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LOAN NUMBER 3400-PRC

LOAN AGREEMENT  
(Ordinary Operations)  
(Shandong Groundwater Protection Project)

between

PEOPLE'S REPUBLIC OF CHINA

and

ASIAN DEVELOPMENT BANK

DATED 13 September 2016

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PRC 47047

**LOAN AGREEMENT  
(Ordinary Operations)**

LOAN AGREEMENT dated 13 September 2016 between PEOPLE'S REPUBLIC OF CHINA ("Borrower") and ASIAN DEVELOPMENT BANK ("ADB").

WHEREAS

(A) the Borrower has applied to ADB for a loan for the purposes of the Project described in Schedule 1 to this Loan Agreement;

(B) the Project will be carried out by Shandong Provincial Government ("SPG"), and for this purpose the Borrower will make available to SPG the proceeds of the loan provided for herein upon terms and conditions satisfactory to ADB; and

(C) ADB has agreed to make a loan to the Borrower from ADB's ordinary capital resources upon the terms and conditions set forth herein and in the Project Agreement of even date herewith between ADB and SPG;

NOW THEREFORE the parties hereto agree as follows:

**ARTICLE I**

**Loan Regulations; Definitions**

Section 1.01. All the provisions of the Ordinary Operations Loan Regulations Applicable to LIBOR-Based Loans Made from ADB's Ordinary Capital Resources, dated 1 July 2001 ("Loan Regulations"), are hereby made applicable to this Loan Agreement with the same force and effect as if they were fully set forth herein, subject, however, to the following modifications:

(a) Section 3.03 is deleted and the following is substituted therefor:

**Commitment Charge; Credit; Maturity Premium.** (a) The Borrower shall pay a commitment charge on the unwithdrawn amount of the Loan at the rate and on the terms specified in the Loan Agreement.

(b) ADB shall provide to the Borrower a credit at the rate specified in the Loan Agreement, which credit shall remain fixed for the term of the Loan. ADB shall apply the credit against the interest payable by the Borrower.

(c) The Borrower shall pay a maturity premium at the rate specified in the Loan Agreement, which maturity premium shall remain fixed for the term of the Loan. ADB

shall add the maturity premium to the interest payable by the Borrower.

- (b) Section 3.06 is deleted and the following is substituted therefor:

**Rebate.** (a) Following any announcement by ADB that the Fixed Spread applicable to new Loans shall be reduced, ADB shall provide a Rebate to any Borrower with an outstanding Loan on which a higher Fixed Spread is applicable. The amount of the Rebate shall be determined by multiplying (i) the difference between the Fixed Spread applicable to the outstanding Loan and the Fixed Spread that will be applied to new Loans (expressed as a percentage per annum), by (ii) the principal amount of the outstanding Loan on which the Borrower shall pay interest for all interest periods commencing on and after the effective date of the lower Fixed Spread that will be applied to new Loans.

(b) Following any announcement by ADB that its Funding Cost Margin calculations with respect to any Loan Currency (or Approved Currency) in any Semester resulted in ADB achieving savings, ADB shall provide a Rebate to the Borrower. The amount of the Rebate shall be determined by multiplying (i) the Funding Cost Margin (expressed as a percentage per annum) by (ii) the principal amount of the Loan on which the Borrower shall pay interest for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated. ADB shall apply the amount of the Rebate against the interest payable by the Borrower for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated.

- (c) Section 3.07 is deleted and the following is substituted therefor:

**Surcharge.** (a) Following any announcement by ADB that the Fixed Spread applicable to new Loans shall be increased, any Borrower with an outstanding Loan on which a lower Fixed Spread is applicable shall pay ADB a Surcharge. The amount of the Surcharge shall be determined by multiplying (i) the difference between the Fixed Spread that will be applied to new Loans and the Fixed Spread applicable to the outstanding Loan (expressed as a percentage per annum), by (ii) the principal amount of the outstanding Loan on which the Borrower shall pay interest for all interest periods commencing on and after the effective date of the higher Fixed Spread that will be applied to new Loans.

