LOAN NUMBER 7897-IN

Loan Agreement

(Andhra Pradesh Water Sector Improvement Project)

between

INDIA

and

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

Dated August 14, 2010

LOAN AGREEMENT

AGREEMENT dated August 14, 2010, between INDIA ("Borrower") and INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT ("Bank"). The Borrower and the Bank hereby agree as follows:

ARTICLE I — GENERAL CONDITIONS; DEFINITIONS

- 1.01. The General Conditions (as defined in the Appendix to this Agreement) constitute an integral part of this Agreement.
- 1.02. Unless the context requires otherwise, the capitalized terms used in this Agreement have the meanings ascribed to them in the General Conditions or in the Appendix to this Agreement.

ARTICLE II – LOAN

- 2.01. The Bank agrees to lend to the Borrower, on the terms and conditions set forth or referred to in this Agreement, the amount of four hundred fifty million six hundred thousand Dollars (\$450,600,000), as such amount may be converted from time to time through a Currency Conversion in accordance with the provisions of Section 2.07 of this Agreement ("Loan"), to assist in financing the project described in Schedule 1 to this Agreement ("Project").
- 2.02. The Borrower may withdraw the proceeds of the Loan in accordance with Section IV of Schedule 2 to this Agreement.
- 2.03. The Front-end Fee payable by the Borrower shall be equal to one quarter of one percent (0.25%) of the Loan amount.
- 2.04. The interest payable by the Borrower for each Interest Period shall be at a rate equal to LIBOR for the Loan Currency plus the Variable Spread; provided, that upon a Conversion of all or any portion of the principal amount of the Loan, the interest payable by the Borrower during the Conversion Period on such amount shall be determined in accordance with the relevant provisions of Article IV of the General Conditions. Notwithstanding the foregoing, if any amount of the Withdrawn Loan Balance remains unpaid when due and such non-payment continues for a period of thirty (30) days, then the interest payable by the Borrower shall instead be calculated as provided in Section 3.02(d) of the General Conditions.
- 2.05. The Payment Dates are May 15 and November 15 in each year.

- 2.06. The principal amount of the Loan shall be repaid in accordance with the provisions of Schedule 3 to this Agreement.
- 2.07. (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, withdrawn 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 Variable Rate to a Fixed Rate, or vice versa; and (iii) the setting of limits on the Variable 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 the Variable Rate.
 - (b) Any conversion requested pursuant to paragraph (a) of this Section that is accepted by the Bank shall be considered a "Conversion", as defined in the General Conditions, and shall be effected in accordance with the provisions of Article IV of the General Conditions and of the Conversion Guidelines.

ARTICLE III — PROJECT

- 3.01. The Borrower declares its commitment to the objectives of the Project. To this end, the Borrower shall cause the Project to be carried out by Andhra Pradesh in accordance with the provisions of Article V of the General Conditions and the Project Agreement.
- 3.02. Without limitation upon the provisions of Section 3.01 of this Agreement, and except as the Borrower and the Bank shall otherwise agree, the Borrower shall ensure that the Project is carried out in accordance with the provisions of Schedule 2 to this Agreement.

ARTICLE IV — REMEDIES OF THE BANK

- 4.01. The Additional Events of Suspension consist of the following:
 - (a) The Andhra Pradesh Water Resources Regulatory Commission Act (No.15 of 2009), has been amended, suspended, abrogated, repealed or waived so as to affect materially and adversely the ability of Andhra Pradesh to implement the Project or achieve the objectives thereof.

- (b) The Andhra Pradesh Farmers Management of Irrigation Systems Act (No.11 of 1997), has been amended, suspended, abrogated, repealed or waived so as to affect materially and adversely the ability of Andhra Pradesh to implement the Project or achieve the objectives thereof.
- 4.02. The Additional Event of Acceleration consists of the following, namely that any event specified in paragraph (a) and (b) of Section 4.01 of this Agreement occurs and is continuing for a period of sixty (60) days after notice of the event has been given by the Bank to the Borrower.

