

Project Administration Manual

Project Number: 40685
Loan Number: Loan XXXX-PRC
November 2011

People's Republic of China: Jiangsu Yancheng
Wetlands Protection Project

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Project Administration Manual Purpose and Process

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

The Jiangsu provincial government is wholly responsible for the implementation of this ADB-financed project, as agreed jointly between ADB and the borrower; and in accordance with the government's and ADB policies and procedures. ADB staff is responsible to support implementation, including compliance by the Dafeng city government, the Jiangsu provincial government, the Yancheng municipal government, and the four project implementation units of their obligations and responsibilities for project implementation in accordance with ADB policies and procedures.

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

After ADB Board approval of the project's report and recommendation of the President, changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the project administration instructions), and upon such approval they will be subsequently incorporated in the PAM.

ABBREVIATIONS

ADB	–	Asian Development Bank
CBD	–	Convention on Biological Diversity
CNY	–	Chinese yuan
COBP	–	country operations business plan
CPS	–	country partnership strategy
DCG	–	Dafeng city government
DFF	–	Dafeng Forest Farm
DI	–	design institute
DMF	–	design and monitoring framework
DMNNR	–	Dafeng Milu National Nature Reserve
EA	–	executing agency
EAER	–	Environment, Natural Resources, and Agriculture Division
EARD	–	East Asia Department
EIA	–	environmental impact assessment
EMP	–	environmental management plan
EMU	–	environmental management unit
EPB	–	environmental protection bureau
EPD	–	environmental protection department
EPL	–	Environmental Protection Law
FMA	–	financial management assessment
FSR	–	feasibility study report
FYP	–	five-year plan
GAP	–	gender action plan
GDP	–	gross domestic product
GEF	–	Global Environment Facility
GRM	–	grievance redress mechanism
FA	–	force account
IA	–	implementing agency
ICB	–	international competitive bidding
ICS	–	individual consultant selection
IUCN	–	International Union for Conservation of Nature
JCDP	–	Jiangsu Coastal Development Plan
JEPD	–	Jiangsu Environmental Protection Department
JFD	–	Jiangsu finance department
JFORB	–	Jiangsu forestry bureau
JPG	–	Jiangsu provincial government
JPLG	–	Jiangsu project leading group
JPMO	–	Jiangsu project management office
LIBOR	–	London interbank offered rate
MEP	–	Ministry of Environmental Protection
MRM	–	Management Review Meeting
NCB	–	national competitive bidding
NNR	–	national nature reserve
NR	–	nature reserve
NWPPA	–	National Wetland Protection Plan of Action
NWPPIP	–	National Wetland Protection Program Implementation Plan
PAM	–	project administration manual
PBA	–	performance-based allocation
PIU	–	project implementation unit

PLG	–	project leading group
PMO	–	project management office
PPMS	–	project performance management system
PPTA	–	project preparatory technical assistance
PRC	–	People's Republic of China
QCBS	–	quality- and cost-based selection
RCOBP	–	regional cooperation operations business plan
RP	–	resettlement plan
SEPA	–	State Environmental Protection Administration
SFA	–	State Forestry Administration
SFF	–	Sheyang Forest Farm
SP	–	Shopping
SPRSS	–	summary poverty reduction and social strategy
SPS	–	Safeguard Policy Statement
UNESCO	–	United Nations Education, Science, and Culture Organization
YEPB	–	Yancheng environmental protection bureau
YMG	–	Yancheng municipal government
YPLG	–	Yancheng project leading group
YPMO	–	Yancheng project management office
YRBNNR	–	Yancheng Rare Birds National Nature Reserve

I. PROJECT DESCRIPTION

A. Basic Project Information

Aspects	Arrangements
Project title	Jiangsu Yancheng Wetlands Protection Project
Executing agency	Jiangsu provincial government
Modality	Project loan
Financing	Ordinary capital resources
COBP/RCOBP	The proposed project was included in the Asian Development Bank's (ADB) 2011 lending pipeline during the country programming mission conducted in Manila in December 2010.
Classification	<p>Sector: Agriculture and natural resources</p> <p>Subsectors: Water-based natural resources management, forestry</p> <p>Themes: Environmental sustainability, capacity development</p> <p>Subthemes: Natural resources conservation, organizational development</p> <p>Targeting classification: General intervention</p> <p>Gender mainstreaming category: Effective gender mainstreaming</p> <p>Location impact: Rural (high), urban (high), national (low)</p> <p>Safeguards: Environment category A, involuntary resettlement category A, and indigenous peoples category C</p>
Risk categorization	Complex
Partnership(s)	Grant cofinancing of \$2.50 million being sought from the Global Environment Facility to complement capacity development is under development.
Use of a PBA	Not applicable
Parallel PIU	No
Department and division	East Asia Department (EARD); Environment, Natural Resources, and Agriculture Division (EAER)
Mission leader and members	Q. Zhang, Lead Water Resources Specialist, EAER/Mission Leader; I. Ahsan, Counsel, Office of the General Counsel; B. Dunn, Environment Specialist, Regional and Sustainable Development Department; Y. Jiang, Environmental Economist, EAER; Alvin Lopez, Natural Resources and Agriculture Specialist, EAER; H. Luna, Operations Assistant, EAER; L. Medina, Project Officer, EAER; Z. Niu, Senior Project Officer (Environment), PRC Resident Mission/EARD; F. Radstake, Senior Environment Specialist, EAER; and M. Vorpahl, Senior Social Development Specialist, EAER.

B. Rationale

1. Performance Indicators and Analysis

1. With an area of 843,500 hectares (ha) of coastal and seashore wetlands accounting for 14.2% of the national total, Jiangsu Province ranks third in this regard in the People's Republic of China (PRC). A significant portion of these wetlands are in Yancheng municipality, where they cover 453,000 ha (30% of the municipality's total area) and stretch for 580 kilometers (km) along the coast. The Yancheng coastal wetlands consist primarily of extensive intertidal mudflats, tidal creeks and river channels, salt marshes, reed beds, and marshy grasslands that provide desirable habitats for numerous species of flora and fauna of global and national importance.

2. The coastal wetlands in Yancheng include two national nature reserves: the Dafeng Milu National Nature Reserve (DMNNR) and the Yancheng Rare Birds National Nature Reserve (YRBNNR). The YRBNNR is very rich in biodiversity, containing 480 species of plants, 370 of birds, 281 of fish, 48 of mammals, and 45 of amphibians. Twelve of its animal species are included on the country's first-ranked list for priority protection, and 29 of its bird species are listed on the International Union of Conservation Nature's (IUCN) Red List of Threatened Species. The YRBNNR is one of the two wintering grounds in the PRC for the red-crowned crane (*Grus japonensis*), which is rated as endangered in the Red List of Threatened Species. About 60% of the world's estimated 2,500 red-crowned cranes migrate every winter to the YRBNNR. The DMNNR is home to 25% of the world's population of milu deer (*Elaphurus davidianus*), which is rated as "extinct in the wild" in the Red List of Threatened Species. The two national nature reserves are accredited to the List of Wetlands of International Importance under the Ramsar Convention and the United Nations Educational, Scientific, and Cultural Organization (UNESCO)'s World Network of Biosphere Reserves, recognizing the uniqueness of these wetland ecosystems and the species biodiversity that they harbor. The Dafeng Forest Farm (DFF) and the Sheyang Forest Farm (SFF), neighboring the DMNNR and the YRBNNR respectively, provide additional ecological protection to the two nature reserves, including additional habitats for rare birds and milu deer. They are also part of the national coastal ecological protection forest network and provincial forest parks.

3. The Yancheng wetlands provide important ecosystem services to local communities. Local livelihoods are sustained through the gathering and culture of marine and estuarine plants and fish species. Wetland plants slow the flow of rivers; and the mudflats absorb wave energy from the Yellow Sea, thereby protecting against coastal erosion, tsunamis, and storm surges. Wetlands improve water quality by assimilating some of Yancheng municipality's worsening pollution flowing from households and industry. They regulate the local climate and raise agricultural productivity. Finally, the two nature reserves, together with the two forest farms designated as provincial forest parks, attract hundreds of ecotourists each year from around the world, generating employment and income for local communities.

2. Key Problems and Opportunities

4. **Government response to threats to Yancheng wetlands.** Despite their local, national, and global significance, Yancheng coastal wetlands suffer rapid degradation, wildlife habitat loss and fragmentation, and loss of biodiversity. The main threats to the coastal wetland ecosystems and biodiversity are (i) land-use changes from reclamation for agriculture, aquaculture, industry, and urban expansion; (ii) habitat degradation, especially in the core and buffer zones; (iii) the rapid spread of the invasive species, particularly *Spartina alterniflora*; (iv)

draining; (v) pollution from terrestrial sources; and (vi) poaching. Since the 1980s, over half of the wildlife habitat has vanished, while the area of fishponds and built-up land has expanded by eight times. *Spartina alterniflora*, introduced from the United States to control coastal erosion and accelerate coastal sedimentation for reclamation, spread from zero to 13,705 ha since 1982. Consequently, the area of reeds contracted from 56,145 ha to 11,930 ha, seepweed from 72,134 ha to 9,499 ha, and mudflats from 133,683 ha to 77,373 ha. Fish catches declined from 165,605 tons in 1995 to 112,543 tons in 2005. Primarily human causes, compounded by natural causes, shrank the habitat suitable for the red-crowned cranes by 53.3% from 2,354.4 square kilometers (km²) in 1987 to 1,100.1 km² in 2007, forcing the wintering population down from 1,175 in 2001 to an all-time low of 477 in 2010. The poor quality of drinking water and grazing and fodder grounds and a plague of parasites have undermined the health of milu deer in the DMNRR. These threats to the nature reserves are magnified by poor protection infrastructure, weak management capacity, and inadequate public education and community participation. Further, the two forest farms lack (i) diversity and strong resilience; (ii) adequate drainage; and (iii) adequate forest protection infrastructure, including for fire and pest prevention and control.

5. Government responses and master plans. In 1984, the Jiangsu provincial government (JPG) identified 453,000 ha of the coastal wetlands in Yancheng as rare birds' nature reserve under provincial protection. In 1992, the YRBNNR was promoted to become a national nature reserve; and was accepted in UNESCO's Man-and-Biosphere Program in the same year. It joined the Northeast Asia Cranes Protection Network in 1996, and the East Asian–Australasian Shorebird Reserve Network. The DMNRR was established in 1986 as a provincial-level protected area, and was promoted to become a national nature reserve in 1997. In 2002, both nature reserves were accepted in the List of Wetlands of International Importance under the Ramsar Convention. The protection of coastal wetlands, particularly the two national nature reserves, has been a priority for the national, provincial, and municipal governments. Since their establishment, measures have been incorporated into the national, provincial, and municipal five-year plans for environmental protection and ecological construction. Both the YRBNNR Master Plan (2008–2020) and the DMNRR Master Plan (2008–2030) were approved by JPG in 2005. In 2010, as part of the effort to become a national ecological protection demonstration area, the Jiangsu Environmental Protection Department (JEPD) and the Yancheng municipal government (YMG) formulated a series of measures for protecting the YRBNNR, including wetland rehabilitation and restoration in the core zone; and anti-poaching.

6. ADB's past assistance and lessons learned. ADB's loan projects in the PRC in the environment and natural resources management sector have been generally well implemented. Lessons learned from the ecosystem and biodiversity protection projects, such as the Baiyangdian lake, Sanjiang plain wetlands, and Shaanxi Qinling biodiversity protection, were considered in policy dialogues with the government, engineering designs of the project facilities, and capacity development programs. Recent ADB reviews¹ on reviving the Tai lake, the Baiyangdian and the Sanjiang plain wetlands, and the West lake suggested that ecosystem protection, biodiversity conservation, and nature reserve management are underfinanced. Because of their nonrevenue-generating nature, ecosystem protection and biodiversity conservation projects are least favored by the government for lending. Therefore, it is important to build sustainable financing mechanisms into the project design and conduct policy dialogues to mainstream nature reserve financing into regular government budgets. Furthermore, chronic underfinancing has also led to weak capacity of the nature reserve management authorities in investing on protection, research, monitoring, public education, and community co-management activities and infrastructure. The above lessons learned have been incorporated into the overall

¹ ADB. 2008. *Reviving Lakes and Wetlands: Lessons Learned from the People's Republic of China*. Manila.

project design. First, strong interactions between the project preparatory technical assistance (PPTA) consultants and ADB missions, and the local design institutes have led to the sound engineering design of project interventions that directly remove the most serious threats and respond to the capacity development needs. Moreover, the project aims to support the development of a policy framework on eco-compensation; and the proposed Global Environment Facility (GEF) cofinancing will pilot the eco-compensation operational mechanisms that will enhance the financial sustainability of the nature reserves. Furthermore, the innovative features incorporated in the project design, including wetland rehydration, invasive species control, conversion of fishponds to wetlands, and sustainable financing mechanisms, including the innovative use of public finance and international financial institutions' lending,² will generate knowledge products that can be disseminated across the country and to other developing member countries.

7. **Proposed ADB financing and its linkage with country partnership strategy.** By drawing lessons from previous ADB-financed projects in reviving lakes and wetlands, the proposed ADB financing directly targets the most serious threats of wetland and biodiversity degradation and respond to the capacity development needs. Moreover, the loan will target the policy framework on eco-compensation and the proposed GEF cofinancing on eco-compensation operational mechanisms that will enhance the financial sustainability of the nature reserves. Furthermore, such innovative features built into this project as wetland rehydration, invasive species control, conversion of fishponds to wetlands, and sustainable financing mechanisms, including the use of public finance and international financial institutions' lending, will generate knowledge products that can be disseminated across the country and to other developing member countries.

8. The project is expected to play a demonstrative role for the restoration of other similar wetlands in the PRC. The project is consistent with ADB's country partnership strategy (2008–2010) for the PRC which aims to support environmental sustainability and inclusive growth.³

3. Impact and Outcome

9. The expected impact of the project will be improved ecosystem health and services in the coastal wetlands in Yancheng. The expected outcome will be increased capacity to manage and protect the wetland ecosystems in Yancheng.

4. Interventions and Outputs

10. The proposed project comprises five outputs. The interventions and activities for each output are described as follows:

11. **Wetlands protection at the Yancheng rare birds national nature reserve.** This output covers eight categories of interventions: (i) wetland restoration of 540 ha of degraded wetland in the experimental zone; (ii) wetland rehydration of 1,630 ha of dehydrated wetland in the core zone; (iii) conversion of 1,435 ha of fishponds to wetlands; (iv) pilot control of the spread of invasive species, particularly 400 ha of *Spartina alterniflora*; (v) construction of wetland protection infrastructure including patrol roads and stations, and waste management

² For these two nature reserves, after various dialogues, JPG agreed in July 2010 to provide the counterpart financing and take the responsibility for loan repayment, considering the major externalities associated with the protection of these two nature reserves.

³ ADB. 2008. *Country Partnership Strategy: People's Republic of China, 2008–2010*. Manila.

facilities; (vi) improved wildlife protection with establishment of a rescue, breeding, and disease control center; (vii) establishment of a wetland and biodiversity research laboratory and monitoring sites; and (viii) establishment of a public education center and a community co-management center.

12. **Wetlands protection at the Dafeng milu national nature reserve.** This output includes five categories of interventions: (i) creation of 24.7 ha of drinking water surface for milu deer's drinking water supply; (ii) establishment of 45 ha of grazing and resting ground, and 220 ha of fodder ground, including implementation of 50 ha of rotational closure of grazing ground for milu deer's food supply and resting ground; (iii) implementation of 426.4 ha of tick control, rehabilitation of 24 km of steel biological fences, improvement of 18.5 km of patrol roads, and establishment of a patrol station; (iv) establishment of a milu deer's research laboratory and habitat surveillance system; and (v) construction of the education center and the audio-video center.

