMAR, Hebei
China Sustainable Forestry Development Project	WB	Forestry/National
Water Conservation Project	WB	LD, Water Resources/National
Gansu and Inner Mongolia Poverty Reduction	WB	LD, Poverty/Gansu, IMAR
Loess Plateau Watershed Rehabilitation	WB	LD, Agriculture/Loess Plateau
Tarim Basin II	WB	Watershed Management/Xinjiang
Gansu Hexi Corridor Rehabilitation	WB	Desertification, Water/Gansu
Tarim River Basin Comprehensive Management	PRC	Basin Management/Xinjiang
Heihe River Basin Comprehensive Management	PRC	Basin Management/Gansu
Ecosystem Zoning Program	PRC	Multisector/all western provinces

ADB = Asian Development Bank; AusAID = Australian Agency for International Development; CIDA = Canadian International Development Agency; DFID = Department for International Development (UK); GEF= Global Environmental Facility; GTZ = Deutsche Gesellschaft für Technische Zusammenarbeit; IFAD = International Fund for Agricultural Development; JICA = Japanese International Cooperation Association; PRC = the People's Republic of China; UNDP= United Nations Development Programme; UNEP = United Nations Environment Programme; WB = World Bank; WFP = United Nations World Food Programme; LD = land degradation.

<sup>a</sup> Under OP12 GEF-PRC Partnership on Land Degradation in Dryland Ecosystems.

Sources: Development partner coordination meetings and websites.

## COMPONENT SUMMARY

### A. Background and Rationale

1. The Project will comprise six components, determined during discussions with the Government and other stakeholders. This appendix provides an overview of the components, implementation and progress indicators. Implementation arrangements for the overall Project are described in Appendix 8.

#### 1. Component 1: Improving Policies, Laws, and Regulations for LD Control

2. Three broad outcomes will be pursued; details are in Supplementary Appendix D.<sup>1</sup>

3. **Developing Procedures and Mechanisms to Improve Law and Policy Quality and Implement Integrated Ecosystem Management.** Six related work areas will assess, develop, and recommend (i) a comprehensive legislative and ecological elements toolbox for legal, policy, and institutional arrangements for LD management, including the toolbox's computerization;<sup>2</sup> (ii) standard provincial procedures, based on best practices covering involved organizations, land management, community participation, financing arrangements, and regulatory and nonregulatory approaches enforcement; (iii) harmonized laws, regulations, and policies covering grasslands and desertification issues; water and soil conservation; water, forestry, agriculture, and land administration; environment protection; and assessment of environmental impact; (iv) capacity building for laws and policies implementation and surveillance, focusing on developing (a) interagency coordination mechanisms for decision making that are applicable to the Eleventh Five-Year Plan in each province and region; (b) ecosystem function zones procedures, to be integrated with other zones used in different sectors, and procedures to be implemented under the environmental impact assessment (EIA) law; and (c) mechanisms to examine implementation and monitoring effectiveness; (v) EIA's role in LD control through practical procedures under the EIA law; and (vi) legal procedures for private sector involvement, including land tenure; land use rights; gender rights and market access; compensation measures for grassland closure; and preparation of measures to address sustainable livelihoods in consideration of poverty alleviation, minority groups, and gender rights.

4. The six activities mentioned in para. 3 will be implemented jointly at the central and provincial and/or regional level. At the central level, the consultant team will comprise international legislative experts, central-level legislative experts, and various provincial-level experts. This team will be responsible for reviewing and assessing primary legislative materials and developing legislative procedures and mechanisms. Provincial legislative experts will be responsible for implementing the centrally developed procedures and mechanisms through various instructive workshops and introducing the procedures into the day-to-day legislative, regulatory, and policy operational programs. The capacity-building program and the training workshops for legislative officials will be implemented at the central level and supervised by the consultant team. The background material and course modules will be developed at the central level. The provincial-level legal training workshops will be implemented conjunctively by domestic legal experts and newly trained provincial legislative experts. The central level will be responsible for the international visits, special legislative education, and individual skills training.

<sup>1</sup> Component 1's design and implementation arrangements reflect a systematic approach and the recommendations made in ADB. 2002. *Capacity Building for Environmental Law in Asia and the Pacific Region*. Manila.

<sup>2</sup> This will be a joint central and provincial exercise that is based on current LD problems. See footnote 34, main text.

5. **Building Capacity in Legislative and Policy Aspects.** The following three linked work areas will be undertaken: (i) Prepare a comprehensive capacity-building program with legislative, policy, and institutional measures to train key target groups, including legal officers, legal draftsmen, judicial officials, policy makers, government officials, and private individuals at the central, provincial, and regional levels. (ii) Implement training workshops at central and provincial levels on integrated ecosystem management's legal role, LD studies' legal aspects, policy and law links establishment, EIA, and judicial and legislative remedies access. These workshops will be provided through a PRC institution with a recognized capacity and include the training of trainers and relevant materials and presentations preparation.<sup>3</sup> (iii) A program of international visits, tours, and secondments for selected officials that will focus on innovative and relevant environmental laws and policies.

6. **Policy, Advice, and Problem Solving Support.** A legal and policy advisory group, comprising representatives of all involved provinces and/or regions and the central Government, will be formed to guide implementation, including field visits and monitoring. A feasibility study will be undertaken to examine the need for a permanent capacity for environmental law training in dryland areas and identify the most cost-effective option for delivering such training. Special studies will be undertaken to assist with legal reform.<sup>4</sup>

7. The final four activities (paras. 5 and 6) will be managed at the central level, with extensive consultation among provincial experts and government and academic institutions, according to the nature of the problem being investigated. Management responsibility for the legal and policy expert advisory group will be at the central level, with some provincial financial support. The implementation of training workshops will be managed at the central level, with involvement of provincial officials and experts from various environmental law institutions and government agencies. Development of the toolbox as a computer-based expert system will be a central-level responsibility.

## 2. Component 2: Strengthening National and Provincial Coordination

8. This component will ensure that the forthcoming Eleventh Five-Year Plan (2006–2010) reflects greater sector plan harmonization and introduces integrated ecosystem management approaches and budget allocation rationalization in the involved provinces and/or regions. To highlight the principles of integrated ecosystem management and promote mutual understanding among stakeholders of the concepts, key problems and root causes of LD, an international workshop will be held in the first year of implementation. The workshop will (i) aim to assist policy makers as they work to better understand LD causes internationally and in the PRC and help them understand what worked, what did not work, and why; (ii) involve all key stakeholders and help identify their views of proposed interventions and phasing; and (iii) assist in developing specific and regional guidelines for the Eleventh Five-Year Plan, which will be issued in September 2005.<sup>5</sup>

9. A planning expert group will be formed, comprising representatives of all involved agencies. The group will guide the implementation of Components 2, 3, 4, and 6. For Component 2, the group will assist in undertaking an institutional review and recommending

<sup>3</sup> See footnote 35, main text.

<sup>4</sup> See footnote 36, main text.

<sup>5</sup> The planning guidelines are recommended by the National Development and Reform Commission to the State Council.

appropriate measures, including a mechanism for improved central, provincial, and regional interagency collaboration and coordination. Other activities will include (i) formulating LD strategies at the provincial or regional level; (ii) assessing the economic costs and benefits of LD control through field studies in selected areas; (iii) implementing a feasibility study examining the establishment of integrated ecosystem management training on a permanent basis; (iv) harmonizing the approaches being taken under the PRC-Global Environment Facility (GEF) Partnership, Convention to Combat Desertification-National Action Program to Combat Desertification (CCD-NAP), Biodiversity Action Plan, and other relevant action plans; (v) initiating workshops to promote strategic integrated ecosystem management planning; and (vi) promoting regional and interprovincial study tours and exchanges on integrated ecosystem management. Details are provided in Supplementary Appendix E.

10. Component 2 will be implemented under the supervision and guidance of the national institutions and planning expert group.<sup>6</sup> This group will receive support and technical assistance for the implementation of specific component activities from a panel of international and domestic consultants. Consultants will be appointed on the basis of their disciplinary expertise and knowledge of the institutional circumstances and planning needs for LD control within western PRC. At the national and provincial levels, a series of institutional stakeholder consultations and/or consensus-building meetings will be held to reach agreement on new intersector coordination mechanisms for promoting an integrated ecosystem management approach to LD control.

### **3. Component 3: Improving Operational Arrangements at Provincial and/or Autonomous Region and County Levels**

11. Component 3 will enhance the capacities of provincial and county agencies to work with rural communities in bottom-up participatory planning and in implementing field-level LD control through an integrated ecosystem management approach. Under planning expert group guidance, other activities will include assessing existing operational arrangements, institutional capacity, and training needs; identifying field-level best practices; developing integrated ecosystem management guidelines, manuals, and materials for training; and demonstrating community-based LD control in a minimum of three selected areas per province or region. A minimum of 10 adaptive research grants will be provided, on a competitive basis, for research agencies to conduct participatory research and use participatory technologies in combating LD. A public awareness campaign on the integrated ecosystem management approach will be undertaken; and workshops on community-based LD control, tours and/or exchanges for study, and publications will be supported. Details are provided in Supplementary Appendix F.

12. Component 3 will be implemented under the supervision and guidance of the national institutions and planning expert group.<sup>7</sup> This group would receive support and technical

<sup>6</sup> Reporting to the PRC-GEF Partnership Steering Committee, this expert group will provide advice and assistance for Components 3, 4, and 6. It will consist of 8–10 members selected according to their knowledge of (i) LD control institutions, (ii) eleventh five-year plans processes, (iii) intersector strategic planning, (iv) field-level LD control planning, and (v) investment projects design. The group would be expected to meet formally four to six times per year (depending on need) for 4 years. In addition, for this output, individual members and/or subgroups will conduct detailed investigations into specific aspects of the strategic planning process, reporting back to the group as a whole.

<sup>7</sup> This is the same expert group guiding the implementation of Components 2, 4, and 6. In addition to the investigations undertaken for this component, there may be a need for individual members to undertake, on behalf of the group, further investigations into one or more specific aspects of participatory planning for the control of LD at the community and/or field level.

assistance for the implementation of specific component activities from a panel of international and domestic consultants. Individual consultants will be appointed on the basis of their disciplinary expertise and knowledge of institutional circumstances and planning needs for LD control within western PRC.

#### **4. Component 4: Capacity Development for Land Degradation Investment Projects**

13. Developing the capacity to design, implement, and finance future investment projects, based on an integrated ecosystem management approach to combating LD is a major element of the Project. In each province and region, the approach will (i) identify training needs; (ii) examine the impact of past LD investments (accurate feedback on the impacts, benefits, and efficiencies of different types of interventions); and (iii) undertake feasibility studies of integrated ecosystem management project investments. These studies will cover high-priority investment projects for possible ADB, GEF, or other development agency financing under the PRC-GEF Partnership.<sup>8</sup> To identify potential financing for these future investments, a study of cofinancing options will be undertaken to identify one or more modalities for combining loan financing, GEF grants, other concessional resources, and government support. An operational cofinancing modality is a precondition for each province and region to benefit from potential investments under the Partnership. Supplementary Appendix G provides further details.

14. All activities will take place at the provincial and/or regional level. Provincial experts will be involved with support from the international consultants engaged under the Project in (i) providing assistance with terms of reference for the studies; and (ii) guiding scheduling, scope, and reporting arrangements. Coordination with potential development agencies will be done by the project coordination office (PCO) in the Ministry of Finance.

