



Technical Assistance Report

Project Number: 48005-001
Policy and Advisory Technical Assistance (PATA)
October 2014

People's Republic of China: Improving Energy Efficiency, Emission Control, and Compliance Management of the Manufacturing Industry

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 2 October 2014)

Currency unit	–	yuan (CNY)
CNY1.00	=	\$0.1629
\$1.00	=	CNY6.1361

ABBREVIATIONS

ADB	–	Asian Development Bank
CO ₂	–	carbon dioxide
PRC	–	People's Republic of China
TA	–	technical assistance

NOTE

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

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CONTENTS

	Page
POLICY AND ADVISORY TECHNICAL ASSISTANCE AT A GLANCE	
I. INTRODUCTION	1
II. ISSUES	1
III. THE POLICY AND ADVISORY TECHNICAL ASSISTANCE	3
A. Impact and Outcome	3
B. Methodology and Key Activities	3
C. Cost and Financing	3
D. Implementation Arrangements	4
IV. THE PRESIDENT'S DECISION	4
APPENDIXES	
1. Design and Monitoring Framework	5
2. Cost Estimates and Financing Plan	7
3. Outline Terms of Reference for Consultants	8

POLICY AND ADVISORY TECHNICAL ASSISTANCE AT A GLANCE

1. Basic Data		Project Number: 48005-001	
Project Name	Improving Energy Efficiency, Emission Control, and Compliance Management of the Manufacturing Industry	Department /Division	EARD/EAPF
Country Borrower	China, People's Republic of PRC	Executing Agency	Development Research Center of the State Council
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Energy	Energy efficiency and conservation		0.25
Industry and trade	Large and medium industries		0.10
		Total	0.35
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG) Environmentally sustainable growth (ESG)	Pillar 1: Economic opportunities, including jobs, created and expanded Eco-efficiency	Climate Change impact on the Project	Low
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Private sector development (PSD)	Conducive policy and institutional environment	No gender elements (NGE)	✓
5. Poverty Targeting		Location Impact	
Project directly targets poverty	No	Nation-wide	High
6. TA Category:	B		
7. Safeguard Categorization	Not Applicable		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		0.35	
Sovereign Policy and advisory technical assistance: Technical Assistance Special Fund		0.35	
Cofinancing		0.00	
None		0.00	
Counterpart		0.00	
None		0.00	
Total		0.35	
9. Effective Development Cooperation			
Use of country procurement systems	No		
Use of country public financial management systems	No		

I. INTRODUCTION

1. The Government of the People's Republic of China (PRC) requested the Asian Development Bank (ADB) to provide technical assistance (TA) to improve energy efficiency, emission control, and compliance management of the manufacturing industry.¹ A TA fact-finding mission on 25 March 2014 reached an agreement with the government on the impact, outcome, outputs, implementation arrangements, costs, financial arrangements, and terms of reference for the consulting services of the TA. The design and monitoring framework is in Appendix 1.²

II. ISSUES

2. The PRC began to reform state-owned enterprises in 1978. Initially, the emphasis was on gradually transforming state-owned enterprises' operational and management system from a planned economy to a market economy. For instance, the government gradually reduced fiscal support for the working capital of state-owned enterprises. Since the mid-1990s, more substantial reforms have been implemented, including divestment of state shares and corporatization. Legal and regulatory frameworks were also established. The Company Law was promulgated in 1993, providing the legal basis for an enterprise system in the market economy. The amended Company Law (2006) strengthened the legal basis for improving corporate governance in the PRC, while the Cleaner Production Law (2003) and the amended Energy Conservation Law (2008) became effective to improve efficiency in energy consumption.