13. **Coastal forest improvement at the Sheyang forest farm.** This output includes six categories of interventions: (i) rehabilitation of 185 ha of forest bird habitat; (ii) establishment of seedling nurseries including 285.2 ha of Chinese fir and evergreen tree, floral plant, and foliage-leaf nurseries; (iii) establishment of 83.5 ha of agroforestry demonstration; (iv) rehabilitation of 51.4 km of drainage canals; (v) establishment of a forest fire early warning and response system; and (vi) establishment of an integrated pest management (IPM) system.

14. **Coastal forest improvement at the Dafeng forest farm.** This output includes five categories of interventions: (i) improvement of 860 ha of coastal wetland protection forest; (ii) restoration and/or rehabilitation of 122.7 ha of coastal wetland; (iii) improvement 174 km of drainage canals; (iv) rehabilitation of 20.9 km of fire roads, and establishment of a fire prevention and response system; and (v) establishment of an IPM system.

15. **Project management and capacity development.** This output includes four categories of interventions: (i) establishment of provincial-, municipal-, and county-level project management offices (PMOs), with at least 30% representation by women; (ii) establishment of the project implementation units (PIUs) at the two nature reserves and two forest farms; (iii) provision of assistance to JPG on formulation of a policy framework on eco-compensation; and (iv) training of 100 PIU and PMO staff. PIO and PIU staff by 2013, with at least 30% representation of women. About 33 person-months of national consultants and about 8 person-months of international consultants will be recruited through a firm to assist the PMO.

16. A summary of the specific interventions and expected outputs is presented in Table 1.

Table 1: Interventions and Outputs

Intervention	Output
1. Wetlands Protection at the Yancheng Rare Birds National Nature Reserve	
1.1 Wetland restoration	- 540 ha of wetlands in experimental zone restored
1.2 Wetland rehydration	- 1,630 ha of dehydrated wetlands in core zone rehydrated
1.3 Fishponds-to-wetland conversion	- 1,435 ha of fishponds converted to wetlands
1.4 Invasive alien species control pilot	- Control of the spread of 400 ha of <i>Spartina alterniflora</i> piloted
1.5 Wetland protection infrastructure	- Patrol roads and stations improved
1.6 Wildlife protection	- Wildlife rescue, breeding, disease control center established
1.7 Wetland monitoring, research, and education capacity strengthening	- Capacity in wetland and biodiversity monitoring, research, and education strengthened
1.8 Community co-development	- Community co-development capacity strengthened

Intervention	Output
2. Wetlands Protection at the Dafeng Milu National Nature Reserve	
2.1 Milu deer's water supply improvement	- 24.7 ha of drinking water surface created
2.2 Milu deer's food supply and resting ground improvement	- 45 ha of resting and grazing ground established - 50 ha of rotational closure of grazing ground implemented - 220 ha of fodder ground established
2.3 Milu deer's habitat protection	- 24 km of steel biological fences erected or rehabilitated - 18.5 km of patrol roads improved - 1 patrol station established - 426.4 ha of tick control implemented
2.4 Milu deer's research, monitoring, and rescue capacity development	- Milu deer's research laboratory established - Milu deer's habitat surveillance system established
2.5 Public education capacity development	- education and audio-video centers constructed
3. Coastal Forest Improvement at the Sheyang Forest Farm	
3.1 Bird habitat restoration	- 185 ha of bird habitat restored
3.2 Establishment of seedling nurseries	- 93.5 ha of Chinese fir and evergreen tree nursery established - 49.4 ha of floral plants nursery established - 142.3 ha of colour-leaf plant nursery established
3.3 Agroforestry development	- 83.5 ha of forest-crop intercropping
3.4 Drainage improvement	- 51.4 km of canals rehabilitated
3.5 Forest fire prevention and response capacity improvement	- 49.0 km of fire roads rehabilitated - Forest fire early warning and response system established
3.6 Integrated pest management	- Integrated pest management system established
4. Coastal Forest Improvement at the Dafeng Forest Farm	
4.1 Coastal wetland protection forest improvement	- 860 ha of wetland protection forest improved and tended
4.2 Coastal wetland restoration	- 122.7 ha of coastal wetlands restored
4.3 Drainage improvement	- 174 km of canals improved
4.4 Fire prevention and response capacity	- 20.9 km of fire roads rehabilitated - Fire prevention and response system established
4.5 Integrated pest management	- Integrated pest management system established
5. Project Management and Capacity Development	
5.1 Project management	- PMOs established and operational by 2011, including at least 30% representation by women
5.2 Capacity development	- 8 person-months of international consulting services, and 33 person-months of national consulting services provided by 2017 - 100 persons trained by 2013 (at least 30% are women) - 30% of construction labor and 50% of operational jobs provided to women

ha = hectare, km = kilometer, PMO = project management office.

Source: Asian Development Bank.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Indicative Activities	2011												2012						Agency Responsible
	M	J	J	A	S	D	O	N	D	J	F	M	A	M	J				
Establishment of project implementation arrangements	■	■	■														DCG, JPG, TDG, YMG		
Preparation of procurement documents for contracts proposed for advance contracting and retroactive financing				■	■	■	■	■									DCG, JPG, TDG, YMG, ADB		
Bidding and award of contracts								■	■	■	■						DCG, JPG, TDG, YMG, ADB		
Engagement of consultants				■	■	■	■	■	■	■	■						DCG, JPG, TDG, YMG, ADB		
Loan negotiations									■								ADB, Government		
ADB Board approval										■							ADB		
Loan signing											■						ADB, JPG, Government		
Government legal opinion provided													■				JPG, Government		
Government budget inclusion															■		DCG, JPG, TDG		
Loan effectiveness																■	ADB, JPG, Government		

ADB = Asian Development Bank, DCG= Dafeng city government, JPG = Jiangsu provincial government, TDG = Tinghu District government, TYMG = Yancheng municipal government.

Source: ADB.

B. Project Implementation Schedule

Indicative Activities ^a	2012				2013				2014				2015				2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1. Wetlands Protection at YRBNNR																								
1.1 Preparation of procurement documents and award of contract for wetland management and protection, monitoring, research and system management	█	█																						
1.2 Procurement of patrol vehicles	█	█																						
1.3 Wetland restoration			█	█	█	█	█	█																
1.4 Public education and community co-development capacity																								
1.5 Wetland rehydration																								
1.6 Fishponds-to-wetlands conversion																								
1.7 Invasive alien species control pilot																								
1.8 Wetland protection infrastructure																								
1.9 Wildlife protection																								
1.10 Wetland and biodiversity research and monitoring capacity																								
2. Wetlands Protection at DMNNR																								
2.1 Milu deer research, monitoring, and rescue capacity																								
2.2 Milu deer's drinking water supply improvement																								
2.3 Milu deer's food supply and resting ground improvement																								
2.4 Milu deer's habitat protection																								
2.5 Public education capacity																								
3. Coastal Forest Improvement at SFF																								
3.1 Forest bird habitat restoration																								
3.2 Agroforestry development																								
3.3 Establishment of seedling nurseries																								
3.4 Drainage improvement																								
3.5 Forest fire prevention and response capacity improvement																								
3.6 Integrated pest management																								
4. Coastal Forest Improvement at DFF																								
4.1 Coastal wetlands restoration																								
4.2 Forest fire prevention and response capacity improvement																								
4.3 Drainage improvement																								
4.4 Integrated pest management																								
4.5 Coastal wetland protection forest improvement																								
5. Project Management and Capacity Development																								
5.1 Engagement of consultants	█	█																						
5.2 Project management																								
5.3 Capacity development																								

Loan Effectiveness

DMNNR = Dafeng milu national nature reserve, DFF = Dafeng forest farm, SFF = Sheyang forest farm, YRBNNR = Yancheng rare birds national nature reserve.
 Source: Asian Development Bank.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organization – Roles and Responsibilities

17. The project will be implemented over 5 years from July 2012 to June 2017. JPG will serve as the executing agency which will take oversight responsibilities and ensure coordination among JPG agencies, such as the environmental protection and finance departments, the forestry and water resource bureaus, and the Jiangsu provincial development and reform commission. YMG will assist JPG in coordinating and supervising implementation of the project. The implementing agencies are JEPD for the wetlands protection at YRBNNR output, the Jiangsu forestry bureau for the wetlands protection at DMNNR output, the YMG for the coastal forest improvement at the SFF output, and the Dafeng city government (DCG) for the coastal forest improvement at the DFF output. The Jiangsu PMO (JPMO) has been established at JEPD to be responsible for the overall planning, coordination, and supervision of the project. A municipal PMO has been established in YMG to perform tasks delegated by JPMO. Project implementation offices (PIOs) have also been established. DCG will coordinate the respective output. Furthermore, PIUs have been established in DMNNR, DFF, SFF, and YRBNNR for day-to-day implementation of the respective outputs. The capacities of PMOs and PIUs have been assessed, and a capacity strengthening plan has been included in the consulting services.

18. A summary of the roles and responsibilities of the key project organizations is provided below:

Table 2: Roles and Responsibilities of Key Project Organizations

Organization	Roles and Responsibilities
1. Jiangsu Province:	
<ul style="list-style-type: none"> • Jiangsu provincial government (JPG) 	<ul style="list-style-type: none"> ➤ Serves as the executing agency ➤ Establishes JPLG headed by the provincial vice governor and consists of JEPD, JFD, JFORB, YMG, and the Jiangsu provincial development and reform commission ➤ Assumes overall accountability and responsibility for the attainment of project goals and project sustainability ➤ Assumes overall responsibility for compliance with ADB safeguard requirements and those of the Government of the People's Republic of China (PRC) ➤ Provides counterpart financing and loan repayments for the Dafeng milu national nature reserve (DMNNR) and the Yancheng rare birds national nature reserve (YRBNNR) ➤ Provides timely policy support
<ul style="list-style-type: none"> • Jiangsu project leading group (JPLG) 	<ul style="list-style-type: none"> ➤ Be responsible for overall guidance and coordination ➤ Reviews project progress, and reviews and approves annual work plans ➤ Supervises project design, implementation, and management
<ul style="list-style-type: none"> • Jiangsu project management office (JPMO) 	<ul style="list-style-type: none"> ➤ Serves as secretariat for JPLG and performs daily functions of project management on behalf of JPLG ➤ Coordinates project preparation, design, approval, and implementation ➤ Supervises project implementation

Organization	Roles and Responsibilities
	<ul style="list-style-type: none"> ➤ Submits to JPG and ADB progress reports, monitoring reports, and the project performance management system (PPMS) reports ➤ Recruits and manages tendering agency ➤ Recruits and manages international project management and capacity development consulting services ➤ Recruits and manages external environmental and resettlement monitoring agency for project implementation ➤ Coordinates, reviews, and submits fund utilization plan and fund withdrawal applications ➤ Coordinates, reviews, and submits to ADB tender documents and bid evaluation reports ➤ Conducts periodical site inspections ➤ Organizes capacity development activities
<ul style="list-style-type: none"> • Jiangsu environmental protection department (JEPD) 	<ul style="list-style-type: none"> ➤ Serves as the implementing agency for the wetlands protection at YRBNNR output ➤ Supervises the preparation, design, bidding, implementation, and construction supervision of the wetlands protection at YRBNNR output ➤ Coordinates, organizes, and supervises the external environmental monitoring during implementation, and submits to JPMO regular external environmental and resettlement monitoring reports
<ul style="list-style-type: none"> • Jiangsu forestry bureau (JFORB) 	<ul style="list-style-type: none"> ➤ Serves as the implementing agency for the wetland protection at DMNNR output ➤ Supervises the preparation, design, bidding, implementation, and construction supervision of DMNNR output ➤ Coordinates, organizes, and supervises the external environmental monitoring during implementation; and submits to JPMO regular external environmental and resettlement monitoring reports
<ul style="list-style-type: none"> • Jiangsu finance department (JFD) 	<ul style="list-style-type: none"> ➤ Opens and manages the imprest account ➤ Reviews and submits fund withdrawal and reimbursement documents
<p>2. Yancheng Municipality:</p>	
<ul style="list-style-type: none"> • Yancheng municipal government (YMG) 	<ul style="list-style-type: none"> ➤ Establishes YPLG headed by the vice mayor and consists the Yancheng environmental protection, finance, and forestry bureaus; the Yancheng provincial development and reform commission; and the Dafeng city vice mayor ➤ Assumes overall accountability and responsibility for the attainment of goals and sustainability of the coastal forest improvement at DFF and SFF outputs ➤ Provides timely policy support
<ul style="list-style-type: none"> • Yancheng project leading group (YPLG) 	<ul style="list-style-type: none"> ➤ Be responsible for the overall guidance and coordination for the coastal forest improvement at DFF and SFF outputs ➤ Supervises the provision of counterpart financing and loan repayments by DCG and TDG for the coastal forest improvement at DFF and SFF outputs

Organization	Roles and Responsibilities
<ul style="list-style-type: none"> • Yancheng project management office 	<ul style="list-style-type: none"> ➤ Ensures compliance of the coastal forest improvement at DFF and SFF outputs with the PRC's and ADB safeguard requirements ➤ Coordinates the implementation of the project and its outputs ➤ Supervises the implementation of the project outputs, including periodic site inspections ➤ Supervises the tendering and contracting of the project outputs ➤ Coordinates, organizes, and supervises the preparation of external environmental and resettlement monitoring reports for the project outputs ➤ Undertakes project-related tasks delegated by JPMO
<ul style="list-style-type: none"> • Dafeng city government (DCG) 	<ul style="list-style-type: none"> ➤ Serves as the implementing agency for the coastal forest improvement at DFF output ➤ Provides counterpart financing and loan repayment for the coastal forest improvement at DFF output ➤ Coordinates and supervises the implementation of the coastal forest improvement at DFF output
<ul style="list-style-type: none"> • Yancheng rare birds' national nature reserve management office 	<ul style="list-style-type: none"> ➤ Serves as the project implementation unit (PIU) ➤ Organizes the preparation and design of the output ➤ Organizes the implementation of the output, including tendering and contracting of works and goods ➤ Supervises the construction and/or installation of works and goods, including periodic site inspections ➤ Organizes and supervises the implementation of environmental management and resettlement plans ➤ Be responsible for operation and maintenance (O&M) of the output
<ul style="list-style-type: none"> • Dafeng milu national nature reserve management office 	<ul style="list-style-type: none"> ➤ Serves as PIU ➤ Organizes the preparation and design of the output ➤ Organizes the implementation of the output, including tendering and contracting of works and goods ➤ Supervises the construction and/or installation of works and goods, including periodic site inspections ➤ Organizes and supervises the implementation of environmental management and resettlement plans ➤ Be responsible for O&M of the output
<ul style="list-style-type: none"> • Sheyang forest farm (SFF) 	<ul style="list-style-type: none"> ➤ Serves as PIU ➤ Organizes the preparation and design of the output ➤ Organizes the implementation of the output, including tendering and contracting of works and goods ➤ Supervises the construction and/or installation of works and goods, including periodic site inspections ➤ Organizes and supervises the implementation of environmental management and resettlement plans ➤ Be responsible for O&M of the output

Organization	Roles and Responsibilities
<ul style="list-style-type: none"> • Dafeng forest farm (DFF) 	<ul style="list-style-type: none"> ➤ Serves as PIU ➤ Organizes the preparation and design of the output ➤ Organizes the implementation of the output, including tendering and contracting of works and goods ➤ Supervises the construction and/or installation of works and goods, including periodic site inspections ➤ Organizes and supervises the implementation of environmental management and resettlement plans ➤ Be responsible for O&M of the output
<p>3. Asian Development Bank:</p> <ul style="list-style-type: none"> • Asian Development Bank (ADB) 	<ul style="list-style-type: none"> ➤ Provides the project preparatory technical assistance ➤ Supervises project implementation to ensure full compliance with provisions of the loan and project agreements, including environmental and social safeguard requirements ➤ Provides loan funds on a timely basis ➤ Reviews and approves tendering documents, bid evaluation reports, and contracts ➤ Conducts loan review missions on a timely basis