#### **5. Component 5: Monitoring and Evaluation System for Land Degradation**

15. Component 5's major outputs will be (i) a national coordination mechanism for collecting, sharing, and analyzing LD-related data; (ii) the clarification of provincial- and county-level agency roles and mechanisms that will contribute to national-level LD assessments; (iii) a universally agreed definition of LD, including common definitions of specific LD types (e.g., wind erosion, water erosion, soil fertility decline, and biodiversity loss); common standards and indicators for national-level monitoring of specific LD types; and compatible software programs and standards that will facilitate sharing of data sets. Supplementary Appendix H provides further details.

16. Activities will be guided by an advisory group on LD monitoring and evaluation. The group will comprise experts from established participating main agencies. Activities will include establishing a geographic information system at each province and region; training in LD assessment; developing indicators for monitoring LD; and conducting related workshops, study tours, and exchange visits. At the national, provincial, and regional levels, a series of institutional stakeholder consultation and consensus-building meetings will be held to reach agreement on new mechanisms for coordinating and sharing the collection and analysis of national-level LD datasets. At the community level, the direct stakeholders (including farmers, foresters, herders, and other land users) will be involved in pilot monitoring and assessment studies, participating actively in assessing the nature, severity, and impact of LD in their areas.

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<sup>8</sup> ADB programmed several project preparation TAs and subsequent loans for future investments. The agreed project eligibility criteria are given in Supplementary Appendix G.

Proven programs and techniques for assessing and monitoring LD in the PRC will be supported, including the successful LD assessment pilot program of the Food and Agriculture Organization of the United Nations.

17. Component 5 will be implemented under the supervision and guidance of a national LD assessment expert group. This group will receive backstopping support and TA for the implementation of specific component activities from a panel of international and domestic consultants. Consultants will be appointed to provide disciplinary expertise and knowledge of the biophysical, socioeconomic, and institutional circumstances within western PRC.

18. At the national and provincial levels, a series of institutional stakeholder consultation and/or consensus-building meetings will be held to reach agreement on new coordination mechanisms for coordinating and sharing the collection and analysis of national-level LD datasets. At the community level, the direct stakeholders (farmers, foresters, herders, and other land users) will be involved in the pilot monitoring and assessment studies and will actively participate in assessing the nature, severity, and impact of LD in their local areas.

19. Two global and/or international programs were identified as having a strong common interest in some of the key activities proposed for Component 5: the global LD Assessment in Drylands program<sup>9</sup> and the World Overview of Conservation Approaches and Technologies.<sup>10</sup> The PRC is actively involved in both programs. There will be mutual benefits from developing collaborative links with these.

## **6. Component 6: Implementation Arrangements for the Country Programming Framework**

20. Capacity will be developed to support the 10-year country planning framework's implementation, including future integrated ecosystem management projects and development partner coordination. Logistical and technical support will be provided for the already established PCO in the Ministry of Finance and the project management office (PMO) in the State Forestry Administration. The PCO and PMO will share a common office space in Beijing. The office was opened in November 2003. Information exchange between projects, agencies, and other stakeholders will be a major activity to promote understanding of lessons learned and integrated ecosystem management's role and improve cooperation and transparency. A program monitoring and evaluation system, based on learning and adaptive management, is being established in the Ministry of Finance. The system will ensure that project results and results of related projects are used to adjust the program. Details are provided in Supplementary Appendix I.

21. Some key progress indicators by components are summarized in Table A6. Further details are provided in Appendix 1 and Supplementary Appendix M.

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<sup>9</sup> Funded by GEF, in association with the United Nations Environment Programme and Global Mechanism, and executed by the Food and Agriculture Organization of the United Nations.

<sup>10</sup> The World Overview of Conservation Approaches and Technologies Secretariat is based in the Centre for Development and Environment, University of Berne, Switzerland.



**Table A6: Summary of Some Key Indicators By Components**

<b>Item</b>	<b>Studies/Guidelines for Combating LD</b>	<b>Workshops and Seminars</b>	<b>Training and Study Tours</b>
Component 1	5	30	7
Component 2	21	37	10
Component 3	18	21	59
Component 4	20	14	3
Component 5	49	37	30
Component 6	0	14	42
Total Central Level	29	57	37
Total Provincial Level	84	96	114
<b>Total Project</b>	<b>113</b>	<b>153</b>	<b>151</b>

Source: Supplementary Appendix M.

**COST ESTIMATES**  
**Table A7.1: Expenditure Accounts by Components**  
(\$ '000)

Item	Component						Contingencies		
	1	2	3	4	5	6	Total	%	Amount
<b>A. Consulting Services</b>									
1. International Consultants	44.0	88.0	132.0	132.0	88.0	0.0	484.0	10.0	48.4
2. Domestic Consultants	238.0	136.5	98.0	80.5	101.5	0.0	654.5	10.0	65.5
<b>Subtotal (A)</b>	<b>282.0</b>	<b>224.5</b>	<b>230.0</b>	<b>212.5</b>	<b>189.5</b>	<b>0.0</b>	<b>1,138.5</b>	<b>10.0</b>	<b>113.9</b>
<b>B. Equipment and Vehicles</b>									
1. Equipment	0.0	0.0	0.0	0.0	633.0	24.0	657.0	10.0	65.7
2. Vehicles	0.0	0.0	0.0	0.0	300.0	80.0	380.0	10.0	38.0
<b>Subtotal (B)</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>933.0</b>	<b>104.0</b>	<b>1,037.0</b>	<b>10.0</b>	<b>103.7</b>
<b>C. Surveys and Studies</b>	65.0	148.0	343.2	408.0	349.5	0.0	1,313.7	10.0	131.3
<b>D. Workshops</b>	512.0	611.8	342.8	285.0	388.8	155.0	2,295.4	10.0	229.5
<b>E. Training and Study Tours</b>	190.0	282.0	967.0	15.0	682.0	381.3	2,517.3	10.0	251.7
<b>F. Incremental Staff</b>	138.6	0.0	86.4	0.0	0.0	607.2	832.2	10.0	83.2
<b>G. Office Operation</b>	0.0	0.0	0.0	0.0	0.0	1,599.4	1,599.4	10.0	159.9
<b>H. Pilot Project Costs</b>	0.0	0.0	1,800.0	0.0	12.0	0.0	1,812.0	10.0	181.2
<b>Total Baseline Costs</b>	<b>1,187.6</b>	<b>1,266.3</b>	<b>3,769.4</b>	<b>920.5</b>	<b>2,554.8</b>	<b>2,846.9</b>	<b>12,545.5</b>	<b>10.0</b>	<b>1,254.5</b>
1. Physical Contingencies	118.8	126.6	376.9	92.1	255.5	284.7	1,254.5	0.0	0.0
2. Price Contingencies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Project Costs</b>	<b>1,306.4</b>	<b>1,392.9</b>	<b>4,146.3</b>	<b>1,012.6</b>	<b>2,810.3</b>	<b>3,131.6</b>	<b>13,800.0</b>	<b>9.1</b>	<b>1,254.5</b>
Taxes	0.0	0.0	0.0	0.0	0.0	3.2	3.2	9.1	0.3
Foreign Exchange	141.9	208.1	377.5	227.7	1,018.3	171.8	2,145.4	9.1	195.0

Component 1 = Legal, Policy, and Regulatory Framework Strengthened.

Component 2 = National and Provincial Institutional Coordination Strengthened.

Component 3 = Field Level Land Degradation Control.

Component 4 = Improved Capacity for Integrated Ecosystem Management Projects.

Component 5 = Land Degradation Monitoring and Evaluation System.

Component 6 = Implementation Arrangements.

Source: Asian Development Bank estimates.

**Table A7.2: Expenditure Accounts by Financiers**  
(\$ '000)

Item	Government							
	GEF		Cash		In Kind		Total	
	Amount	%	Amount	%	Amount	%	Amount	%
<b>A. Consulting Services</b>								
1. International Consultants	484.0	100.0	0.0	0.0	0.0	0.0	484.0	3.9
2. Domestic Consultants	654.5	100.0	0.0	0.0	0.0	0.0	654.5	5.2
<b>Subtotal (A)</b>	<b>1,138.5</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1,138.5</b>	<b>9.1</b>
<b>B. Equipment and Vehicles</b>								
1. Equipment	657.0	100.0	0.0	0.0	0.0	0.0	657.0	5.2
2. Vehicles	380.0	100.0	0.0	0.0	0.0	0.0	380.0	3.0
<b>Subtotal (B)</b>	<b>1,037.0</b>	<b>100.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1,037.0</b>	<b>8.3</b>
<b>C. Surveys and Studies</b>	777.0	59.1	300.6	22.9	236.0	18.0	1,313.6	10.5
<b>D. Workshops</b>	718.5	31.3	741.0	32.3	835.9	36.4	2,295.5	18.3
<b>E. Training and Study Tours</b>	1,456.7	57.9	460.0	18.3	600.5	23.9	2,517.3	20.1
<b>F. Incremental Staff</b>	545.2	65.5	164.6	19.8	122.4	14.7	832.2	6.6
<b>G. Office Operation</b>	727.1	45.5	378.5	23.7	493.9	30.9	1,599.4	12.7
<b>H. Pilot Project Costs</b>	600.0	33.1	909.8	50.2	302.2	16.7	1,812.0	14.4
<b>Total Baseline Costs</b>	<b>7,000.0</b>	<b>55.8</b>	<b>2,954.5</b>	<b>23.6</b>	<b>2,590.9</b>	<b>20.7</b>	<b>12,545.5</b>	<b>100.0</b>
1. Physical Contingencies	700.0		295.5		259.1		1,254.5	
2. Price Contingencies								
<b>Total Project Costs</b>	<b>7,700.0</b>	<b>55.8</b>	<b>3,250.0</b>	<b>23.6</b>	<b>2,850.0</b>	<b>20.7</b>	<b>13,800.0</b>	<b>100.0</b>
Taxes	0.0	0.0	0.0	0.0	3.2	100.0	3.2	0.0
Foreign Exchange	2,145.4	100.0	0.0	0.0	0.0	0.0	2,145.4	15.5

GEF = Global Environment Facility.

Source: Asian Development Bank estimates.

**Table A7.3: Project Costs by Financier**  
(\$ '000)

Item	GEF			Government			Foreign Exchange	Local Currency <sup>a</sup>	Duties and Taxes
	Foreign Exchange	Local Currency	Total	Cash	In Kind	Total			
Component 1	129.0	595.0	724.0	226.0	237.6	1,187.6	129.0	1,058.6	0.0
Component 2	189.2	440.0	629.2	316.0	321.2	1,266.4	189.2	1,077.2	0.0
Component 3	343.2	1,357.6	1,700.8	1,291.2	777.4	3,769.4	343.2	3,426.2	0.0
Component 4	207.0	350.9	557.9	186.0	176.6	920.5	207.0	713.5	0.0
Component 5	925.8	985.1	1,910.9	171.3	472.6	2,554.8	925.8	1,629.0	
Component 6	156.2	1,321.0	1,477.2	764.1	605.6	2,846.9	156.2	2,690.7	2.9
<b>Total Base Cost</b>	<b>1,950.4</b>	<b>5,049.6</b>	<b>7,000.0</b>	<b>2,954.6</b>	<b>2,591.0</b>	<b>12,545.5</b>	<b>1,950.4</b>	<b>10,595.1</b>	<b>2.9</b>
Contingencies	195.0	505.0	700.0	295.4	259.0	1,254.5	195.0	1,059.5	0.3
<b>Total</b>	<b>2,145.4</b>	<b>5,554.6</b>	<b>7,700.0</b>	<b>3,250.0</b>	<b>2,850.0</b>	<b>13,800.0</b>	<b>2,145.4</b>	<b>11,654.6</b>	<b>3.2</b>

Component 1 = Policy, Legal, and Regulatory Framework Strengthened.