(b) Following any announcement by ADB that its Funding Cost Margin calculations with respect to any Loan Currency (or Approved Currency) in any Semester resulted in

ADB incurring additional costs, the Borrower shall pay ADB a Surcharge. The amount of the Surcharge shall be determined by multiplying (i) the Funding Cost Margin (expressed as a percentage per annum) by (ii) the principal amount of the Loan on which the Borrower shall pay interest for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated. ADB shall add the amount of the Surcharge to the interest payable by the Borrower for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated.

Section 1.02. Wherever used in this Loan Agreement, the several terms defined in the Loan Regulations have the respective meanings therein set forth unless modified herein or the context otherwise requires. Additional terms used in this Loan Agreement have the following meanings:

(a) "Associated Facilities" means those identified under the Project, comprising 9 existing reservoirs (4 in Gaomi and 5 in Qingzhou), 15 existing water supply plants (5 in Gaomi, 8 in Shouguang, 2 in Huantai), and 11 existing wastewater treatment plants (3 in Gaomi, 4 in Shouguang, 3 in Qingzhou, 1 in Huantai);

(b) "Consulting Guidelines" means the Guidelines on the Use of Consultants by Asian Development Bank and its Borrowers (2013, as amended from time to time);

(c) "Consulting Services" means the services to be financed out of the proceeds of the Loan to carry out the Project activities as described in Schedule 1 to this Loan Agreement;

(d) "Environmental Impact Assessment" or "EIA" means the environmental impact assessment for the Project, including any update thereto, prepared and submitted by SPG and cleared by ADB;

(e) "Environmental Management Plan" or "EMP" means the environmental management plan for the Project, including any update thereto, incorporated in the EIA;

(f) "Environmental Safeguards" means the principles and requirements set forth in Chapter V, Appendix 1, and Appendix 4 (as applicable) of the SPS;

(g) "Goods" means equipment and materials to be financed out of the proceeds of the Loan, including related services such as transportation, insurance, installation, commissioning, training, and initial maintenance, but excluding Consulting Services;

(h) "HIV/AIDS" means human immunodeficiency virus/acquired immune deficiency syndrome;

(i) "Indigenous Peoples Safeguards" means the principles and requirements set forth in Chapter V, Appendix 3, and Appendix 4 (as applicable) of the SPS;

(j) "Involuntary Resettlement Safeguards" means the principles and requirements set forth in Chapter V, Appendix 2, and Appendix 4 (as applicable) of the SPS;

(k) "Loan Disbursement Handbook" means ADB's Loan Disbursement Handbook (2015, as amended from time to time);

(l) "Management Letter" means formal communications from the auditor to the client management in accordance with the International Standard on Auditing 265 (communicating deficiencies in internal control to those charged with governance and management), which is not required to be provided separately as it is equivalent to the Audit Findings and Recommendations prepared by the Project auditor and submitted to ADB;

(m) "O&M" means operation and maintenance of the Project facilities;

(n) "PAM" means the project administration manual for the Project dated 19 April 2016 and agreed between SPG and ADB, as updated from time to time in accordance with the respective administrative procedures of the Borrower and ADB;

(o) "PMO" means a Project management office, established by SPG for implementation of the Project and as described in the PAM;

(p) "PPMS" means a Project performance monitoring system to be developed in consultation with ADB;

(q) "Procurement Guidelines" means ADB's Procurement Guidelines (2015, as amended from time to time);

(r) "Procurement Plan" means the procurement plan for the Project dated 19 April 2016 and agreed between SPG and ADB, as updated from time to time in accordance with the Procurement Guidelines, the Consulting Guidelines, and other arrangements agreed with ADB;

(s) "Project Executing Agency" for the purposes of, and within the meaning of, the Loan Regulations means SPG, which is responsible for the carrying out of the Project;

(t) "Project facilities" means facilities to be constructed, procured, rehabilitated and/or maintained under the Project;

(u) "Project Implementing Agency" means each of Changde County Government, Gaomi County Government, Hantai County Government, Qingzhou County Government, and Shouguang County Government, which implements the Project, as more fully described in the PAM;

(v) "Resettlement Plan" or "RP" means a resettlement plan for the Project, including any update thereto, prepared and submitted by SPG and cleared by ADB;

(w) "Safeguard Policy Statement" or "SPS" means ADB's Safeguard Policy Statement (2009);

(x) "Safeguards Monitoring Report" means each report prepared and submitted by SPG to ADB that describes progress with implementation of and compliance with the EMP and RPs, including any corrective and preventative actions;

(y) "SGAP" means a social and gender action plan for the Project, including any update thereto, prepared and submitted by SPG and cleared by ADB; and

(z) "Works" means construction or civil works to be financed out of the proceeds of the Loan, including services such as drilling or mapping, and project related services that are provided as part of a single responsibility or turnkey contract, but excluding Consulting Services.