B. Key Persons Involved in Implementation

Table 3: Key Persons Involved in Implementation

<p>Executing Agency Jiangsu Yancheng Wetlands Protection Project, Project management office</p>	<p>Mr. Zhao Ting Director Tel: (86 25) 8626 6066 Fax: (86 25) 8626 6000 Email: 2009pmo@sina.com Office Address: Rm 905, 176 Jiangdong Beilu Nanjing, Jiangsu 210036, PRC</p>
<p>Supervisory Agency Yancheng municipal government, Project management office</p>	<p>Mr. Wu Yuqing Director, Yancheng Municipal Environmental Protection Bureau Tel: (86 515) 8666 0727 Fax: (86 515) 8666 0730 Office Address: Rm 727, 21 Shiji Dadao Yancheng, Jiangsu Province 224005</p>
<p>Implementing Agency Dafeng city government, Project management office</p>	<p>Mr. Xia Henglin Director Dafeng City Environmental Protection Bureau Mobile: (86) 139 0511 2808 Fax: (86 515) 8351 4887 Tel: (86 515) 8351 4886 Office Address: 7 Xingfu Xijie Dafeng City, Jiangsu Province 224100</p>

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Dafeng City, Jiangsu Province 224136

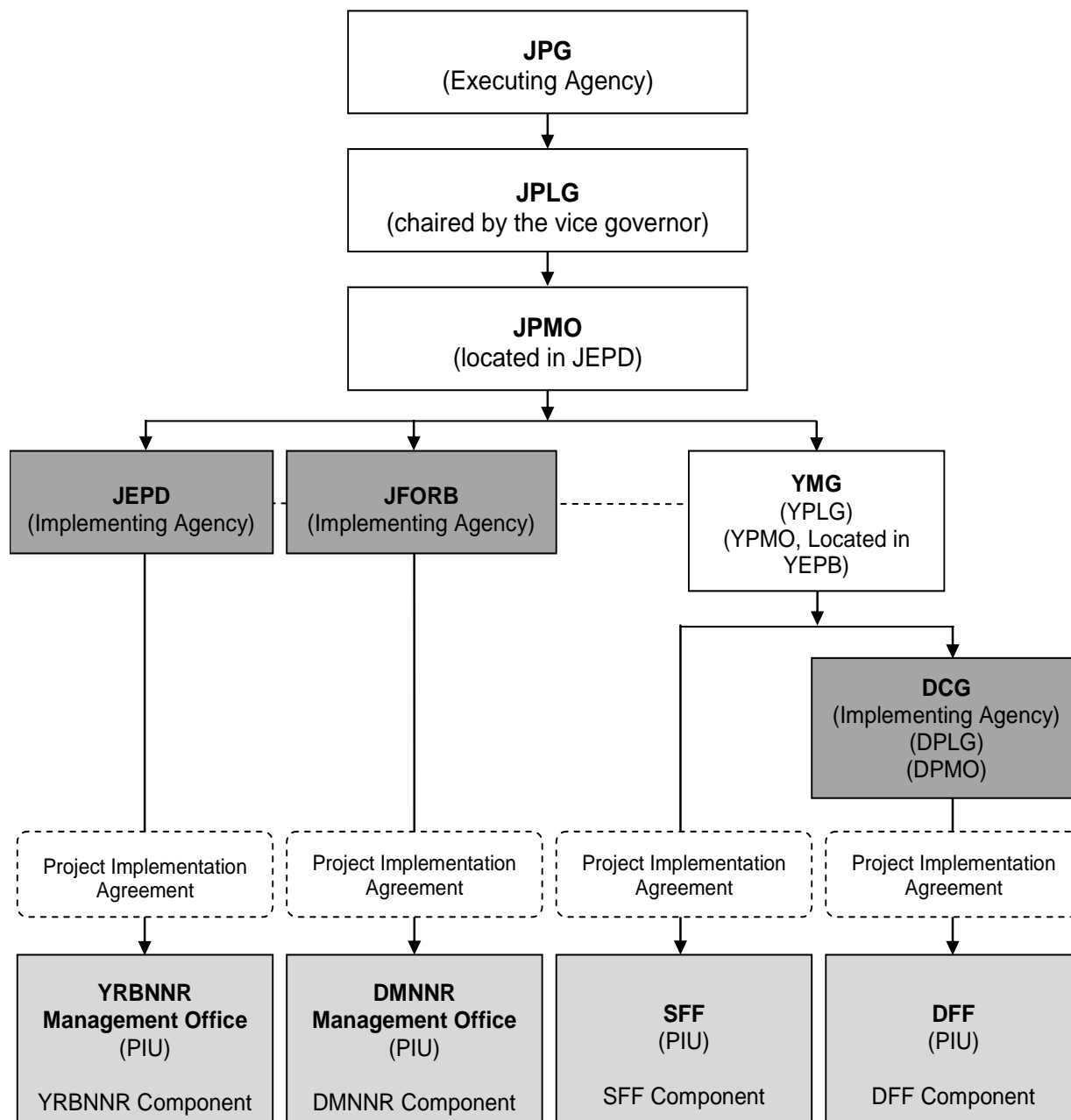
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Mission Leader

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C. Project Implementation Organization Chart



DCG = Dafeng City Government, DFF = Dafeng Forest Farm, DPLG = Dafeng project leading group, DMNNR = Dafeng Milu National Nature Reserve, DPMO = Dafeng project management office, JFORB = Jiangsu forestry bureau, JEPD = Jiangsu Environmental Protection Department, JPG = Jiangsu provincial government, JPLG = Jiangsu project leading group, JPMO = Jiangsu project management office, PIU = project implementation unit, SFF = Sheyang Forest Farm, YEPB = Yancheng environmental protection bureau, YMG = Yancheng municipal government, YPLG = Yancheng project leading group, YPMO = Yancheng project management office, YRBNNR = Yancheng Rare Birds National Nature Reserve.

Source: Asian Development Bank.

IV. COSTS AND FINANCING

A. Investment Plan

19. The project is estimated to cost \$76.39 million, including contingencies, financing charges, and taxes and duties, which will be paid by the government from its own resources. The investment plan is summarized in Table 4.

Table 4: Project Investment Plan (\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Wetlands protection at Yancheng rare birds national nature reserve	41.89
2. Wetlands protection at the Dafeng milu national nature reserve	5.29
3. Coastal forest improvement at the Sheyang forest farm	10.21
4. Coastal forest improvement at the Dafeng forest farm	5.44
5. Project management and capacity development ^c	6.05
Total Base Cost (A)	68.88
B. Contingencies^d	6.19
C. Financing Charges During Implementation^e	1.32
Total (A+B+C)	76.39

ADB = Asian Development Bank, GEF = Global Environment Facility, LIBOR = London interbank offered rate.

^a In 2011 prices.

^b Including duties and taxes equivalent to \$8.14 million, which will be paid by the government from its own resources.

^c GEF grant cofinancing of \$2.5 million is being sought to complement capacity development.

^d Physical contingencies were computed using 10% on base cost. Price contingencies were computed using international and domestic price escalation factors, and include provisions for potential price exchange rate fluctuations under the assumption of a purchasing power parity exchange rate.

^e Interest during implementation, which will be paid by the government from its own resources, was computed based on 5-year forward LIBOR plus a spread of 0.4% per year. Commitment charges, which will be paid by the government out of its own resources, were computed at 0.15% per year on the undisbursed loan amount.

Source: ADB estimates.

B. Financing Plan

20. The government has requested a loan of \$36.9 million or 48.3% of the total cost from ADB's ordinary capital resources to help finance the project, excluding taxes and duties of \$8.14 million, which will be paid by the government from its own resources. Counterpart financing amounts to \$39.49 million or 51.7% of the total project cost, to cover civil works; design, monitoring, and management expenses; taxes and duties; and contingencies. The tentative financing plan is shown in Table 5.

Table 5: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	36.90	48.3
Government ^a	39.49	51.7
Total	76.39	100.0

^a Government financing includes taxes and duties, contingencies, and interest during implementation.

Source: Asian Development Bank estimates.

21. The borrower of the loan will be the government of the PRC. The loan will have a 25-year term, including a grace period of 5 years; an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, which will be paid by the government out of its own resources; a commitment charge of 0.15% per year; and such

other terms and conditions as set forth in the loan and project agreements. The government has provided ADB with (i) the reasons for its decision to borrow under ADB's LIBOR -based lending facility based on these terms and conditions, and (ii) an undertaking that these choices were its own independent decision and not made in reliance on any communication or advice from ADB.

22. The government will make the loan proceeds available to JPG, which in turn will provide on a grant basis (i) twenty-three million Dollars (\$23,000,000) to YRBNNR for the implementation of Output 1 and a portion of Output 5; and (ii) three million Dollars (\$3,000,000) to DMNNR for the implementation of Output 2 and a portion of Output 5, with JPG bearing the foreign exchange and interest rate variation risks associated with the portions of the loan proceeds made available to YRBNNR and DMNNR, respectively. JPG will onlend (i) seven million Dollars (\$7,000,000) to YMG for further provision, on a grant basis to SFF for the implementation of Output 3 and a portion of Output 5; and (ii) three million nine hundred thousand Dollars (\$3,900,000) to DCG; and through DCG make available, on a grant basis, these funds to DFF for the implementation of Output 4 and a portion of Output 5. Each onlending will be done under onlending agreements upon terms and conditions specified in the loan and project agreements

23. About \$2.5 million grant from GEF was included in the March 2010 GEF intersessional work program. The approved GEF project identification form (PIF) identifies the following outputs for the proposed GEF grant cofinancing of the project: (i) wetland restoration and biodiversity conservation, (ii) sustainable natural resources management and sustainable livelihoods, (iii) ecological monitoring and evaluation, and (iv) environmental governance. The relevant document is being prepared to request GEF chief executive officer's endorsement. Once confirmation from GEF funding is received, it will be processed through ADB's internal procedures to effect the additional cofinancing from GEF to be administered by ADB.

C. Detailed Cost Estimates by Financier and Expenditure Category (\$ million)

Item	Government		ADB		Total ^a (\$ million)
	Amount (\$ million)	% of Category	Amount (\$ million)	% of Category	
I. Investment Costs^b					
A. Civil Works					
1. Wetlands protection at YRBNNR	17.75	48.17	19.10	51.83	36.85
2. Wetlands protection at DMNNR	2.09	81.64	0.47	18.36	2.56
3. Coastal forest improvement at SFF	2.71	28.20	6.90	71.80	9.61
4. Coastal forest improvement at DFF	1.41	28.60	3.52	71.40	4.93
Subtotal (A)	23.96	44.41	29.99	55.59	53.95
B. Goods					
1. Wetlands protection at YRBNNR	1.49	29.50	3.56	70.50	5.05
2. Wetlands protection at DMNNR	0.07	2.75	2.48	97.25	2.55
3. Coastal forest improvement at SFF	0.49	100.00	0.00	0.00	0.49
4. Coastal forest improvement at DFF	0.18	36.00	0.32	64.00	0.50
Subtotal (B)	2.23	25.96	6.36	74.04	8.59
C. Resettlement					
1. Wetlands protection at YRBNNR	0.17	100.00	0.00	0.00	0.17
2. Wetlands protection at DMNNR	0.00	0.00	0.00	0.00	0.00
3. Coastal forest improvement at SFF	0.11	0.00	0.00	0.00	0.11
4. Coastal forest improvement at DFF	0.00	0.00	0.00	0.00	0.00
Subtotal (C)	0.28	100.00	0.00	0.00	0.28
D. Project Management					
1. Wetlands protection at YRBNNR	3.68	100.00	0.00	0.00	3.68
2. Wetlands protection at DMNNR	0.45	100.00	0.00	0.00	0.45
3. Coastal forest improvement at SFF	0.89	100.00	0.00	0.00	0.89
4. Coastal forest improvement at DFF	0.48	100.00	0.00	0.00	0.48
Subtotal (D)	5.50	100.00	0.00	0.00	5.50
E. Consulting Services					
1. Wetlands protection at YRBNNR	0.00	0.00	0.34	0.00	0.34
2. Wetlands protection at DMNNR	0.00	0.00	0.05	100.00	0.05
3. Coastal forest improvement at SFF	0.00	0.00	0.10	100.00	0.10
4. Coastal forest improvement at DFF	0.00	0.00	0.06	100.00	0.06
Subtotal (E)	0.00	0.00	0.55	100.00	0.55
Subtotal Base Cost	31.97	46.42	36.90	53.58	68.87
II. Contingencies^c					
1. Wetlands protection at YRBNNR	4.15	100.00	0.00	0.00	4.15
2. Wetlands protection at DMNNR	0.50	100.00	0.00	0.00	0.50
3. Coastal forest improvement at SFF	1.00	100.00	0.00	0.00	1.00
4. Coastal forest improvement at DFF	0.54	100.00	0.00	0.00	0.54
Subtotal (II)	6.19	100.00	0.00	0.00	6.19
III. Financial Charges^d					
1. Wetlands protection at YRBNNR	0.90	100.00	0.00	0.00	0.90
2. Wetlands protection at DMNNR	0.12	100.00	0.00	0.00	0.12
3. Coastal forest improvement at SFF	0.11	100.00	0.00	0.00	0.11
4. Coastal forest improvement at DFF	0.19	100.00	0.00	0.00	0.19
Subtotal (III)	1.32	100.00	0.00	0.00	1.32
Total Project Cost	39.49	51.69	36.90	48.31	76.39

ADB = Asian Development Bank, DMNNR - Dafeng milu national nature reserve, DFF = Dafeng forest farm, SFF = Sheyang forest farm, YRBNNR = Yancheng rare birds national nature reserve.

Note: Numbers may not sum precisely because of rounding

^a In 2011 prices.

^b Including taxes and duties equivalent to \$8.14 million, which will be financed by the government.

^c Physical contingencies were computed using 10% on base cost. Price contingencies were computed using the international and domestic price escalation factors, and include provisions for potential price exchange rate fluctuations under the assumption of a power parity exchange rate.

^d Interest during implementation amounting to \$1.28 million, which will be paid by the government out of its own resources, was computed based on 5-year forward London interbank offered rate (LIBOR) plus a spread of 0.4% per year. Commitment charges, which will be paid by the government out of its own resources, were computed based on 0.15% per year on an undisturbed loan amount.

Source: ADB estimates.

D. Expenditure Accounts by Outputs (\$ million)

Item	Total ^a	Wetlands Protection at YRBNNR		Wetlands Protection at DMNNR		Coastal Forest Improvement at SFF		Coastal Forest Improvement at DFF	
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
I. Investment Costs^b									
A. Civil Works	53.95	36.85	68.29	2.56	4.74	9.61	17.81	4.94	9.15
B. Goods	8.59	5.05	58.79	2.55	29.69	0.49	5.70	0.50	5.82
C. Resettlement	0.28	0.17	60.46	0.00	0.00	0.11	39.54	0.00	0.00
D. Project Management	5.51	3.69	66.97	0.45	8.17	0.89	16.15	0.48	8.71
E. Consulting Services	0.55	0.34	61.82	0.05	9.09	0.10	18.18	0.06	10.91
Subtotal	68.88	46.09	66.92	5.61	8.14	11.20	16.26	5.98	8.68
II. Contingencies^c	6.20	4.15	66.94	0.51	8.23	1.00	16.13	0.54	8.71
III. Financial Charges^d	1.32	0.90	68.18	0.12	8.79	0.11	8.33	0.19	14.24
Total	76.39	51.14	66.95	6.24	8.16	12.31	16.11	6.71	8.78
Taxes	8.14	5.27	64.74	0.63	7.74	0.71	8.72	1.53	18.80
Foreign Exchange	27.43	17.75	64.71	2.04	7.44	2.4	8.75	5.24	19.10

ADB = Asian Development Bank, DMNNR - Dafeng milu national nature reserve, DFF = Dafeng forest farm, SFF = Sheyang forest farm, YRBNNR = Yancheng rare birds national nature reserve.