Component 2 = National and Provincial Institutional Coordination Strengthened.

Component 3 = Field Level Land Degradation Control.

Component 4 = Improved Capacity for Integrated Ecosystem Management Projects.

Component 5 = Land Degradation Monitoring and Evaluation System.

Component 6 = Program Implementation Arrangements.

<sup>a</sup> Excluding taxes.

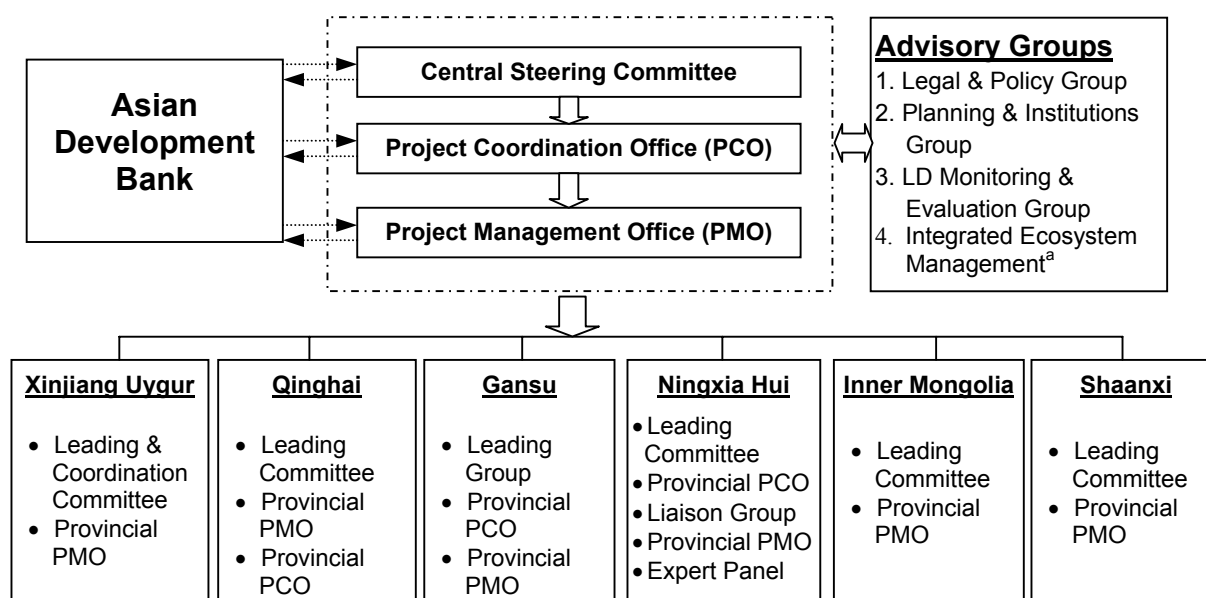
Source: Asian Development Bank estimates.

## IMPLEMENTATION ARRANGEMENTS AND SCHEDULE

### A. Background and Rationale

1. The People's Republic of China (PRC) has massive ongoing programs and projects to combat land degradation (LD) at national, regional, and provincial levels. Successive recent five-year plan expenditures on LD have rapidly grown in support of forestry, agriculture, water, and land (administered by sector through each relevant agency). Yet, despite increased resources and some implementation success, physical indicators of LD are worsening, land productivity is falling, and habitats and biodiversity are lost, especially in the fragile drylands of the impoverished western region. Poverty reduction-oriented programs are often handled separately and not integrated within the major technical programs to address environmental rehabilitation. The Government has acknowledged that LD is increasing and endorses an integrated approach for the future, based on the successful experiences of overcoming ecosystem degradation in many countries and in parts of the PRC. A structured implementation approach, backed up by political leadership is vital (Figure 1).

**Figure1: Administrative Structure for Project Implementation<sup>1</sup>**



<sup>a</sup> The integrated ecosystem management advisory group will be financed by Asian Development Bank's (ADB's) technical assistance (see Appendix 11).

3. The Government has sought international assistance in successfully completing over 30 previous projects dealing with LD. However, under the Project, a complex reform agenda will be pursued that requires close collaboration between 11 agencies and 6 provinces and/or regions.

<sup>1</sup> Universities and academic institutes have played an important role during project preparation and will be involved in project implementation in various ways, including authoring contracts; participating in advisory groups; and preparing case studies, feasibility studies, and training courses. Central-level universities include Beijing Normal, Wuhan, Shanghai Jiaotong, Peking, Remin, China Agricultural, and Beijing Forestry; and institutes include Geography and Resources, Remote Sensing, Ecological and Environmental Research, and China Ecology Research Network of Chinese Academy of Science (CAS). Provincial-level institutes include Xinjiang Institute of Ecology and Geography, and Cold and Arid Regions Environmental and Engineering Research Institute (Lanzhou, Gansu) of CAS. Provincial universities include Northwest Agricultural and Forestry Science and Technology (Xian, Shaanxi), Gansu Agricultural, Inner Mongolia Agricultural, and others.

Experience of previous Asian Development Bank (ADB) technical assistance has shown that sector agencies were often reluctant to effectively collaborate with other agencies or share information or welcome ideas that implied thinking beyond agency-specific boundaries.<sup>2</sup> To overcome these problems and effectively institute an integrated ecosystem management (IEM) approach will require a number of reforms, including institutionalizing a multiagency structure, participatory methods, and the development of a phased and regularly reviewed implementation methodology at the central, provincial, and regional levels. The development partner community has indicated its support for the Partnership; significant financial commitment, however, requires improved development partner coordination and new financial modalities for combining loan and grant resources.

## **B. Approach to Project Implementation Arrangements**

### **1. Objectives and Outputs**

4. The objectives are to (i) set up a fully functioning coordination and project implementation capacity at the central level and in each of the six participating province and/or regions; (ii) actively support implementation of all components and ensure proactive links are established and information is shared with all complementary projects, research agencies, and programs; (iii) improve development partner coordination; and (iv) conduct program monitoring and evaluation.

### **2. Key Activities by Output**

#### **a. Central Level**

5. **National Steering Committee.** This committee coordinates the major agencies.<sup>3</sup> It comprises senior officials from National Development and Reform Commission; Ministry of Finance (MOF); Ministry of Agriculture; Ministry of Science and Technology; Ministry of Water Resources; Ministry of Land and Resources; State Environment Protection Administration; State Forestry Administration (SFA); Chinese Academy of Sciences; and Legislative Affairs Office of the State Council, Legislative Work Committee of the National People's Congress. The Steering Committee is chaired by the Vice-Chair, Committee of Population, Resources and Environment, Chinese People's Political Consultative Conference. ADB will regularly meet the Steering Committee to review major milestones and progress. Four advisory groups (i.e., policy and legal framework, LD monitoring and evaluation, institutional coordination and IEM) will assist the Steering Committee.

6. **Project Coordination Office (PCO).** Headed by the Director General, Department of International Cooperation in MOF, the central PCO will (i) report to the Steering Committee; (ii) undertake liaison with Global Environment Facility, ADB, and international organizations; (iii) coordinate central agencies dealing, specifically with interagency issues; and (iv) provide guidance to the project management office (PMO), through monitoring of progress. The

<sup>2</sup> The completion report for TA 3657-PRC: *PRC-GEF Partnership on Land Degradation in Dryland Ecosystems*, concluded that it is difficult for any PRC sector agency to coordinate with other sector agencies in a multisector approach to combating LD. A genuine multiagency implementation structure needs to be put in place. The Government has taken positive steps toward strengthening interagency coordination and full-time management for implementation of the country programming framework (CPF). As this work is staff-intensive, ADB has strengthened its staffing at the resident mission in Beijing to support the implementation of the CPF.

<sup>3</sup> The Office of the Leading Group for Western Region Development of the State Council is a key agency for LD in the western region but was not yet included in the Steering Committee of the Project. It is anticipated that this office will become one of the agencies involved in the Partnership.

members of the PCO will represent each of the agencies that are represented on the Steering Committee. In each province and/or region the respective finance bureau will head the provincial PCO and report to the vice-governor. The PCO will have four staff members on a full-time basis.

7. **Project Management Office.** The PMO is headed by the Deputy Director General, Department of Science and Technology, SFA. It comprises representatives of the same agencies as represented on the Steering Committee and the PCO. The PMO will be responsible for (i) developing the annual work plan and implementation arrangements, with ADB and consultant support; (ii) management of all project components, including contract management and related activities; (iii) day-to-day implementation and guidance to the provincial PMOs; (iv) financial management of funds disbursed by MOF from the central imprest account into the central PMO accounts, which are to be used for the activities specified in the approved work plans (ADB's *Guidelines for the Financial Governance and Management of Investment Projects Financed by ADB* will be taken into account); (v) quarterly newsletter and regular Website maintenance, keeping development partner programs on LD and/or poverty, project profiles, links to technical sites, updates on government policies and legislation, news releases, and media releases via TV; and (vi) monitoring environmental developments in the PRC and overseas from domestic and international sources for Website postings. The PMO will also assist the provincial PMOs in managing the funds released by MOF into their respective provincial imprest accounts for the agreed provincial work plans. It will also support the advisory groups, including work planning, reports, and schedules. The full-time staff of the PMO will comprise six people. Four part-time employees will also work at the PMO. These individuals will be recruited from participating agencies or by contract. The PMO office was set up in 2002 and moved to the Debao Hotel in November 2003, with two full-time staff members and 3 part-time staff members. The central PCO and PMO share common office facilities in the Debao Hotel in Beijing. A Chinese language Website ([www.op12.cn](http://www.op12.cn)) has been established, and the first CPF newsletter was published and circulated widely in February 2004.

#### **b. Provincial Level**

8. **Provincial Leading Groups.**<sup>4</sup> Headed by the relevant vice-governor or vice-chairperson, these groups comprise senior officials from provincial development and planning commissions, departments of finance, departments of water resources, departments of agriculture, departments of land resources, science and technology commissions, environmental protection bureaus, forestry bureaus, poverty alleviation offices, and legislative affairs offices. These groups will be responsible for overall internal coordination within each specific province and/or region, as per the Steering Committee at the central level. Provincial leading groups will confirm plans proposed in project documents, coordinate multiagency affairs during project implementation, and review progress. Potential links between central and provincial tasks will be ensured through these groups.

9. **Provincial Coordination.** At provincial level, coordination offices were established in provincial departments of finance to undertake multiagency coordination and report to vice-governors through the Provincial Leading Meeting. A close and active connection with the central PCO and PMO is needed for effective information exchange. Provincial PCOs are headed by provincial departments of finance section-related directors at the deputy director

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<sup>4</sup> During the TA Fact-Finding Mission, five of six vice-governors or equally high-ranking officials were met. In all six provinces and/or regions, high-level commitment was indicated, and there is no doubt that strong political support exists for the Project and for the future investment projects that are expected to follow.

general level of relevant agencies covering legislative, planning, finance, environment, land, water resources, forestry, animal husbandry, and grasslands.

