



# Technical Assistance Report

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Project Number: 49110-002  
Capacity Development Technical Assistance (CDTA)  
August 2015

## India: Supporting the Preparation and Implementation of the Comprehensive Integrated Master Plan for the Vizag–Chennai Industrial Corridor (Financed by the Japan Fund for Poverty Reduction)

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**Asian Development Bank**

## CURRENCY EQUIVALENTS

(as of 11 August 2015)

Currency unit	–	Indian rupee/s (Re/Rs)
\$1.00	=	Re64.058
Re1.00	=	\$0.0156

## ABBREVIATIONS

ADB	–	Asian Development Bank
CDP	–	Conceptual Development Plan
ECEC	–	East Coast Economic Corridor
RPP	–	Regional Perspective Plan
TA	–	technical assistance
VCIC	–	Vizag–Chennai Industrial Corridor

## NOTE

In this report, "\$" refers to US dollars.

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## CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 49110-002</b>	
<b>Project Name</b>	Supporting the Preparation and Implementation of the Comprehensive Integrated Master Plan for the Vizag-Chennai Industrial Corridor	<b>Department /Division</b>	SARD/SARC
<b>Country Borrower</b>	India Not applicable	<b>Executing Agency</b>	Asian Development Bank
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>Financing (\$ million)</b>	
✓ Transport	Transport policies and institutional development	0.80	
Industry and trade	Industry and trade sector development	0.60	
Public sector management	Public administration	0.20	
Water and other urban infrastructure and services	Urban policy, institutional and capacity development	0.40	
		<b>Total</b>	<b>2.00</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Climate Change impact on the Project	Low
Regional integration (RCI)	Pillar 2: Trade and investment		
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Governance and capacity development (GCD)	Public financial governance	Some gender elements (SGE)	✓
Partnerships (PAR)	Bilateral institutions (not client government) Official cofinancing		
Private sector development (PSD)	Conducive policy and institutional environment		
<b>5. Poverty Targeting</b>		<b>Location Impact</b>	
Project directly targets poverty	No	Not Applicable	
<b>6. TA Category:</b>	B		
<b>7. Safeguard Categorization</b>	Not Applicable		
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>0.00</b>	
None		0.00	
<b>Cofinancing</b>		<b>2.00</b>	
Japan Fund for Poverty Reduction		2.00	
<b>Counterpart</b>		<b>0.03</b>	
Government		0.03	
<b>Total</b>		<b>2.03</b>	
<b>9. Effective Development Cooperation</b>			
Use of country procurement systems	No		
Use of country public financial management systems	No		

## I. INTRODUCTION

1. The technical assistance (TA) responds to a Government of India request to the Asian Development Bank (ADB) for support to prepare the master plan for the Vizag–Chennai Industrial Corridor (VCIC).<sup>1</sup> The VCIC is the initial development along the East Coast Economic Corridor (ECEC), India's first coastal corridor. ADB fielded consultation missions, and an agreement with the government was reached on the TA design and implementation arrangements.<sup>2</sup> The design and monitoring framework is in Appendix 1.

## II. ISSUES

2. India's manufacturing remains relatively underdeveloped compared to its Asian peers. In 2013, the share of manufacturing value added to gross domestic product in India was 17.3%<sup>3</sup> compared with 32.9% in Thailand, 31.8% in the People's Republic of China, and 23.7% in Indonesia.<sup>4</sup> Major constraints to realizing the full potential of the manufacturing sector are poor infrastructure facilities and systems. The most visible signs of lagging infrastructure are seen in the transport system (roads and rails), power grid, and water and sewerage system. Although the country has the world's largest road network of about 48.89 million kilometers, roads remain insufficient.<sup>5</sup> The country also faces unreliable and deficient power supply.<sup>6</sup> In addition, it is encountering water supply and management problems partly because of depletion of surface water and groundwater.<sup>7</sup> India must address these supply bottlenecks to boost the sector.

3. Recognizing the importance of a more dynamic manufacturing sector, the government in 2011 unveiled the National Manufacturing Policy, which aims to increase the share of manufacturing in gross domestic product to 25.0% and create 100 million jobs by 2022. The government also launched in September 2014 its "Make in India" initiative to attract international businesses to invest and manufacture in India, contributing to economic growth and job creation.

4. To help fulfill the national economic policy and strategic objectives of increasing the manufacturing share and creating jobs, the government also initiated developing industrial corridors that will stimulate economic activities through integration of domestic urban ("new smart cities") and industrial clusters, and connect its manufacturing base with regional value chains and global production networks.