Note: Numbers may not sum precisely because of rounding.

^a In 2011 prices.

^b Including taxes and duties equivalent to \$8.14 million, which will be financed by the government.

^c Physical contingencies were computed using 10% on base cost. Price contingencies were computed using the international and domestic price escalation factors, and include provisions for potential price exchange rate fluctuations under the assumption of a power parity exchange rate.

^d Interest during implementation amounting to \$1.28 million, which will be paid by the government out of its own resources, was computed based on 5-year forward London interbank offered rate (LIBOR) plus a spread of 0.4% per year. Commitment charges, which will be paid by the government out of its own resources, were computed based on 0.15% per year on an undisturbed bus.

Source: ADB estimates.

E. Allocation and Withdrawal of Loan Proceeds

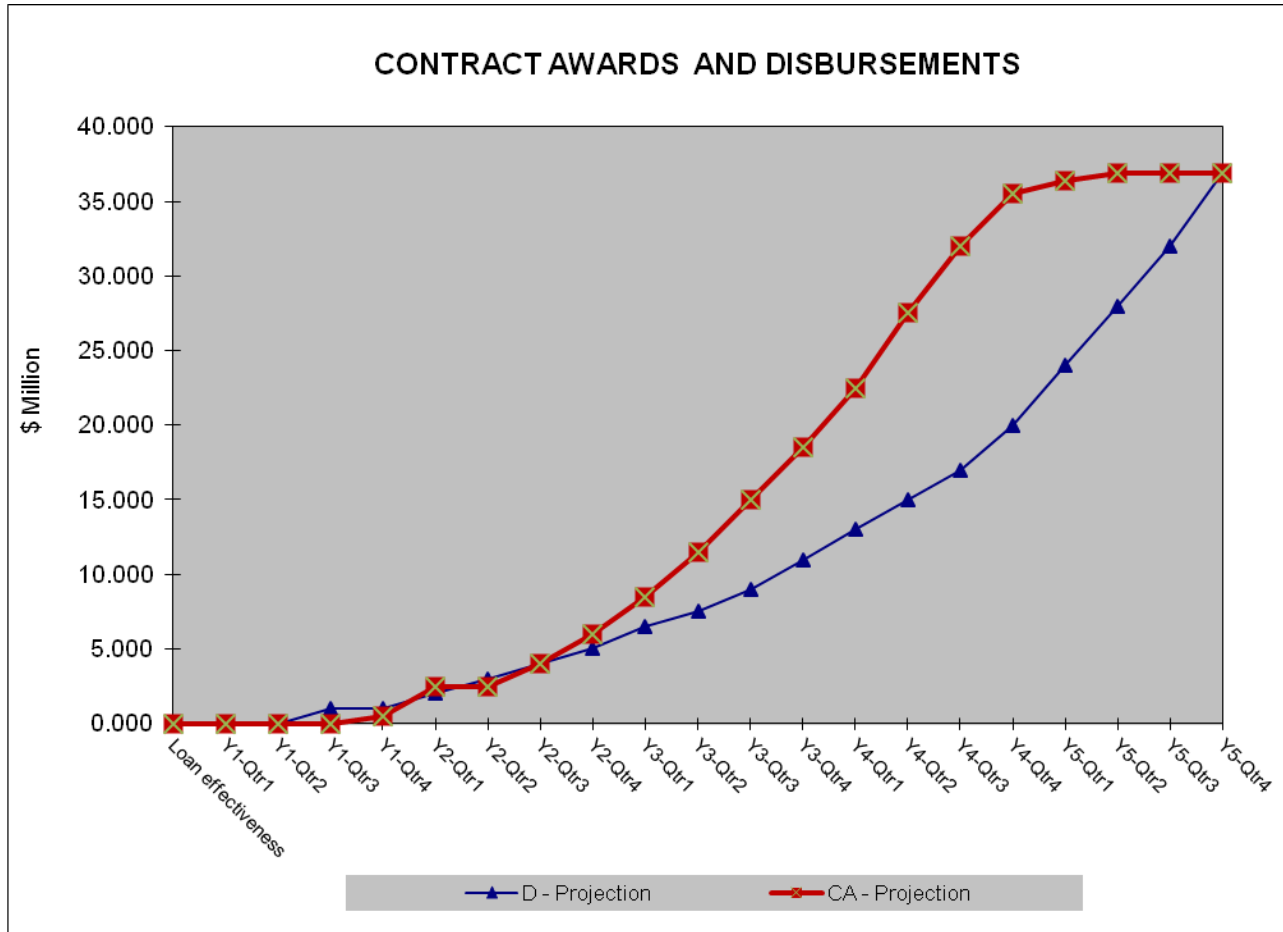
ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (Jiangsu Yancheng Wetlands Protection Project)				
Category				ADB Financing
Number	Item	Amount Allocated (\$)		Percentage and Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Works	29,990,000		
1A	Yancheng RBNNR		19,100,000	53% of total expenditure claimed
1B	Yanchengt DMNNR		470,000	19% of total expenditure claimed
1C	Sheyang Forest Farm		6,900,000	74% of total expenditure claimed
1D	Dafeng Forest Farm		3,520,000	74% of total expenditure claimed
2	Goods	6,360,000		
2A	Yancheng RBNNR		3,560,000	73% of total expenditure claimed
2B	Yancheng DMNNR		2,480,000	100% of total expenditure*
2C	Dafeng Forest Farm		320,000	65% of total expenditure
3	Capacity Development	550,000		100% of total expenditure*
Total		36,900,000		

DMNNR = Dafeng Milu National Nature Reserve, YRBNNR = Yancheng Rare Birds National Nature Reserve.

* Exclusive of taxes and duties imposed within the territory of the borrower.

Source: Asian Development Bank estimates.

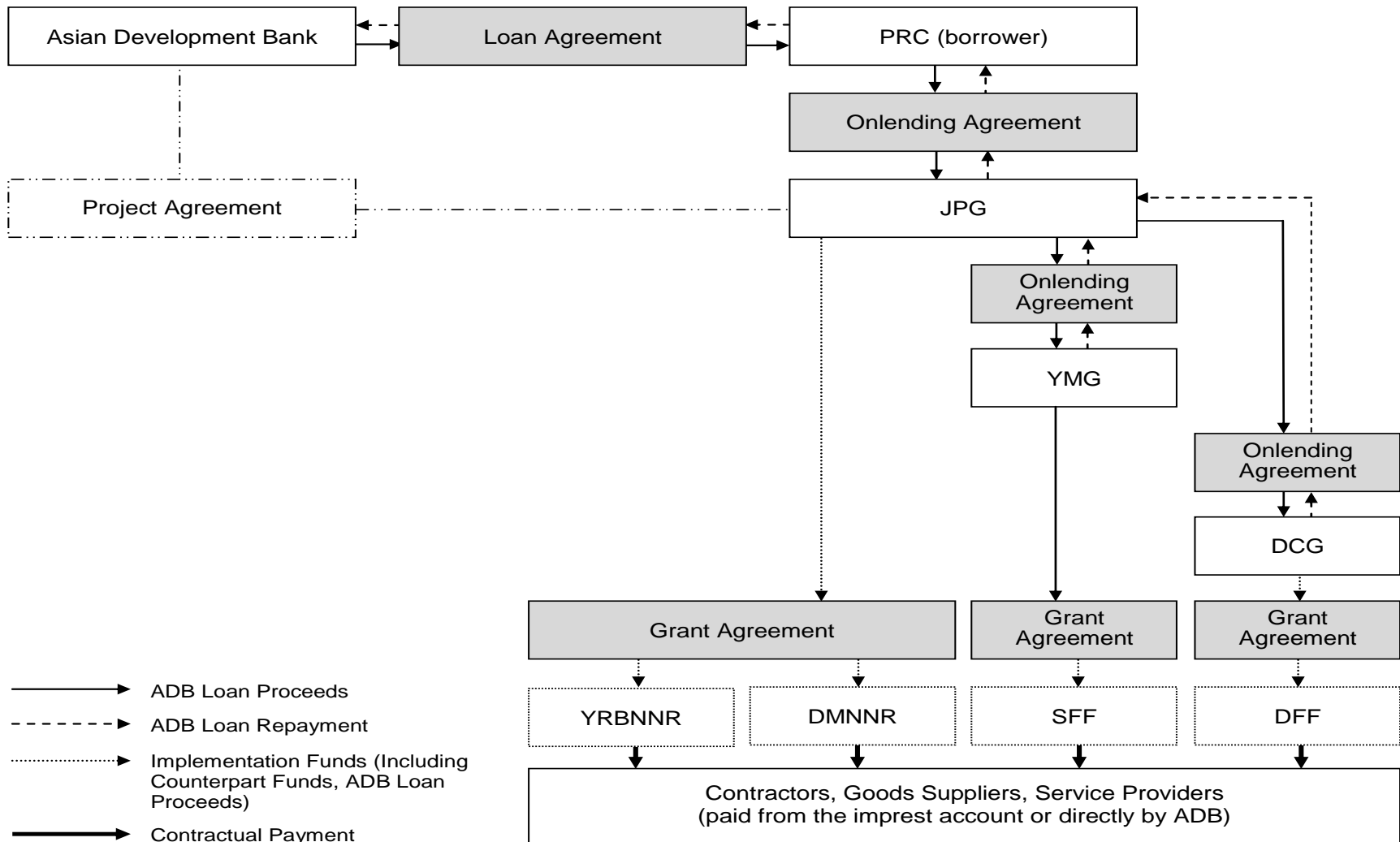
F. Contract and Disbursement S-Curves



Item	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Contract Awards						
Quarter 1	0.000	0.500	2.500	4.000	0.900	7.900
Quarter 2	0.000	1.500	3.000	5.000	0.500	10.000
Quarter 3	0.000	1.500	3.500	4.500	0.000	9.500
Quarter 4	0.500	2.000	3.500	3.500	0.000	9.500
Total	0.500	5.500	12.500	17.000	1.400	36.900
Disbursements						
Quarter 1	0.000	1.000	1.500	2.000	4.000	8.500
Quarter 2	0.000	1.000	1.000	2.000	4.000	8.000
Quarter 3	1.000	1.000	1.500	2.000	4.000	9.500
Quarter 4	0.000	1.000	2.000	3.000	4.900	10.900
Total	1.000	4.000	6.000	9.000	16.900	36.900

Source: Asian Development Bank.

G. Fund Flow Diagram



ADB = Asian Development Bank, DCG = Dafeng city government, DFF = Dafeng Forest Farm, DMNNR = Dafeng Milu National Nature Reserve, JPG = Jiangsu provincial government, PRC = People's Republic of China, SFF = Sheyang Forest Farm, YMG = Yancheng municipal government, YRBNNR = Yancheng Rare Birds National Nature Reserve.

Note: Imprest account will be opened and administered by the Jiangsu finance department.

Source: ADB.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

24. The purpose of the financial management assessment (FMA) is to present an assessment of the financial management capacity of the executing and implementing agencies and PIUs responsible for project implementation. The instrument used for the assessment of the executing and implementing agencies and PIUs is ADB's standard FMA questionnaire and financial statements.

25. The assessment indicates that the executing and implementing agencies and PIUs satisfy ADB's financial management requirements. They have satisfactory financial management capability to (i) record required financial transactions and balances, (ii) provide regular and reliable financial statements and monitoring reports, and (iii) safeguard financial assets.

26. However, they have not participated in ADB projects and financial, accounting and management staffs are not familiar with ADB loan management policies; hence, additional and refresher training on ADB loan management policies and procedures, including procurement, engagement of consultants, disbursement, and repayment policy and procedures need to be provided to enhance the professional capacity of relevant staff before implementing the project.

B. Disbursement

27. The loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time),⁴ and detailed arrangements agreed upon between ADB and the government.

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

29. Direct payment, reimbursement, commitment, and imprest fund procedures may be used to withdraw funds from the loan account. To expedite the flow of funds and simplify document processing, the statement of expenditures procedure may be used to reimburse, replenish, and liquidate eligible expenditures for any individual payment not exceeding \$200,000. Payments exceeding this ceiling will be reimbursed, replenished, and liquidated based on the full documentation process.

30. An imprest account will be set up for the project by the Jiangsu finance department (JFD) in a commercial bank acceptable to ADB. The initial amount deposited into the imprest account will not exceed 10% of the total loan amount, or the estimated expenditures to be financed from the imprest account for the first 6 months of implementation, whichever is lower.

⁴ Available at: http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf

⁵ Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

C. Accounting

31. JPMO will prepare consolidated quarterly progress reports indicating progress achieved and problems encountered during the review period, including steps taken or proposed to remedy the problems, proposed program of activities, and progress expected in the following quarter. The PMO will ensure that these reports are submitted to ADB in a timely manner and will submit a completion report within 6 months of the project's physical completion.

32. JPMO and each district and/or city PMO and PIU will maintain separate records and accounts that identify the goods and services, and the expenditures financed from the loan proceeds and counterpart funds for the project. Each PIU will prepare annual financial statements for their project activities and submit these to district and/or city PMOs, who will consolidate and submit them to JPMO. The district and/or city PMOs will also prepare annual financial statements for their project activities and submit these to JPMO. JPMO will consolidate the annual financial statements of the district and/or city PMOs, the consolidated annual financial statements of the PIUs, and its own annual financial statements, as well as those related to the imprest accounts. All financial statements will be prepared in accordance with relevant accounting standards and regulations acceptable to ADB.

D. Auditing

33. The executing agency will cause the detailed consolidated project accounts to be audited following the International Standards on Auditing by the state audit agency of the government, or other auditors acceptable to ADB. The audited accounts will be submitted in the English language to ADB within 6 months of the end of the fiscal year by the executing agency. The annual audit report will include a separate audit opinion on the use of the imprest accounts and the statement of expenditure procedures. JPMO, the government, JPMO, and the executing agency have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used following ADB policies and procedures.

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

34. The government has requested advance contracting and retroactive financing for contract packages covering consulting services for the project management and capacity development output and for two contracts under the wetlands protection at YRBNNR output. Advance contracting and retroactive financing will be undertaken in conformity with ADB's Procurement Guidelines (2010, as amended from time to time)⁶ and the Guidelines on the Use of Consultants by the Asian Development Bank and its Borrowers (2010, as amended from time to time).⁷ The issuance of requests for proposal and invitations to bid under contracts proposed for advance contracting and retroactive financing will be subject to ADB approval. The borrower and the executing and implementing agencies have been advised that (i) approval of advance contracting and retroactive financing does not necessarily commit ADB to finance the project, and (ii) retroactive financing may only apply to eligible expenditures incurred prior to loan

⁶ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>.

⁷ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>.

effectiveness but not earlier than 12 months before loan signing up to a maximum amount equivalent to 20% of the total ADB loan.

B. Procurement of Goods, Works, and Consulting Services

35. All procurement to be financed under the ADB loan will be carried out following ADB's Procurement Guidelines (2010, as amended from time to time). Contracts for civil works valued at over \$10 million and contracts for goods and related services valued at over \$1 million will be procured through international competitive bidding procedures. Contracts for civil works valued at \$10 million or less but over \$100,000, and contracts for goods and related services valued \$1 million or less but over \$100,000 will be procured through national competitive bidding procedures. National competitive bidding will be undertaken following the PRC Tendering and Bidding Law (1999), subject to modifications agreed with ADB.⁸ Contract packages for civil works, goods, and related services valued at \$100,000 or less will be procured through shopping procedures. A procurement agency that is familiar with ADB procurement procedures will be hired by JPG to undertake procurement of works, goods, and services under the project on behalf of the implementing agencies.

36. A procurement capacity assessment undertaken during project preparation confirmed that the executing and implementing agencies, and PIUs, acting through the procurement agency and with the assistance of ADB and the project consultants, would be capable to carry out procurement under the project, including advance contracting. Consulting services to be financed under the ADB loan will be selected in accordance with ADB's Guidelines on the Use of Consultants by the Asian Development Bank and its Borrowers (2010, as amended from time to time). The relevant sections of ADB's Anticorruption Policy (1998, as amended to date) will be included in all documents and contracts relating to procurement and engagement of consultants.