ARTICLE V — TERMINATION

5.01 The Effectiveness Deadline is the date ninety (90) days after the date of this Agreement.

ARTICLE VI — REPRESENTATIVE; ADDRESSES

- 6.01 The Recipient's Representative is any of the following: Secretary, Additional Secretary, Joint Secretary, Director, Deputy Secretary or Under Secretary of the Department of Economic Affairs in the Ministry of Finance of the Recipient.
- 6.02. The Recipient's Address is:

Secretary Department of Economic Affairs Ministry of Finance, Government of India North Block New Delhi 110001, India

Facsimile:

91-11-2309 2039

6.03. The Bank's Address is:

International Bank for Reconstruction and Development 1818 H Street, N.W. Washington, D.C. 20433 United States of America

Facsimile:

1-202-477-6391

AGREED at Hyderabad, India, as of the day and year first above written.

INDIA

By /s/ Anup K. Pujari Authorized Representative

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

By /s/ Giovanna Prennushi Authorized Representative

SCHEDULE 1

Project Description

The objectives of the Project are: (a) to improve irrigation service delivery on a sustainable basis so as to increase productivity of irrigated agriculture in the Nagarjuna Sagar Scheme; and (b) to strengthen Andhra Pradesh's institutional capacity for multi-sectoral planning, development, and management of its water resources.

The Project consists of the following parts, subject to such modifications thereof as the Borrower and the Bank may agree upon from time to time to achieve such objective:

Part A: Improving Irrigation Service Delivery in the Nagarjuna Sagar Scheme

This component of the Project consists of the following activities: (a) participatory rehabilitation and modernization of irrigation systems; (b) dam safety works; (c) fostering and capacity building of water user organizations at all levels of the scheme; (d) improving water management practices; and (e) implementing any social and environmental management plan prepared in line with the Social and Environmental Management Framework.

Part B: Irrigated Agriculture Intensification and Diversification

This component supports various activities in the Nagarjuna Sagar Scheme, involving: (a) field crops; (b) horticultural crops; (c) livestock production; (d) fisheries; (e) on-farm adaptive research; and (f) market-led extension.

Part C: Water Sector Institutional Restructuring and Capacity Building

This component supports the following activities: (a) establishment, fostering, and operationalization of the Andhra Pradesh Water Resources Regulatory Commission; (b) restructuring and capacity building of the Andhra Pradesh Irrigation and Command Area Development Department; (c) strengthening and capacity building of the Andhra Pradesh Water and Land Management Training Institute; (d) establishment of an integrated computerized information system; (e) piloting user centered aquifer level ground water management, and (f) piloting conjunctive use of surface and ground water in the Nagarjuna Sagar Scheme.

Part D: Project Management

This supports the following activities: (a) operation of a state level project preparation and management unit; (b) implementation of Project monitoring and evaluation responsibilities; and (c) implementation of an information, education, and communication program.

SCHEDULE 2

Project Execution

Section I. <u>Implementation Arrangements</u>

A. Institutional Arrangements

- 1. To facilitate the carrying out of the Project, the Borrower shall make the proceeds of the Financing available to Andhra Pradesh, under terms and conditions satisfactory to the Bank.
- 2. The Borrower shall protect the interests of the Bank to accomplish the purposes of the Loan.

B. Anti-Corruption

1. The Borrower shall ensure that the Project is carried out in accordance with the provisions of the Anti-Corruption Guidelines and the GAAP.

Section II. <u>Project Monitoring Reporting and Evaluation</u>

A. **Project Reports**

1. The Borrower shall monitor and evaluate the progress of the Project and shall cause Andhra Pradesh to prepare Project Reports in accordance with the provisions of Section 5.08 of the General Conditions and on the basis of the Key Performance Indicators. Each Project Report shall cover the period of six (6) months, and shall be furnished to the Bank not later than six (6) weeks after the end of the period covered by such report.

B. Financial Management, Financial Reports and Audits

- 1. The Borrower shall maintain or cause to be maintained a financial management system for the Project in accordance with the provisions of Section 5.09 of the General Conditions.
- 2. Without limitation on the provisions of Part A of this Section, the Borrower shall cause Andhra Pradesh to prepare and furnish to the Bank not later than forty-five (45) days after the end of each quarter, interim unaudited financial reports for the Project covering the quarter, in form and substance satisfactory to the Bank.
- 3. The Borrower shall have the Financial Statements for the Project audited in accordance with the provisions of Section 5.09(b) of the General Conditions.

Each audit of the Financial Statements shall cover the period of one (1) Financial Year of the Borrower. The audited Financial Statements for each such period shall be furnished to the Bank not later than six (6) months after the end of such period.

