Technical Assistance Report

Project Number: 55082-002
Transaction Technical Assistance (TRTA)
June 2021

India: Supporting COVID-19 Response and Vaccination Program

Asian Development Bank

CURRENCY EQUIVALENTS
(as of 21 May 2021)

Currency unit	–	Indian rupee/s (₹)
₹1.00	=	$0.01369
$1.00	=	₹73.0087

ABBREVIATIONS

ADB	–	Asian Development Bank
BMW	–	biomedical waste
COVID-19	–	coronavirus disease
MOHFW	–	Ministry of Health and Family Welfare
PMU	–	program management unit
TA	–	technical assistance
WHO	–	World Health Organization

NOTES

(i) The fiscal year (FY) of the Government of India ends on 31 March. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2021 ends on 31 March 2021.

(ii) In this report, “$” refers to United States dollars unless otherwise stated.

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TRANSACTION TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data — **Project Number:** 55082-002

Project Name	Supporting COVID-19 Response and Vaccination Program	**Department/Division**	SARD/SAHS
Nature of Activity	Capacity Development	**Executing Agency**	Ministry of Health and Family Welfare
Modality	Regular		
Country	India		

2. Sector

	Sector	Subsector(s)	ADB Financing ($ million)
✓	Health	Disease control of communicable disease	2.00
		Total	**2.00**

3. Operational Priorities

- ✓ Addressing remaining poverty and reducing inequalities
- ✓ Accelerating progress in gender equality
- ✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability
- ✓ Fostering regional cooperation and integration

Climate Change Information

GHG Reductions (tons per annum)	24.000
Climate Change impact on the Project	Low
ADB Financing	
Adaptation ($ million)	0.00
Mitigation ($ million)	0.00
Cofinancing	
Adaptation ($ million)	0.00
Mitigation ($ million)	0.47

Sustainable Development Goals

SDG 1.5
SDG 3.3, 3.8
SDG 5.1
SDG 10.3
SDG 13.a

Gender Equity and Mainstreaming

Effective gender mainstreaming (EGM) ✓

Poverty Targeting

General Intervention on Poverty ✓

4. Risk Categorization Complex

5. Safeguard Categorization Safeguard Policy Statement does not apply

6. Financing

Modality and Sources	Amount ($ million)
ADB	**2.00**
Transaction technical assistance: Technical Assistance Special Fund	2.00
Cofinancing	**5.00**
Japan Fund for Poverty Reduction (Full ADB Administration)	5.00
Counterpart	**0.00**
None	0.00
Total	**7.00**

Currency of ADB Financing: US Dollar

I. THE ENSUING PROJECT

1. The coronavirus disease (COVID-19) pandemic has enormous human and socioeconomic toll on the Indian population. The government and society are taking measures to contain the infection. Vaccination is a critical strategy to combat the formidable virus. India already commenced implementation of a national vaccination program since 16 January 2021. The proposed Responsive COVID-19 Vaccines for Recovery (RECOVER) Project under the Asia Pacific Vaccine Access Facility (APVAX) will provide the government with immediate and flexible financing to procure safe and effective vaccines to inoculate around 97 million people from priority population according to the government's national deployment and vaccination plan.[1] The indicative impact is universal access to good quality health care services achieved.[2] The financing is expected to be $1.5 billion under rapid response component of the APVAX.

II. THE TECHNICAL ASSISTANCE

A. Justification

2. Since the first COVID-19 case was reported in India on 30 January 2020, India's cumulative confirmed cases rose to 21.5 million with 234,083 deaths, as of 7 May 2021. India is currently going through the second wave, with over 6.1 million new cases and around 53,000 deaths reported within a span of 17 days between 21 April and 7 May 2021. The pandemic and the public health measures to curb the spread of the virus including lockdowns have severely affected the population, especially the poor and disadvantaged groups.[3] With the severe second wave, India's health system is struggling with high demand for hospital beds, life-saving oxygen, therapeutics, and medical personnel. The government is taking steps to address these issues, but immediate support is very much needed to address the hike in demand due to the rapidly increasing caseload.