37. Before the start of any procurement, ADB and the government will review the public procurement laws of the central and state governments to ensure consistency with ADB's Procurement Guidelines (2010, as amended from time to time).

38. Procurement plan indicating the thresholds and review procedures; contract packages for goods, works, and consulting services; and national competitive bidding guidelines is provided in Section 3 below.

39. All consultants will be recruited according to ADB's Guidelines on the Use of Consultants by the Asian Development Bank and its Borrowers (2010, as amended from time to time).⁹ The terms of reference for all consulting services are detailed in section D of this chapter. An estimated 42 person-months of consulting services (8 international and 34 national) are required to support project implementation and capacity development.

C. Procurement Plan

40. The procurement plan for the project, as agreed with the executing and implementing agencies during project processing, is shown below.

⁸ The mission requested the use of ADB standard bidding documents to ensure the high quality and consistency of the documents, which will facilitate ADB review.

⁹ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

Basic Data

Project Name: Jiangsu Yancheng Wetlands Protection Project	
Country: People's Republic of China	Executing Agency: Jiangsu provincial government
Loan Amount: \$36.90 million	Loan Number: Lxxxx-PRC/P40685-PRC
Date of First Procurement Plan: 8 August 2011 (Loan fact-finding mission)	Date of this Procurement Plan: 20 October 2011

1. Process Thresholds, Review, and 18-Month Procurement Plan

a. Project Procurement Thresholds

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

Procurement of Goods and Works

Method	Threshold (\$)
International Competitive Bidding (ICB) for Works	Over \$10,000,000
ICB for Goods	Over \$1,000,000
National Competitive Bidding (NCB) for Works ^a	Below ICB threshold, but more than \$100,000
NCB for Goods ^a	Below ICB threshold, but more than \$100,000
Shopping for Works ^b	Equal to or less than \$100,000
Shopping for Goods ^b	Equal to or less than \$100,000

^a NCB procedures are described in section C (item 3, page 32) of this chapter.

^b For the procurement of items below \$10,000, the executing and implementing agencies may purchase the items directly from the supplier; and in such cases, the ADB should be satisfied that the price paid is reasonable.

b. ADB Prior or Post Review

42. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

Procurement Method	Prior or Post	Remarks
Procurement of Goods and Works		
ICB Works ICB Goods	Prior	For ICB, invitations for bids and for prequalification, draft prequalification documents and bidding documents, and prequalification and bid evaluation reports will be submitted to ADB for prior review and approval. Use of this method is subject to the provision of ADB's Procurement Guidelines (2010, as amended from time to time) and project administration instruction (PAI) 3.03.
NCB Works NCB Goods	Prior/Post	For NCB, the first draft English language-version of the procurement documents for goods and for works should be submitted to ADB for review and approval regardless of the estimated contract amount. ADB-approved procurement documents should be used as a model for all NCB procurement financed by ADB for the project, and need not be subject to further review. ADB will review the bid evaluation report and award of contract on a post-review basis. Use of this method is subject to the provisions of the NCB Annex, ADB's Procurement Guidelines, paras. 3.3–3.4; and PAI 3.04.

Procurement Method	Prior or Post	Remarks
Shopping for Works Shopping for Goods	Post	For shopping (including direct contracting), ADB will review the award of contract on a post-facto basis. Use of this method is subject to the provision of ADB's Procurement Guidelines (2010, as amended from time to time), para. 3.5; and PAI 3.04 C.4 and 5.
Recruitment of Consulting Services		
Quality- and Cost-Based Selection (QCBS, 80:20)	Prior	For QCBS, both the quality of the technical proposal and the cost of the services to be provided are evaluated. Normally, the borrower will be required to make three submissions (prior reviews) for (i) ADB approval: (i) a draft request for proposal (RFP), including the shortlist; (ii) a technical proposal evaluation report; and (iii) an overall evaluation and ranking report. However, borrowers with proven capacity are required to make only two submissions: (i) a draft RFP, including the shortlist; and (ii) an overall evaluation and ranking report. Use of this method is subject to the Guidelines on the Use of Consultants by ADB and its Borrowers (2010, as amended from time to time), and para. 47 of PAI 2.03.

ADB = Asian Development Bank, ICB = international competitive, NCB = national competitive bidding.
Source: ADB.

c. Goods and Works Contracts Estimated to Cost More than \$1 Million

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

Contract No.	Description	Contract Value (\$ million)	Procurement Method	Pre-qualification of Bidders (Y/N)	Advertise-ment Date
Works Wetlands Protection at the Yancheng Rare Birds National Nature Reserve					
ZQCW-01	Wetland biodiversity and environmental science education exhibits and intelligent surveillance system	4.796	NBF	N	Q2 2012
ZQCW-02	Wetland management and protection, monitoring, and research and system management	4.895	NCB	N	Q4 2011 Retroactive financing
ZQCW-03	Wetland restoration and reconstruction, water level control, planting/culturing natural feeds, embankment projects	8.221	NCB	N	Q3 2012
ZQCW-04	Patrol road, boardwalk, bridge, land reshaping for memorial garden, fire fighting engineering, and drainage	9.812	NCB	N	Q2 2012
ZQCM-07	Sanitation (solid waste disposal, wastewater treatment facilities and eco-toilets)	4.550	NCB	N	Q2 2012
Works Coastal Forest Improvement at the Dafeng Forest Farm					
DFCW-01	Growing ecological protection forest for coastal wetland (logging and planting)	1.290	NCB	N	Q3 2012
DFCW-02	Water dredging	1.180	NBF	N	Q3 2012

NBF = nonbank-financed, NCB = national competitive bidding.
Source: Asian Development Bank estimates.

d. Consulting Services Contracts Estimated to Cost More than \$100,000

44. The following table lists the consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

Contract No.	Description	Contract Value (\$ million)	Number of Contract	Procurement/ Recruitment Method	Advertisement Date
ZQZX-01	Project management and capacity development (YRBNNR)	0.550	1	QCBS (80:20)	Q4 2011

QCBS = quality- and cost-based selection, YRBNNR = Yancheng rare birds national nature reserve.
Source: Asian Development Bank estimates.

e. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000

45. The following table lists the goods and works contracts value at less than \$1 million and consulting services amounting to less than \$100,000 or which procurement activity is either ongoing or expected to commence within the next 18 months

Contract No.	Description	Contract Value (\$ million)	Number of Contracts	Procurement/ Recruitment Method	Advertisement Date
Works	Wetlands Protection at the Dafeng Milu National Natural Reserve				
MLCW-01	Earthwork, earth mound heaping, pennisetum elimination, land tilling, land leveling, earth	0.724	1	NBF	Q3 2012
MLCW-02	Vegetation restoration	0.655	1	NCB	Q3 2012
MLCW-03	Civil works for pump stations, power supply, sluice gates, culverts, and roads	0.263	1	NBF	Q3 2012
MLCW-04	Civil works for buildings, patrol stations, roads, and bridges	0.794	1	NBF	Q3 2012
MLCW-05	<i>Haemaphysalis longicornis</i> control and milu deer relocation	0.052	1	NBF	Q3 2012
Works	Coastal Forest Improvement at the Sheyang Forest Farm				
DFCW01	Landform and water system rectification, water system dredging, culvert engineering, and pump station	0.460	1	NBF	Q3 2012

Contract No.	Description	Contract Value (\$ million)	Number of Contracts	Procurement/ Recruitment Method	Advertisement Date
Works	Coastal Forest Improvement at the Dafeng Forest Farm				
DFCW-04	Ecological environmental protection and restoration works on coastal shore wetlands	0.430	1	NCB	Q3 2012
Goods	Wetlands Protection at the Yancheng Rare Birds National Nature Reserve				
ZQGD-01	Geothermal energy airconditioning system (including installation)	0.977	1	NBF	Q2 2012
ZQGD-02	Monitoring, patrol, and wildlife rescue equipment	0.696	1	NCB	Q4 2012
ZQGD-03	Environmental protection and solar energy utilization	0.980	1	NCB	Q3 2012
QZGD-04	Wildlife surveillance system and installation	0.916	1	NCB	Q4 2012
ZQGD-05	Information management system, audio system, public education materials, and office equipment	0.847	1	NCB	Q3 2012
ZQGD-06	Patrol vehicles	0.483	1	NCB	Q4 2011 (retroactive financing)
Goods	Wetlands Protection at the Dafeng Milu National Natural Reserve				
MLGD-03	Fencing of east section and poplar science park	0.681	1	NCB	Q4 2012
MLGD-04	Fencing of west section	0.642	1	NCB	Q4 2012
MLGD-05	Fodder ground maintenance equipment (including installation)	0.034	1	Shopping	Q2 2012
MLGD-06	Vehicles for patrol, and fodder transportation	0.076	1	Shopping	Q4 2012
MLGD-07	Equipment for public education	0.021	1	Shopping	Q3 2012
MLGD-08	Training of trainers and materials for public education	0.344	1	NCB	Q3 2012
Goods	Coastal Forest Improvement at the Sheyang Forest Farm				
DFGD-04	Forest pest alarm system (including installation)	0.020	1	NBF	Q3 2012

Contract No.	Description	Contract Value (\$ million)	Number of Contracts	Procurement/ Recruitment Method	Advertisement Date
Goods	Coastal Forest Improvement at the Dafeng Forest Farm				
DFGD-03	Ecological environmental protection and restoration of coastal shoal wetlands (supply and installation)	0.100	1	Shopping	Q3 2012

NBF = nonbank-financed, NCB = national competitive bidding.
Source: Asian Development Bank estimates.

46. The following table groups smaller-value goods, works, and consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

2. Indicative List of Packages Required by Outputs under the Project

47. The following table provides an indicative list of all procurement (goods, works, and consulting services) to be undertaken over the life of the project. Contracts financed by the borrower are indicated with appropriate notation in the comments section.

Contract No./Description	Total Contract Value (\$ million)	Procurement Method	Pre-qualification of Bidders (y/n)	Advertisement Date (quarter/year)	Comment
1. Works					
a. Wetlands Protection at the Yancheng Rare Birds National Nature Reserve					
ZQCW-01: Wetland biodiversity and environmental science education exhibits and intelligent surveillance system	4.796	NBF	n	Q2 2012	
ZQCW-02: Wetland management and protection, monitoring, and research and system management	4.895	NCB	n	Q4 2011	Retroactive financing
ZQCW-03: Wetland restoration and reconstruction, water level control, planting/culturing natural feeds, embankment projects	8.221	NCB	n	Q3 2012	
ZQCW-04: Patrol road, boardwalk, bridge, land reshaping for memorial garden, fire fighting engineering, and drainage	9.812	NCB	n	Q2 2012	

Contract No./Description	Total Contract Value (\$ million)	Procurement Method	Pre-qualification of Bidders (y/n)	Advertisement Date (quarter/year)	Comment
ZQCW-05: Water works for rehydration and fish-pond-to-wetland conversion	2.557	NCB	n	Q1 2013	
ZQCW-06: <i>Spartina alterniflora</i> control	0.993	NCB	n	Q1 2014	
ZQCW-07: Sanitation (solid waste disposal, wastewater treatment facilities and eco-toilets)	4.550	NCB	n	Q2 2012	
b. Wetlands Protection at the Dafeng Milu National Nature Reserve					
MLCW-01: Earthwork, earth mound heaping, <i>Pennisetum</i> elimination, land tilling, land leveling, earth excavation, and river dredging	0.724	NBF	n	Q3 2012	
MLCW-02: Vegetation restoration	0.655	NCB	n	Q3 2012	
MLCW-03: Civil works for pump stations, power supply, sluice gates, culverts, and roads	0.263	NBF	n	Q3 2012	
MLCW-04: Civil works for buildings, patrol stations, roads, and bridges	0.794	NBF	n	Q3 2012	
MLCW-05: <i>Haemaphysalis longicornis</i> control and milu deer relocation	0.052	NBF	n	Q3 2012	
c. Coastal Forest Improvement at the Sheyang Forest Farm					
DFCW-01: Landform and water system rectification, water system dredging, culvert engineering, and pump station	0.460	NBF	n	Q3 2012	
DFCW-02: Fire roads	2.360	NCB	n	Q3 2012	
DFCW-03: Monitoring and inspection station, iron watchtower, pest forecasting station, and supporting engineering	0.350	NBF	n	Q3 2013	
DFCW-04: Bird habitat reconstruction	1.230	NBF	n	Q3 2013	

Contract No./Description	Total Contract Value (\$ million)	Procurement Method	Pre-qualification of Bidders (y/n)	Advertisement Date (quarter/year)	Comment
DFCW-05: Tree cultivation and growing	4.940	NCB	n	Q3 2013	
d. Coastal Forest Improvement at the Dafeng Forest Farm					
DFCW-01: Growing ecological protection forest for coastal wetland (logging and planting)	1.290	NCB	n	Q3 2012	
DFCW-02: Water dredging	1.180	NBF	n	Q3 2012	
DFCW-03: Fire prevention channel and bridge works	1.890	NCB	n	Q3 2013	
DFCW-04: Ecological environmental protection and restoration works on coastal shoal wetlands	0.430	NCB	n	Q3 2012	

2. Goods

a. Wetlands Protection at the Yancheng Rare Birds National Nature Reserve

ZQGD-01: Geothermal energy airconditioning system (including installation)	0.977	NBF	n	Q2 2012	
ZQGD-02: Monitoring, patrol and wildlife rescue equipment	0.696	NCB	n	Q4 2012	
ZQGD-03: Environment protection and solar energy utilization	0.980	NCB	n	Q3 2012	
ZQGD-04: Wildlife surveillance system and installation	0.916	NCB	n	Q4 2012	
ZQGD-05: Information management information system, audio system, public education materials, and office equipment	0.847	NCB	n	Q3 2012	
ZQGD-06: Patrol vehicles	0.483	NCB	n	Q4 2011	Retroactive financing

b. Wetlands Protection at the Dafeng Milu National Nature Reserve

MLGD-01: Video surveillance system (including installation and training)	0.606	NCB	n	Q1 2013	
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Contract No./Description	Total Contract Value (\$ million)	Procurement Method	Pre-qualification of Bidders (y/n)	Advertisement Date (quarter/year)	Comment
MLGD-02: Biological lab equipment (including installation and training)	0.075	Shopping	n	Q1 2013	
MLGD-03: Fencing of east section and poplar science park	0.681	NCB	n	Q4 2012	
MLGD-04: Fencing of west section	0.642	NCB	n	Q4 2012	
MLGD-05: Fodder ground maintenance equipment (including installation)	0.034	Shopping	n	Q2 2012	
MLGD-06: Vehicles for public education, patrol, and fodder transportation	0.076	Shopping	n	Q4 2012	
MLGD-07: Equipment for public education	0.021	Shopping	n	Q3 2014	
MLGD-08: Training of trainers and materials for public education	0.344	NCB	n	Q3 2012	
c. Coastal Forest Improvement at the Sheyang Forest Farm					
DFGD-01: Fire brigade vehicle	0.050	NBF	n	Q3 2013	
DFGD-02: Emergency response equipment for forest farm	0.004	NBF	n	Q2 2013	
DFGD-03: Forest fire alarm system and installation	0.400	NBF	n	Q2 2015	
DFGD-04: Forest pest alarm system and installation	0.020	NBF	n	Q3 2012	
d. Coastal Forest Improvement at the Dafeng Forest Farm					
DFGD-01: Patrol tools for fire prevention	0.070	NBF	n	Q3 2015	
DFGD-02: Forest fire and pest alarm system	0.320	NCB	n	Q3 2014	
DFGD-03: Ecological environmental protection and restoration of coastal shoal wetlands (supply and installation)	0.100	NBF	n	Q3 2012	

Contract No./Description	Total Contract Value (\$ million)	Procurement Method	Pre-qualification of Bidders (y/n)	Advertisement Date (quarter/year)	Comment
3. Consulting Services					
ZQZX-01: Project management and capacity development (YRBNNR)	0.550	QCBS (80:20)	n	Q4 2011	Retroactive financing

NBF = nonbank-financed, NCB = National Competitive Bidding, QCBS = quality- and cost-based selection, YRBNNR = Yancheng rare birds national nature reserve.