Section III. <u>Procurement</u>

A. General

- 1. **Goods and Works**. All goods and works required for the Project and to be financed out of the proceeds of the Loan shall be procured in accordance with the requirements set forth or referred to in Section I of the Procurement Guidelines, and with the provisions of this Section.
- 2. **Consultants' Services**. All consultants' services required for the Project and to be financed out of the proceeds of the Loan shall be procured in accordance with the requirements set forth or referred to in Sections I and IV of the Consultant Guidelines and with the provisions of this Section.
- 3. **Definitions**. The capitalized terms used below in this Section to describe particular procurement methods or methods of review by the Bank of particular contracts refer to the corresponding method described in the Procurement Guidelines, or Consultant Guidelines, as the case may be.

B. Particular Methods of Procurement of Goods and Works

- 1. **International Competitive Bidding**. Except as otherwise provided in paragraph 2 below, goods and works shall be procured under contracts awarded on the basis of International Competitive Bidding subject to the following additional procedures:
 - (a) The Procurement Plan shall specify the circumstances under which such procurement method may be used.
 - (b) Standard bidding documents and procedures approved by the Bank shall be used.
 - (c) The provisions of the Procurement Guidelines, providing for domestic preference in the evaluation of bids, shall apply to goods manufactured in the territory of the Borrower and works to be carried out by domestic contractors.

2. **Other Methods of Procurement of Goods and Works**. The following table specifies the methods of procurement, other than International Competitive Bidding, which may be used for goods and works. The Procurement Plan shall specify the circumstances under which such methods may be used.

Procurement Method			
(a)	National Competitive Bidding subject to the additional provisions agreed upon from time to time between the Borrower and the Bank		
(b)	Shopping		
(c)	Direct Contracting		
(d)	Force Account		
(e)	Community Participation		

C. Particular Methods of Procurement of Consultants' Services

- 1. **Quality- and Cost-based Selection.** Except as otherwise provided in paragraph 2 below, consultants' services shall be procured under contracts awarded on the basis of Quality- and Cost-based Selection.
- 2. **Other Methods of Procurement of Consultants' Services.** The following table specifies the methods of procurement, other than Quality- and Cost-based Selection, which may be used for consultants' services. The Procurement Plan shall specify the circumstances under which such methods may be used.

Procurement Method		
(a)	Quality-based Selection	
(b)	Selection Under a Fixed Budget	
(c)	Least Cost Selection	
(d)	Selection based on Consultants' Qualifications	
(e)	Single-source Selection	
(f)	Selection of Individual Consultants	

D. Review by the Bank of Procurement Decisions

The Procurement Plan shall set forth those contracts which shall be subject to the Bank's Prior Review. All other contracts shall be subject to Post Review by the Bank.

Section IV. <u>Withdrawal of Loan Proceeds</u>

A. General

- 1. The Borrower may withdraw the proceeds of the Loan in accordance with the provisions of Article II of the General Conditions, this Section, and such additional instructions as the Bank may specify by notice to the Borrower (including the "World Bank Disbursement Guidelines for Projects" dated May 2006, as revised from time to time by the Bank and as made applicable to this Agreement pursuant to such instructions), to finance Eligible Expenditures as set forth in the table in paragraph 2 below.
- 2. The following table specifies the categories of Eligible Expenditures that may be financed out of the proceeds of the Loan ("Category"), the allocation of the amounts of the Loan to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category.

Category	Amount of the Loan Allocated (expressed in USD)	Percentage of Expenditures to be financed (inclusive of Taxes)
(1) Goods, works, consultants' services, training and operating costs under the Project	449,473,500	48%
(2) Front-end Fee	1,126,500	Amount payable pursuant to Section 2.03 of this Agreement in accordance with Section 2.07(b) of the General Conditions
TOTAL AMOUNT	450,600,000	

For the purposes of this Section IV, the terms:

(a) "training" means non-consultant expenditures incurred in connection with the provision of training, including training institution fees, logistics, materials, and the reasonable cost of travel and per diem of trainers and trainees; and

(b) "operating costs" means the incremental costs of maintenance and operation of the PPMU, including office expenses, vehicles, salaries and allowances of incremental PPMU staff and other staff working for the Project, and travel costs incurred for the purposes of carrying out the Project.