3. Vaccination is key to reverse the negative impacts of the pandemic by preventing infections and protecting the population from death and morbidities as well as allowing the economy and society back to the pre-COVID-19 development trajectory. Building upon the Universal Immunization Program (vaccination for children and pregnant women), India quickly enhanced the systems for the unprecedented national vaccination program.[4] India's vaccination program started from health care workers and frontline workers since 16 January 2021. On 1 March 2021, the coverage was expanded to those above 60 years of age and those above 45 years of age with comorbidities (a list of 20 comorbidities was outlined to substantiate vaccine eligibility). Thereafter, the priority groups were expanded, first, to all persons above 45 years of age from 1 April 2021, followed by anyone above 18 years from 1 May 2021. The country has administered 164 million vaccine doses: 10.7% of the population has received at least one dose of the vaccine and 2.5% have received both doses as of 7 May 2021. Private sector providers were roped in to increase coverage since 1 March 2021, and their roles have become increasingly important as the government allows the private sector to directly procure and deliver vaccines

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[1] India's official request to access the Asia Pacific Vaccine Access Facility (APVAX) is currently pending subject to the government's internal approval process. The beneficiary number is indicative, assuming two-dose regime, $7 per dose, and 10% waste rate, which are subject to further assessment as the vaccine supply market rapidly changes.

[2] Aligned with Government of India, Ministry of Health and Family Welfare (MOHFW). 2017. *National Health Policy 2017.* New Delhi.

[3] Disadvantaged groups refer to those who have historically been unable to fully access or benefit from social, economic, and political investments due to their identities (*systemic disadvantage*) and/or because of their vulnerability (*situational disadvantage*). Source: SARD. 2021. *SARD's Approach to Gender Equality and Social Inclusion Presentation.* Manila.

[4] National Health Portal, India. Universal Immunization Programme (accessed 5 May 2021).

manufactured outside of India. It is the largest mass vaccination program ever tried in human history, and this requires strong planning and monitoring capacity to respond to emerging situations while coordinating across numerous stakeholders in a complex federal governance system. Further, Indian vaccine manufacturers are expanding production capacity, which has implications for the containment of the pandemic in the region and beyond. India also donated 7.35 million doses of vaccines to its neighboring countries.[5]

4. While the vaccination is open to everyone in the priority groups (now by age cohort), there are several demand side constraints, especially for the poor, women, older people, persons with disabilities, residents in rural and remote areas, and other disadvantaged minority groups who may not have adequate information and awareness of benefits and risks of vaccines, may face physical distance, or lack mobility, and other socioeconomic barriers to vaccination. Women could be less prioritized for vaccination as their role for family care requires less activities outside of their residence, but they are still exposed to the virus through other family members. Women's role in family care makes it even more important that women are vaccinated. For herd immunity, disadvantaged groups should be prioritized as they can be source of further outbreak unless they develop immunity and break the chain of infection. With the current surge, lots of volunteers, community groups, and the private sector are providing support to communities, but with little guidance and resources. Helping them to effectively and safely provide services to others is important to contain infection as well as facilitate vaccination access.

5. The transaction technical assistance (TA) will (i) provide emergency supply of oxygen to reduce fatalities from the second wave of COVID-19 pandemic, and (ii) build capacity of stakeholders to effectively implement the national vaccination program by addressing the gap areas identified by the due diligence assessments of the proposed RECOVER Project under APVAX.[6] The RECOVER Project will provide vaccines eligible under APVAX criteria while the TA support will provide catalytic operational support through a program management unit, monitoring of vaccination sites, building private sector capacity for vaccination, strengthening biomedical waste (BMW) management capacity, effective risk communication targeting disadvantaged groups, improved outreach employing solar-powered cold chain equipment, and providing evidence-based policy inputs to enhance health system preparedness for future pandemics.

B. Outputs and Activities

6. The outputs and activities are described below.[7]

7. **Output 1: National vaccination program implementation supported**. This output would focus on strengthening central level vaccine deployment policy and state level deployment activities through capacity building and oversight. The Universal Immunization Programme has been centrally driven over the past several decades. As the states are taking the responsibilities for procuring and delivering COVID-19 vaccines, the central government would coordinate various resources to support states and build state capacity through supportive oversight in different aspects of vaccination program. This output will assist Ministry of Health and Family Welfare (MOHFW) (i) to establish a program management unit (PMU) under its Immunization Division to provide support and guidance to states in responding to emerging concerns while following the

[5] This includes 3.3 million doses for Bangladesh, 1.7 million for Myanmar, 1.1 million for Nepal, 550,000 for Bhutan, 200,000 for Maldives, 500,000 for Sri Lanka. India also donated to 47 other countries globally.