5. South Asia is one of the least economically integrated regions in the world, with comparatively higher barriers to trade and investment. Therefore, a new approach to boosting job creation by strengthening the manufacturing sector is badly needed to realize the full potential of the 'demographic dividend.'<sup>7</sup> Integrated planning for transforming manufacturing and promoting urbanization should be the approach going forward. In view of this, economic corridors, comprising global manufacturing and commercial hubs that are self-contained, state-of-the-art and industrial cities, need to be developed. Economic corridor essentially involves the creation of an efficient multimodal transport network within a defined geography, supported by

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<sup>1</sup> The TA first appeared in the business opportunities section of ADB's website on 4 May 2015.

<sup>2</sup> The vice president for Operations 1 approved the TA concept paper on 23 April 2015.

<sup>3</sup> This was lower than the 2011 figure of 18.1%.

<sup>4</sup> World Bank. World Development Indicators Database. [http://www. http://www.worldbank.org/wdidata](http://www.worldbank.org/wdidata) (accessed 10 February 2015).

<sup>5</sup> Government of India, Ministry of Road Transport and Highways. 2014. *Annual Report 2013–14*. New Delhi.

<sup>6</sup> S. Pargal and S.G. Banerjee. 2014. *More Power to India: The Challenge of Electricity Distribution*. Washington, DC: World Bank.

<sup>7</sup> S. Perveen, R. Sen, and M. Ghosh. 2012. *India's Deepening Water Crisis: Water Risks for Indian Industries*. Federation of Indian Chambers of Commerce and Industry and Columbia University Water Center Report. New York, NY: Earth Institute, Columbia University.

quality infrastructure, logistics, a policy framework that facilitates doing business, and setting up distribution networks that link production centers, urban clusters, and international gateways. Prime examples of economic corridor projects in South Asia are those in India.

6. The ECEC is the first coastal corridor to be implemented in India with initial focus on the VCIC, an industrial corridor between Visakhapatnam (Vizag), an important tourist destination in Andhra Pradesh, and Chennai. It is also the first economic corridor to be developed under the South Asia Subregional Economic Cooperation Program.<sup>8</sup>

7. The ECEC is aligned with India's Golden Quadrilateral and is poised to play a critical role in India's "Act East Policy," a proactive initiative focused on increasing the integration of the Indian economy with the economies of the Association of Southeast Asian Nations. The ECEC's port-based connectivity stands out as it hosts several ports along the east coast, which would serve not only as international gateways, but more importantly as potential critical links in supply chains. The VCIC's approach of node-based development would help drive the growth of high potential industries supported by a multimodal transport network linking demand centers, urban clusters, and international gateways.

8. The master plan for the VCIC is the third and final phase of the development of the VCIC following the conceptual development plan (CDP) and the regional perspective plan (RPP). The preparation of the CDP and the RPP are being implemented under R-PATA 8254.<sup>9</sup> The CDP, which was submitted to the government of India in November 2014, focused on crafting a strategy for industrial transformation of the VCIC by identifying the key industries that will drive growth and the nodes in which they will be strategically located, taking into account land availability. The RPP, which is expected to be finished in December 2015, focuses on the assessment of the current status of the various sectors of the VCIC, and the identification of the demand and supply gap in each sector. The master plan will focus on the development of the sectors for each of the four industrial nodes. It will guide government agencies on how to initiate the development of the VCIC.

9. Improved connectivity and adequate urban infrastructure are crucial to strengthen India's industrial base. However, building infrastructure alone is not sufficient. To reinforce the "Make in India" initiative, the government launched the "Skill India" program in March 2015. This program will establish an international-equivalent skill development framework, creating workforce mobility and enhancing youth employability. Major initiatives were also undertaken in 2014 in line with improving business climate by simplifying and rationalizing business-related regulations, and broadening information technology use to make governance more efficient and effective. "Digital India," launched in July 2015, is another initiative that integrates the government's departments to promote effective governance and accessibility of services. The implementation of the master plan of the VCIC poses significant additional tasks for staff of national and local government agencies involved in economic corridor development and management.<sup>10</sup> The TA

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<sup>8</sup> The South Asia Subregional Economic Cooperation Program is a project-based economic cooperation program among Bangladesh, Bhutan, India, the Maldives, Nepal, and Sri Lanka. Priority sectors include transport, energy, and trade facilitation.