10. **Provincial Management Offices.** At the provincial level, implementation units were set up with similar arrangements and representation as the central level. Provincial forestry bureaus will be responsible for day-to-day implementation issues, including administrative and technical support, meetings, workshops, study tours, and field trips facilitating, and information dissemination. Provincial PMOs will take overall direction from the PCOs and maintain close links with the central level.

### c. Coordination between Central and Provincial Levels

11. The central PCO will play a key role in this regard. Several times annually regular meetings will be held with the head of each provincial leading group. These will be priority channels to strengthen such coordination. With the assistance of provincial PCOs, the central PCO needs mission responsible senior officials of relevant agencies and ADB to meet with leading groups. Sector reaction on specific fields vertically between central and provincial level is needed in the meantime to facilitate integration of national projects with the PRC-GEF Partnership, which has to be regulated and committed through a central steering meeting.

### d. Expert Advisory Groups

12. Four advisory groups, namely legislative and policy group, planning and institutions group, LD and monitoring and evaluation group, and IEM will be set up to provide national oversight and guidance for the implementation of the proposed activities and support the provincial expert groups as they facilitate the implementation of specific activities and tasks.<sup>5</sup>

13. **Legal and Policy Group.** This will comprise members with extensive policy and legislative knowledge and provide high-level guidance, rapid support, and coordination for the implementation of the activities and tasks of component 1. The group will meet four times a year. Counterpart groups may also be established in each province to facilitate the implementation of specific activities.

14. **Planning and Institutions Group.** This group will provide guidance and coordination for the implementation of proposed activities and tasks of components 2, 3, and 4. Its will meet up to six times per year (especially in the early years). It will discuss and document institutional and planning issues, formulate proposals and options for improved intersector institutional coordination and collaboration mechanisms at the national and provincial levels, facilitate periodic interagency consensus-building meetings, and direct the process toward achieving final agreement between the concerned institutions on new intersector coordination and collaboration mechanisms for LD and other related matters.

15. **LD Monitoring and Evaluation Group.** Group members will be selected according to their specific knowledge of the methods and national datasets for assessing one or more LD

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<sup>5</sup> Each expert group will comprise 8–10 members selected according to their specific knowledge of relevant areas. Each member should be a nationally recognized expert in his/her particular field. Each expert would also act as the representative of a key institution with regard to reporting on its mandate, role, and responsibilities for LD control. The chair of each expert group should have sufficient seniority be able to act as a neutral mediator in resolving any differences of opinion between individual experts and their institutions. Each member would enter into a contract to serve on the expert panel and undertake the expected duties and responsibilities. In return for these services, an honorarium would be made.



types, to guide implementation of component 5. The group will discuss and document what is currently being done in the PRC with regard to the collection of LD-related data, formulating proposals and options for a national LD monitoring and coordination network, reviewing reports carried out by consultants, facilitating the holding of periodic interagency consensus-building meetings and directing the process toward achieving final agreement, and presenting project findings on LD monitoring and evaluation.

16. **Integrated Ecosystem Management Group (IEM).** This group will use the recommendations arising from the other groups and also from project experience overseas and in the PRC to advise provincial and/or autonomous region officials on best practices. See Appendix 11.

#### **e. Development Partner Coordination**

17. To assist in addressing various aspects of LD, development partners have actively supported innovative approaches for many years, often adopting a socioeconomic approach, and not solely an environmental approach. While these projects have been generally successfully implemented and assisted in overcoming poverty and rehabilitating degraded ecosystems, very few innovations have been incorporated into national approaches. Four development partner roundtables have been held at PRCM during the design phase. An innovative mechanism is needed to bridge the administrative divide that separates multilateral financed projects (MOF) from bilateral financed projects (Ministry of Commerce). ADB has taken a lead in development partner coordination during the design phase, but this will shift to the Government during implementation. Close links will be set up with environmental assistance programs (e.g., China Council for International Cooperation in Environment and Development).

#### **f. Work Plans and Budgets**

18. For each component, tasks, activities, and annual targets will be captured in a work plan and budget to be agreed early in each year. The PCO and/or PMO, supported by their provincial counterparts and consultants, will play a lead role in preparing the work plan. Components 1 and 5 require the central Government to take a lead role, as the legal framework and LD monitoring are central functions. Components 2, 3, 4, and 6 (national and provincial institutional coordination, operational arrangements at provincial and county levels, improved institutional capacity for IEM investments, and implementation arrangements) require commitment at central and provincial levels, but implementation will largely be at provincial and/or regional levels.

### **C. Monitoring and Evaluation**

19. After the first year of implementation, a comprehensive joint review will be undertaken of the progress toward the first year targets. The most important of these include (i) the inception mission to commence the Project; (ii) an international workshop on the IEM approach; (iii) a more coordinated approach to LD being included in the specific and regional plans for the Eleventh Five-Year Plan; (iv) an innovative modality for development partner cofinancing of LD projects on the IEM approach has been agreed to use PRC-GEF Partnership funds; (v) feasibility studies are underway for several of these projects, incorporating GEF-eligible projects; (vi) staffing and full functioning of the PCO and PMO; (vii) the work plan for the first year has been implemented successfully. Following the comprehensive review at the end of the first year, a decision will be taken regarding the direction of future implementation. Future annual joint reviews will also be undertaken to provide feedback and guide implementation progress.

## IMPLEMENTATION SCHEDULE

Component Activities and Key Tasks	Project Year			
	1	2	3	4
<b>A. Component 1: Legal, Policy, and Regulatory Framework Strengthened</b>				
1. "Toolbox": Legislative, Policy, Institutional, Ecology Elements; Computerizing "toolbox"	■			
2. Provincial Procedures to Assess and Improve IEM Principles in Laws, Regulations, and Policy	■			
3. Assess and Recommend Ways to Harmonize Laws and Regulations Policy		■		
4. Develop Capacity for Implementation and Surveillance of LD Laws and Policies		■		
5. Assess the Role of EIA in LD Control and Improve Implementing Procedures		■		
6. Assess and Advise on Legal and Policy Measures for Private Sector Roles and Public Participation			■	
7. Develop Program for Capacity Building in Legislative, Policy, and Institutional Measures	■			
8. Training Workshops in Environmental Law		■	■	■
9. Study Visits and Exchanges		■	■	■
10. Legal and Policy Experts Advisory Group	■	■	■	■
11. Options Study for Training in Environmental Law Related to LD in Western Region	■			
12. Legal Studies	■	■	■	■
<b>B. Component 2: National and Provincial Institutional Coordination Strengthened</b>				
1. Institutional Review and Recommendations for Improved Coordination Mechanisms	■	■	■	■
2. Mainstreaming Integrated Approaches for LD Control into Provincial and National 11th FYPs	■	■	■	■
3. Formulate Regional and Provincial LD Strategies and Action Plans	■	■	■	■
4. Assessment of the Economic Costs of LD; Assess Economic Costs and Benefits of LD Control and the Economic Benefits from its Control		■		
5. Revisiting the National Action Program to Combat Desertification (CCD-NAP)		■		
6. Workshops to Review and Promote Strategic IEM Planning		■		
7. Study Tours and Exchange Visits			■	
8. Workshop Paper Presentations		■	■	■
<b>C. Component 3: Field Level Land Degradation Control</b>				
1. Assessment of Operational Arrangements, Institutional Capacity, and Training Needs	■			
2. Development of Guidelines Manuals and Training Materials	■			
3. Capacity Building and Training		■	■	
4. Identification of Locally Appropriate Field Level Management Practices		■	■	
5. Formulation of Community Based Participatory LD Control Plans		■	■	
6. Implementation of Community Based Participatory LD Demonstrations		■	■	■
7. Adaptive Research and Participatory Technology Development	■	■	■	■
8. Public Environmental Education IEM Program		■	■	■
9. Workshops to Promote and Review Experience with Community Based LD Control Planning			■	
10. Study Tours/Exchange Visits		■	■	
11. Workshop Paper Presentations		■	■	■

Continued on next page

Implementation Schedule — *Continued*

Component Activities and Key Tasks	Project Year			
	1	2	3	4
<b>D. Component 4: Improved Capacity for IEM Projects</b>				
1. LD Project Identification and Planning	■	■	■	■
2. Training and Capacity Development in LD Projects	■	■	■	■
3. Assess Impact of LD Projects and Programs; Cofinancing Options Study	■	■	■	■
4. Prepare LD Projects Based on IEM Principles	■	■	■	■
<b>E. Component 5: Land Degradation Monitoring and Evaluation System</b>				
1. National Coordination Mechanism for Coordinating and Sharing LD Data	■	■	■	■
2. Provincial GIS Database Development	■	■	■	■
3. Documentation of Successful Technologies and Approaches (best practices studies)	■	■	■	■
4. Local Level Participatory LD Assessment Capacity Building	■	■	■	■
5. Pilot Comprehensive LD Assessment Studies	■	■	■	■
6. Senior Officials Consultations and Expert Workshops	■	■	■	■
7. Workshop Paper Presentations	■	■	■	■
<b>F. Component 6: Implementation Arrangements</b>				
1. Inception Meeting and Final Report Meeting	■	■	■	■
2. Facilitate Steering Committee Meeting	■	■	■	■
3. Donors and Other Stakeholders Coordination Meetings	■	■	■	■
4. Steering Committee Meeting with Vice-Governors of Six Provinces and/or Regions	■	■	■	■
5. Improve the Capacity of Central and Provincial PCO and PMO to Implement the PRC-GEF Partnership Project	■	■	■	■
6. Develop Procedure and Methodologies for Information Management	■	■	■	■
7. Facilitate Setting up of Advisory Groups to Advise on Implementation and Impact of Partnership	■	■	■	■
8. Annual Review	■	■	■	■
9. Final Review	■	■	■	■

EIA = environmental impact assessment, FYP = five-year plan, GEF = Global Environment Facility, IEM = integrated ecosystem management, LD = land degradation  
PCO = project coordination office, PMO = project management office, PRC = People's Republic of China.

INDICATIVE CONTRACT PACKAGES<sup>a</sup>

Item	Estimated Total Cost (\$ million)	Number of Packages	Procurement or Selection Mode
<b>A. Equipment and Vehicles</b>			
1. Vehicles	0.41	1	IS
2. Equipment	0.72	1	IS
<b>Subtotal A</b>	<b>1.13</b>	<b>2</b>	
<b>B. Services</b>			
1. Consulting Services <sup>b</sup>	2.20	21	
a. GEF financed consultants	1.25	20	QCBS
b. ADB-TA financed consultants	0.90	1	QCBS
2. Surveys and Studies <sup>c</sup>	1.42	113	
a. Central	0.62	29	LCB or DS
b. Provincial	0.80	84	LCB or DS
3. Workshops <sup>d</sup>	2.53	153	
a. Central	0.97	57	LCB or DS
b. Provincial	1.26	96	LCB or DS
4. Training and Study Tours <sup>e</sup>	2.77	151	
a. Central	1.20	37	LCB or DS
b. Provincial	1.57	114	LCB or DS
5. Incremental Staff <sup>f</sup>	1.12	7	
a. Central	0.92	1	LCB or DS
b. Provincial	0.25	6	LCB or DS
6. Office Operations including Vehicles Maintenance <sup>f</sup>	1.81	7	
a. Central	1.25	1	LCB or DP
b. Provincial	0.56	6	LCB or DP
7. Pilot Projects <sup>g</sup>	2.02	6	LCB
<b>Subtotal B</b>	<b>13.87</b>	<b>458</b>	
<b>Total Contracts</b>	<b>15.00</b>	<b>460</b>	

DP = direct purchase, DS = direct selection, IS = international shopping, LCB = local competitive bidding, QCBS = quality cost based selection.