## ARTICLE II

### The Loan

Section 2.01. (a) ADB agrees to lend to the Borrower from ADB's ordinary capital resources an amount of one hundred fifty million Dollars (\$150,000,000), as such amount may be converted from time to time through a Currency Conversion in accordance with the provisions of Section 2.06 of this Loan Agreement.

(b) The Loan has a principal repayment period of 20 years, and a grace period as defined in subsection (c) hereinafter.

(c) The term "grace period" as used in subsection (b) hereinabove means the period prior to the first Principal Payment Date in accordance with the amortization schedule set forth in Schedule 2 to this Loan Agreement.

Section 2.02. The Borrower shall pay to ADB interest on the principal amount of the Loan withdrawn and outstanding from time to time at a rate for each Interest Period equal to the sum of:

- (a) LIBOR;
- (b) 0.60% as provided by Section 3.02 of the Loan Regulations less a credit of 0.10% as provided by Section 3.03 of the Loan Regulations; and
- (c) a maturity premium of 0.10% as provided by Section 3.03 of the Loan Regulations.

Section 2.03. The Borrower shall pay a commitment charge of 0.15% per annum. Such charge shall accrue on the full amount of the Loan (less amounts withdrawn from time to time), commencing 60 days after the date of this Loan Agreement.

Section 2.04. Interest and other charges on the Loan shall be payable semiannually on 15 May and 15 November in each year.

Section 2.05. The Borrower shall repay the principal amount of the Loan withdrawn from the Loan Account in accordance with the provisions of Schedule 2 to this Loan Agreement.

Section 2.06. (a) The Borrower may at any time request any of the following Conversions of the terms of the Loan in order to facilitate prudent debt management:

- (i) a change of the Loan Currency of all or any portion of the principal amount of the Loan, whether withdrawn and outstanding or unwithdrawn, to an Approved Currency;
- (ii) a change of the interest rate basis applicable to all or any portion of the principal amount of the Loan withdrawn and outstanding from a Floating Rate to a Fixed Rate, or vice versa; and
- (iii) the setting of limits on the Floating Rate applicable to all or any portion of the principal amount of the Loan withdrawn and outstanding by the establishment of an Interest Rate Cap or Interest Rate Collar on said Floating Rate.

(b) Any conversion requested pursuant to subsection (a) hereinabove that is accepted by ADB shall be considered a "Conversion", as defined in Section 2.01(6) of the Loan Regulations, and shall be effected in accordance with the provisions of Article V of the Loan Regulations and the Conversion Guidelines.

### **ARTICLE III**

#### **Use of Proceeds of the Loan**

Section 3.01. (a) The Borrower shall relend the proceeds of the Loan to SPG upon terms and conditions acceptable to ADB. Except as ADB may otherwise agree, the terms for the proceeds of the Loan made available to SPG shall include (i) commitment charge and interest at the rates identical to those applied to the Loan; (ii) a repayment period including a grace period identical to those applied to the Loan; and (iii) SPG bearing the foreign exchange and interest rate variation risks of the proceeds of the Loan made available thereto.

(b) The Borrower shall cause the proceeds of the Loan to be applied to the financing of expenditures on the Project in accordance with the provisions of this Loan Agreement and the Project Agreement.

Section 3.02. The proceeds of the Loan shall be allocated and withdrawn in accordance with the provisions of Schedule 3 to this Loan Agreement, as such Schedule may be amended from time to time by agreement between the Borrower and ADB.

Section 3.03. Except as ADB may otherwise agree, the Borrower shall procure, or cause to be procured, the items of expenditure to be financed out of the proceeds of the Loan in accordance with the provisions of Schedule 4 to this Loan Agreement. ADB may refuse to finance a contract where any such item has not been procured under procedures substantially in accordance with those agreed between the Borrower and ADB or where the terms and conditions of the contract are not satisfactory to ADB.