<sup>9</sup> R-PATA 8254 (Enhancing Economic Analysis and South Learning) is a technical assistance (TA) being implemented by SARD with the objective of helping decision makers from South Asian developing member countries make better-informed policies on critical economic and social issues, and encouraged them to learn from one another's development experiences, and those of other regions. The TA's analytical work on economic corridor development paved the way for initiating the development of the Vizag–Chennai Industrial Corridor (VCIC).

<sup>10</sup> Aside from East Coast Economic Corridor (ECEC) and the Vizag–Chennai Industrial Corridor (VCIC), there are other industrial corridors being developed in India. These include Delhi–Mumbai Industrial Corridor (DMIC), Chennai–Bengaluru Industrial Corridor (CBIC), Bengaluru–Mumbai Economic Corridor (BMEC), and Amritsar–Kolkata Industrial Corridor (AKIC).

will provide the necessary capacity building activities to these government staff to ensure that they have the necessary skills and knowledge to implement the development process of the industrial nodes of the VCIC.

### III. THE PROPOSED CAPACITY DEVELOPMENT TECHNICAL ASSISTANCE

#### A. Impact and Outcome

10. The impact will be improved readiness for implementation of the VCIC in line with the “Make in India” initiative. The outcome will be improved capacity of government agencies on economic corridor development and management.

#### B. Methodology and Key Activities

11. The TA has two major outputs with corresponding activities:

- (i) **Preparatory work for the development of the East Coast Economic Corridor initiated.** This, through master planning for VCIC, will involve (a) analysis of the current infrastructure and identification of supply gaps for projected demands arising from the forecasted industrial growth in the four nodes, (b) identification of a suitable regulatory structure that will guide national and local governments in managing the four nodes, and (c) formulation of strategies to engage foreign investors already operating elsewhere in India<sup>11</sup>. Master planning will also include prospects for establishing technological partnerships with countries such as Japan, the People’s Republic of China, the Republic of Korea, and Singapore for investment in research and development, as well as procurement of cost-effective technologies for modernizing the manufacturing sector. For the analysis of industry potentials, the top manufacturing industries for which foreign direct investment has been made may be considered.
- (ii) **Training program on economic corridor development and management implemented.** This will include assessing the training needs of government staff on economic corridor management. Training programs will be designed to enhance the government agencies’ technical capacity in corridor and cluster management and master plan implementation. Programs will also include project administration-related issues (including procurement, disbursement, and safeguards). To serve as training reference material, a compendium of guidelines on master plan implementation will be prepared and provided to government stakeholders.

12. The TA risk is the change in political leadership with a different development agenda that has the potential to discontinue the economic corridor development policy. Continuous consultations with national and local stakeholders will address this risk. Dissemination workshops will be regularly conducted so stakeholders are informed on master plan developments. The project has no anticipated social or environmental constraints or concerns

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<sup>11</sup> Node is defined here as an agglomeration of existing and planned special economic zones and industrial parks. For the VCIC, the conceptual development plan (CDP) identified four strategic industrial areas to be developed, namely (i) Vizag node, (ii) Kakinada node, (iii) Kankipadu-Gannavaram node and (iv) Yerpedu-Sri kalahasti node. The four industrial nodes were selected in consultation with Andhra Pradesh government officials and based on the following criteria: (i) locations with land in excess of 500 acres or having 2,000 acres of land in close proximity of less than 30–35 kilometers; (ii) availability of ground water; (iii) land distance from commercial and residential zones, forests, and restricted and flood line areas; and (iv) existing industrial agglomeration (Re1,000 crores of investment since 2000 within a 50-kilometer radius). A crore is a unit of value equal to Re10 million or 100 lakhs.

regarding public finance management, procurement, or corruption. However, since the master plan will include a proposed infrastructure development that may have impact on the environment, safeguard measures will also be identified to ensure that the master plan will be compliant to the standards.

### C. Cost and Financing

13. The TA is estimated to cost \$2.03 million, of which \$2.0 million will be financed on a grant basis by the Japan Fund for Poverty Reduction and administered by ADB. The government will provide counterpart support in the form of workshop venues, transportation, remuneration and per diem of counterpart staff that will support master plan preparation, and other in-kind contributions. The detailed cost estimates and financing plan are in Appendix 2.