<sup>a</sup> For details, see Supplementary Appendix M.

<sup>b</sup> International consultants may be recruited as individuals.

<sup>c</sup> 29 studies and/or surveys would be undertaken at the central level and 14 for each of the six provinces and/or regions. Packages would be flexible based on need during implementation.

<sup>d</sup> 57 workshops, meetings, and/or seminars would be held at central level and 16 for each of the six provinces and/or regions.

<sup>e</sup> 35 training programs and study tours, including 3 international tours and 1 international intensive environmental law training course, would be undertaken at the central level. Each province and/or region would have 19 training programs or study tours.

<sup>f</sup> Indicatively, one package for central Government and one for each of the six participating provinces and/or regions.

<sup>g</sup> Indicatively, one package each of the six participating provinces and/or regions.

Source: Asian Development Bank estimates.

## OUTLINE TERMS OF REFERENCE FOR GLOBAL ENVIRONMENT FACILITY-FINANCED CONSULTANTS

1. During the design phase, it became apparent that to undertake the proposed reforms and changes under the Project, consulting services would be required to assist the Steering Committee, the project coordination office (PCO), the project management office (PMO), and the three advisory groups. A variety of tasks will be undertaken by consultants toward the introduction of an integrated ecosystem management approach to combat land degradation (LD) in the western region. The focus will be at the central level and also to assist the six provinces and/or regions participating in the first phase of the People's Republic of China (PRC)-Global Environment Facility (GEF) Partnership on Combating Land Degradation in Dryland Ecosystems.<sup>1</sup> The consultants will also assist in the design and implementation of various studies, training, and study tours aimed at building institutional and staff capacity. An outline of the terms of reference is given in this appendix. Other consulting services will be financed by Asian Development Bank's (ADB's) technical assistance (TA), as described in Appendix 14. The ADB-financed consultants will focus on monitoring and feedback, ensuring compliance with ADB and GEF reporting requirements and safeguards, and priority areas where international and national best practices will assist implementation (especially environmental law, LD assessment, planning, and management). GEF- and ADB-financed consultants will work collaboratively as a team.

### A. Consulting Services

2. Consultant services financed by GEF required under the Project are 22 person-months of international consultants and 187 person-months of domestic consultants, for a total of 209 person-months. The consultants will advise the Steering Committee, PCO and/or PMO, and three advisory groups. Table A9 provides a summary of the consulting services and the implementation schedule. Consultants will be recruited through firms and organizations and on an individual basis, as required, in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for engaging domestic consultants.

#### 1. Component 1: Policy, Legal, and Regulatory Improvement

3. **Environmental Law Specialists (2 person-months international, 68 person-months domestic).** The international specialist or specialists will work on legal training and technical matters relating to the computerization of the legal toolbox. The domestic consultants will work toward a clear and consistent policy, legal, and regulatory framework for combating LD and sustainable environmental management. Advice will be given on (i) a comprehensive toolbox of legislative and ecological standards; (ii) facilitating implementation of integrated ecosystem management in the legal, policy, and institutional arrangements; (iii) harmonization of legislation relevant to integrated ecosystem management and procedures and instruments for implementation at provincial level; (iv) procedures for ecosystem function zones to be integrated with agriculture, forestry, desertification control, and other relevant zones, and for planning-based environmental impact assessment (EIA) under the EIA law; (v) monitoring implementation of laws and policies; (vi) legal standards and procedures relevant to poverty relief, incentive-based mechanisms, and private sector involvement, covering land tenure, land use rights, gender rights, and market access; (vii) provincial-level compensation procedures for grassland closure, banning activities in protected areas and measures to improve sustainable

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<sup>1</sup> Locations for first phase of the country programming framework comprise three provinces: Gansu, Qinghai, and Shaanxi; and three autonomous regions, Inner Mongolia, Ningxia Hui, and Xinjiang Uygur.

livelihoods, minority and gender rights; (viii) legal standards for EIA, legislative enforcement, regulation, and sanctions; (ix) improving public participation in LD prevention, land use decision-making, and community participation and dispute resolution; (x) training programs, materials, and modules of intensive courses for international study; (xi) specific legal studies; (xii) liaison with participants; (xiv) Website material and reports on legal and regulatory reform.

## **2. Component 2: Strengthening Central and Provincial Coordination**

4. **Natural Resource Economists (2 person-months international, 7 person-months domestic).** These individuals will be responsible for economic studies of the analysis of LD and funding options for LD control; developing training materials and guidelines for formulation of the provincial strategies and action plans, with regard to the activities mentioned in para. 28; estimating the costs of rehabilitating degraded areas; determining the viability of rehabilitating degraded areas and/or investing in protecting infrastructure or farmland; and assessing the economic and financial benefits from implementing best practices for LD, including minority rights and gender issues. These consultants will also advise on preparation of future economic development scenarios (covering optimistic and/or pessimistic assumptions of future LD) and analysis of implications for investing in LD.

5. **Macro Planning and Policy Specialists (2 person-months international, 7 person-months domestic).** These specialists are responsible for reviewing the ninth and tenth five-year plans supporting sector national plans, projects, and programs and formulating recommendations for mainstreaming integrated LD control into future five-year plans and related sector plans. They will also produce training materials and guidelines on macro-level strategic planning and perform technical backstopping for provincial strategies and action plans.

6. **Social Science and/or Poverty Specialist (6 person-months domestic).** This person is responsible for providing advice and training to those involved in the formulation of the provincial strategies and action plans with regard to (i) identifying the link between LD and poverty; (ii) determining where within the province LD control would have the most impact on alleviating poverty; and (iii) assessing the social benefits from implementing best practices for LD control, including minority rights and gender issues.

7. **Participatory Workshop Facilitator (15 person-months domestic).** The facilitator would work with the other consultants with specific responsibility for facilitating participation in the stakeholder consultation and/or consensus-building workshops on (i) new institutional coordination mechanisms; and (ii) provincial strategies and action plans. This individual would also act as the facilitator for similar workshops to be held as part of components 3, 4, and 5.

8. **Miscellaneous Domestic Consultants (4 person-months).** Provision has been made for an additional 4 months of miscellaneous domestic consultant support, with the specific expertise requirements to be determined on a need basis during project implementation.

## **3. Component 3: Improving Operational Arrangements at Provincial and County Levels**

9. **Natural Resource Management and Planning Specialists (3 person-months international).** These specialists are responsible for developing training materials and guidelines, community-based and/or field-level participatory planning for LD control; overseeing, advising, and acting as a resource person for regional- and provincial-level training on community-based and/or field-level participatory planning for LD control; advising on options for securing nonproject sources of funds for implementing the community-based LD control plans;

reviewing the regional and provincial catalogues of field-level best practices for improved plant (crops, grasses, trees, and shrubs); soil; and rainwater management in dryland ecosystems.

10. **Farmer Fields School Specialist (3 person-months international).** This individual is responsible for guidelines and model curricula for people-centered field-based learning exercises through which farmers, herders, and foresters study improved practices for farmland, grassland, and forest management. In addition, he or she will use the Food and Agriculture Organization developed Farmer Field School Approach that has been successful in the PRC for increasing farmer knowledge of integrated pest and soil management.

11. **Environmental Education Specialist (12 person-months domestic).** This specialist is responsible for preparing materials for use in a public environmental education program on the principles and practice of integrated ecosystem management for LD control within the dryland areas. This individual will also advise on province-specific public environmental education programs.

12. **Community Development Specialist (12 person-months domestic).** This specialist is responsible for overseeing and advising on community organizational capacity building and related matters for formulating and implementing community-based plans for LD control, including minority rights and gender issues.

13. **Miscellaneous Domestic Consultants (4 person-months domestic).** Specific expertise requirements are to be determined on a need basis during project implementation.

#### **4. Component 4: Capacity Development for LD Projects**

14. **Training Specialists in LD Project Design (6 person-months international, 23 person-months domestic).** These specialists are to develop provincial capabilities in LD project design and feasibility studies of integrated ecosystem management approaches to LD, inclusive of technical, social, minority rights, gender, economic, and environmental aspects.

#### **5. Component 5: Monitoring and Evaluation System for LD**

15. **Geographic Information System (GIS) Consultant and/or Trainer (4 person-months international, 9 person-months domestic).** These individuals are responsible for recommendations on equipment, software, staff, and skills for establishing the proposed six provincial GIS units and for reviewing training available within the PRC, designing a training program, preparing operational guidelines for the GIS units, and related duties.

16. **GIS Consultant and/or Trainer Socioeconomic Data (4 person-months domestic).** This individual will provide advice and training on all aspects of socioeconomic data in each province and/or region.

17. **Information Technology Specialist (6 person-months domestic).** This individual is responsible for providing advice and training at the provincial level on bibliographic and institutional data.

18. **Poverty Reduction and/or Environmental Economist (6 person-months domestic).** The economist or economists will be responsible for training and for monitoring the economic impact of LD control on poverty at the local and/or community level.

19. **Miscellaneous Domestic Consultants (4 person-months domestic).** Domestic consultant inputs with expertise requirements are to be determined on a needs basis.

## **B. Advisory Groups**

20. The above consultants will also work as resource persons to support the four advisory groups on policy, legal and regulatory issues; institutions and planning; LD monitoring and evaluation systems;<sup>2</sup> and integrated ecosystem management.

## **C. Studies and Guidelines for Combating LD <sup>3</sup>**

21. The consultants will also act as resource persons, as needed, during the implementation of various studies. In total, at the central level, there will be 29 studies and 84 at the local level. The main study areas are as follows.

### **1. Component 1: Policy, Legal, and Regulatory Improvement**

22. Three study areas are a feasibility study of options for environmental law training that will identify ways of delivering legal training to promote integrated ecosystem management in legislative and policy procedures for LD management;<sup>4</sup> three specific legal and policy studies into aspects of the legislative and policy system of the PRC, directed at effective legislation and policy for LD; and computerization of the legal toolbox. Details are in Supplementary Appendix D.

### **2. Component 2: Strengthening Central and Provincial Coordination**

23. Study areas will be as follows (i) coordination mechanism for LD planning at the central and local levels; (ii) economic analysis of LD to determine the economic costs of past and present LD within the western region, and specifically the six provinces and/or regions; outline future scenarios; economic benefits to the region and each province from controlling LD and estimate local-level on- and off-site costs and benefits of alternative LD control; (iii) background studies at local level and a consolidated LD strategy and action plan for the western region. An interdisciplinary team study to harmonize the provincial strategies and action plans and prepare a consolidated strategy and action plan for controlling LD in the western region; and (iv) provincial capacity-building and training needs assessment on integrated ecosystem management approaches to LD control. Details are in Supplementary Appendix E.

