



India: Climate Adaptation in Vennar Subbasin in Cauvery Delta Project

Project Name	Climate Adaptation in Vennar Subbasin in Cauvery Delta Project
Project Number	44429-013
Country	India
Project Status	Active
Project Type / Modality of Assistance	Loan
Source of Funding / Amount	Loan 3394-IND: Climate Adaptation in Vennar Subbasin in Cauvery Delta Project Ordinary capital resources US\$ 100.00 million
Strategic Agendas	Environmentally sustainable growth Inclusive economic growth
Drivers of Change	Governance and capacity development
Sector / Subsector	Agriculture, natural resources and rural development - Agricultural policy, institutional and capacity development - Irrigation
Gender Equity and Mainstreaming	Some gender elements
Description	<p>ADB and the Government of India are working together to reduce flood risks and improve the distribution of water for irrigation in the Cauvery Delta of the state of Tamil Nadu. The Climate Adaptation in Vennar Subbasin in Cauvery Delta Project aims to protect coastal districts from cyclones and flooding that is being made worse by climate change. The project is upgrading infrastructure and resectioning and strengthening embankments of six main channels totaling 235 kilometers. More robust flood control structures will reduce the frequency and impact of flooding. Thirteen pump stations are also being upgraded. The management systems of the Water Resources Department will also be strengthened, with greater participation by stakeholders in the planning and delivery of water services, better assessment of water resources, development of a decision support system, and training of officers.</p>
Project Rationale and Linkage to Country/Regional Strategy	<p>Tamil Nadu is one of the most water-stressed states in India, with a per capita availability of water resources of 900 cubic meters per year (m³/year) compared with a national average of 1,545 m³/year and a water stress threshold of 1,700 m³/year. About 90% of surface water of the Cauvery river basin is used in irrigation. The irrigated area is approximately 640,000 ha of which 564,000 ha is in the Cauvery delta. The delta's population of around 4.8 million heavily relies on farming and fishing. Communities in the Cauvery delta are vulnerable to a number of water resources development issues that impact livelihoods, agricultural productivity, and food security.</p> <p>The sharing of Cauvery waters among the states has been disputed since the 1890s, and in February 2013, the Supreme Court of India upheld the water allocation decision that the Cauvery Waters Dispute Tribunal had made in 2007. Despite high levels of water stress, recurrent flooding, and increasing risks of climate change, the long-standing dispute prevented investments toward improving the irrigation and drainage systems in the delta beyond essential maintenance. Therefore, the irrigation and drainage systems are dilapidated and unable to effectively convey irrigation and floodwaters. This led to inequitable distribution of irrigation water, with upstream farmers benefiting, and increased flooding due to overtopping or breaching of embankments. Some of the tail-end areas no longer have access to irrigation water. Malfunctioning tail-end regulators led to seawater ingress along channels. In the lower reaches of the delta, the availability of fresh groundwater is limited as a result of variable recharge and saline aquifers.</p>
Impact	(i) Coastal districts are protected from cyclones and flooding exacerbated by climate change (Vision Tamil Nadu, 2023) (ii) Innovative and inclusive economic growth, including agricultural growth, in Tamil Nadu is accelerated (Twelfth Five Year Plan, 2012 2017)

Project Outcome

Description of Outcome	Climate-resilient water management in the Vennar System improved
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Progress Toward Outcome Too early to assess; loan became effective on 2 September 2016.

Implementation Progress

Description of Project Outputs	Flood risk management and irrigation infrastructure upgraded Improved water and flood risk management systems established
Status of Implementation Progress (Outputs, Activities, and Issues)	Civil works for infrastructure improvements and reconstruction on Pandavaiyar and Vellaiyar rivers commenced in March and June 2016, respectively. Contracts for civil works on Harichandranathi, Adappar, Valavanar, and Vedharnayam and Uppanar, and for design and installation of pumps were awarded in November 2016. Works will commence in February 2017. Consultants are being recruited for Output 2.
Geographical Location	

Safeguard Categories

Environment	B
Involuntary Resettlement	A
Indigenous Peoples	C

Summary of Environmental and Social Aspects

Environmental Aspects	An initial environmental examination was prepared. Key negative impacts expected are typical to those related to construction, such as noise, dust, impacts on vegetation on embankments, increased turbidity due to desilting operations and impacts associated with disposal of dredged material. Appropriate mitigation measures have been identified and included in the environmental management plan. Stakeholders were consulted during project design and will continue to be consulted during implementation.
Involuntary Resettlement	A resettlement plan is being implemented. The project will not involve any land acquisition. All works and improvements to the canal and irrigation system will be within the available right-of-way. Approximately 12,887 squatters living along the embankment will receive compensation to relocate or will be offered a house in another area. Grievance redress committees are being established in the districts of Thiruvavur, Nagapattinam, and Thiruthurai, headed by the district collector.
Indigenous Peoples	The due diligence found that there are no indigenous peoples, as defined by ADB's Safeguard Policy Statement (2009), in the project area.

Stakeholder Communication, Participation, and Consultation

During Project Design	During project preparation, extensive consultations were held with project stakeholders and affected persons.
During Project Implementation	Channel Stakeholder Groups will be established for each of the six main channels to discuss project progress and agree on the effective use of water. Field Implementation Coordination Committees are established in each project district. The project's communications plan outlines other communications activities and may be found in Appendix F of the Project Administration Manual.

Business Opportunities

Consulting Services	Project implementation consultants will be engaged as individuals to support the project management and project implementation units. An NGO will be engaged to support the implementation of the resettlement plan. A firm will be recruited to design a decision support system and conduct a feasibility study and detailed design for a follow-on project.
Procurement	The procurement plan calls for 6 civil works packages and one package for the pump stations, all using national competitive bidding procedures. Field hydro-meteorological and office equipment will also be purchased.

Responsible Staff

Responsible ADB Officer	Malvicini, Cynthia
Responsible ADB Department	South Asia Department
Responsible ADB Division	Environment, Natural Resources & Agriculture Division, SARD
Executing Agencies	<i>Water Resources Department, Public Works Department, Government of Tamil Nadu</i> <i>CEOMWRD@VSNL.NET</i> <i>Chepauk, Chennai 600 005</i> <i>Tamil Nadu, India</i>

Timetable

Concept Clearance	20 Sep 2012
Fact Finding	21 Apr 2015 to 28 Apr 2015
MRM	23 Feb 2016
Approval	07 Jun 2016
Last Review Mission	-
Last PDS Update	30 Jan 2017

Loan 3394-IND

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
07 Jun 2016	14 Jul 2016	02 Sep 2016	30 Jun 2021	-	-

Financing Plan		Loan Utilization			
	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	144.00	Cumulative Contract Awards			
ADB	100.00	07 Jun 2016	101.65	0.00	102%
Counterpart	44.00	Cumulative Disbursements			
Cofinancing	0.00	07 Jun 2016	7.09	0.00	7%

Project Page	https://www.adb.org/projects/44429-013/main
Request for Information	http://www.adb.org/forms/request-information-form?subject=44429-013
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