3. Thanks to the reform measures and an abundant labor force, the PRC's manufacturing industry achieved remarkable growth, and the PRC became "the factory of the world."³ However, three decades after the reforms began, the manufacturing industry still competes on low factor (e.g., labor and capital) prices and less regard to environment concerns. The manufacturing industry is still characterized by the large volume of low- to medium-quality products with high energy consumption and high emission. The manufacturing industry generally lacks proper technological and management capacities for producing energy efficient and low emission products. Given that the manufacturing industry accounts for more than 60% of total value added in the PRC industry, this has caused serious problems in the PRC, such as high energy intensity and carbon dioxide (CO₂) emission.⁴ In fact, energy consumption has increased rapidly in the PRC, more than doubling in the past decade.⁵ The industry sector in particular accounts for more than 70% of the country's total energy consumption.⁶ In addition, the PRC overtook the United States of America in 2007 as the world's largest annual emitter of energy-related CO₂, and its annual CO₂ emissions reached 7 billion tons in 2009, which amounts to about 24% of global emissions. Such a rapid increase in energy consumption and CO₂ emissions raises concern about the sustainability of economic development in the PRC.⁷

¹ The TA is included in ADB's country operations business plan. ADB. 2014. *Country Operations Business Plan: People's Republic of China, 2014–2016*. Manila.

² The TA first appeared in the business opportunities section of ADB's website on 19 August 2014.

³ The classification of the manufacturing industry is based on the standard industrial classification. <https://www.osha.gov/pls/imis/sicsearch.html>

⁴ Energy intensity is defined as the cost of converting energy into a product. High energy intensity indicates that high energy consumption is needed to produce a product.

⁵ Total energy consumption increased to 3,480,020,000 tons of standard coal equivalent in 2011 from 1,455,310,000 tons of standard coal equivalent in 2000.

⁶ China Statistical Bureau. 2013. *China Statistical Yearbook 2013*. Beijing.

⁷ Energy consumption per value added in the manufacturing industry was 1.6 in 2009, 1.4 in 2010, and 1.3 in 2011. This indicator is calculated based on the data from China Statistical Yearbook. <http://www.stats.gov.cn/tjsj/ndsj/2013/indexch.htm>

4. Bottlenecks of the PRC's manufacturing industry are outdated technologies and equipment, and inadequate operational management, particularly with regard to compliance with policies and regulations, such as the Cleaner Production Law and the amended Energy Conservation Law. It is necessary for the PRC's manufacturing industry to invest more in research and development of advanced technologies and related equipment to improve energy efficiency and emission control. Compliance management is also important for the PRC's manufacturing industry to ensure business operations align with existing regulations and legislations, including managing environmental requirements. Clearly, there is a need for the manufacturing industry to transform itself to produce high quality products manufactured under energy efficient and low emission standards.

5. To transform the development pattern of the manufacturing industry, proper incentives for complying with relevant regulations are critically lacking in the PRC. The PRC's manufacturing industry produces basic equipment for other industries as well as consumer products. Therefore, upgrading technologies, equipment and compliance management in the PRC's manufacturing industry would lead to improving energy efficiency and emission control not only in its own economy but also in the global economy. Upgrading the technologies would also be consistent with the PRC's efforts on enhancing competitiveness of the manufacturing industry through technological advancement since energy efficiency and emission control are critical concerns in the global economy.

6. Environmentally sustainable growth is one of the three pillars of ADB's country partnership strategy, 2011–2015 for the PRC.⁸ The government has placed environmental issues on top of the reform agenda, and highlighted the importance of improving energy efficiency and establishing environment protection systems at the Third Plenary Session of the 18th Central Committee of the Chinese Communist Party in November 2013. The manufacturing industry is a key player in improving energy efficiency and energy conservation in the PRC. It is necessary to improve its capacities to achieve environmentally sustainable growth in the PRC.

7. In line with the government's initiatives, previous ADB TA helped enhance the enterprise performance evaluation system and improve corporate governance including compliance management in the PRC.⁹ ADB also supported the development of carbon trade and financing mechanisms for energy efficiency and emission reduction in the PRC, particularly financing to improve the energy efficiency of small- and medium-sized enterprises.¹⁰ In addition, ongoing TA helps the PRC transform its industrial structure, including not only the manufacturing industry

⁸ ADB. 2012. *Country Partnership Strategy: People's Republic of China, 2011–2015*. Manila.

⁹ ADB. 2002. *Technical Assistance to the People's Republic of China for Improving Corporate Governance and Financial Performance of State-owned Enterprises*. Manila; ADB. 2012. *Technical Assistance to the People's Republic of China for Supporting Strategic Knowledge Products and Research Networking*. Manila. (Knowledge Products and Services for Improving Corporate Governance, Compliance Management and Corporate Social Responsibility of Chinese Enterprises, approved in 2012).