### **3. Component 3: Improving Operational Arrangements at Provincial and County Levels**

24. The following four areas will be covered: (i) research grants for adaptive local-level integrated ecosystem management research; (ii) field best practices for land management in dryland ecosystems. A review and catalogue of national, regional, and provincial knowledge on

<sup>2</sup> Each advisory group will comprise leading specialists from their field to represent the involved agencies, reflect expert views on developing and introducing reforms suitable for an integrated ecosystem management approach to LD and improving coordination between involved agencies and participating provinces and/or regions. Advice on best international and PRC practices will be given as appropriate, with inputs from the consultants as required. Provincial advisory groups may similarly be established by the participating provinces and/or regions (e.g., Ningxia Hui Autonomous Region has already set up an advisory group, comprising senior former officials). The expert advisory group on integrated ecosystem management will be financed by ADB's technical assistance (Appendix 10).

<sup>3</sup> The proposed studies may be undertaken by the consultants, other bodies, or a combination of both.

<sup>4</sup> Potential candidate institutions include Law School of Lanzhou University, Environmental Law Institute of Wuhan University, and Beijing Normal University.



field-level practices and recommendations for restoring and enhancing the productivity of dryland ecosystems; (iii) studies of local indigenous knowledge of LD; and (iv) preparation of guidelines, manuals, and training materials. Details are in Supplementary Appendix F.

#### **4. Component 4: Capacity Development for LD Projects**

25. Study areas will address (i) feasibility studies of integrated ecosystem management investment projects, suitable for development partner and/or GEF financing; (ii) cofinancing options for LD control, to address the options for improving current funding mechanisms, including national, provincial, and local government level transfers; interprovincial budget transfers, where a province benefits from LD control activities in another (the beneficiary province to provide some compensation); increased private investment; and national and provincial environmental trust funds;<sup>5</sup> (iii) training and capacity needs assessment (at central and local levels) and guidelines for integrated ecosystem management investment projects; and (iv) provincial and/or regional impact studies (one per province) of previous LD investments. Details are in Supplementary Appendix G.

#### **5. Component 5: Monitoring and Evaluation System for LD**

26. The following areas will be covered: (i) coordination mechanism for sharing LD data, including harmonization of indicators; (ii) development and publication of GIS training modules; (iii) customizing the selected LD database; (iv) preparation and/or distribution of best practices in LD monitoring and assessment; (v) needs assessment for local capacity building; and (vi) comprehensive LD assessment study at provincial and/or regional levels. Details are in Supplementary Appendix H.

#### **D. Training and Study Tours**

27. Study tours, training, and staff exchanges will be undertaken to support institutional capacity building and promotion of integrated ecosystem management-related skills and awareness. In total there will be 151 programs, 37 at the central level and 114 at the local level. There are 3 international study tours and 1 international training course in environmental law. An important function will be links with global and international programs, namely the global LD Assessment in Drylands program<sup>6</sup> and the World Overview of Conservation Approaches and Technologies.<sup>7</sup> The PRC is actively involved in both programs, and it is anticipated that there will be mutual benefits from developing collaborative links with them. The consultants will support these activities as needed.

#### **E. Workshops and/or Meetings and Seminars**

28. There will be a total of 153 activities, 57 of which will take place at the central level and 96 at the local level. The consultants will support these activities as needed.

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<sup>5</sup> For example, (i) through international development banks, donors, or government; (ii) through charging for environmental services and/or benefits (levies on bills for water, hydroelectricity, ecotourism, etc.); and (iii) selling environmental compliance certificates, such as the carbon emission reduction certificates proposed by the Kyoto protocol of the United Nations Framework Convention on Climate Change.

<sup>6</sup> Funded by GEF, in association with the United Nations Environment Programme and the Global Mechanism, and executed by the Food and Agriculture Organization of the United Nations.

<sup>7</sup> The World Overview of Conservation Approaches and Technologies Secretariat is based in the Centre for Development and Environment, University of Berne, Switzerland.

**Table A10: Indicative Staffing Schedule for GEF-Financed Consultants**

Position		Project Year				International Consultant	Domestic Consultant
		1	2	3	4	Person-Months	
<b>Component 1</b>	Legal Training Specialist		■			1	
	Technical Specialist					1	
	Legislative Specialist	▬		▬			10
	Workshop Facilitator	▬	▬	▬			4
	Legal and Policy Training Specialist	▬	▬	▬			6
	Technical Specialist		▬				3
	Provincial Legal Consultant	▬	▬	▬			45
<b>Subtotal</b>						<b>2</b>	<b>68</b>
<b>Component 2</b>	Natural Resources Macroeconomist	■	■			2	
	Macro Policy and/or Planning Specialist	■	■			2	
	Planning Economist	▬	▬	▬			7
	Natural Resources Economist	▬	▬	▬			7
	Social Science and/or Poverty Specialist	▬	▬	▬			6
	Participatory Workshop Facilitator	▬	▬	▬			15
	Miscellaneous Domestic Consultants Support	▬	▬	▬			4
<b>Subtotal</b>						<b>4</b>	<b>39</b>
<b>Component 3</b>	Natural Resources Management Participatory Appraisal and Planning Specialist	■	■	■		3	
	Farm Field School Specialist	■	■	■		3	
	Environmental Education Specialist	▬	▬	▬			12
	Community Development Specialist	▬	▬	▬			12
	Miscellaneous Domestic Consultants Support	▬	▬	▬			4
<b>Subtotal</b>						<b>6</b>	<b>28</b>
<b>Component 4</b>	Project Design and Planning Expert	■	■			4	
	Project Design Economist	■	■			2	
	Specialist Evaluation Team	▬	▬				9
	Training Specialist		▬	▬			7
	Financial Economist		▬				3
	Miscellaneous Domestic Consultants Support	▬	▬	▬			4
<b>Subtotal</b>						<b>6</b>	<b>23</b>
<b>Component 5</b>	GIS Development Consultant and/or Trainer	■	■			4	
	GIS Consultant and/or Trainer (natural resources data)	▬	▬	▬			9
	GIS Consultant and/or Trainer (socioeconomic data)	▬	▬	▬			4
	IT Consultant and/or Trainer (bibliographic institutional data)	▬	▬	▬			6
	Poverty and Sociology and/or Environmental Economics Expert	▬	▬	▬			6
	Miscellaneous Domestic Consultants Support	▬	▬	▬			4
<b>Subtotal</b>						<b>4</b>	<b>29</b>
<b>Total</b>						<b>22</b>	<b>187</b>

GIS = geographic information system, IT = information technology.

■ International Consultant

▬ Domestic Consultant

Note: Some positions may be combined or split depending on annual reviews.

Source: Asian Development Bank estimates.

## **TECHNICAL ASSISTANCE TO SUPPORT IMPLEMENTATION OF CAPACITY BUILDING TO COMBAT LAND DEGRADATION PROJECT**

### **A. Introduction**

1. The Government of the People's Republic of China (PRC) requested the Asian Development Bank (ADB) in 2000 to take a lead role in facilitating the preparation of a country programming framework (CPF) for the PRC-Global Environment Facility (GEF) Partnership on Land Degradation (LD) in Dryland Ecosystems, under GEF's Operational Program 12. The Capacity Building to Combat LD project is the first of a series of planned projects under the CPF. Project implementation and the monitoring of the overall CPF will be supported by the proposed technical assistance (TA).

### **B. The Technical Assistance**

#### **1. Purpose and Outputs**

2. The purpose of the TA is to monitor the implementation of the overall CPF and assist in the implementation of the Project. The key outputs will be advice, reports, and recommendations on (i) best practices for integrated ecosystem management approaches to combating LD, including setting up an integrated ecosystem management expert group, consisting of domestic experts, to promote networking among PRC scientists, researchers, and organizations and advise on project implementation; (ii) results of past LD interventions; (iii) planning of studies, workshops, seminars, and training programs; (iv) international scientific links to ongoing LD-relevant programs and projects; (v) identification of relevant projects and programs in the PRC and overseas; and (vii) compliance with appropriate ADB safeguard policies, including an indigenous peoples plan.

#### **2. Methodology and Key Activities**

3. The TA will provide consultancy services in work scheduling, monitoring, and coordination. It will also support compliance with ADB and GEF reporting requirements and safeguard policies of the Project and the overall CPF. The consultants will work in five of the six project components, namely, (i) improving the policy, laws, and regulations for LD control; (ii) strengthening national and provincial coordination; (iii) improving operational arrangements at provincial and county levels; (iv) developing capacity for LD investment projects; and (v) monitoring and evaluation system for LD.

#### **3. Implementation Arrangements and Scope**

4. The TA will require about 19 person-months of international and about 103 person-months of domestic consulting expertise. Specializations required are environmental law, institutions, dryland ecosystems management, participatory planning, LD project design, LD assessment, and LD dataset coordination. Flexibility in the expertise required will be necessary to respond to priorities as the TA progresses.

5. The Executing Agency for the TA will be the Ministry of Finance (MOF), which is also the Executing Agency for the overall CPF. The consultants will support the project coordination office (PCO), the project management office (PMO), and the three advisory groups financed

under the Project and work collaboratively with the consultants financed by GEF (Appendix 10). Consultants will be engaged by ADB in accordance with ADB's *Guidelines on the Use of Consultants*, and other arrangements satisfactory to ADB for the engagement of domestic consultants. The TA is expected to commence in July 2004 and be completed by July 2007 (36 months). Implementation will be guided by annual work plans and reports to be regularly reviewed in meetings with the Steering Committee for the overall Project, GEF, and ADB. MOF will prepare the final report. The engagement of consultants may be through consulting firms or individuals on the basis of a brief technical proposal. Quality cost based selection will be used.

#### 4. Costs

6. The total cost of the TA is shown in table A11.1. ADB will provide \$1 million to cover all foreign exchange costs (\$507, 500) and 71% of local currency costs (\$492,500). The ADB TA will cover international and domestic consultants, international and domestic travel and related reporting, office operations, and communication costs. The Government will provide \$200,000 equivalent of local currency costs (29%) to cover office accommodation, transport, and remuneration of counterparts. The TA will be funded from the ADB TA funding program.

#### C. Outline Terms of Reference

7. **Environmental Law and Policy Specialists (8 person-months international, 25 person-months domestic).** The specialists will work toward a clear and consistent policy, legal, and regulatory framework for combating LD and sustainable environmental management. Advice will be given on (i) a comprehensive toolbox of legislative and ecological standards; (ii) facilitating implementation of integrated ecosystem management in the legal, policy, and institutional arrangements; (iii) harmonization of legislation relevant to integrated ecosystem management and procedures and instruments for implementation at the provincial level; (iv) procedures for ecosystem function zones to be integrated with agriculture, forestry, desertification control, and other relevant zones and for planning-based environmental impact assessment (EIA) under the EIA Law; (v) monitoring implementation of laws and policies; (vi) legal standards and procedures relevant to poverty relief, incentive-based mechanisms, and private sector involvement, covering land tenure, land use rights, gender rights, and market access; (vii) provincial-level compensation procedures for grassland closure, banning activities in protected areas, and measures to improve sustainable livelihoods and minority and gender rights; (viii) legal standards for EIA, legislative enforcement, regulation, and sanctions; (ix) improving public participation in LD prevention, land use, decision making, community participation, and resolving disputes; (x) training programs, materials, and modules of intensive courses for international study; (xii) specific legal studies; (xiii) liaison with participants; and (xiv) Website material and reports on legal and regulatory reform.