Source: Asian Development Bank estimates.

3. National Competitive Bidding

48. The borrower's Law of Tendering and Bidding of the People's Republic of China promulgated by Order No. 21 of the President of the People's Republic of China on 30 August 1999, are subject to the following clarifications required for compliance with the guidelines:

- (i) All invitations to prequalify or to bid shall be advertised in the national press, or official gazette, or placed in a free and open access website in the borrower's country. Such advertisement shall be made in sufficient time for prospective bidders to obtain prequalification or bidding documents and prepare and submit their responses. In any event, a minimum preparation period of thirty (30) days shall be given. The preparation period shall count (a) from the date of advertisement, or (b) when the documents are available for issue, whichever date is later. The advertisement and the prequalification and bidding documents shall specify the deadline for such submission.
- (ii) Qualification requirements of bidders and the method of evaluating the qualification of each bidder shall be specified in detail in the bidding documents, and in the prequalification documents if the bidding is preceded by a prequalification process.
- (iii) If bidding is preceded by a prequalification process, all bidders that meet the qualification criteria set out in the prequalification document shall be allowed to bid, and there shall be no limit on the number of pre-qualified bidders.
- (iv) All bidders shall be required to provide a performance security in an amount sufficient to protect the borrower and/or project executing agency in case of breach of contract by the contractor, and the bidding documents shall specify the required form and amount of such performance security.
- (v) Bidders shall be allowed to submit bids by mail or by hand.
- (vi) All bids shall be opened in public; all bidders shall be afforded an opportunity to be present (either in person or through their representatives) at the time of bid opening, but bidders shall not be required to be present at the bid opening.
- (vii) All bid evaluation criteria shall be disclosed in the bidding documents and quantified in monetary terms or expressed in the form of pass and/or fail requirements.
- (viii) No bid may be rejected solely on the basis that the bid price falls outside any standard contract estimate, or margin, or bracket of average bids established by the borrower/project executing agency.
- (ix) Each contract shall be awarded to the lowest evaluated responsive bidder, that is, the bidder who meets the appropriate standards of capability and resources and whose bid has been determined (a) to be substantially responsive to the bidding documents and (b) to offer the lowest evaluated cost. The winning bidder

shall not be required, as a condition of award, to undertake responsibilities for work not stipulated in the bidding documents, or otherwise to modify the bid as originally submitted.

- (x) Each contract financed with the proceeds of the loan shall provide that the suppliers and contractors shall permit ADB, at its request, to inspect their accounts and records relating to the performance of the contract, and to have said accounts and records audited by auditors appointed by ADB.
- (xi) Government-owned enterprises in the borrower's country may be permitted to bid if they can establish that they (a) are legally and financially autonomous, (b) operate under commercial law, and (c) are not a dependent agency of the borrower/project executing agency.
- (xii) Re-bidding shall not be allowed solely because the number of bids is less than three.

D. Outline Terms of Reference for Consulting Services

1. Project Background

49. Jiangsu province lies in the east of the PRC facing the Yellow Sea with 1,040 km of coastline. Lying in northern Jiangsu, Yancheng municipality is the province's largest municipality with about 15,000 km² in area; and second largest in population with about 8.2 million officially registered residents by end 2010, of which 51.2% are urban. About 70% of Jiangsu's coastal wetlands are located in Yancheng where 453,000 ha of wetlands, comprising intertidal mudflats, creeks, salt marshes and reed beds that cover about 30% of the municipality's territory, stretch for about 580 km along the coast.

50. From a biodiversity perspective, the two most important areas of the Yancheng coastal wetlands are DMNNR and YRBNNR. YRBNNR is very rich in biodiversity, containing 480 species of plants, 370 of birds, 281 of fish, 48 of mammals and 45 of amphibians. Twelve animal species are included in the country's first-ranked priority protection list, and 29 bird species are listed in IUCN's Red List of Threatened Species. YRBNNR is particularly one of the two wintering grounds in the PRC for the red-crowned crane which is rated as endangered in the IUCN Red List. About 60% of the 2,500 estimated total world population of the red-crowned crane or about 1,500 migrate every winter to YRBNNR. About 25% of the world's population of milu deer, rated as extinct in the wild in the IUCN's Red List of Threatened Species, find their home in DMNNR. The two nature reserves are listed in the Ramsar Convention and UNESCO's World Network of Biosphere Reserves, recognizing the uniqueness of these wetland ecosystems and the species biodiversity that they harbor.

51. There are two important forest farms to the two national nature reserves—DFF situated to the northwest of DMNNR and SFF situated west of YRBNNR. The forest farms provide extra layer of protection for the nature reserves. They are also part of the national coastal ecological protection forest network that enhance national ecological security, and increase the climate resilience for local communities.

52. The wetlands of Yancheng provide important ecosystem services to local communities. Local livelihoods are sustained through the capture and culture of marine and estuarine plants (e.g., reeds) and fish species. Wetland plants slow the flow of rivers; and the mudflats absorb wave energy from the Yellow Sea, thereby controlling coastal erosion and increasing climate resilience. Wetlands also improve water quality by absorbing some of the household and industry wastes that are rapidly increasing in Yancheng municipality.

53. Despite their local, national, and global significance, the wetlands of Yancheng have been under growing threats, including (i) reclamation and conversion; (ii) habitat degradation, especially in the core and buffer zones; (iii) rapid spread of invasive species, particularly *Spartina alterniflora*; (iv) environmental pollution from the upstream catchment; (v) poaching; and (vi) rapid industrial development and urban expansion. The Jiangsu Coastal Development Plan (JC DP), which was approved by the State Council on 10 June 2010; and consists of a combination of industrial, urban, agricultural, port, and wind energy developments along the coastal areas, will place further pressures on the Yancheng coastal wetlands. It is a great challenge to conserve and protect the ecosystems and biodiversity in this fast developing region.

54. The expected impact of the project will be improved ecosystem health and services in the coastal wetlands in Yancheng. The expected outcome will be increased capacity to manage and protect the wetland ecosystems in Yancheng. The impact and outcome will be achieved by the implementation of four investment outputs and one capacity development output. The major interventions include wetland restoration, rehydration, conversion of fishponds to wetlands, *Spartina alterniflora* control, wildlife rescue, milu deer's nutrition and disease control, forest improvement, agroforestry, forest fire and pest prevention and control, forest infrastructure improvements, wetland research and monitoring, public education, and community co-management.

55. The total cost of the project is estimated at \$76.39 million. The government has requested ADB to provide a loan of \$36.9 million to finance 48.3% of the project cost. The consulting services to be provided under the capacity development output of the project will be financed by the ADB loan.

56. JPG will be the executing agency of the project. JPG has established JPMO at JEPD to carry out the day-to-day activities of the project and provide coordination support for preparation and implementation of the project and its outputs.

57. JEPD will be the implementing agency for the wetlands protection at YRBNNR investment output, and the Jiangsu forestry bureau will be the implementing agency for the wetlands protection at DMNNR investment output. The Tinghu District government (TDG) will be the implementing agency of the coastal forest improvement at SFF investment output. DCG will be the implementing agency for the coastal forest improvement at DFF investment output.

58. Furthermore, PIUs have been established in DFF, DMNNR, SFF, and YRBNNR. The four PIUs will be responsible for implementing the respective investment outputs. JPMO will be responsible for implementation of the capacity development output.

2. General Requirements of Consulting Services

59. The project will provide consulting services under the capacity development output. The consulting services will be engaged through a consulting firm (the consultant) in accordance with ADB's Guidelines on the Use of Consultants of the Asian Development Bank and its Borrowers (2010, as amended from time to time). The consulting firm will be selected through quality- and-cost-based selection (QCBS) method, with a quality–cost weighing ratio of 80:20 using simplified technical proposal procedures. The consulting services will be grouped into two subcomponents for (i) project management, and (ii) capacity development.

60. The consultants will support JPMO and other local project partners to ensure that implementation of the project will meet all the policy and procedural requirements of ADB and

the government. The consulting services will include, but not necessarily be limited to, the following:

- (i) Help JPMO, YPMO, district and/or city PMOs, and PIUs to review the technical contents of bidding documents that are prepared by the tendering agency; recommend necessary changes for compliance with ADB's Procurement Guidelines (2010 and amended from time to time); and provide training and advice to JPMO, YPMO, district and/or city PMOs, and PIUs on procurement procedures;
- (ii) Advise JPMO, TDG, DCG, and PIUs on financial management and preparation of fund withdrawal applications;
- (iii) Develop the project performance management system (PPMS) in accordance with ADB policy requirements, including establishing baseline and operation mechanism for data collection, analysis, and reporting;
- (iv) Prepare "handbook on environmental management of construction" and provide related training;
- (v) Prepare quarterly, semiannual, and annual progress reports, midterm report, and project completion report for submission by JPMO to ADB and JPG;
- (vi) Advise on quarterly internal environmental monitoring and environmental impact mitigation; and based on internal monitoring reports, prepare semiannual environmental monitoring reports for submission to ADB and JPG in accordance with ADB's Safeguard Policy Statement (2009);
- (vii) Advise on quarterly internal resettlement, social, and poverty monitoring and impact mitigation; based on internal monitoring reports, prepare the semiannual resettlement monitoring report and the poverty and/or social monitoring report for submission to ADB and JPG; and help JPMO to prepare semiannual and annual financial reports and fund withdrawal applications and reports;
- (viii) Provide technical support to JPG on exploratory studies on ecological compensation;
- (ix) Assist JPMO to plan and organize training programs;
- (x) Guide DMNRR and YRBNNR on project implementation; and
- (xi) Perform tasks, within the scope of the consulting services, assigned by JPMO from time to time.

3. Composition of the Expertise and Estimated Inputs

61. It is estimated that the project management and capacity development output will include 2 international positions with 8 person-month inputs and 6 national positions with 34 person-month inputs. Indicative inputs for consulting services are summarized in Table 6. Indicative cost estimates for consulting services are provided in Table 7.

4. Terms of Reference for Individual Experts

62. **Team Leader—Ecosystem Protection Specialist and PPMS Specialist** (international, 5 person-months). The expert should have at least a master's degree in ecology, environment and natural resources management, or a related field; and 20 years of professional experience in team leadership, ecosystem protection, and PPMS related to internationally financed projects. The major tasks are as follows: (i) have overall responsibility for delivery of the consulting services; (ii) provide leadership, guidance, and supervision to the consultant team; (iii) prepare PPMS; and (iv) organize the preparation and finalization of required submissions.

Table 6: Indicative Inputs for Consulting Services

Position	Input (person-months)
International Consulting Services	
Team Leader—Ecosystem Protection and PPMS Specialist	5
Environment Safeguard Specialist	3
Subtotal	8
National Consulting Services	
Deputy Team Leader—Wetland Ecologist	10
Financial Management Specialist	8
Procurement Specialist	6
Environment Safeguard Specialist	5
Social Development Specialist	2
Eco-Compensation Specialist	3
Subtotal	34
Total	42

Table 7: Indicative Cost Estimates for Consulting Services

Category	Amount (\$)
International	
Professional fees, travel and accommodation	130,000
National	
Professional fees, travel and accommodation	210,000
Office Expenditures for Consulting Services	
Communication and reporting	20,000
Provisional Sum	
Office rental, local transportation, office equipment and consumables, training and study tour	190,000
Total	550,000

63. **Environment Safeguards Specialist** (international, 3 person-months). The expert should have at least a master's degree in ecology, biology, environmental and natural resources management, or a related field; and 15 years of professional experience in conducting environmental impact assessment (EIA) and environmental safeguards monitoring for internationally financed projects, especially by ADB and the World Bank. The major tasks are as follows: (i) provide advice and training to JPMO, YPMO, PIUs, and internal environmental agencies on ADB environmental safeguards requirements; (ii) provide inputs to quarterly, semiannual, and annual progress reports on the basis of internal environmental monitoring reports; and (iii) prepare semiannual environmental monitoring reports for submission to ADB and JPG in accordance with ADB Safeguard Policy Statement (2009).

64. **Deputy Team Leader—Wetland Ecologist** (national, 10 person-months). The expert should have at least a master's degree in wetland ecology or a related field, and 20 years of professional experience in wetland ecology. The major tasks are as follows: (i) help JPMO, YPMO, and PIUs to supervise the wetland restoration activities, such that they will be carried out in accordance with the approved designs and international and national best practices; (ii) coordinate and organize the consultant team for successful delivery of the consulting services; (iii) undertake coordination with JPMO; (iv) during the absence of the team leader, provide

leadership, guidance, and supervision to the consultant team; and (v) organize the preparation of required submissions.

65. **Financial Management Specialist** (national, 8 person-months). The expert should have at least a master's degree in finance, economics, or a related field; and 15 years of professional experience in financial management for internationally financed projects, especially by ADB and the World Bank. The major tasks are as follows: (i) provide advice and training to JPMO, YPMO, district and/or city PMOs, and PIUs on ADB's financial management and fund application and withdrawal procedures and requirements; (ii) assist JPMO in preparing semiannual and annual financial reports and fund withdrawal applications and reports; and (iii) provide inputs to quarterly, semiannual, and annual progress reports.

66. **Procurement Specialist** (national, 6 person-months). The expert should have at least a master's degree in finance, commerce, economics, or a related field; and 15 years of professional experience in procurement for internationally financed projects, especially by ADB and the World Bank. The major tasks are as follows: (i) provide advice and training to JPMO, YPMO, district and/or city PMOs, and PIUs on ADB procurement procedures and requirements; (ii) help JPMO to review the technical contents of bidding documents that are prepared by the tendering agency, and recommend necessary changes for compliance with ADB's Procurement Guidelines (2010, and amended from time to time); and (iii) provide inputs to quarterly, semiannual, and annual progress reports.

67. **Environment Safeguard Specialist** (national, 5 person-months). The expert will have at least a master's degree in environmental science or a related field; and 15 years of professional experience in environmental safeguard monitoring for internationally funded projects, preferably for ADB or World Bank projects. The major tasks include supporting the executing and implementing agencies to (i) ensure that all the monitoring plan of the environmental management plan (EMP) is implemented; (ii) provide inputs in preparing the environmental monitoring reports; (iii) conduct the monitoring of EIA key indicators from the coastal development plans; and (iv) perform other tasks that may reasonably be requested by the executing agency.

68. **Social Development Specialist** (national, 2 person-months). The expert should have at least a master's degree in sociology or a related field, and 10 years of professional experience in social safeguards monitoring for internationally financed projects, especially by ADB and the World Bank. The major tasks are as follows: (i) provide advice and training to JPMO, YPMO, district and/or city PMOs, and PIUs on ADB social safeguards requirements, gender action plan, consultation and other social dimensions; and (ii) provide inputs on social aspects to quarterly, semiannual, and annual progress reports.

69. **Eco-Compensation Specialist** (national, 3 person-months). The expert should have at least a master's degree in environmental economics or a related field, and 10 years of professional experience in the formulation of eco-compensation policies. The major tasks are as follows: (i) provide advice on international and national policies and best practices on eco-compensation; and (ii) assist JPMO in formulating eco-compensation policies and guidelines.

