



# Tranche Report

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Project Number: 43253-026  
MFF Number: 0085  
August 2019

## India: Karnataka Integrated and Sustainable Water Resources Management Investment Program (Tranche 2)

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Asian Development Bank



## CURRENCY EQUIVALENTS

(as of 18 July 2019)

Currency unit	–	Indian rupee (₹)
₹1.00	=	\$0.015
\$1.00	=	₹68.81

## ABBREVIATIONS

ADB	–	Asian Development Bank
EMP	–	environmental management plan
ha	–	hectare
IWRM	–	integrated water resources management
MFF	–	multitranchise financing facility
TOCR	–	Tungabhadra Otter Conservation Reserve
VNC	–	Vijayanagara Channels

## NOTE

In this report, "\$" refers to United States dollars.

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## TRANCHE AT A GLANCE

1. Basic Data		Project Number: 43253-026	
Project Name	Karnataka Integrated and Sustainable Water Resources Management Investment Program - Tranche 2	Department/Division	SARD/SAER
Country Borrower	India Government of India	Executing Agency	Advanced Centre for Integrated Water Resources Management, Karnataka Neeravari Nigam Limited
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Agriculture, natural resources and rural development	Irrigation	54.60	
	Rural water policy, institutional and capacity development	18.20	
	Water-based natural resources management	18.20	
		Total	91.00
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Climate Change impact on the Project	Medium
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	ADB Financing	
	Natural resources conservation	Adaptation (\$ million)	13.80
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Civil society participation	Effective gender mainstreaming (EGM)	✓
Knowledge solutions (KNS)	Institutional systems and political economy		
Partnerships (PAR)	Organizational development		
	Pilot-testing innovation and learning		
	Civil society organizations		
	Implementation		
	Private Sector		
	Regional organizations		
5. Poverty and SDG Targeting		Location Impact	
Geographic Targeting	No	Rural	High
Household Targeting	No	Urban	Low
General Intervention on Poverty	Yes		
SDG Targeting	Yes		
SDG Goals	SDG1, SDG2, SDG5, SDG6, SDG10, SDG12, SDG13		
6. Risk Categorization:	Complex		
7. Safeguard Categorization	Environment: A Involuntary Resettlement: C Indigenous Peoples: C		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		91.00	
Sovereign MFF-Tranche (Regular Loan): Ordinary capital resources		91.00	
Cofinancing		0.00	
None		0.00	
Counterpart		39.00	
Government		39.00	
		Total	130.00
Currency of ADB Financing: USD			

## TRANCHE AT A GLANCE

Date of Receipt by ADB of PFR: 8 July 2019

Tranche Number: 2

### 9. Country Operations Business Plan

CPS

<https://www.adb.org/sites/default/files/institutional-document/363331/cps-ind-2018-2022.pdf>

COBP

<https://www.adb.org/sites/default/files/institutional-document/448116/india-c-obp-2019-2021-27-aug-18-president-approved.pdf>

### 10. Tranche Summary

The investment program will improve water availability in selected river basins in Karnataka by implementing integrated water resources management (IWRM). Output 1 of Project 2 will: (i) prepare the middle Krishna Basin Plan; (ii) expand the state water resources information system; and (iii) continue strengthening WRD staff with IWRM training. Output 2 will modernize the Vijayanagara Channels subproject to: (i) reduce irrigation water consumption; and (ii) improve water delivery service to allow farmers to increase cropping intensities. Under Output 2, the project will also establish and strengthen 30 water user cooperative societies and provide gender sensitization training to WRD staff and WUCS.

**Impact:** (i) Sustainable water security in selected river basins in Karnataka improved; and (ii) Water use efficiency in irrigated agriculture improved

**Outcome:** IWRM successfully implemented in selected river basins in Karnataka

**Outputs:** (i) State and basin institutions for integrated water resources management strengthened, (ii) VNC irrigation system infrastructure and management modernized, and (iii) Program management systems operational

**Implementation Arrangements:** Advanced Centre for Integrated Water Resources Management and Karnataka Neeravari Nigam Limited will be the executing agencies.

**Project Readiness:** Project readiness is high. The first of two works packages under Project 2 was awarded on 8 March 2019. The bidding document for the second works package is being finalized. The Program Support Consultant (Tranche 1) will initially continue to support the PMU and PIO in implementing Project 2 through a contract amendment while the Program Support Consultant (Tranche 2) is recruited. Environmental and social safeguards were assessed following ADB's Safeguard Policy Statement, 2009. An environmental impact assessment for Project 2 has been disclosed on ADB's website on 4 July 2018. A social safeguards due diligence report has also been prepared to confirm that no land acquisition is expected under Project 2.