Section 3.04. Except as ADB may otherwise agree, the Borrower shall cause all items of expenditure financed out of the proceeds of the Loan to be used exclusively in the carrying out of the Project.

Section 3.05. The Loan Closing Date for the purposes of Section 9.02 of the Loan Regulations shall be 30 June 2022 or such other date as may from time to time be agreed between the Borrower and ADB.

## ARTICLE IV

### Particular Covenants

Section 4.01. (a) The Borrower shall cause SPG to carry out the Project with due diligence and efficiency and in conformity with sound applicable technical, financial, business, and development practices.

(b) In the carrying out of the Project and operation of the Project facilities, the Borrower shall perform, or cause SPG to perform, all obligations set forth in Schedule 5 to this Loan Agreement and the Project Agreement.

Section 4.02. The Borrower shall make available, or cause SPG to make available, promptly as needed, the funds, facilities, services, land and other resources, as required, in addition to the proceeds of the Loan, for the carrying out of the Project.

Section 4.03. The Borrower shall ensure, or cause SPG to ensure, that the activities of its departments and agencies with respect to the carrying out of the Project and operation of the Project facilities are conducted and coordinated in accordance with sound administrative policies and procedures.

Section 4.04. The Borrower shall, through SPG, enable ADB's representatives to inspect the Project, the Goods and Works, and any relevant records and documents.

Section 4.05. The Borrower shall take all actions which shall be necessary on its part to enable SPG to perform its obligations under the Project Agreement, and shall not take or permit any action which would interfere with the performance of such obligations.



**ARTICLE V**

**Effectiveness**

Section 5.01. A date 90 days after the date of this Loan Agreement is specified for the effectiveness of this Loan Agreement for the purposes of Section 10.04 of the Loan Regulations.

**ARTICLE VI**

**Miscellaneous**

Section 6.01. The Minister of Finance of the Borrower is designated as representative of the Borrower for the purposes of Section 12.02 of the Loan Regulations.

Section 6.02. The following addresses are specified for the purposes of Section 12.01 of the Loan Regulations:

For the Borrower

Ministry of Finance  
Sanlihe, Xicheng District  
Beijing 100820  
People's Republic of China

Facsimile Number:

+8610 6855-3061

For ADB

Asian Development Bank  
6 ADB Avenue  
Mandaluyong City  
1550 Metro Manila  
Philippines

Facsimile Numbers:

(632) 636-2444  
(632) 636-2534.

IN WITNESS WHEREOF the parties hereto, acting through their representatives thereunto duly authorized, have caused this Loan Agreement to be signed in their respective names as of the day and year first above written and to be delivered at the principal office of ADB.

PEOPLE'S REPUBLIC OF CHINA

By  \_\_\_\_\_  
CHENG ZHIJUN  
Authorized Representative

ASIAN DEVELOPMENT BANK

By  \_\_\_\_\_  
XINNING JIA  
Authorized Representative

**SCHEDULE 1****Description of the Project**

1. The objective of the Project is to improve conservation and sustainable use of groundwater resources in Weifang-Zibo area.

2. The Project shall comprise the following outputs.

**Output 1: Groundwater recharged and conserved.** Supporting the introduction of groundwater recharge technologies in the project areas to increase shallow groundwater recharge and reduce usage of deep groundwater by:

- (a) rehabilitation and construction of wetland areas for the recharge of shallow groundwater resources; and
- (b) technological innovation for monitoring shallow groundwater recharge in Hantai County.

**Output 2: Surface water allocation improved and monitored.** Improving water allocations and monitoring to increase water availability in water scarce parts of the project area and indirectly reduce the pressure on groundwater resources by;

- (a) surface water allocation improvement;
- (b) retention of storm water; and
- (c) establishment of hydrological facilities in Changle County.

**Output 3: Capacity development for water resources management enhanced.** Carrying out the following two subcomponents;

- (a) institutional strengthening on ADB's project management procedures and policy development support; and
- (b) project management.