[6] The TA and the ensuing loan were not included in Asian Development Bank's (ADB) current country operation and business plan as they are proposed to respond to the ongoing second wave of COVID-19 pandemic.

[7] Summary of Activities and Performance Indicators by Output (accessible from the list of linked documents in Appendix 2).

directions of the National Expert Group on Vaccine Administration for COVID-19; (ii) to support the field level monitoring of vaccination sites and cold chain points; (iii) to carry out dynamic analysis of data disaggregated by gender (men; women and others), rural and urban and priority groups from digital platforms to inform decision making;[8] and (iv) assist the government to compile and reflect the lessons from the COVID-19 vaccination, including gender equality and social inclusion aspects, for future pandemic response or national vaccination programs.

8. **Output 2: Private sector engagement in COVID-19 vaccination supported.** This output would focus on enhanced engagement and capacity building of private sector vaccination service providers for adherence to the COVID-19 Vaccines Operational Guidelines issued by the MOHFW. The Government of India has roped in more than 6,000 private health facilities have been providing COVID-19 vaccination. Under the new strategy of extending vaccination to population aged 18 years or above, engagement of private health facilities is likely to increase. Private health sector in India is mostly focused on curative care and has limited experience with universal vaccination; moreover, they will be administering different formulations of COVID-19 vaccines including imported products. Since different COVID-19 vaccines vary in their storage requirements, dosage schedules, and routes of administration, hence engagement and capacity building of private sector service providers are important to ensure safe and effective vaccination.

9. **Output 3: Management and safe disposal of immunization waste improved**. Increased BMW from COVID-19 response including those from vaccination sites would strain the existing treatment capacity in some states and the capacity of the related workforce in dealing with these. This output aims to strengthen monitoring of BMW management through field level monitors of vaccination sites and in improving the tracking of the disposal process and record keeping. This output will also (i) develop standard operating procedures and various information materials for dissemination;[9] (ii) support capacity building of over 2,000 healthcare and frontline workers (40% women) and 200 civil society organizations and nongovernment organizations;[10] as well as (iii) develop guidance on improved BMW disposal practices such as deep burial or incineration. This output will be further enhanced by demonstrating best practice examples through hand-holding support in 10 vaccination centres in three selected states including Delhi, Rajasthan, and Tamil Nadu. Findings would be shared widely through webinars for possible scaling up and adoption across other states. Together, these activities would help sustain focus on BMW management including driving policy level discussions.

10. **Output 4: Adequate oxygen supply for severe COVID-19 cases in selected health facilities provided**. This output will provide oxygen and related supplies to help manage COVID-19 positive patient load. The COVID-19 care facilities are facing a high burden with shortages of oxygen supply, which is critical in reducing COVID-19 mortality. Because the needs at the facility level are rapidly shifting, the decisions on oxygen and equipment allocations will be dynamic, keeping in mind the caseload trend in the identified catchment areas and previous equipment supplied. The Asian Development Bank (ADB) is already supporting a medical oxygen PMU as part of its capacity building support to the MOHFW.[11] The PMU has undertaken district-wise oxygen storage inventory mapping of the states and is continuously working on an allocation and distribution plan in real time given the shifting needs. The equipment will remain useful after the

[8] PMU will draw on the field level monitoring carried out by WHO and other partners in carrying out such analysis.
[9] Communication tools would be developed including infographics, posters, and short videos in local languages.
[10] Mediums of training would include on-line, classroom and onsite training. Target group would include administrators and health care managers; medical, paramedical, cleaners and waste handlers in health facilities; and training of trainers. Staff from common biomedical waste treatment facilities may be included in the training in coordination with the state pollution control authorities.
[11] ADB. 2020. *Technical Assistance to India for COVID-19 Active Response and Expenditure Support Program.* Manila.

pandemic for other conditions such as pulmonary hypertension and respiratory illnesses such as pneumonia which threatens many older people, infants, and young children in India. This output will also include capacity building to further strengthen immediate response activities.