### D. Implementation Arrangements

14. The project will be implemented over 2 years, from September 2015 to September 2017. To ensure continuity, ADB will implement the TA and oversee the master plan's preparation and completion. ADB will closely coordinate with the Department of Industrial Policy and Promotion and Japan International Cooperation Agency, and consult with the State Government of Andhra Pradesh and other government agencies, central and local, involved in this TA during the course of its implementation.

15. A project steering committee will be established to provide guidance during TA implementation. It will be headed by the joint secretary of the Department of Industrial Policy and Promotion and consist of the ADB project team leaders and economists, Japan International Cooperation Agency representative, and representatives from relevant ministries, supporting agencies, and the State Government of Andhra Pradesh. Day-to-day TA operations will be monitored by ADB.

16. An international consulting firm will be hired to prepare the master plan. The firm will be composed of specialists in infrastructure, transportation, urbanization, and energy, among others. The consulting firm will also include a team leader who will have the overall responsibility of ensuring the quality of the master plan and timely submission of reports. A communication specialist will be engaged to prepare the communication plan of the VCIC while the training specialists will be engaged to provide capacity building activities to government agencies on economic corridor development and management. Economists outside of the consulting firm will also be engaged to help in reviewing the outputs to be submitted by the consulting firm and identify research gaps that may be conducted to further improve the development of the VCIC. Details of the TA's consultants are enumerated in the table below.

#### Consultants for the Technical Assistance

Area of Expertise	Duration (person-months)	National or International	Method of Selection	Expected Results
Consulting firm (economic corridor development)	79	International	Quality- and cost-based selection	Master plan for the VCIC
Economists	12	International	Individual	Economic analysis of sectors of the VCIC



<b>Area of Expertise</b>	<b>Duration (person-months)</b>	<b>National or International</b>	<b>Method of Selection</b>	<b>Expected Results</b>
Training specialists	8	National	Individual	Trainings on capacity building
Communications specialist	4	National	Individual	Communications strategy for the master plan

VCIC = Vizag–Chennai Industrial Corridor.

Source: Asian Development Bank.

17. ADB will engage consultants following the Guidelines on the Use of Consultants (2013, as amended from time to time). ADB will engage a consulting firm through quality- and cost-based selection method. Firms will use a simplified technical proposal. Individual consultants will be engaged through individual consultant selection, and output-based contracts will be considered. The outline terms of reference for consultants are in Appendix 3. TA disbursement will be made following ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). All procurement will be done following ADB's Procurement Guidelines (2015, as amended from time to time).

18. Monthly progress reports will be required from the consulting firm for submission to the project steering committee. ADB will monitor report submissions from the consulting firm and individual consultants. A TA completion report, evaluating achievement against targeted outputs, will be submitted at the end of the project.

19. Good practices and lessons learned will be disseminated through workshops and seminars, as well as websites of ADB and Indian government agencies.

#### **IV. THE PRESIDENT'S RECOMMENDATION**

20. The President recommends that the Board approve ADB administering technical assistance not exceeding the equivalent of \$2,000,000 to the Government of India to be financed on a grant basis by the Japan Fund for Poverty Reduction for Supporting the Preparation and Implementation of the Comprehensive Integrated Master Plan for the Vizag–Chennai Industrial Corridor.

## DESIGN AND MONITORING FRAMEWORK

### Impact the project is aligned with:

Improved readiness for implementation of the VCIC (Make in India, 2014).<sup>a</sup>

Project Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<b>Outcome</b> Improved capacity of government agencies on economic corridor development and management	By 2017 a. An integrated master plan for four industrial nodes approved by DIPP (Baseline: 0)  b. A set of policy recommendations and measures covering economic corridor development endorsed by DIPP for approval of the Government of India (Baseline: 0)	a. Industrial development plan of DIPP and Andhra Pradesh government (2017–2022)  b. Memorandum from DIPP to MOF	Change in political leadership with a different development agenda
<b>Outputs</b> 1. Preparatory work for the development of the East Coast Economic Corridor initiated	1a. Economic analysis of industries in the four nodes, including their growth potential and infrastructure requirements, conducted by 2017 (Baseline: 0)  1b. Institutional governance for management of the four industrial nodes identified by 2017 (Baseline: NA)  1c. Strategic plan to engage foreign investors formulated by 2017 (Baseline: 0)  1d. Comprehensive master plan for the four nodes submitted to DIPP by 2017 (Baseline: 0)  1e. At least one analytical report with policy advice and/or policy brief on economic corridor development published by 2017 (Baseline: 0)	1a. Comprehensive master plan for Vizag, Srikalahasti–Yerpedu, Kakinada, and Gannavaram–Kankipadu downloadable online  1b. Organizational structure for the management of the four nodes available from DIPP  1c. Investment plan of national government and/or local governments  1d. Communication from ADB to DIPP on submission of the master plan  1e. Websites of Andhra Pradesh government and ADB	Difficulties in consensus building due to involvement of numerous stakeholders from different sectors (central and state level) may delay planning
2. Training program on economic corridor development and management implemented	2a. At least two in-country trainings, seminars, and/or workshops on master plan implementation and corridor and clusters management conducted by 2017 (Baseline: 0)	2a. Workshop summaries	