3. The Project is expected to be completed by 31 December 2021.

**SCHEDULE 2**

**Amortization Schedule**

**(Shandong Groundwater Protection Project)**

1. The following table sets forth the Principal Payment Dates of the Loan and the percentage of the total principal amount of the Loan payable on each Principal Payment Date (Installment Share). If the proceeds of the Loan shall have been fully withdrawn as of the first Principal Payment Date, the principal amount of the Loan repayable by the Borrower on each Principal Payment Date shall be determined by ADB by multiplying: (a) the total principal amount of the Loan withdrawn and outstanding as of the first Principal Payment Date; by (b) the Installment Share for each Principal Payment Date, such repayment amount to be adjusted, as necessary, to deduct any amounts referred to in paragraph 4 of this Schedule, to which a Currency Conversion applies.

<u>Payment Due</u>	<u>Installment Share</u> (Expressed as a %)
15 November 2021	2.500000
15 May 2022	2.500000
15 November 2022	2.500000
15 May 2023	2.500000
15 November 2023	2.500000
15 May 2024	2.500000
15 November 2024	2.500000
15 May 2025	2.500000
15 November 2025	2.500000
15 May 2026	2.500000
15 November 2026	2.500000
15 May 2027	2.500000
15 November 2027	2.500000
15 May 2028	2.500000
15 November 2028	2.500000
15 May 2029	2.500000
15 November 2029	2.500000
15 May 2030	2.500000
15 November 2030	2.500000
15 May 2031	2.500000
15 November 2031	2.500000
15 May 2032	2.500000
15 November 2032	2.500000
15 May 2033	2.500000
15 November 2033	2.500000
15 May 2034	2.500000
15 November 2034	2.500000
15 May 2035	2.500000

Schedule 2

<u>Payment Due</u>	<u>Installment Share</u> (Expressed as a %)
15 November 2035	2.500000
15 May 2036	2.500000
15 November 2036	2.500000
15 May 2037	2.500000
15 November 2037	2.500000
15 May 2038	2.500000
15 November 2038	2.500000
15 May 2039	2.500000
15 November 2039	2.500000
15 May 2040	2.500000
15 November 2040	2.500000
15 May 2041	2.500000
Total	100.000000

2. If the proceeds of the Loan shall not have been fully withdrawn as of the first Principal Payment Date, the principal amount of the Loan repayable by the Borrower on each Principal Payment Date shall be determined as follows:

(a) To the extent that any proceeds of the Loan shall have been withdrawn as of the first Principal Payment Date, the Borrower shall repay the amount withdrawn and outstanding as of such date in accordance with paragraph 1 of this Schedule.

(b) Any withdrawal made after the first Principal Payment Date shall be repaid on each Principal Payment Date falling after the date of such withdrawal in amounts determined by ADB by multiplying the amount of each such withdrawal by a fraction, the numerator of which shall be the original Installment Share specified in the table in paragraph 1 of this Schedule for said Principal Payment Date (the Original Installment Share) and the denominator of which shall be the sum of all remaining Original Installment Shares for Principal Payment Dates falling on or after such date, such repayment amounts to be adjusted, as necessary, to deduct any amounts referred to in paragraph 4 of this Schedule, to which a Currency Conversion applies.

3. Withdrawals made within two calendar months prior to any Principal Payment Date shall, for the purposes solely of calculating the principal amounts payable on any Principal Payment Date, be treated as withdrawn and outstanding on the second Principal Payment Date following the date of withdrawal and shall be repayable on each Principal Payment Date commencing with the second Principal Payment Date following the date of withdrawal.

4. Notwithstanding the provisions of paragraphs 1 and 2 of this Schedule, upon a Currency Conversion of all or any portion of the withdrawn principal amount of the Loan to an Approved Currency, the amount so converted in said Approved Currency that shall be repayable on any Principal Payment Date occurring during the Conversion Period, shall be determined by ADB by multiplying such amount in its currency of denomination immediately prior to said Conversion by either: (i) the exchange rate that reflects the amounts of principal in said Approved Currency payable by ADB under the Currency Hedge Transaction relating to said Conversion; or (ii) if ADB so determines in accordance with the Conversion Guidelines, the exchange rate component of the Screen Rate.