B. Withdrawal Conditions; Withdrawal Period

- 1. Notwithstanding the provisions of Part A of this Section, no withdrawal shall be made for payments made prior to the date of this Agreement, except that withdrawals up to an aggregate amount not to exceed \$50,000,000 equivalent may be made for payments made prior to this date but on or after July 1, 2009, for Eligible Expenditures.
- 2. The Closing Date is July 31, 2016.

SCHEDULE 3

Amortization Schedule

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 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 the Bank by multiplying: (a) Withdrawn Loan Balance as of the first Principal Payment Date; by (b) the Installment Share for each Principal Payment Date, such repayable amount to be adjusted, as necessary, to deduct any amounts referred to in paragraph 4 of this Schedule, to which a Currency Conversion applies.

Principal Payment Date	Installment Share (Expressed as a Percentage)
On each May 15 and November 15	
Beginning November 15, 2015	
through May 15, 2040	2%

- 2. If the proceeds of the Loan have not 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 have been withdrawn as of the first Principal Payment Date, the Borrower shall repay the Withdrawn Loan Balance as of such date in accordance with paragraph 1 of this Schedule.
 - (b) Any amount withdrawn 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 the Bank by multiplying the amount of each such withdrawal by a fraction, the numerator of which is the original Installment Share specified in the table in paragraph 1 of this Schedule for said Principal Payment Date ("Original Installment Share") and the denominator of which is the sum of all remaining Original Installment Shares for Principal Payment Dates falling on or after such date, such amounts repayable to be adjusted, as necessary, to deduct any amounts referred to in paragraph 4 of this Schedule, to which a Currency Conversion applies.

- 3. (a) Amounts of the Loan withdrawn within two (2) 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.
 - (b) Notwithstanding the provisions of sub-paragraph (a) of this paragraph, if at any time the Bank adopts a due date billing system under which invoices are issued on or after the respective Principal Payment Date, the provisions of such sub-paragraph shall no longer apply to any withdrawals made after the adoption of such billing system.
- 4. Notwithstanding the provisions of paragraphs 1 and 2 of this Schedule, upon a Currency Conversion of all or any portion of the Withdrawn Loan Balance to an Approved Currency, the amount so converted in the Approved Currency that is repayable on any Principal Payment Date occurring during the Conversion Period, shall be determined by the Bank by multiplying such amount in its currency of denomination immediately prior to the Conversion by either: (i) the exchange rate that reflects the amounts of principal in the Approved Currency payable by the Bank under the Currency Hedge Transaction relating to the Conversion; or (ii) if the Bank so determines in accordance with the Conversion Guidelines, the exchange rate component of the Screen Rate.
- 5. If the Withdrawn Loan Balance is denominated in more than one (1) 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.

APPENDIX

Section I. Definitions

- 1. "Andhra Pradesh Water Resources Regulatory Commission" means a statutory commission to be established by the Government of Andhra Pradesh pursuant to the Andhra Pradesh Water Resources Regulatory Commission Act (No.15 of 2009).
- 2. "Anti-Corruption Guidelines" means the "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006.
- 3. "Category" means a category set forth in the table in Section IV of Schedule 2 to this Agreement.
- 4. "Consultant Guidelines" means the "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" published by the Bank in May 2004 and revised in October 2006.
- 5. "Dam Safety Plan" means Andhra Pradesh's plan dated December 26, 2007 for carrying out rehabilitation and modernization of existing dams under the Project (as described in the Loan Agreement) to be developed based on a dam safety assessment and reviewed and cleared by an independent dam safety review panel constituted by the Government of Andhra Pradesh.
- 6. "Financial Management Manual" means Andhra Pradesh's manual dated March 8, 2010, as amended from to time with the Bank's prior consent, containing details of administrative, accounting and financial procedures, and procurement and disbursement arrangements, which the Borrower and the Bank have agreed are necessary for implementing the Project.
- 7. "Financial Year" means the fiscal year of the Borrower which year begins on April 1 and ends on March 31 of each year.
- 8. "Governance and Accountability Action Plan" or "GAAP" means the Governance and Accountability Action Plan set forth as volume VI of the Project Implementation Plan (as defined hereinafter), which identifies key governance issues and sets forth mitigation measures to address said issues in respect of the carrying out of Project activities, as said Plan may be amended from time to time with the concurrence of the Bank.
- 9. "General Conditions" means the "International Bank for Reconstruction and Development General Conditions for Loans", dated July 1, 2005 (as amended through February 12, 2008).