8. **LD Planning and Assessment Specialist (11 person-months international, 8 person-months domestic).** The specialist will advise the PCO and/or PMO and national expert groups responsible for oversight and guidance related to the planning and implementation of the activities and tasks of components 2, 3, 4, and 5; development of a national and provincial institutional capacity for macro-level strategic planning for LD control, in line with integrated ecosystem management principles; development of provincial- and county-level institutional capacity at the community and/or field level, through participatory integrated ecosystem management planning; development of a provincial-level capacity for designing investment projects for LD control; provision of advice on capacity for comprehensive monitoring and assessment of LD; compliance with ADB safeguard policies, including an indigenous peoples plan.

9. **Institutions Specialist (18 person-months domestic).** Responsible for promoting various component-2 activities in a timely and effective manner; acting as the secretary for the national expert group; arranging meetings and ensuring that reports and related documents are circulated; liaising between the expert group and the PMO and/or PCO; overseeing production of a report on the current mandates, roles, and responsibilities of the national-, provincial-, and county-level institutions involved in LD; and identifying ways to improve intersector coordination.

10. **Participatory Planning Specialist (18 person-months domestic).** Responsible for promoting component-3 activities; advising on community-based participatory planning, including minority rights and gender issues, oversight of a report assessing the operational arrangements, institutional capacity, and training needs at the provincial and/or autonomous region and county levels for LD control at the community and/or field level; acting as the resource person for capacity building and training of provincial- and county-level technical bureau staff, with responsibility for controlling LD at the field level; and assisting in finding nonproject sources of community-based LD control plans.

11. **LD Project Design Team (12 person-months domestic).** This team will develop provincial capabilities in LD project design and feasibility studies, inclusive of technical and social aspects, such as minority rights, gender issues, and economic and environmental aspects. The consultants will back up the provincial-level feasibility studies, promoting the eligibility criteria for integrated ecosystem management investment projects under the OP12 PRC-GEF Partnership.<sup>1</sup>

12. **National LD Data Coordinator (24 person-months domestic).** The coordinator is responsible for overseeing the development of interagency national, provincial and, county institutional capacity for comprehensive monitoring and assessment of LD within the drylands, including a report on current practices in the collection of LD data; overseeing the formulation of proposals and options for a national LD monitoring and coordination network mechanism; advising on common definitions and standards for national LD data sets; overseeing development and testing field-level monitoring and assessment tools and indicators for use in the pilot studies.

13. **Integrated Ecosystem Management Expert Advisory Group (8–10 members).** This group will be set up to assist in identifying best practices for integrated ecosystem management approaches internationally and in the PRC; promote networking among PRC scientists, researchers, and organizations both inside the PRC and overseas; and assist provinces and/or autonomous regions with innovative and sustainable approaches.

14. As appropriate, the consultants will also assist the PCO and/or PMO in ensuring the quality of study design and international study tours, workshop and/or seminar programming and presentations, training guidelines, and manuals. Importantly, the consultants will (i) develop international scientific links to ongoing LD-relevant programs and approaches; (ii) identify relevant projects in the PRC and overseas; (iii) promote networking among PRC scientists, researchers, and organizations; and (iv) document best practices in combating LD and implementing integrated ecosystem management. The indicative schedule for consultant inputs is given in Table A11.2.

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<sup>1</sup> The agreed project eligibility criteria (in addition to the existing GEF principles and criteria) are given in Supplementary Appendix G.

**Table A11.1: Cost Estimates and Financing Plan**  
(\$ '000)

<b>Item</b>	<b>Foreign Exchange</b>	<b>Local Currency</b>	<b>Total Cost</b>
<b>A. Asian Development Bank Financing<sup>a</sup></b>			
1. Consultants			
a. Remuneration, Per Diem, and Travel			
i. International Consultants	418.0	0.0	418.0
ii. Domestic Consultants	0.0	360.5	360.5
b. International and Domestic Travel	32.0	30.5	62.5
2. Expert Advisory Group on Integrated Ecosystem Management <sup>b</sup>		50.0	50.0
3. Office Operation, Reports, and Communications	25.0	20.0	45.0
4. Contingencies	32.5	31.5	64.0
<b>Subtotal (A)</b>	<b>507.5</b>	<b>492.5</b>	<b>1,000.0</b>
<b>B. Government Financing<sup>c</sup></b>			
1. Office Accommodation and Transport	0.0	48.0	48.0
2. Remuneration and Per Diem of Counterpart Staff	0.0	130.0	130.0
3. Others	0.0	22.0	22.0
<b>Subtotal (B)</b>	<b>0.0</b>	<b>200.0</b>	<b>200.0</b>
<b>Total</b>	<b>507.5</b>	<b>692.5</b>	<b>1,200.0</b>
























<sup>a</sup> Funded by the Technical Assistance Special Fund.


<sup>b</sup> Covering honoraria, meetings, and field work to advise provincial project management offices.


<sup>c</sup> Included within the Government's \$6.3 million allocation to the Capacity Building to Combat Land Degradation Project.

Source: Asian Development Bank estimates.

Table A11.2: Indicative Consultants Schedule under Asian Development Bank Technical Assistance

Component	Specialist	Project Year				International Consultant	Domestic Consultant
		1	2	3	4	Person-months	
1	Environmental Law Advisor					8	
	Environmental Law Coordinator						25
2	LD Assessment and Planning Specialist					3	
	National Institutions Specialist						18
	Dryland Ecosystem Specialist						6
3	LD Assessment and Planning Specialist					3	
	Participatory Planning Specialist						18
4	LD Project Design Team						12
5	LD Assessment and Planning Specialist					5	
	National LD Data Sets Coordinator and/or Expert						24
Total						19	103

 International Consultant

 Domestic Consultant

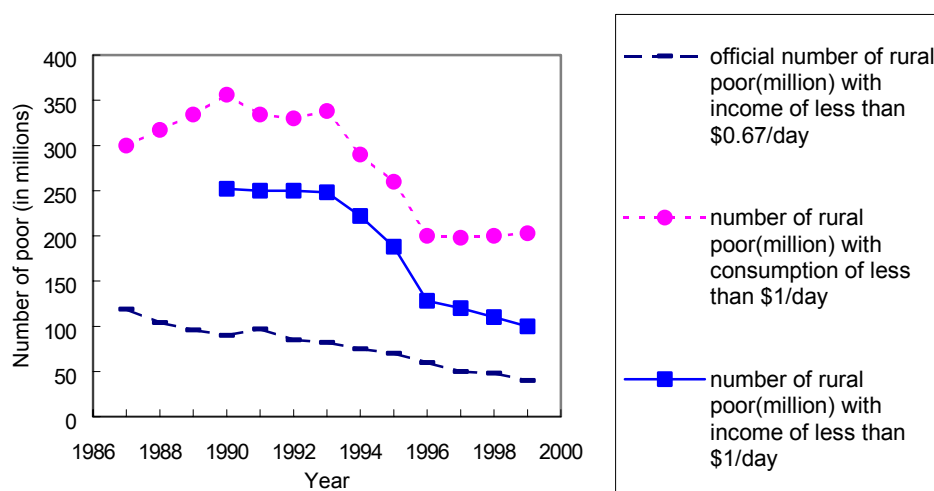
LD = land degradation.

Source: Asian Development Bank estimates.

## SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

1. **Poverty Alleviation Strategies.** The People's Republic of China's (PRC's) success in reducing poverty reflects sustained rapid economic growth, mainstreaming poverty reduction efforts, and significant budget allocations for poverty reduction initiatives in the past decade.<sup>1</sup> In May 2001, the PRC adopted a 10-year poverty strategy identifying key counties for poverty reduction and development, to assist 30 million rural people with incomes under the Government's official poverty line of CNY625 per capita annual income. Another 60 million rural people with per capita annual incomes below CNY865 are vulnerable to falling into absolute poverty. Using the most common measures for international comparisons of poverty,<sup>2</sup> \$1 per day income (the Millennium Development Goal) and \$1 day expenditure, 97 million people (10.5% of the rural population) and 235 million people (25.5% of the rural population), respectively, would be poor in 1999 (Figure A15). The rate of decline has slowed, due partly to declining agricultural prices.

**Figure A15: Trends in Poverty in Rural Areas**



Source: World Bank. 2003. *Country Assistance Strategy for PRC*. Washington, DC.

2. The Government's poverty reduction strategies and targets are contained in the Tenth Five-Year Plan (2001–2005) and the *Outline for Poverty Alleviation and Development of China's Rural Areas (2001–2010)*. The PRC's new approach is area- and group-focused, with an emphasis on providing social and economic infrastructure and creating opportunities for the poor to increase their income. To improve the targeting of poverty reduction programs, participatory processes are being used to identify poor villages.<sup>3</sup> The Government now welcomes a greater role of nongovernmental organizations and associated participatory approaches.

3. **Poverty Counties in the Six Provinces and/or Regions Covered by the Project.** In 2001, the Government redefined poverty counties. The breakdown of poverty counties by

<sup>1</sup> For a full discussion on poverty, refer to ADB. 2003. *PRC Poverty Profile*. Manila.

<sup>2</sup> The PRC has not participated in the international surveys necessary to estimate the purchasing power parity. ADB is providing assistance in this area to the PRC and other developing member countries (RETA 6088).

<sup>3</sup> ADB supported the development of this methodology under TA 3610.



province and/or region is Gansu (43), Inner Mongolia (31), Ningxia Hui (8), Qinghai (15), Shaanxi (50), and Xinjiang Uygur (27). This breakdown accounts for a total of 174 of the nations 592 poverty counties (29%). In Gansu and Xinjiang Uygur, the proportion of people living below the \$1 per day income line is 23% and 27%, respectively. The capacity of these counties to finance their own development and expand the infrastructure and economic base is limited.

4. **Poverty and Ethnicity.** In 2000, the population of ethnic groups in the western region was 76.5 million, or 21.5% of the total population in the west and 71.9% of the total minority population nationwide.<sup>4</sup> Appendix 4, paragraph 10 describes the poverty and ethnicity relationship for the areas covered by the project.<sup>5</sup>

5. **Rural Policies and Poverty.** Production-oriented policies initiated in the early 1980s have strongly influenced land management in rural localities in the western region. Impacts include (i) a widening income gap between the better-off and poorest groups over the past 20 years.<sup>6</sup> More wasteland is also being cultivated by farmers, in order to increase production to pay for education, medical, and tax expenses. Lack of stable land-use rights by farmers in the western region also contributes to excessive cultivation that, in turn, exacerbates land degradation (LD). Official migration for agriculture in the ecologically fragile western region has often contributed to LD. For example, near Qinghai Lake, the degraded landscape is a source of seasonal dust storms.

6. **Population Growth and Poverty.** The rates of natural population increase are higher than the averages in four out of six project provinces and/or regions. Local populations have grown faster in some localities, where land has become severely degraded or where ethnic-dominant populations live. Between 1980 and 2000, for example, the total population of Ningxia Hui increased from 3.7 million to 5.5 million, a growth rate of 48.3% in 20 years. However, the population of the Hui minority in Ningxia Hui increased from 1.2 million to 1.9 million, an increase of 63.6% during the same period.<sup>7</sup> The enrollment rate of girls at school is lower than that of boys, and some girls do not attend school at all, for religious reasons.<sup>8</sup> The school dropout rate for girls in poor families is higher than that of boys, and the gap increases with age.