VII. SAFEGUARDS

A. Environmental Safeguard

70. The project is classified as category A following ADB's Safeguard Policy Statement (2009). Appropriate environmental mitigation and monitoring measures were defined for all identified impacts, and are included in EMPs of the national EIAs. The national EIAs conclude that all identified impacts can be mitigated to acceptable levels if the measures defined in EMPs are carefully implemented and monitored. The project EMP sets out the procedures and plans to carry out mitigation measures and monitoring requirements during sequential stages of the project (pre-construction, construction, and operational phases). It consists of two plans, one for implementing mitigation measures and the other for carrying out environmental monitoring. For each impact, appropriate mitigation measures are described. Internal and external monitoring and supervision requirements have been proposed to ensure that environmental impacts will be minimized to acceptable levels. The environmental mitigation measures will be incorporated in the bidding documents and the bill of quantities of the civil works contracts. International and national environmental consultants will be recruited under the project management consulting services to prepare and supervise the implementation of the EMP, monitor the environmental and social impacts, and prepare related reports.

71. JPG and YMG will be jointly accountable for the overall implementation and compliance with EMP and monitoring plan, including inspection, monitoring, reporting, and initiating corrective actions or measures. DCG, JPG, TDG, and YMG will be responsible for implementation of the grievance redress mechanism. JPMO and the Yancheng PMO (YPMO) will assume day-to-day responsibility for supervising implementation of environmental mitigation measures and reporting to ADB, ensuring that mitigation measures are implemented as described in EMP. In the detailed design stage, JPMO, YPMO, and PIUs will pass EMP to the design institutes for incorporating mitigation measures in the detailed designs. EMP will be updated at the end of the detailed design stage, and finally be passed to the construction contractors. To ensure that contractors comply with EMP's provisions, PIUs, supervised by JPMO and YPMO, will prepare and provide the following specification clauses for incorporation into the bidding procedures: (i) a list of environmental management requirements to be budgeted by the bidders in their proposals, (ii) environmental clauses for contractual terms and conditions, and (iii) full EIAs for compliance. PIUs will also initially handle any noncompliance with EMP.

72. JPMO and the Yancheng environmental protection bureau (YEPB) will each establish an environmental management unit (EMU) staffed with trained and qualified environmental specialists to undertake environmental management activities, including (i) ensuring effective EMP implementation; (ii) supervising the environmental activities carried out by PIUs; (iii) recruiting and supervising the environmental management companies and/or consultants responsible for inspecting, monitoring, and evaluating implementation of mitigation measures; and (iv) coordinating with other municipal agencies and ADB on all relevant environmental matters. PIUs will undertake regular inspections of the compliance of the contractors with the environmental management provisions in the contracts. JPMO will appoint one environment officer to supervise the work of the environmental management company and/or consultants, and to coordinate the EMP implementation with PIUs. Adequate assurances on environmental safeguards have been established in the loan and project agreements.

73. **Internal monitoring report.** During construction, results from the internal monitoring by the licensed environmental institute contracted by PIU and inspections by the environment, health, and safety officer and EMU will be reflected in the monthly construction reports. The reports will summarize (i) environmental issues during construction, including public grievances and responses; (ii) mitigation measures taken, if any; and (iii) consequences of the impacts on the environment and/or surrounding communities, including public grievances and responses. Results from the detailed internal environmental monitoring program and mitigation actions for construction will be submitted monthly to PIU, quarterly to JPMO and YPMO. JEPD and YEPB may request that further environmental mitigation actions be taken, as they deem necessary; and may determine further mitigation measures for different stages, if necessary.

74. **Compliance monitoring report.** An agency authorized by JEPD and YEPB will be responsible for environmental compliance monitoring and inspection according to the PRC environmental regulations during construction and operation. The compliance monitoring reports will include (i) project background, (ii) construction and operation activities, (iii) environmental conditions, (iv) measurement or sampling taken during auditing and their locations, (v) analytical results, (vi) interpretation and implication of the monitoring results, (vii) determination of the compliance status with regard to applicable regulations and standards, and (viii) recommendations for improvement. These reports will be submitted to JEPD, JPMO, and YEPB and/or YPMO by the environmental monitoring station.

75. **External environmental monitoring report.** The executing agency and/or JPMO has the responsibility to monitor and assess overall project activities under the project design and monitoring framework, and will be accountable to ADB for ensuring the effective implementation of the project EMP. JPMO will be assisted by the external environmental monitor, as part of the loan implementation consulting services recruited through international competitive bidding, to fulfill its independent environmental supervision, monitoring, and reporting to ADB and JPG. The reports on monitoring the implementation of the project EMP will be submitted to ADB and JPG on a semiannual basis. The reports will include (i) monitoring activities, (ii) implementation of mitigation measures, (iii) required environmental compliance, (iv) institutional strengthening and training, (v) public consultations and results, (vi) project-affected persons' grievances and responses, and (vii) problems occurred and corrective actions taken. ADB may request that further environmental mitigation actions and measures be taken, as deemed necessary; and may determine their composition and/or extent, if necessary.

76. Environmental training will be essential for PIUs and contractors to implement EMP. JPMO and YPMO will be responsible for organizing training programs, which will cover (i) environmental laws, regulation, and policies; (ii) implementing mitigation measures; (iii) environmental technologies and procurement; (iv) operating and maintaining project facilities; (v) environmental monitoring and supervision; and (vi) documentation and reporting.

B. Social Safeguards

77. Following ADB's Safeguard Policy Statement (2009), the project has been classified as category C for indigenous peoples and as category A for involuntary resettlement. The population in the project area is ethnically homogenous, of mainstream Han ethnicity; therefore, the project has no impact on ethnic minority communities. No further actions are required for the indigenous peoples safeguard.

78. There will be economic displacement of 493 persons in 156 households due to the nonrenewal of land use leases, which will expire before the commencement of project activities on the respective land. A resettlement plan has been prepared by JPG which covers the impacts of all four project outputs, although resettlement impacts were only identified for the SFF and YRBNNR outputs. The livelihood of the economically displaced or affected persons will be safeguarded by providing new leases for replacement land and an alternative fish pond. More specifically, under the wetlands protection at YRBNNR investment output, the conversion of fishponds to wetlands will affect one family and 15 hired laborers due to nonrenewal of the lease agreement upon expiry. YRBNNR management has consulted with the water resource bureau that is developing the fishponds. The water resource bureau is looking for aquacultural contractors, and will give priority consideration to the aquacultural family who will continue to employ the existing laborers. The affected family and laborers have been consulted and are satisfied with the proposed arrangements. For SFF during construction, about 100 tree planters, 30 rangers, and 50 construction workers will be needed. Priority for the recruitment of these positions will be given to the 112 affected employees and 28 lessees. Upon completion, the affected employees will be converted to rangers, forest tenders, and gardeners. The non-employees will be referred to the Tinghu district employment assistance center of Yancheng municipality to find suitable employment opportunities. The Tinghu district employment assistance center of the Yancheng municipality has been consulted; and it has promised to offer special assistance to the non-employee affected persons. Training will be provided on alternative employment. The above measures are included in the income and livelihood rehabilitation measures of the resettlement plan; and additional mitigation measures will be undertaken, if necessary.

79. Both internal and external monitoring of the resettlement plan implementation will be conducted. YPMO will engage an external monitor prior to commencement of project activities. A grievance redress mechanism has been established to provide affected persons to respond to grievances that may arise during preparation and implementation of the resettlement plan. If the affected persons feel dissatisfied with the livelihood rehabilitation measures, they should (i) appeal to the PIUs in verbal or written form; (ii) if unsatisfied with the decision, appeal to the component office/management office; (iii) if still dissatisfied, appeal to the administrative authorities; and (iv) if dissatisfied with the arbitration decision, prosecute to the civil court. Affected persons have been informed of these steps through public meetings and other forms to ensure they are aware of their legal rights. If two or more households thereafter think they have suffered direct, material and adverse harm, and believe it stemmed from ADB's lack of compliance with its policy and/or the RP, they may submit a request to ADB at any time, following the procedures set out in ADB's Accountability Mechanism (section XI). All grievances, actions and results will be logged, by use of the grievance action form. They will be reported in the project progress report and semiannual resettlement monitoring report of the corresponding period. The grievance action forms will also be made available to the complainants, key stakeholders and responsible agencies.

VIII. GENDER AND SOCIAL DIMENSIONS

80. The project will improve coastal wetland ecosystem health and services that will promote biodiversity conservation, agroforestry development, eco-tourism development, and climate resilience of local communities. About 1.1 million people who live within the direct project areas and vicinities will directly benefit from the project. Because the two nature reserves are of national and international importance, the project will generate national and global benefits.

81. The project will create 500 person-years of direct and 1,500 person-years of indirect employment opportunities during project construction, with estimated earnings amounting to CNY30 million or \$4.6 million from direct employment and CNY75 million or \$11.5 million from indirect employment. It will generate 150 direct jobs and 400 indirect jobs during project operation, with estimated annual earnings of CNY7.5 million or \$1.2 million from direct employment and CNY20.0 million or \$3.1 million from indirect employment. It will also trigger the creation of a large number of off-farm labor opportunities for surrounding communities in eco-tourism, and training for off-farm employment will be provided to beneficiaries of the project, including women and other vulnerable groups. Of the 500 person-years of employment opportunities during construction, an estimated 31.0% will go to women. Of the 150 employment opportunities created during operation, an estimated 50% will be availed by women. Project implementation will respect core labor standards, and it will be ensured that implementing agencies and contractors respect national regulations. Job opportunities will be available for women during project implementation and operations. The influx of construction workers to the port area and neighboring communities demands awareness raising for both workers and the public on HIV/AIDS and sexually-transmitted disease risks. Provisions on public and worker safety and health are included in the EMP, as well as schedules for consultation and participation procedures. A gender action plan (GAP) containing measures for maximizing gender benefits has been prepared and is included in this document for implementation. The summary poverty reduction and social strategy (SPRSS) containing poverty and social impacts and mitigation measures has been developed. Social and gender actions will be supervised and monitored by a social safeguard specialist as part of the consulting services, and will be reported in the PPMS.

82. Beyond the gender-target, pro-poor employment policies state that 70% of unskilled positions should be provided to local poor and rural migrant workers. JPMO, YPMO, and PIUs will also ensure that (i) contractors provide job opportunities respecting core labor standards; (ii) labor conditions, particularly regarding safety of workers and the public, are in line with national regulations, and are provided in a gender-balanced manner; and (iii) awareness raising for both workers and the public on HIV/AIDS and sexually transmitted disease risks is implemented, as influx of construction workers to the port area and neighboring communities may increase public health hazards.

GENDER ACTION PLAN

Gender Equality Component	Outputs/ Activities	Targets	Budget	Responsibilities	Timeframe
Output 1: Wetlands Protection at the Yancheng Rare Birds National Nature Reserve					
Employment	Employment equally accessible to women and men	30% or more of employment opportunities in project implementation for women 50% or more of employment opportunities in project operations for women	Included in project and operating budgets	The PMOs will monitor, and contractors will be made to ensure.	All implementation and operation
Capacity and skills development	Women will have equal access to training. Participation of women in curricula design	30% or more of management training opportunities will be provided to women. 50% or more of skills training opportunities will be provided to women. At least 2/3 of the training sites will be selected on sites and times suitable for women, and the women will be involved in content design.	CNY50,000 GEF, counterpart funds, labor and social security training funds	The PMOs and local department of labor and social security will monitor curricula and women's participation.	All implementation of capacity development planning and activities
Ecological compensation	Women access financial compensation and training programs.	50% or more of eco-agriculture skills training opportunities will be provided to women. 40% or more of employment transferring skills training opportunities will be provided to women.	Included in project budget	The provincial PMO will monitor curricula and women's participation.	Project implementation and operation
Output 2: Wetlands Protection at the Dafeng Milu National Nature Reserve					
Employment	Employment opportunities equally accessible to women and men	30% or more of employment opportunities in project implementation for women 50% or more of employment opportunities in project operations for women	Included in project and operating budgets	The PMOs will monitor, and contractors will be made to ensure.	All implementation and operation
Capacity and skills development	Women will have equal access to training. Participation of women in curricula design	30% or more of management training opportunities will be provided to women. 50% or more of skills training opportunities will be provided to women. At least 2/3 of the training sites will be selected on sites and time suitable for women, and the women will be involved in content design.	CNY50,000 GEF, project counterpart funds, labor and social security training funds	The PMOs and local department of labor and social security will monitor curricula and women's participation.	All implementation of capacity development planning and activities
Output 3: Coastal Forest Improvement at the Dafeng Forest Farm					
Employment	Employment opportunities equally accessible to women and men	60% or more of employment opportunities in project implementation for women 50% or more of employment opportunities in project operations for women	Included in project and operating budgets	The PMOs will monitor, and contractors will be made to ensure.	All implementation and operation

Gender Equality Component	Outputs/ Activities	Targets	Budget	Responsibilities	Timeframe
Capacity and skills development	Women will have equal access to training. Participation of women in curricula design	30% or more of management training opportunities will be provided to women. 50% or more of eco-fish farming skills training opportunities will be provided to women. At least 2/3 of the training sites will be selected on sites and time suitable for women, and the women will be involved in content design.	CNY100,000 Counterpart funds, labor and social security training funds	The PMOs and local department of labor and social security will monitor curricula and participation.	All implementation of capacity development planning and activities
Output 4: Coastal Forest Improvement at the Sheyang Forest Farm					
Employment	Employment opportunities equally accessible to women and men	60% or more of employment opportunities in project implementation for women 50% or more of employment opportunities in project operations for women	Included in project and operating budgets	The PMOs will monitor, and contractors will be made to ensure.	All implementation and operation
Capacity and skills development	Women will have equal access to training. Participation of women in curricula design	30% or more of management training opportunities will be provided to women. 50% or more of eco-fish farming skills training opportunities will be provided to women. At least 2/3 of the training sites will be selected on sites and time suitable for women, and the women will be involved in content design.	CNY100,000 Counterpart funds, labor and social security funds	The PMOs and local department of labor and social security will monitor curricula and participation.	All implementation of capacity development planning and activities
Output 5: Project Management and Capacity Development					
Gender awareness for project staff	Staff training includes gender awareness.	Staff training curricula for all PMOs, PIOs, and other offices include capacity development for gender awareness and GAP implementation.	Included in project budget	Provincial PMO and NGO monitoring	Early during implementation
Ensure women's participation in project decision making	Women's economic/ and political empowerment	At least 40% female officials in provincial and county PMOs At least 30% female officials in county and/or district PMOs At least 1 female official in other project offices	Included in local agency budgets	Provincial PMO and NGO monitoring Women participate in M&E.	All implementation
Gender-balanced information disclosure and participation	Women will be informed and consulted about the project.	Female beneficiaries will be informed about opportunities to access project funds, technical advice, training, and employment opportunities. Women will be consulted to improve subproject.	Included in project management budget	Information will be provided by the PMOs.	Early during implementation

GAP = gender action plan, GEF = Global Environment Facility, M&E = monitoring and evaluation, NGO = nongovernment organization, PIO = project implementation office, PMO = project management office,
Source: Asian Development Bank.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

A. Project Design and Monitoring Framework

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
<p>Impact Improved ecosystem health and services in the coastal wetlands in Yancheng</p>	<p>2012 as baseline:</p> <ul style="list-style-type: none"> - Wintering red-crowned crane population in YRBNNR maintained above the critical level of 600 by 2020 - Annual mortality rate of milu deer reduced from 4% to 2% by 2020 	<ul style="list-style-type: none"> - Yancheng annual SOE reports - Yancheng and project district and/or city statistical yearbooks 	<p>Assumptions</p> <ul style="list-style-type: none"> - The government remains committed to wetland biodiversity conservation. - The government adopts suitable policies to limit land-use changes. - Point-source and nonpoint-source pollution are effectively controlled. <p>Risk Economic slowdown may result in greater development pressure on wetlands.</p>
<p>Outcome Increased capacity to manage and protect the wetland ecosystems in Yancheng</p>	<ul style="list-style-type: none"> - Annual degradation of YRBNNR at current rate of 2.48% in project intervention area halted by 2017 - Annual degradation of DMNNR at current rate of 5% in project intervention area halted by 2017 - 30% of construction labor, 50% of operational jobs, and 50% of off-farm employment opportunities provided to women and other vulnerable groups 	<ul style="list-style-type: none"> - Data from Yancheng environmental protection and forestry bureaus - Yancheng and project district and/or city statistical yearbooks 	<p>Assumption</p> <ul style="list-style-type: none"> - Project governments provide sufficient funds for proper O&M of project facilities. <p>Risk</p> <ul style="list-style-type: none"> - NR master plans and the forest farm five-year plans are not effectively implemented.
<p>Outputs 1. Wetlands protection at YRBNNR</p>	<p>By 2017:</p> <ul style="list-style-type: none"> - 540 ha of wetland in experimental zone restored - 1,630 ha of dehydrated wetland in core zone rehydrated - 1,435 ha of fishpond converted to wetland - Spread control of 400 ha of <i>Spartina alterniflora</i> piloted - 38.1 km of patrol roads and stations improved - Waste management facilities constructed - Wildlife rescue, breeding, and disease control center established 	<ul style="list-style-type: none"> - Monitoring reports of Yancheng environmental protection, forestry, and tourism bureaus - Yancheng annual SOE reports - Annual surveys for PPMS 	<p>Assumptions</p> <ul style="list-style-type: none"> - Project design is technically sound. - The executing and implementing agencies have capability and required counterpart funds. <p>Risks</p> <ul style="list-style-type: none"> - Some stakeholders may have resistance to participation in conservation and protection activities.