### 11. Significant Developments in the MFF and Previous Tranches

As of 31 December 2018, the overall performance of the investment program is on track. However, the rating for timelines is rated at-risk because the last financing tranche was not executed as planned in August 2015. The MFF availability period was extended from 7 to 10 years with completion date of 24 September 2024. The investment program's roadmap comprises six key IWRM themes: (i) integrated river basin management; (ii) institutions and policies for IWRM; (iii) data, information and knowledge management; (iv) IWRM based irrigation management; (v) improving water use efficiency and water productivity; and (vi) stakeholder participation. Under Output 1 of Project 1, progress is being made against all six themes and will continue throughout the investment program. In particular, a State IWRM Strategy and a draft State Water Resources Policy have been prepared. The policy document is now under consideration by key stakeholders. The government is in compliance with all facility-level undertakings set out in the framework facility agreement that are currently required to be complied with, including the requirement to implement the sector road map and other sector-related commitments. Tranche 1 (Loan 3172) for \$31 million was approved on 17 October 2014, committed on 7 May 2015 and became effective on 13 July 2015. Tranche 1 is rated on track. Partial cancellation of \$5 million became effective on 6 May 2019. As of 5 August 2019, contract awards amounted to \$25.5 million and disbursement amounted to \$19.8 million. All particular loan covenants are being complied with, including all safeguards-related covenants.

### 12. Milestones

**Estimated Approval**  
30 September 2019

**Estimated Completion<sup>a</sup>**  
31 March 2024

### 13. Linked Documents

	Required Document	Disclosure Date
MFF	Report and Recommendation of the President	
Weblink:	<a href="http://www.adb.org/projects/documents/karnataka-integrated-and-sustainable-water-resources-management-investment-program-rfp">http://www.adb.org/projects/documents/karnataka-integrated-and-sustainable-water-resources-management-investment-program-rfp</a>	06-OCT-2014
Tranche	Draft Periodic Financing Request Report	
Weblink:	<a href="http://www.adb.org/Documents/LinkedDocs/?id=43253-026-DraftPFR">http://www.adb.org/Documents/LinkedDocs/?id=43253-026-DraftPFR</a>	The Final PFR Report is disclosed upon approval
(i) Environment	EIA - Environmental Impact Assessment	
Weblink:	<a href="https://www.adb.org/projects/documents/ind-43253-026-eia-0">https://www.adb.org/projects/documents/ind-43253-026-eia-0</a>	27-JUN-2019
	EIA - Environmental Impact Assessment	
	<a href="https://www.adb.org/projects/documents/ind-43253-026-eia">https://www.adb.org/projects/documents/ind-43253-026-eia</a>	04-JUL-2018
(ii) Involuntary resettlement	RF - Resettlement Framework	
Weblink:	<a href="https://www.adb.org/projects/documents/ind-43253-026-rp">https://www.adb.org/projects/documents/ind-43253-026-rp</a>	10-JUL-2018

<sup>a</sup> For Tranches, this refers to the financial closing date.

## I. PROPOSAL

1. Conversion of \$91 million into a tranche to finance the second project of the Karnataka Integrated and Sustainable Water Resources Management Investment Program in India is proposed for Board consideration.

## II. BACKGROUND

2. The investment program of the Asian Development Bank (ADB) will improve water availability to meet competing water demands in selected river basins in the State of Karnataka by implementing integrated water resources management (IWRM). By strengthening water use efficiency in irrigated agriculture, it will help provide economic opportunities and improve rural incomes.

3. On 25 September 2014, the ADB Board approved the provision of loans to India under a multitranche financing facility (MFF) of up to \$150 million equivalent to be implemented between October 2014 and September 2024.<sup>1</sup> Each tranche of the MFF has the following outputs:

- (i) **State and basin institutions for IWRM strengthened.** The program will strengthen the state's water governance by (a) developing and implementing river basin plans to manage water resources better; (b) building capacity for and ensuring certification of Water Resources Department staff in IWRM; and (c) establishing a state water resources information system.
- (ii) **Irrigation system infrastructure and management modernized.** Three irrigation systems in the Upper Krishna Basin will be modernized: (a) Gondi (4,600 hectares [ha]) is being modernized under the first tranche; (b) tranche 2 will finance the modernization of the Vijayanagara Channels (VNC, 11,150 ha);<sup>2</sup> and (c) tranche 3 will finance the partial modernization of the Tungabhadra Left Bank Canal system (the total system covers 144,000 ha, of which at least 40,000 ha will be financed under the MFF). This output will also operationalize asset management and operation and management systems for each irrigation system.
- (iii) **Program management systems operational.** This output will ensure delivery of the investment program's outputs on time and within budget.