- 10. "Key Performance Indicators" means the indicators for monitoring and evaluating progress towards the attainment of Project objectives contained in the Project Implementation Plan (as hereinafter defined).
- 11. "Nagarjuna Sagar Scheme" means the Government of Andhra Pradesh's existing multipurpose water project.
- 12. "Pest Management Strategy" means Andhra Pradesh's strategy dated September 5, 2008 to handle any environmental impacts arising from increased use of pesticides in carrying out agricultural rehabilitation activities under the Project (as described in the Loan Agreement), as may be amended from time to time with the Bank's prior consent.
- 13. "Procurement Guidelines" means the "Guidelines: Procurement under IBRD Loans and IDA Credits" published by the Bank in May 2004 and revised in October 2006.
- 14. "Procurement Plan" means the Borrower's procurement plan for the Project, dated January 12, 2010 and referred to in paragraph 1.16 of the Procurement Guidelines and paragraph 1.24 of the Consultant Guidelines, as the same shall be updated from time to time in accordance with the provisions of said paragraphs.
- 15. "Project Implementation Plan" means Andhra Pradesh's plan for carrying out the Project dated January 12, 2010, as amended from time to time with the Bank's prior consent, containing, among other things, details about project implementation activities, schedules and deadlines, training programs, procurement issues and the Key Performance Indicators.
- 16. "Project Preparation and Management Unit", or "PPMU" means the unit constituted by the Government of Andhra Pradesh in its Irrigation and Command Area Department pursuant to Section 1.A.2 of the Schedule to the Project Agreement for the purpose of carrying out the Project.
- 17. "Project Steering Committee" means the committee constituted by the Government of Andhra Pradesh pursuant to Section 1.A.3 of the Schedule to the Project Agreement to ensure successful implementation of the Project.
- 18. "Resettlement and Rehabilitation Entitlement Framework" means Andhra Pradesh's framework dated September 5, 2008 to handle any potential resettlement and rehabilitation of Project affected persons, as may be amended from time to time with the Bank's prior consent.
- 19. "Social and Environmental Management Framework" means Andhra Pradesh's framework dated September 5, 2008 developed pursuant to integrated social and environmental assessment, as amended from time to time with the Bank's prior

consent, which sets out measures and procedures for, among other things: (a) social and environmental screening and field verification of packages; (b) consultations and communications with the general public, stakeholders, and Project affected people; (c) preparation of social management plans including resettlement and tribal development components, wherever required; (d) preparation of individual environmental management plans, including pest management; (e) preparation of dam safety plans; (f) institutional strengthening activities in relation to the social and environmental aspects of the Project; and (g) monitoring of social and environmental parameters at different stages of preparation and implementation.

- 20. "Safeguards Framework" means, collectively, the Cultural Property Management Strategy, the Dam Safety Plan, the Pest Management Strategy, Resettlement and Rehabilitation Entitlement Framework and the Tribal Development Strategy (as hereinafter defined).
- 21. "Tribal Development Strategy" means Andhra Pradesh's strategy dated September 5, 2008 to address issues related to tribal and vulnerable population under the Project, as may be amended from time to time by agreement between the Borrower and the Bank.

Section II. Modifications to the General Conditions

1. Paragraph (1) of Section 7.02 is modified to read as follows:

"Section 7.02. Suspension by the Bank

... (1) *Ineligibility*. The Bank or the Association has declared the Borrower (other than the Member Country) or the Project Implementing Entity ineligible to receive proceeds of any financing made by the Bank or the Association or otherwise to participate in the preparation or implementation of any project financed in whole or in part by the Bank or the Association, as a result of a determination by the Bank or the Association that the Borrower or the Project Implementing Entity has engaged in fraudulent, corrupt, coercive or collusive practices in connection with the use of the proceeds of any financing made by the Bank or the Association."

2. The following terms and definitions set forth in the Appendix are modified or deleted as follows, and the following new terms and definitions are added in alphabetical order to the Appendix as follows, with the terms being renumbered accordingly:

(a) The definition of the term "Conversion Date" is modified to read as follows:

"Conversion Date' means, in respect of a Conversion, the Execution Date (as herein defined) or such other date as requested by the Borrower and accepted by the Bank, on which the Conversion enters into effect, and as further specified in the Conversion Guidelines."