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
	<ul style="list-style-type: none"> - Wetland and biodiversity research and monitoring capacity strengthened - Public education and community co-development capacity strengthened - 30% or more of employment opportunities during project implementation provided to women 		<ul style="list-style-type: none"> - Excessive noise from construction may affect the rare birds. - Water for wetland rehydration may be polluted in excess of applicable standards.
2. Wetlands protection at DMNRR	<p>By 2016:</p> <ul style="list-style-type: none"> - 24.7 ha of drinking water surface created - 45 ha of grazing and resting ground established - 50 ha of rotational closure of grazing ground implemented - 220 ha of fodder ground established - 426.4 ha of tick control implemented - 24 km of steel biological fences erected or rehabilitated - 18.5 km of patrol roads improved - 1 patrol station established - Milu deer's research laboratory established - Milu deer's habitat surveillance system established - Science education center expanded - 30% or more of employment opportunities during project implementation provided to women 	<ul style="list-style-type: none"> - Monitoring reports of the Yancheng environmental protection, forestry, and tourism bureaus - Yancheng annual SOE report - Annual surveys for PPMS 	<p>Assumption</p> <ul style="list-style-type: none"> - DMNRR is able to effectively implement milu deer relocation measures and maintain milu deer population within NR's carrying capacity. <p>Risks</p> <ul style="list-style-type: none"> - Coastal wetland in the third core zone may not have adequate carrying capacity to support relocated milu deer. - Water may be polluted making it unsuitable as drinking water for milu deer.
3. Coastal forest improvement at SFF	<p>By 2017:</p> <ul style="list-style-type: none"> - 185 ha of forest bird habitat rehabilitated - 285.2 ha of plant nurseries established - 83.5 ha of agroforestry demonstration area established - 51.4 km of drainage canals rehabilitated - 49.0 km of fire roads rehabilitated - Forest fire early warning and response system established - An integrated pest management system established 	<ul style="list-style-type: none"> - Monitoring reports of the Yancheng environmental protection, forestry, and tourism bureaus - Yancheng annual SOE reports - Annual surveys for PPMS 	<p>Assumption</p> <ul style="list-style-type: none"> - Sheyang forest farm sustains its commitment to restore and improve the conditions in the farm.

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
	<ul style="list-style-type: none"> - 60% or more of employment opportunities during project implementation provided to women - 50% or more of eco-agriculture farming skills training provided to women 		
4. Coastal forest improvement at DFF	<p>By 2017:</p> <ul style="list-style-type: none"> - 860 ha of coastal wetland protection forest improved and tended - 122.7 ha of coastal wetland rehabilitated - 174 km of drainage canals improved - 20.9 km of fire roads rehabilitated - Fire prevention and response system established - An integrated pest management system established - 60% or more of employment opportunities during project implementation provided to women - 50% or more of eco-fish farming skills training provided to women 	<ul style="list-style-type: none"> - Monitoring reports of the Yancheng environmental protection, forestry, and tourism bureaus - Yancheng annual SOE reports - Annual surveys for PPMS 	<p>Assumption</p> <ul style="list-style-type: none"> - Dafeng forest farm sustains its commitment to restore and improve the conditions in the farm.
5. Project management and capacity development	<ul style="list-style-type: none"> - PMOs established and operational by 2011, including at least 30% representation by women - PMOs and PIUs strengthened by 2017 - Eco-compensation study completed and approved by 2017 - 100 persons trained by 2013, at least 30% are women - 500 person-years of direct construction jobs created, with 30% being provided to women and other vulnerable groups; - 150 direct operational jobs created with 50% being provided to women and other vulnerable groups - 50% of the off-farm opportunities created by the project in surrounding communities taken up by women and other vulnerable groups 	<ul style="list-style-type: none"> - PMO progress reports - Project completion report - ADB review missions and evaluation reports 	<p>Assumptions</p> <ul style="list-style-type: none"> - PMOs and PIUs have competent consultants and facilities, and the executing and implementing agencies provide competent staff. - There are adequate female candidates to be trained and take up construction, operation, and off-farm employment opportunities. <p>Risks</p> <ul style="list-style-type: none"> - Local PMOs lack capacity in coordination and management. - PIUs lack capacity in procurement and financial management.

Design Summary	Performance Targets and/or Indicators	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
Activities and Milestones 1. Wetlands Protection at YRBNNR 1.1 Wetland restoration by Q4 2013 1.2 Public education and community co-development capacity by Q4 2013 1.3 Wetland rehydration by Q4 2015 1.4 Fishponds-to-wetlands conversion by Q4 2015 1.5 Invasive alien species control pilot by Q4 2016 1.6 Wetland protection infrastructures by Q4 2016 1.7 Wildlife protection by Q4 2016 1.8 Wetland and biodiversity research and monitoring capacity by Q4 2016 2. Wetlands Protection at DMNRR 2.1 Milu deer's research, monitoring, and rescue capacity by Q4 2013 2.2 Milu deer's drinking water supply improvement by Q4 2014 2.3 Milu deer's food supply and resting ground improvement by Q4 2016 2.4 Milu deer's habitat protection by Q4 2016 2.5 Public education capacity by Q4 2016 3. Coastal Forest Improvement at SFF 3.1 Forest bird habitat restoration by Q2 2015 3.2 Agroforestry development by Q2 2015 3.3 Establishment of seedling nurseries by Q4 2016 3.4 Drainage improvement by Q4 2016 3.5 Forest fire prevention and response capacity improvement by Q4 2016 3.6 Integrated pest management by Q2 2017 4. Coastal Forest Improvement at DFF 4.1 Coastal wetlands restoration by Q4 2015 4.2 Forest fire prevention and response capacity improvement by Q2 2016 4.3 Drainage improvement by Q4 2016 4.4 Integrated pest management by Q2 2017 4.5 Coastal wetland protection forest improvement by Q2 2017 5. Project Management and Capacity Development 5.1 Project management by Q2 2017 5.2 Capacity development by Q2 2017 5.3 Implementation of the environmental management, gender action, and resettlement plan; and the SPRSS measures during 2012–2017			Inputs (\$ million) ADB: 36.90 Government: 39.49 Total 76.39

ADB = Asian Development Bank, DMNRR = Dafeng milu national nature reserve, DFF = Dafeng forest farm, O&M = operation and maintenance, PIU = project implementation unit, PMO = project management office, PPMS = project performance management system, SFF = Sheyang forest farm, SOE = state of the environment, SPRSS = summary poverty reduction and social strategy, YRBNNR = Yancheng rare birds national nature reserve.
Source: ADB.

B. Monitoring

83. **Project performance monitoring.** To monitor project progress in achieving the planned outcome and outputs, JPMO will establish and maintain a PPMS,¹⁰ which will be designed to permit adequate flexibility to adopt remedial action regarding project design, schedules, activities, and development impacts. The impact indicators, as specified in the design and monitoring framework (DMF), will include (i) red-crowned crane population (below 600 in 2010);

¹⁰ ADB's PPMS is available at: <http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

(ii) milu deer morbidity (3%) and mortality rates (4%); (iii) number of eco-tourists (YRBNNR from 70,000 in 2010 to 500,000 by 2020, DMNNR from 300,000 in 2010 to 400,000 by 2020, SFF from 80,000 in 2010 to 150,000 by 2020, and DFF from 100,000 in 2001 to 250,000 by 2020); and (iv) number of community participation activities in nature reserve management. At the start of project implementation, JPMO, with support from the project implementation consultants, will develop comprehensive PPMS procedures to generate data systematically on project outcome, inputs, and outputs of each investment output, as well as the agreed-upon project performance indicators, environmental and social monitoring indicators, and resettlement plan implementation indicators. These will be used to measure the project impact, outcome, outputs, and compliance with ADB safeguard requirements. No later than 6 months after loan effectiveness, JPMO will (i) refine the PPMS framework, (ii) establish the baseline, (iii) confirm achievable targets, (iv) finalize the monitoring and recording arrangements, and (v) establish data collection systems and reporting procedures.

84. **Compliance monitoring.** During project implementation, ADB and JPMO will closely monitor the compliance of all the covenants under the project and will take necessary remedy actions for any noncompliance. The compliance status will be reported in the quarterly progress report by PMO and will be reviewed during project review missions.

85. **Safeguards monitoring.** Environmental safeguard monitoring will be undertaken by the JPMO and YPMO through EMU that they will establish and staff. Further, JPMO and YPMO will engage an environmental management company and/or consultant to assist PIUs in carrying out environmental management and monitoring activities. PIUs will appoint one environment officer to supervise the work of the environmental management company and/or consultant, and report to the environment coordinator in JPMO and YPMO. JPMO and YPMO will monitor and assess overall project activities under the project DMF, including environmental targets. JPMO will report to ADB the progress of the EMP, information on project implementation, environmental performance of the contactors, and environmental compliance through quarterly project progress reports and semiannual environmental monitoring reports. The progress reports on the EMP will pay particular attention to consultation and participation, and to public and worker safety and health.

86. During construction, PIUs will support JPMO and YPMO to conduct internal environmental monitoring and inspections to ensure that environmental mitigation measures are properly implemented. Inspections or audits will mainly cover construction activities, but these will also review the affected environment and communities. External environmental monitoring and inspection will be conducted by local environmental monitoring centers under the local environment protection bureaus. They will be responsible to undertake regular and random environmental monitoring and inspection activities before, during, and after construction as well as in the event of emergencies.

87. Social safeguard monitoring will focus on the implementation of the resettlement plan, which includes a reemployment plan for the economically displaced or affected persons. Internal monitoring will be undertaken by JPMO and YPMO with support from the social safeguard specialist as part of the consulting services. JPMO will report to the ADB on the progress of the reemployment plan through the quarterly project progress reports (and the semiannual environmental monitoring reports). External monitoring of the resettlement plan implementation will be conducted by independent experts engaged by YPMO. The external monitor will investigate progress and submit reports to ADB and JPMO semiannually.

88. **Gender and social dimensions monitoring.** Project activities will create labor opportunities and have other impacts on social issues. The consolidated annual monitoring reports will include a section that describes (i) activities, advancements, and impacts on women and other gender issues; and (ii) job opportunities created for poor and other vulnerable groups. It may also include, if deemed important, social issues as they emerge.

C. Evaluation

89. In addition to regular monitoring, project performance will be reviewed at least once a year jointly by ADB and JPG. The review will assess implementation performance and achievement of project outcomes and outputs; assess financial progress; identify issues and constraints affecting implementation; and work out a time-bound action plan for their resolution. ADB and JPG will undertake a midterm review to assess implementation status and take appropriate measures—including modification of scope and implementation arrangements, and reallocation of loan proceeds, as appropriate—to achieve the project impact and outcome. Within 6 months of physical completion of the project, JPMO will submit a project completion report to ADB.¹¹

D. Reporting

90. JPG, through JPMO, will provide ADB with (i) quarterly progress reports in a format consistent with ADB's PPMS, including project physical and financial progress and implementation of environmental and social safeguards; (ii) semiannual safeguard monitoring reports submitted by external monitors; (iii) consolidated annual reports, including (a) progress achieved by output as measured through the indicator's performance targets, (b) achievement of gender and social dimension targets, (c) key implementation issues and solutions, (d) updated procurement plan, and (e) updated implementation plan for the next 12 months; and (iv) a project completion report within 6 months of physical completion of the project. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency's audited financial statements, together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

91. Relevant project information, including implementation progress, will be disclosed in the ADB's website and at JEPD, YEPB, and PIUs, as well as in village meetings and through village information boards. This may include the DMF, the environmental assessment, and the EMP. The EMP prepared for the project contains a public consultation plan for the project implementation. Stakeholder workshops will be held throughout the project implementation to inform and consult with key stakeholders, particularly workers and residents in the nature reserves, forest farms, and adjacent communities, to (i) encourage them to participate in project activities and (ii) make sure all stakeholders, including women, poor, and other vulnerable groups, are informed about and able to benefit from the project.

92. The nature reserves and forest farms will be responsible for operation and maintenance of project facilities; and they will manage effectively the project investments. They will also help convey opinions and advice of resource users concerning all aspects of operational efficiency.

¹¹ Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

Objective(s)	Main Stakeholders	Messages	Means of Communication (Channels/Languages/Activities)	Timeline	Responsibility
Make sure that all stakeholders, including women, poor, and other vulnerable groups, are informed about and able to benefit from the project.	All stakeholders, including women, poor, and other vulnerable groups	Design and monitoring framework, environmental assessment, and environmental management plan	ADB's website; and at JEPD, YEPB, and PIUs; during village meetings, and on the village announcement boards	Early in project implementation	JEPD, YEPB, and PIUs; village committees
Encourage them to participate in project activities.	Workers and residents in the nature reserves, forest farms, and adjacent communities	Relevant project messages and the public consultation plan for project implementation	ADB's website; and at JEPD, YEPB, and PIUs; during village meetings, and on the village announcement boards	Consistently during project implementation	YEPB and PIUs, forest farm administration, village committees
Ensure shared ownership by communities, nature reserves, and forest farms.	Nature reserves and forest farms	Convey opinions and advice of resource users concerning all aspects of operational efficiency			YEPB, PIUs, nature reserve and forest farm administrations

ADB = Asian Development Bank, JEPD = Jiangsu environmental protection department, PIU = project implementation unit, YEPB = Yancheng environmental protection bureau.

Source: ADB.

X. ANTICORRUPTION POLICY

93. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.¹² All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.¹³

¹² Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>.

¹³ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>.

94. To support these efforts, relevant provisions are included in the loan and project agreements, and the bidding documents for the project. The project design and implementation arrangements provide for mitigating corruption risks. Risks associated with project management will be mitigated by (i) training of the executing and implementing agencies' staff in the procurement of civil works, goods, and services under the project; and (ii) periodic inspection of contractors' activities related to fund withdrawals and settlements by the executing agency's staff. These key risks and mitigating measures were discussed and agreed between ADB and the borrower during loan processing as per the Second Governance and Anticorruption Action Plan.¹⁴

XI. ACCOUNTABILITY MECHANISM

95. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.¹⁵

XII. RECORD OF PROJECT ADMINISTRATION MANUAL CHANGES

Date	Project Administration Manual Changes

¹⁴ GACAP II Guidelines available at: <http://www.adb.org/Documents/Guidelines/GACAP-II-Guidelines.pdf>. See also Sourcebook: Diagnostics to Assist Preparation of Governance Risk Assessments: <http://www.adb.org/documents/books/Diagnostics-to-Assist-Preparation-of-GRAs/default.asp>.

¹⁵ For further information, see <http://www.adb.org/Accountability-Mechanism/default.asp>