¹⁰ ADB. 2010. *Technical Assistance to the People's Republic of China for Innovative Financing Mechanisms for Energy Efficiency and Emission Reduction in Small and Medium-Sized Enterprises*. Manila; ADB. 2010. *Technical Assistance to the People's Republic of China for Study on Beijing Green Finance Development Strategy*. Manila; ADB. 2011. *Technical Assistance to the People's Republic of China for Developing Tianjin Emission Trading System*. Manila; ADB. 2012. *Technical Assistance to the People's Republic of China for Advancing Shanghai Carbon Market through Emissions Trading Scheme*. Manila.

but also other industries.¹¹ The proposed TA aims to continue and complement ADB's support by focusing on policy reforms, and resource and capacity management of the manufacturing industry with regard to energy efficiency and emission control.

III. THE POLICY AND ADVISORY TECHNICAL ASSISTANCE

A. Impact and Outcome

8. The impact will be improved energy efficiency in the PRC's manufacturing industry. This will be measured by the reduction in energy consumption and CO₂ emissions per gross domestic product. The outcome will be an enhanced policy framework stimulating energy efficient and low emission products.

B. Methodology and Key Activities

9. The proposed TA will deliver four major outputs:

- (i) Report on current status of the PRC's manufacturing industry, including evaluation of past policies.
- (ii) Report on field case studies of major bottlenecks of enterprises in the PRC's manufacturing industry.¹²
- (iii) A synthesis paper (knowledge product), including policy lessons and recommendations.
- (iv) Capacity development of government officials, enterprise managers, and other stakeholders.

10. Specifically, each of the first three outputs will conduct following activities: (i) output 1 will analyze the current status of the PRC's manufacturing industry in terms of energy efficiency, emission reduction, and compliance management. It will also analyze the current status of strategic resource management such as management of capital and human resources, and assess the effectiveness of relevant past policies in the PRC; (ii) based on the field case studies, output 2 will examine major bottlenecks that keep enterprises in the manufacturing industry from upgrading their capacities for energy efficiency, emission reduction, and compliance management; (iii) a synthesis paper will analyze international good practice in strengthening technological and equipment capacity and compliance management, and challenges in the PRC's manufacturing industry to improving its energy efficiency, and emission reduction. It will also analyze how international practice can be adequately applied to the PRC's manufacturing industry.

C. Cost and Financing

11. The TA is estimated to cost \$370,000, of which \$350,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources). The government will provide counterpart support in the form of office space, counterpart staff, translation of necessary official documents to English, assistance in arranging meetings with relevant agencies, and other in-kind contributions.

¹¹ ADB. 2014. *Technical Assistance to the People's Republic of China for Support for the Thirteenth Five-Year Plan*. Manila.

¹² The TA will conduct at least two field studies. Focal parameters for the field studies would be energy efficiency and emission reduction, while investment in equipment, quality of operational management, and technologies would be key factors to be improved.

D. Implementation Arrangements

12. The TA will be implemented over 24 months, from November 2014 to November 2016. The International Cooperation Department, Development Research Center of the State Council will be the executing agency.

13. The TA will cover remuneration, travel, and per diem of consultants, as well as the costs of workshops, seminars, and miscellaneous expenses. Disbursements under the TA will be done in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). The executing agency will take responsibility for administering workshops and seminars, and prepare an advance payment facility to implement these activities.

14. The TA will require consulting services with substantial experience in upgrading manufacturing industry capacity, for a total of 20.5 person-months. Consultants will be engaged individually by ADB in accordance with its Guidelines on the Use of Consultants (2013, as amended from time to time). Outline terms of reference with deliverables linked to the design and monitoring framework are in Appendix 3. The team leader will develop a detailed work plan with the executing agency at the outset of the TA. The team leader will be responsible for coordinating with other consultants. The consultants will maintain close working relations with the executing agency and ADB, and will regularly discuss project progress.

15. The executing agency will supervise the consultants' day-to-day work. ADB will assist the executing agency in overall TA operations, monitoring, and dissemination of knowledge products. The project-specific indicators and targets in the design and monitoring framework, including outcome evaluation, will be monitored by the executing agency, with ADB support.