7. **Poverty and Institutional Issues.** Despite recent central policies (para. 2), institutional fragmentation has adverse effects on the effectiveness of poverty alleviation and LD control programs. Provincial poverty alleviation offices have direct responsibility for program implementation, but they are largely ineffective, as responsibilities are spread over several government departments, leading to coordination difficulties. In the forestry sector, for example, there is no effective mechanism that enables poverty alleviation initiatives to be integrated into the ecological construction programs of provincial forestry bureaus. Poverty alleviation agencies inadequately participate in the transformation of farmland to forests and grasslands projects and the choice of counties where programs will be applied.<sup>9</sup>

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<sup>4</sup> State Bureau of Statistics. 2001.

<sup>5</sup> Zhao, Xi. 2001. *Research on the Hard Points and Strategic Choices of Rural Poverty-Relief in the West of China*. Beijing: Southwestern Finance University Press.

<sup>6</sup> For example, in poor areas of Inner Mongolia, 30% of wealthy families own more than 70% of all sheep. Interview with the Director, Poverty-Relief Office, Tongliao Municipality, Inner Mongolia and Department of Regional Economic Development, State Development and Planning Commission.

<sup>7</sup> *Ningxia Almanac*. 2001.

<sup>8</sup> Information provided by the Women's Research Institute.

<sup>9</sup> Three types of poverty relief funds are managed by three different government agencies: (i) the employment-replaces-aid fund is managed by the National Development and Reform Commission; (ii) a special poverty-relief

8. **Poverty and Financial Services.** The rural credit cooperatives are the main formal financial service for the rural sector. However, these cooperatives have many weaknesses, including weak management and high nonperforming loans. Farmers can arrange small, short-term loans in spring each year to buy fertilizers, seeds, and tools, but loans need to be repaid in autumn, following the sale of crops. Repayments are delayed when crop failure occurs, because of droughts or disease losses. Poor households have particular difficulty in gaining access to financial services. In key poverty counties, the central Government has provided poverty alleviation loans, but these are not easily accessible by poor households nor are they well known. A conclusion of a series of interviews during project preparation was that most poor farmers did not know about poverty alleviation loans.<sup>10</sup> Although the Ministry of Finance provides funds to the Agriculture Bank of China's headquarters to subsidize poverty loan interest rates, these funds are typically used for infrastructure or agrobusiness, rather than for livelihood-oriented purposes. The Agriculture Bank of China has also closed many county and township branches in its transition to a commercial bank.

9. **LD and Poverty.** The poor become increasingly vulnerable where their local biophysical environment has deteriorated. Women suffer more than men from LD in terms of health, nutrition, employment, and income. Almost one half of all counties in the PRC that are ecologically fragile are located in the western region, where the link between poverty and ecological fragility is most striking. In such areas, vulnerability to risks is high. Natural disasters (mainly prolonged drought) in recent years have resulted in a return of many communities to poverty. Nearly 20 million people live in absolute poverty in the target provinces and/or regions, and a large number have incomes that are just above the poverty line. When wealthy farmers place unsustainable pressure upon land because they graze large sheep flocks, poorer families have no option but to rely on locally cut firewood or straw for cooking and heating, cutting grass for animal fodder, and collecting medicinal plants for own use and sale. Hetian Municipality in Xinjiang Uygur is a typical poverty locality where the energy structure of farmers is mainly reliant on crop straw, more than 60% of which is used as a household fuel, leaving the land surface bare and without recycling to maintain the organic and nutrient content of soil. Collectively, these activities have a massive and destructive impact upon vegetation in the dryland ecosystems and contribute markedly to LD.

10. **Summary Poverty Reduction and Social Strategy.** Improving land management through an integrated ecosystem management approach to combating LD will lead to reduction of poverty over time. There are positive examples (see Appendix 5 and Supplementary Appendix G) of development agency-supported projects in the PRC that have successfully adopted such an approach. International examples also point to long-term ecosystem rehabilitation and sustainable land management in drylands. The problems in the project areas require a similar long-term approach. The social strategy will be integrated into the overall approach to implementation, especially at province and/or regional level, where the relevant poverty offices will be represented in the project management office. Elements will include poverty mapping and coordination within government programs and future investment projects. The Project will provide for participatory consultations with villagers, officials, and other stakeholders to develop a common understanding and demand-driven approaches to major

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fund is administered by the Agricultural Bank of China; and (iii) provincial poverty-relief agencies manage their own poverty-alleviation programs. Each agency has its own specific interests and its own terms and conditions.

<sup>10</sup> Interviews conducted during fieldwork in all 6 provinces/regions. Several international development organizations, notably, UNDP, UNICEF, IFAD, and the World Bank have implemented pilot-scale micro-finance projects in the Project areas, in which small loans have been provided to poor farmers without mortgage or guarantee requirements. The experience is that these projects have sharply reduced the cost of borrowing in very poor rural communities.

issues. Typical priority issues relevant to reducing poverty and improving environmental management, as will be pursued under future investment projects, may include the following: (i) access to education and health care; (ii) access to improved rural financial services, including microfinance; (iii) environmental protection of ecosystems against degradation and desertification; (iv) improved data on poverty incidence and environmental aspects, and promotion of local awareness of sustainable natural resource management; (v) balancing environmental protection laws on forestry, grasslands, and wildlife with traditional occupations, such as hunting and logging, and ensuring that minority cultures are not adversely impacted; (vi) stable irrigation systems and drinking water supply for villagers and livestock; (vii) improved transport systems for market access, information, and investment; (viii) advanced skills in livestock raising, cash crops, agricultural and livelihood diversification, and marketing and group associations to improve information and reduce hunting and damaging practices; (ix) improved housing and rural energy supplies; (x) cultural protection through bilingual education; (xi) biodiversity conservation through ecotourism and conservation; and (xii) institutional capacity development, including nongovernment organizations and other local organizations.

### SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY FORM

#### A. Linkages to the Country Poverty Analysis

Sector identified as a national priority in country poverty analysis? Yes	Sector identified as a national priority in country poverty partnership agreement? Yes
Contribution of the sector or subsector to reduce poverty in the People's Republic of China: LD is the most difficult of all environmental issues to address, and the PRC has many of the worst; and degradation problems in the world, with over 40% of its land area, or 3–4 million square kilometers, adversely affected. Most of this occurs in the western region, the most impoverished part of the country and home to the majority of ethnic minorities.	

#### B. Poverty Analysis

#### Proposed Classification

The six provinces and/or autonomous regions addressed by the project have a population of 117 million, including many of the country's poorest and most vulnerable people. Poverty is related to isolation and environmental degradation over many years as a result of primarily human-induced policies and actions. The Project will promote greater awareness of the root causes of LD, ways to rehabilitate ecosystems and promote sustainable livelihoods, develop the capacity and coordination of institutions, and introduce the capacity for participatory planning and development. Poverty-related institutions will be integrated into the planning process with technical, sector-based institutions in a more holistic approach to investment projects to combat LD under the Eleventh Five-Year Plan (2006–2010). Over the longer term, this will lead to a significant impact on poverty reduction through a more effective and multisector approach to addressing LD.

#### C. Participation Process

Stakeholders number in the tens of millions. They include local people, ethnic minorities, six provincial and/or regional governments, and central government agencies, including National Development and Reform Commission, Ministry of Finance, Ministry of Agriculture, Ministry of Water Resources, Ministry of Land and Resources, State Environmental Protection Administration, Chinese Academy of Sciences, State Forestry Administration, Ministry of Science and Technology, Legislative Work Committee of the National People's Congress, and Legislative Affairs Office of the State Council. The roles and responsibilities have been analyzed and delineated. The strategy for participation is based on a multiagency approach, leading to better institutional coordination and participatory approaches in activities at all levels.

**D. Gender and Development**

The Project will provide opportunities for women to benefit over the longer term through investments in community development activities and improved services. More sustainable management practices will lead to rehabilitated ecosystems and improved living conditions that will positively impact women. Gender plan prepared? No.

**E. Social Safeguards and Other Social Risks**

	<b>Significant/ Nonsignificant /</b>	<b>Strategy to Address Issues</b>	<b>Plan Required</b>
	<b>None</b>		
<b>Resettlement</b>	None		No
<b>Indigenous Peoples</b>	Significant	Three ethnic autonomous regions: Inner Mongolia, Ningxia Hui, and Xinjiang Uygur are involved, and the three provinces also have minorities. Ethnic minorities mostly live in remote and often mountainous areas having harsh natural environments with a high incidence of poverty. Poverty incidence where ethnic minorities are dominant is more than 10%. The Project will not make physical investments (primarily advisory TA-type role to develop enabling environment and capacity), but will provide advice and approaches that will aim to reduce poverty. An indigenous peoples plan will be prepared under the piggybacked TA.	A Summary Minority Peoples Development Framework is attached
<b>Labor</b>	None		No
<b>Affordability</b>	None		No
<b>Other Risks/ Vulnerabilities</b>	None		No

## **SUMMARY: MINORITY PEOPLES DEVELOPMENT FRAMEWORK**

### **A. Introduction**

1. A minority peoples development plan (MPDP) framework was prepared to guide the preparation of future land degradation-related integrated ecosystem management projects that may adversely impact indigenous peoples. Supplementary Appendix L provides further details.

### **B. Policy Framework**

2. The framework is based on local and national development strategies and the Asian Development Bank's (ADB's) *Policy on Indigenous Peoples*, and it will ensure that minority peoples received benefit at least at par with other affected peoples from the Project; participate adequately in all project activities; and receive additional development support, through specific measures.

### **C. Procedures for Minority Peoples Development Plan Preparation**

3. In preparing MPDPs, the Executing Agencies (EA), through provincial or regional project management offices (PMOs), will conduct social assessment surveys and develop baseline data regarding affected groups and their livelihood and subsistence sources and community networks; review policies and guidelines regarding minority peoples in relevant provinces or regions; (iii) undertake project-specific MPDPs, when impacts are significant; and (iv) submit draft and final MPDPs for ADB review and approval. Project components will not start before MPDP approval.

### **D. Institutional Framework, Consultation, and Disclosure**

4. EA will coordinate and finance MPDP preparation and prepare MPDPs and monitor implementation; recruit local agencies or nongovernment organizations with experience working among minority peoples during MPDP planning, preparation, and implementation; and ensure that these agencies or organizations are familiar with ADB's policy requirements. Affected groups will be consulted during MPDP preparation. Before finalization, mitigation measures and strategies will be presented to affected groups during community-level workshops. Prior to implementation, MPDPs will be translated into local languages and distributed to affected villages. Minority affairs bureaus, poverty alleviation offices, All China's Women's Federation, and EA and participating agencies will be involved in MPDP implementation and related issues resolution.

### **E. Budget and Source of Funding**

5. The preliminary MPDP budget is CNY300,000. This should cover preparation, development measures implementation (to be determined), and monitoring and reporting. Budget revision follows MPDP preparation. EA will ensure that budgets are adequate to implement MPDPs. Supporting consultant services will be provided through ADB technical assistance (Appendix 11).

### **F. Monitoring and Evaluation**

6. MPDP implementation will be monitored internally and externally. To ensure participatory monitoring, PMOs will establish biannual monitoring systems involving

implementing staffs, implementing agencies or nongovernment organizations, minority peoples' groups, and local organizations. Monitoring indicators will be determined during MPDP implementation. Independent monitoring agencies or experts will carry out external monitoring. External monitoring investigations and reports will be conducted annually and submitted to executing agencies and ADB. Appropriate monitoring formats will be prepared for monitoring and reporting requirements.