Project Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	<p>2b. A compendium of guidelines on project implementation to be used as training reference material prepared by 2017 (Baseline: 0)</p> <p>2c. About 70% of staff (male and female) from DIPP, related government ministries, and Andhra Pradesh government that will be involved in project implementation participated in trainings, seminars, and/or workshops by 2017 (Baseline: 0)</p>	<p>2b. Training materials</p> <p>2c. List of participants in the training, seminar, and/or workshop</p>	
<b>Key Activities with Milestones</b>			
<p><b>Output 1. Preparatory work for the development of the East Coast Economic Corridor initiated</b></p>			
<p>1.1 Conceptualize suitable governance structure for the management of the four nodes (should be completed within 1.5 years after TA approval).</p> <p>1.2 Conduct consultation activities with stakeholders on establishing four industrial nodes (continuous during TA period).</p> <p>1.3 Prepare environment and safeguard plans as part of the master plan.</p> <p>1.4 Publish the master plan for the four nodes, and upload it to the SARD and government websites (immediately after the master plan is finalized and submitted).</p> <p>1.5 Develop a communication plan to promote the master plan to the general public, business community, and potential investors (continuous during TA period).</p> <p>1.6 Prepare an analytical report on industrial corridor development with policy advice and/or policy brief (1.5 years after TA approval).</p>			
<p><b>Output 2. Training program on economic corridor development and management implemented</b></p>			
<p>2.1 Assess training needs of government staff on economic corridor management (should start 10 months after TA approval).</p> <p>2.2 Design training programs on master plan implementation and economic corridors management (continuous during TA period).</p> <p>2.3 Design training programs on project administration-related issues (including procurement, disbursement, and safeguards) for officials from DIPP and the state government (continuous during TA period).</p> <p>2.4 Prepare training materials on master plan implementation and economic corridors management (continuous during TA period).</p> <p>2.5 Organize workshops and conferences to present master plan findings (continuous during TA period).</p>			
<p><b>Inputs</b></p>			
<p>Japan Fund for Poverty Reduction: \$2,000,000</p> <p>Note: The government will provide counterpart support in the form of workshop venues, transportation, remuneration and per diem of counterpart staff that will support master plan preparation, and other in-kind contributions</p>			
<p><b>Assumptions for Partner Financing</b></p> <p>Not applicable.</p>			

ADB = Asian Development Bank, DIPP = Department of Industrial Policy and Promotion, SARD = South Asia Department, TA = technical assistance, VCIC = Vizag–Chennai Industrial Corridor.

<sup>3</sup>Make in India. [www.makeinindia.com](http://www.makeinindia.com)

Source: Asian Development Bank.

**COST ESTIMATES AND FINANCING PLAN**  
(\$'000)

Item	Amount
<b>Japan Fund for Poverty Reduction<sup>a</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	800.0
ii. National consultants	620.0
b. International and local travel	110.0
c. Reports and communications	70.0
2. Equipment <sup>b</sup>	20.0
3. Training, seminars, and conferences	200.0
4. Miscellaneous administration and support costs <sup>c</sup>	100.0
5. Contingencies	80.0
<b>Total</b>	<b>2,000.0</b>

Note: The technical assistance (TA) is estimated to cost \$2.03 million, of which contributions from the Japan Fund for Poverty Reduction are presented in the table above. The government will provide counterpart support in the form of workshop venues, transportation, remuneration and per diem of counterpart staff who will support master plan preparation, and other in-kind contributions. The value of government contribution is estimated to account for 1.5% of the total TA cost.

<sup>a</sup> Administered by ADB.

<sup>b</sup> Includes computers, printers, and necessary software. The equipment will be transferred to the government upon TA completion.

<sup>c</sup> Includes travel of ADB staff who will serve as resource persons in seminars and workshops.