16. The project outputs will be disseminated at workshops and/or seminars. Workshops and seminars are expected to be attended by ADB mission, government officials, and specialists to ensure the inclusion of diverse views and wide dissemination of project outputs. Policy dialogue will be maintained with the relevant government agencies, and project-specific issues will be taken up with government counterparts during review missions. Technical milestones will be monitored by reports to be prepared by the consultants, and reviewed by the executing agency and the ADB project officer. Milestones related to TA implementation will be monitored by the team leader.

IV. THE PRESIDENT'S DECISION

17. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$350,000 on a grant basis to the Government of the People's Republic of China for Improving Energy Efficiency, Emission Control, and Compliance Management of the Manufacturing Industry, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <p>Improved energy efficiency in the PRC's manufacturing industry</p>	<p>By 2020, a 15% reduction in total energy consumption and CO₂ emissions per GDP</p> <p>Baseline 2012: Total energy consumption: 3,617,320,000 tons of standard coal equivalent Total CO₂ emissions: 9,900 million tons CO₂ GDP: CNY51,628.2 billion</p>	<p>Relevant official documents and statistics</p>	<p>Risks</p> <p>Enterprises of the manufacturing industry will pay less attention to improving energy efficiency, emission reduction, and compliance management.</p> <p>Enterprises of the manufacturing industry will lack sufficient financial resources to invest in capacity development in terms of energy efficiency, emission reduction, and compliance management.</p>
<p>Outcome</p> <p>Enhanced policy framework stimulating energy efficient and low emission products</p>	<p>Policy recommendations adopted by the government by 2017</p>	<p>Relevant official documents</p> <p>TA completion report</p>	<p>Assumption</p> <p>The government will continue to help strengthen the capacities of the manufacturing industry for energy efficiency, emission reduction, and compliance management.</p>
<p>Outputs</p> <p>1. Report on current status of the PRC's manufacturing industry, including evaluation of past policies</p> <p>2. Report on field case studies of major bottlenecks of enterprises in the PRC's manufacturing industry</p> <p>3. A synthesis paper (knowledge product) including policy lessons and recommendations</p>	<p>Current status of the PRC's manufacturing industry assessed and a report completed by September 2015</p> <p>Field case studies conducted and a report on the case studies completed by September 2015</p> <p>International good practice and PRC challenges assessed by September 2015</p>	<p>TA progress reports</p> <p>Technical reports</p> <p>Final report</p>	<p>Assumptions</p> <p>Necessary data and information will be made available by May 2015</p> <p>All previous related TA project outputs and reports will be made available by May 2015.</p>

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks																		
4. Capacity development of government officials, enterprise managers, and other stakeholders	<p>A synthesis paper (knowledge product) completed by April 2016</p> <p>At least 50 participants in workshops with increased knowledge on energy efficiency and compliance management before June 2016</p>																				
<p>Activities with Milestones</p> <p>1.1 Review of literature and related data of current status of the PRC's manufacturing industry by July 2015</p> <p>1.2 Evaluate effectiveness of relevant past policies in the PRC by July 2015</p> <p>1.3 Complete assessment of the status of the PRC's manufacturing industry by August 2015</p> <p>1.4 Complete a technical report by October 2015</p> <p>2.1 Select provinces and enterprises for the field case studies by June 2015</p> <p>2.2 Prepare survey questionnaire by June 2015</p> <p>2.3 Conduct the field survey by September 2015</p> <p>2.4 Complete the analysis of survey results and prepare a technical report by January 2016</p> <p>3.1 Review literature on international practice by September 2015</p> <p>3.2 Review the technical report on PRC's current status by November 2015</p> <p>3.3 Produce policy recommendations by February 2016</p> <p>3.4 Complete a synthesis paper (knowledge product) by April 2016</p> <p>4.1 Organize an interim workshop for discussion of draft outputs and collect comments from officials and other stakeholders by December 2015</p> <p>4.2 Organize a final workshop to disseminate the project outputs, and discuss the proposed recommendations and further challenges by August 2016</p>		<p>Inputs</p> <p>ADB: \$350,000 (TASF-others)</p> <table border="1" data-bbox="870 768 1453 1205"> <thead> <tr> <th data-bbox="870 768 1256 831">Items</th> <th data-bbox="1256 768 1453 831">Amount (\$'000)</th> </tr> </thead> <tbody> <tr> <td data-bbox="870 831 1256 894">International consultant (5.5 person-months)</td> <td data-bbox="1256 831 1453 894">122.00</td> </tr> <tr> <td data-bbox="870 894 1256 957">National consultants (15 person-months)</td> <td data-bbox="1256 894 1453 957">85.00</td> </tr> <tr> <td data-bbox="870 957 1256 989">International and local travel</td> <td data-bbox="1256 957 1453 989">25.00</td> </tr> <tr> <td data-bbox="870 989 1256 1020">Reports and communications</td> <td data-bbox="1256 989 1453 1020">10.00</td> </tr> <tr> <td data-bbox="870 1020 1256 1052">Survey</td> <td data-bbox="1256 1020 1453 1052">25.00</td> </tr> <tr> <td data-bbox="870 1052 1256 1083">Workshop, training, seminars</td> <td data-bbox="1256 1052 1453 1083">43.00</td> </tr> <tr> <td data-bbox="870 1083 1256 1146">Miscellaneous administration and support cost</td> <td data-bbox="1256 1083 1453 1146">15.00</td> </tr> <tr> <td data-bbox="870 1146 1256 1205">Contingencies</td> <td data-bbox="1256 1146 1453 1205">25.00</td> </tr> </tbody> </table> <p>Note: The government will provide counterpart support in the form of counterpart staff, office space, and other in-kind contributions.</p>		Items	Amount (\$'000)	International consultant (5.5 person-months)	122.00	National consultants (15 person-months)	85.00	International and local travel	25.00	Reports and communications	10.00	Survey	25.00	Workshop, training, seminars	43.00	Miscellaneous administration and support cost	15.00	Contingencies	25.00
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Contingencies	25.00																				