5. If the principal amount of the Loan withdrawn and outstanding from time to time shall be denominated in more than one Loan Currency, the provisions of this Schedule shall apply separately to the amount denominated in each Loan Currency, so as to produce a separate amortization schedule for each such amount.

**SCHEDULE 3****Allocation and Withdrawal of Loan Proceeds**General

1. The table attached to this Schedule sets forth the Categories of items of expenditure to be financed out of the proceeds of the Loan and the allocation of the Loan proceeds to each such Category ("Table"). (Reference to "Category" in this Schedule is to a Category or Subcategory of the Table).

Basis for Withdrawal from the Loan Account

2. Except as ADB may otherwise agree, the proceeds of the Loan shall be disbursed on the basis of the withdrawal percentage for each item of expenditure set forth in the Table.

Interest and Commitment Charges

3. The amount allocated to Category 5 is for financing interest and commitment charges on the Loan during the implementation period of the Project. ADB shall be entitled to withdraw from the Loan Account and pay to itself, on behalf of the Borrower, the amounts required to meet payments, when due, of such interest and commitment charges.

Reallocation

4. Notwithstanding the allocation of Loan proceeds and the withdrawal percentages set forth in the Table,

(a) if the amount of the Loan allocated to any Category appears to be insufficient to finance all agreed expenditures in that Category, ADB may, in consultation with the Borrower, (i) reallocate to such Category, to the extent required to meet the estimated shortfall, amounts of the Loan which have been allocated to another Category but, in the opinion of ADB, are not needed to meet other expenditures, and (ii) if such reallocation cannot fully meet the estimated shortfall, reduce the withdrawal percentage applicable to such expenditures in order that further withdrawals under such Category may continue until all expenditures thereunder shall have been made; and

(b) if the amount of the Loan allocated to any Category appears to exceed all agreed expenditures in that Category, ADB may, in consultation with the Borrower, reallocate such excess amount to any other Category.

Disbursement Procedures

5. Except as ADB may otherwise agree, the Loan proceeds shall be disbursed in accordance with the Loan Disbursement Handbook.

Imprest Account and Statement of Expenditures

6. (a) Except as ADB may otherwise agree, the Borrower shall cause the Shandong Provincial Department of Finance to establish immediately after the Effective Date, an imprest account at a commercial bank acceptable to ADB. The imprest account shall be established, managed, replenished and liquidated in accordance with the Loan Disbursement Handbook, and detailed arrangements agreed upon between the Borrower and ADB. The imprest account shall be used only for the Project. The currency of the imprest account shall be the Dollar.

(b) The statement of expenditures procedure may be used for reimbursement of eligible expenditures and to liquidate advances provided into the imprest account, in accordance with the Loan Disbursement Handbook and detailed arrangements agreed upon between the Borrower and ADB.

Retroactive Financing

7. Withdrawals from the Loan Account may be made for reimbursement of eligible expenditures incurred under the Project before the Effective Date, but not earlier than 12 months before the date of this Loan Agreement in connection with Goods, Works and Consulting Services, subject to a maximum amount equivalent to 20% of the Loan amount.



TABLE

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (Shandong Groundwater Protection Project)				
Number	Item	Total Amount Allocated for ADB Financing (\$)		Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Works	137,279,561		
1A	Works for Qingzhou		24,515,110	65% of total expenditure claimed
1B	Works for Shouguang		45,889,121	71% of total expenditure claimed
1C	Works for Changle		18,105,110	74% of total expenditure claimed
1D	Works for Huantai		22,172,110	64% of total expenditure claimed
1E	Works for Gaomi		25,998,110	62% of total expenditure claimed
1F	Works for greenhouse		600,000	100% of total expenditure claimed
2	Machinery and equipment	2,653,089		100% of total expenditure claimed
3	Consulting Services	1,680,300		100% of total expenditure claimed
4	Training	400,000		100% of total expenditure claimed
5	Interest and Commitment Charges	7,987,050		100% of amounts due
	Total	150,000,000		

**SCHEDULE 4****Procurement of Goods, Works and Consulting Services**General

1. The procurement of Goods, Works and Consulting Services shall be subject to and governed by the Procurement Guidelines, and the Consulting Guidelines, respectively.
2. All terms used in this Schedule and not otherwise defined in this Loan Agreement have the meanings provided in the Procurement Guidelines and/or the Consulting Guidelines, as applicable.