4. The tranche 2 project (Project 2) will finance the modernization of the VNC's main irrigation infrastructure, construction of farmer irrigation canals, and on-farm extension services to help farmers improve their agricultural and water application practices. The main works components involve repairing 12 anicuts (dams) in the Tungabhadra River; intake structures; and about 442 kilometers of main, distributary, and minor canals. Project 2 will also establish and strengthen 30 water user cooperative societies in the project area, which will then be responsible for improving their farmer irrigation canals. The tranche 2 periodic financing request report summarizes the background to and status of the investment program. It also presents a summary of the Project 2 activities, and a review of due diligence, approval process, and recommendations.<sup>3</sup>

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<sup>1</sup> ADB. 2014. [\*Report and Recommendation of the President to the Board of Directors: Proposed Multitranchise Financing Facility to India for the Karnataka Integrated and Sustainable Water Resources Management Investment Program\*](#). Manila. An extension to the MFF from 30 September 2021 to 24 September 2024 was approved on 26 July 2019.

<sup>2</sup> The Vijayanagara Channels was initially constructed between 1336 and 1646 during the Vijayanagara Empire to irrigate about 11,150 hectares of arable land along both sides of the Tungabhadra River near Hospet.

<sup>3</sup> Periodic Financing Request Report (accessible from the tranche at a glance).

### III. DUE DILIGENCE ON ENVIRONMENTAL IMPACT

5. The proposed safeguard categorization for Project 2 is *A* for environmental impact under ADB's Safeguard Policy Statement (2009). An environmental impact assessment was prepared and disclosed on ADB's website on 4 July 2018.<sup>4</sup>

6. The environmental impact category *A* is proposed because several VNC anicuts and canals are in the Tungabhadra Otter Conservation Reserve (TOCR) along Tungabhadra River and in the Hampi World Heritage Area. According to the environmental impact assessment, the main receptors of the impacts are (i) the river wildlife, (ii) cultural heritage structures, (iii) ambient air and surface water, and (iv) nearby habitations. The measures detailed in the environmental management plan (EMP) will mitigate all adverse environmental impacts on the TOCR; the Hampi World Heritage Area; and other non-sensitive areas during project implementation. The project's activities may temporarily hamper the movement of otters, but EMP measures such as temporary bunding will preserve their habitat. Once completed, the project will have improved the availability of water throughout the year and will provide favorable conditions for the otters and other aquatic wildlife. The project has received clearance from the Hampi World Heritage Area Management Authority for undertaking the works within the Hampi heritage areas. The project is awaiting clearance from the state and national wildlife boards for working within the TOCR; no works will start in the reserve until clearance has been obtained.

7. The first formal consultation, held in April 2018, was attended by various state and central stakeholders, including Archaeological Survey of India, Hampi World Heritage Area Management Authority, State Archaeological Department, Karnataka Forest Department, Karnataka State Pollution Control Board, and urban local bodies. A second public consultation was held in May 2018 and attendees comprised project beneficiaries, including farmers from different water user cooperative societies, nongovernment organizations, and government stakeholders. The consultations covered the project's scope and implementing arrangements, particularly clarifications about the TOCR and the Hampi heritage areas. The public expressed strong support for the project because of the benefits from better water availability in the project area.

8. Karnataka Neeravari Nigam Limited, the executing agency for Project 1, will also be responsible for executing Outputs 2 and 3 of Project 2. Project 1 was categorized *B* for environmental impacts. The implementation of Project 1 is on track, and compliance with the environmental safeguard requirements is being monitored in line with ADB's Safeguard Policy Statement (2009). No major issues arose during implementation. Examples of monitoring and mitigation activities were: (i) monitoring the quality of air, water, and noise; (ii) convening regular workshops on occupational health and safety; (iii) maintaining all necessary documentation in compliance with the EMP; and (iv) preparing a closure plan for all burrow pits. Karnataka Neeravari Nigam Limited demonstrated that it can manage the environmental safeguards satisfactorily. An independent environmental monitor consultant will be engaged for Project 2.

### IV. RECOMMENDATION

9. The President recommends that the Board authorize the conversion of \$91 million into a tranche to finance project 2 of the Karnataka Integrated and Sustainable Water Resources Management Investment Program in India.

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<sup>4</sup> Environmental Impact Assessment (accessible from the list of appendixes in the Periodic Financing Request Report).