ADB = Asian Development Bank, CNY = yuan, CO₂ = carbon dioxide, GDP = gross domestic product, PRC = People's Republic of China, TA = technical assistance.

Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
Asian Development Bank ^a	
1. Consultants	
a. Remuneration and per diem	
i. International consultant (5.5 person-months)	122.00
ii. National consultants (15 person-months)	85.00
b. International and local travel	25.00
c. Reports and communications ^d	10.00
2. Survey ^c	25.00
3. Workshops, training, and seminars ^d	43.00
4. Miscellaneous administration and support costs	15.00
5. Contingencies	25.00
Total	350.00

Note: The technical assistance (TA) is estimated to cost \$370,000, of which contributions from the Asian Development Bank (ADB) are presented in the table above. The government will provide counterpart support in the form of local office accommodation, data, and documents for consultants, counterpart staff, and other in-kind contributions. The value of government contribution is estimated to account for 5.4% of the total TA cost.

^a Financed by ADB's Technical Assistance Special Fund (TASF-other sources).

^b Includes cost of written translation of documents.

^c Budget of the survey will be administered by the International Cooperation Department, Development Research Center of the State Council (the executing agency).

^d Includes venue rental, participants' travel and accommodation, interpretation, translation and other logistics for conferences, seminars, workshops, training, research networking, and other high-level meetings. Any workshops, training, and seminars must occur in ADB eligible member countries.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. The technical assistance (TA) will require 20.5 person-months of consulting services (international: 1 consultant for 5.5 person-months; national: 2 consultants totaling 15 person-months). The international consultant will be responsible for providing advisory services and recommendations for policy makers based on international experience and practice. In addition, the international consultant will serve as peer reviewer of reports on technical issues and other documentation translated from Chinese into English; ensure that the technical issues are adequately addressed; and work with the national consultants and with designated staff of the executing agency to prepare reports and recommendations. National consultants will be responsible for the technical aspects of implementing the TA and technical reports. The team of experts will be selected as individual consultants, in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time) of the Asian Development Bank (ADB).

2. The consultants will be responsible for timely submission of TA outputs and deliverables, and organizing and implementing all TA activities. All reports are to be of high quality and produced in English with copies in Chinese. A detailed work timeline and deliverables with dates will be defined at inception, documented in the final inception report, and agreed on with the executing agency and ADB. Regular monitoring and reporting of costs, time schedule, risk quality, human resources, and communications will be performed by the ADB TA project officer and his or her support team, which will include local project officers and consultants hired under the TA.