Goods and Works

3. Except as ADB may otherwise agree, Goods and Works shall only be procured on the basis of the methods of procurement set forth below:

- (a) International Competitive Bidding;
- (b) National Competitive Bidding; and
- (c) Shopping.

4. The methods of procurement are subject to, among other things, the detailed arrangements and threshold values set forth in the Procurement Plan. The Borrower may only modify the methods of procurement or threshold values with the prior agreement of ADB, and modifications must be set out in updates to the Procurement Plan.

Domestic Preference

5. The Borrower may grant a margin of preference in the evaluation of bids under international competitive bidding in accordance with paragraphs 2.55(a) and 2.56 of the Procurement Guidelines for domestically manufactured Goods.

National Competitive Bidding

6. The Borrower and ADB shall ensure that, prior to the commencement of any procurement activity under national competitive bidding, the Borrower's national competitive bidding procedures are consistent with the Procurement Guidelines. Any modifications or clarifications to such procedures agreed between the Borrower and ADB shall be set out in the Procurement Plan. Any subsequent change to the agreed modifications and clarifications shall become effective only after approval of such change by the Borrower and ADB.

Conditions for Award of Contract

7. The Borrower shall, through SPG, cause the Project Implementing Agencies not to award any Works contracts until:

- (a) SPG has granted the final approval of the EIA; and

- (b) SPG and the Project Implementing Agencies have caused the relevant provisions to be incorporated from the EMP into the Works contract.

8. The Borrower shall, through SPG, cause the Project Implementing Agencies not to award any Works contract which involves involuntary resettlement impacts until SPG has (a) updated the relevant RPs based on the final detailed design, including detailed measurement surveys; (b) submitted such updated RPs to ADB for its concurrence; and (c) disclosed to affected people in accordance with ADB's applicable information disclosure requirements for resettlement.

#### Consulting Services

9. Except as ADB may otherwise agree, and except as set forth in the paragraph below, the Borrower shall cause SPG to apply quality- and cost-based selection for selecting and engaging Consulting Services.

10. The Borrower shall cause SPG to apply the following method for selecting and engaging the specified Consulting Services, in accordance with, among other things, the procedures set forth in the Procurement Plan: Single Source Selection for water policy and conservation demonstration activities.

11. The Borrower shall cause SPG to recruit the individual consultants for Project implementation, water right policy, smart greenhouse and software development in accordance with procedures acceptable to ADB for recruiting individual consultants.

#### Industrial or Intellectual Property Rights

12. (a) The Borrower shall cause SPG to ensure that all Goods and Works procured (including without limitation all computer hardware, software and systems, whether separately procured or incorporated within other goods and services procured) do not violate or infringe any industrial property or intellectual property right or claim of any third party.

(b) The Borrower shall cause SPG to ensure that all contracts for the procurement of Goods and Works contain appropriate representations, warranties and, if appropriate, indemnities from the contractor or supplier with respect to the matters referred to in subparagraph (a) of this paragraph.

13. The Borrower shall cause SPG to ensure that all ADB-financed contracts with consultants contain appropriate representations, warranties and, if appropriate, indemnities from the consultants to ensure that the Consulting Services provided do not violate or infringe any industrial property or intellectual property right or claim of any third party.

#### ADB's Review of Procurement Decisions

14. Contracts procured under international competitive bidding procedures and contracts for Consulting Services shall be subject to prior review by ADB, unless otherwise agreed between the Borrower and ADB and set forth in the Procurement Plan.

**SCHEDULE 5**

**Execution of Project; Implementation and Financial Matters**

Implementation Arrangements

1. The Borrower shall cause SPG to ensure that the Project is implemented in accordance with the detailed arrangements set forth in the PAM. Any subsequent change to the PAM shall become effective only after approval of such change by SPG and ADB. In the event of any discrepancy between the PAM and this Loan Agreement, the provisions of this Loan Agreement shall prevail.

Counterpart Financing

2. The Borrower shall cause SPG to ensure that (a) all counterpart funds are made available by the Project Implementing Agencies for Project implementation in a timely manner; and (b) operation and maintenance of all Project facilities is fully funded.