11. **Output 5: Awareness of COVID-19 and vaccination program among disadvantaged groups increased.** This output will increase visibility on COVID-19 appropriate behaviors and information on vaccination around vaccination centers and catchment areas (rural). It will also enhance risk communications and community engagement outreach, especially targeting the poor, women, older people, persons with disabilities, residents in rural and remote areas, and other disadvantaged minority groups, through various networks and platforms, including women's groups in rural areas, community-based frontline workers (incl. *anganwadi* and social health activist workers) appointed under the Integrated Child Development Services program of the Ministry of Women and Child Development. The TA will also establish partnerships with rural banking networks, and new types of civil society organizations as an innovative pathways to reach out larger underserved population. This activity will target at least 20 partners, networks, or platforms. Monitoring of proposed interventions would be constantly undertaken to assess effectiveness and improvement in vaccine uptake. Further details including indicative locations are provided in the terms of reference.[12]

12. **Output 6: Cold chain capacity for COVID-19 vaccination in rural and remote areas with limited electricity enhanced**. Rural and remote areas face constraints in stable supply of electricity with at least 10% of villages not yet connected to the grid as of 2019. COVID-19 vaccines have stringent requirements for cold chain temperatures and disruptions in power supply could result in vaccine wastage. The TA will provide around 50 pieces of solar direct drive combo vaccine storage equipment[13] for health facilities or vaccination sites in rural or remote areas.[14] The equipment will benefit not only COVID-19 vaccine beneficiaries but will also benefit children and pregnant women for routine vaccinations and will continuously support vaccination and primary health care service provision in rural and remote areas. Further, the output will also focus on capacity building of health care workers and cold chain handlers (at least 50% women) in the use and maintenance of the new equipment through trainings and operational manual development.

C. Cost and Financing

13. The TA is estimated to cost $7,000,000, of which (i) $2,000,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other Sources) and (ii) $5,000,000 will be financed on a grant basis by the Japan Fund for Poverty Reduction and administered by ADB. The key expenditure items are listed in Appendix 1. Outputs 1, 2, and 3 will be financed by TASF while Output 4, 5, and 6 will be financed by JFPR.[15] The government will provide counterpart support in the form of counterpart staff, coordination support, and other in-kind contributions. The

[12] Terms of Reference for Consultants (accessible from the list of linked documents in Appendix 2). The activities under output 2 will be carried in states selected from Andhra Pradesh, Assam, Bihar, Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh, Rajasthan, Uttar Pradesh, and West Bengal.

[13] The solarization of primary healthcare facilities will include 3 states with one state each from (i) North Eastern states; (ii) tribal states (Madhya Pradesh, Rajasthan, or Chhattisgarh); and (iii) high population states (Maharashtra, Odisha, Gujarat, Jharkhand, or West Bengal). In addition, tentatively, 50 primary healthcare facilities across the North Eastern states will benefit from the solar powered equipment.

[14] The 50 solar direct drives will contribute to an approximate reduction of 24,000 to 28,000 kg of CO_2 emissions per year as compared to the average CO_2 emissions of the existing cold chain equipment. The figure represents the indirect CO_2 emissions based on electricity use during operations converted to emissions quantity using country specific emission factors.

[15] Including climate change financing estimated as around $465,000.

government was informed that approval of the TA does not commit ADB to finance any ensuing project.

D. Implementation Arrangements

14. The executing agency will be MOHFW, and the implementing agency will be the Immunization Division, MOHFW. ADB will administer the TA. Human and Social Development Division of South Asia Department will select, supervise, and evaluate consultants. The implementation arrangements are summarized in the table below.

Implementation Arrangements

Aspects	Arrangements		
Indicative implementation period	June 2021–May 2023		
Executing agency	MOHFW		
Implementing agency	Immunization Division, MOHFW		
Consultants	PMU Consultants to be selected using ICS method by ADB	83 person-months (national) 12 person-months (international)	$900,000
	Consultants or services to be engaged by UN agencies[b] and may use competitive or direct contracting as appropriate[c]	Several contracts or agreements	$2,625,000
Procurement[a]	To be procured by UN agencies[b] and may use competitive or direct contracting procurement method as appropriate[c]	2 contracts	$3,475,000
Disbursement	The TA resources will be disbursed following ADB's *Technical Assistance Disbursement Handbook* (2020, as amended from time to time). TASF is for activities under outputs 1 to 3 while JFPR for output 4 to 6.		
Asset turnover or disposal arrangement upon TA completion	TA-financed equipment will be turned over to MOHFW and MOHFW-assigned health facilities upon delivery.		

ADB = Asian Development Bank, ICS = individual consultant selection, MOHFW = Ministry of Health and Family Welfare, PMU = program management unit, TA = technical assistance, TASF = Technical Assistance Special Fund, UN = United Nations.
Note: Consultants cost estimates include contract contingencies.
Source: Asian Development Bank.