3. **Manufacturing industry development specialist** (international, 5.5 person-months). The expert should have a postgraduate degree or equivalent with about 15 years of international professional experience in manufacturing industry development, i.e., upgrading technological and innovation capacities and compliance management to improve energy efficiency, emission reduction, and product quality. The expert must have good knowledge of international practice in upgrading such capacities of enterprises in the manufacturing industry, and enterprise capacities and development patterns in the manufacturing industry of the People's Republic of China's (PRC) is preferred. The expert will do the following:

- (i) Work closely with other consultants and the executing agency.
- (ii) Analyze (a) international good practice in strengthening technological and innovation capacity, equipment capacity, and compliance management to improve energy efficiency, emission reduction and product quality; (b) challenges that keep enterprises in the PRC's manufacturing industry from upgrading their capacities—this also covers issues of strategic resource management, such as managing capital and human resources; and (c) how international good practice can be adequately applied to the PRC's manufacturing industry. The expert will draft and complete a technical report, and submit it to team members, the executing agency, and ADB.
- (iii) Prepare a synthesis paper as a knowledge product that includes recommendations and lessons, and major findings of project technical reports.
- (iv) Advise national consultants on preparing the outlines and contents of their technical reports.
- (v) Assist the team leader in preparing and completing an inception report and a final report.
- (vi) Lead the discussions with other consultants and the executing agency on key issues to be covered during workshops and/or seminars, identify resource persons, and prepare background materials.
- (vii) Deliver sessions at workshop and/or seminar with suitable presentation materials.

4. **Manufacturing industry development specialist and team leader** (national, 8 person-months). The expert should preferably have a postgraduate degree or equivalent and about 10 years of professional experience in enterprise development in the manufacturing industry, i.e., upgrading technological capacities, innovation capacity, and compliance management to improve energy efficiency, emission reduction, and product quality. The expert must have good professional knowledge about enterprise development in the PRC's manufacturing industry. The expert also should preferably have experience in leading or participating in research project of international organizations. The expert will do the following:

- (i) Work closely with other consultants and the executing agency, be responsible for overall management of TA implementation—including guiding, supervising, and coordinating the work of all team members, and consolidating the reports prepared by team members—and submit all reports to the executing agency and ADB.
- (ii) Analyze the current status of enterprises in the PRC's manufacturing industry in terms of technological and innovation capacity, equipment capacity, and compliance management to improve energy efficiency, emission reduction, and product quality. The analysis will cover issues of strategic resource management, such as managing capital and human resources, and assess the effectiveness of relevant past policies in the PRC. The specialist will draft and complete a technical report, and submit it to team members, the executing agency, and ADB.
- (iii) Draft and complete an inception report, and submit it to the executing agency and ADB.
- (iv) Draft a final report including a summary of the project, and a compilation of the synthesis paper and technical reports, and circulate it to team members, the executing agency and ADB. The specialist will submit the completed final report to the executing agency and ADB.
- (v) Identify the key issues to be covered by workshops and/or seminars, and the resource persons, and prepare background materials in collaboration with the international consultant.
- (vi) Deliver sessions at workshop and/or seminar with suitable presentation material.

5. **Manufacturing industry development specialist for field study** (national, 7 person-months). The expert should preferably have postgraduate degree or equivalent and about 8 years of professional experience in enterprise development in the manufacturing industry, i.e., upgrading technological capacities, innovation capacity, and compliance management. The expert must have good professional knowledge about field case studies on enterprises in the PRC's manufacturing industry including preparing questionnaire. The expert will do the following:

- (i) Work closely with other consultants and the executing agency.
- (ii) Conduct field case studies of enterprises in the PRC's manufacturing industry. The case studies will analyze major bottlenecks that keep enterprises from upgrading their capacities—i.e., technological and innovation capacity, equipment capacity, and compliance management—to improve energy efficiency, emission reduction, and product quality. The case studies will also cover issues of strategic resource management, such as managing capital and human resources. The specialist will draft and complete a technical report, and submit it to team members, the executing agency, and ADB.
- (iii) Assist the team leader in drafting and completing inception and final reports.
- (iv) Assist in identifying key issues to be covered by workshops and/or seminars, and resource persons, and help prepare background materials.
- (v) Deliver sessions at workshop and/or seminar with suitable presentation material.