Source: ADB estimates.

## OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. **Consulting firm** (79 person-months, cumulative, intermittent). The Asian Development Bank (ADB) will engage an international consulting firm to prepare the Comprehensive Integrated Master Plan for the Vizag–Chennai Industrial Corridor (VCIC). The firm will be composed of the following specialists:

**Table A3: Composition of Specialists of the Consulting Firm**

Expertise	Person-month
<b>A. International Consultants</b>	
1. Economic corridor and development planning specialist and team leader	6
2. Industrial development expert	8
3. Energy economist	8
4. Transport economist	6
5. Infrastructure finance specialist	5
<b>Subtotal (A)</b>	<b>33</b>
<b>B. National Consultants</b>	
6. Infrastructure master planner and land use planning expert	12
7. Transport specialist (engineering and/or planning: rail and roads)	4
8. Energy specialist (engineering and/or planning)	4
9. Urban infrastructure specialist	4
10. Environment specialist	2
11. Social development specialist (safeguards)	8
12. Geographic data and/or GIS specialist	4
13. Infrastructure policy and governance expert	8
<b>Subtotal (B)</b>	<b>46</b>
<b>Total</b>	<b>79</b>

GIS = geographic information system  
Source: Asian Development Bank.

The firm should have experience in the region and in preparing a detailed master plan for an economic corridor. Specific tasks will include the following:

- (i) conduct a study on the comprehensive market potential and a critical gap assessment of industries and infrastructure in the region;
- (ii) prepare a general overview and base map of the project region for proposed investment region or special investment zone;
- (iii) conduct a study on delineation of the investment area, focusing on land suitability analysis;
- (iv) prepare an infrastructure gap assessment of the industrial node;
- (v) prepare a development plan for the industrial node;
- (vi) carry out a broad economic cost–benefit assessment with estimation of likely costs and benefits that can be accrued with proposed project components envisaged as part of the industrial node (including potential employment generation by sectors, export promotion prospects, and availability of quality industry and/or infrastructure);

- (vii) prepare a regulatory and implementation framework to promote local industries, improve quality of life, upgrade skills, create world-class infrastructure, and attract global investments;
- (viii) identify governance structure for the management of the four industrial nodes;
- (ix) prepare environment and safeguards plans as part of the master plan; and
- (x) perform other tasks relevant to this technical assistance as assigned by the project team leader.

2. **Economists** (international, 12 person-months, intermittent). Under the direction of ADB, the economists will conduct analyses of the sectors for the VCIC. The experts should have extensive knowledge and experience on a particular sector. A minimum of 10 years of work experience in this field is required. Specific tasks will include the following:

- (i) conduct an analysis of issues related to the assigned sector of economic corridors;
- (ii) identify critical gaps and drivers of growth of the assigned sectors;
- (iii) provide recommendations on how to address the gaps;
- (iv) identify projects in the assigned sector that would help the economic corridors to progress and suggest a phasing strategy for these projects;
- (v) present the findings, final results, and recommendations at workshops and/or conferences, as necessary; and
- (vi) perform other tasks relevant to the technical assistance as assigned by the project team leader.

3. **Communications specialist** (national, 4 person-months, intermittent). Under the direction of ADB, the communications specialist will prepare the communications strategy for the master plan. The expert should have strong communication skills. A minimum of 10 years of work experience in this field is required. Specific tasks will include the following:

- (i) develop a communications strategy to promote the master plan among the general public, business community, and potential investors;
- (ii) prepare communication materials that will appeal to various audiences;
- (iii) ensure that all publications and other materials related to the master plan are suited to the relevant audience;
- (iv) develop programs and organize workshops, media briefings, and other promotional activities for optimal presentation of investment opportunities in the East Coast Economic Corridor and VCIC region; and
- (v) perform other tasks as requested by the relevant ADB staff.

4. **Training specialists** (national, 8 person-months, cumulative, intermittent). Under the direction of ADB, the training specialists will spearhead conducting capacity building activities for government personnel. The expert should have extensive experience in conducting trainings for government staff, particularly in India. A minimum of 10 years of work experience in this field is required. Specific tasks will include the following:

- (i) develop materials for conducting capacity building activities,
- (ii) take the lead in the conduct of trainings for government staff,
- (iii) prepare workshop documentations with recommendations on improving staff performance,
- (iv) prepare a compendium of project implementation guidelines in consultation with the consulting firm, and
- (v) perform other tasks as assigned by the project leader.