[a] Procurement Plan (accessible from the list of linked documents in Appendix 2).
[b] Based on the Memorandum of Understandings signed with UNICEF (2018) and WHO (2018) and their associated Administrative Arrangement (AA).
[c] ADB (Procurement, Portfolio and Financial Management Department). 2020. Updated Emergency Procurement Guidance on Responding to the Coronavirus Disease 2019 (COVID-19). Memorandum. 6 April (internal).

Source: Asian Development Bank.

15. All disbursements under the TA will be done in accordance with ADB's Technical Assistance Disbursement Handbook (2020, as amended from time to time). The TA will establish administrative arrangements with United Nations agencies to deliver equipment for emergency purposes and carry out the TA activities. The equipment will be handed over to MOHFW or MOHFW-assigned health facilities upon delivery. The TA will be implemented over a period of 24 months and is expected to be completed in May 2023.

16. **Consulting services**. The TA will involve 95 person-months of services by international and national consultants on input-based contracts to support the national vaccination PMU for Output 1 and will engage the consultants following ADB's Procurement Policy (2017, as amended from time to time) and its associated staff instructions (footnote 12).

17. **Engagement of United Nation agencies**. The proposed TA activities are complex and specialized as they provide emergency assistance to the government and support an unprecedented large scale adult vaccination program using rapidly developed new vaccines on emergency use authorization. Therefore, the TA will engage the World Health Organization (WHO) for Outputs 1 (ii) and (iv), 2, and 3, considering its pivotal role in technical advisory function on program preparation, implementation, capacity development, and monitoring and evaluation. WHO also has strong field presence and working relationship with public and private healthcare providers. The United Nations Children's Fund (UNICEF) will be engaged to deliver Outputs 4, 5, and 6 given its strong links to medical supply markets, emergency operations, capacity to mobilize and support various grassroot organizations and networks, and experience in supply and logistics for COVID-19 response.

III. THE PRESIDENT'S DECISION

18. The President, acting under the authority delegated by the Board, has approved (i) the Asian Development Bank administering a portion of technical assistance not exceeding the equivalent of $5,000,000 to be financed on a grant basis by the Japan Fund for Poverty Reduction and (ii) the provision of technical assistance not exceeding the equivalent of $2,000,000 on a grant basis to India for Supporting COVID-19 Response and Vaccination Program, and hereby reports this action to the Board.

COST ESTIMATES AND FINANCING PLAN

($'000)

Item	Amount
A. Asian Development Bank[a]	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	360.0
ii. National consultants	963.0
b. Out-of-pocket expenditures	
i. International and local travel	25.0
ii. Surveys	10.0
iii. Training, seminars, and conferences	400.0
iv. Reports and communications	3.0
v. Miscellaneous administration and support costs	5.0
vi. Others (printing and dissemination of RCCE materials)	100.0
2. Contingencies	134.0
Subtotal (A)	**2,000.0**
B. Japan Fund for Poverty Reduction[b]	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	180.0
ii. National consultants	400.0
b. Out-of-pocket expenditures	
i. International and local travel	80.0
ii. Surveys	25.0
iii. Training, seminars, and conferences	600.0
iv. Reports and communications	5.0
v. Miscellaneous administration and support costs	10.0
vi. Others (printing and dissemination of RCCE materials)	100.0
3. Goods (emergency supply of equipment)[c]	3,475.0
4. Contingencies	125.0
Subtotal (B)	**5,000.0**
Total	**7,000.0**

RCCE = risk communication and community engagement.

Note: The technical assistance (TA) is estimated to cost $7,000,000, of which contributions from the Asian Development Bank and Japan Fund for Poverty Reduction are presented in the table. The government will provide counterpart support in the form of counterpart staff, coordination support, and other in-kind contributions. The value of the government contribution is estimated to account for 10% of the total TA cost.

[a] Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-other sources). It will finance the activities under Outputs 1, 2, and 3.

[b] Administered by the Asian Development Bank. Japan Fund for Poverty Reduction funding will finance the activities under Outputs 4, 5, and 6.

[c] Procurement Plan (accessible from the list of linked documents in Appendix 2). TA-financed equipment will be turned over to MOHFW and MOHFW-assigned health facilities upon delivery.

Source: Asian Development Bank estimates.

LIST OF LINKED DOCUMENTS

http://www.adb.org/Documents/LinkedDocs/?id=55082-002-TAReport

1. Terms of Reference for Consultants
2. Summary of Activities and Performance Indicators by Output
3. Procurement Plan