Technical Assistance Report

Project Number: 47065
Capacity Development Technical Assistance (CDTA)
September 2013

People’s Republic of China: Railway Container Transport Development

Asian Development Bank
CURRENCY EQUIVALENTS
(as of 26 August 2013)

Currency unit – yuan (CNY)
CNY1.00 = $0.1634
$1.00 = CNY6.121

ABBREVIATIONS

ADB – Asian Development Bank
CRC – China Railway Corporation
km – kilometer
PRC – People’s Republic of China
RICS – rail-based intermodal container system
TA – technical assistance
TEU – twenty-foot equivalent unit

TECHNICAL ASSISTANCE CLASSIFICATION

<table>
<thead>
<tr>
<th>Type</th>
<th>Capacity development technical assistance (CDTA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeting classification</td>
<td>General intervention</td>
</tr>
<tr>
<td>Sector (subsector)</td>
<td>Transport, and information and communication technology (rail transport)</td>
</tr>
<tr>
<td>Themes (subthemes)</td>
<td>Capacity development (organizational development), economic growth (knowledge, science, and technological capacities; widening access to markets and economic opportunities)</td>
</tr>
<tr>
<td>Location (impact)</td>
<td>National (high)</td>
</tr>
</tbody>
</table>

NOTE

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

| Vice-President                          | S. Groff, Operations 2 |
| Director General                         | A. Konishi, East Asia Department (EARD) |
| Director                                 | T. Duncan, Transport Division, EARD |
| Team leader                              | X. Chen, Transport Specialist (Railways), EARD |
| Team members                             | S. Saxena, Senior Transport Specialist, EARD |
|                                          | S. Lewis-Workman, Senior Transport Economist, EARD |
|                                          | G. Galang, Senior Legal Officer, Office of the General Counsel |
|                                          | L. Cuevas-Arce, Senior Operations Assistant, EARD |

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.
# CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. ISSUES</td>
<td>1</td>
</tr>
<tr>
<td>III. THE TECHNICAL ASSISTANCE</td>
<td>3</td>
</tr>
<tr>
<td>A. Impact and Outcome</td>
<td>3</td>
</tr>
<tr>
<td>B. Methodology and Key Activities</td>
<td>3</td>
</tr>
<tr>
<td>C. Cost and Financing</td>
<td>4</td>
</tr>
<tr>
<td>D. Implementation Arrangements</td>
<td>4</td>
</tr>
<tr>
<td>IV. THE PRESIDENT'S DECISION</td>
<td>5</td>
</tr>
</tbody>
</table>

APPENDIXES

1. Design and Monitoring Framework                                       | 6    |
2. Cost Estimates and Financing Plan                                    | 8    |
3. Outline Terms of Reference for Consultants                            | 9    |
I. INTRODUCTION

1. During the Asian Development Bank (ADB) country programming mission in December 2012, the Government of the People's Republic of China (PRC) requested ADB assistance for the development of railway container transport. A fact-finding mission visited the PRC in August 2013 and reached agreement with the government on the technical assistance (TA) impact, outcome, outputs, implementation arrangements, cost, financing arrangements, and terms of reference for consultants. The design and monitoring framework is in Appendix 1.1

II. ISSUES

2. With ongoing industrialization and urbanization, the PRC’s logistics industry has experienced rapid growth. The total value added of logistics services increased from CNY1.88 trillion in 2005 to CNY3.50 trillion in 2012. The National Development and Reform Commission predicts this will reach CNY4.97 trillion by 2015.2

3. Increasing the use of railway transport could improve the efficiency of logistics and reduce costs. The railway network has been growing at 3.15% annually from 71,900 kilometers (km) in 2002 to 98,000 km in 2012. The operating length of double-track railways reached 44,000 km from 23,900 km, accounting for 44.9% of the network. Electrified railways increased to 51,000 km from 18,100 km, representing 52.0% of the total. The new high-speed passenger railway network introduced in 2008 reached a total length of 9,356 km in 2012. As passenger transport services increasingly shift to the dedicated high-speed passenger network, previous capacity bottlenecks on dual-use rail lines are being reduced and opportunities arise for expanding higher value added railway freight services, including rail container services.

4. While rail freight has grown rapidly, the role of container services remains small and underdeveloped due to poor connectivity with other modes and insufficient business collaborations with potential service chain partners in the inland waterway, marine, aviation and road transport sectors. From 2004 to 2012, average annual freight traffic increased by 6.4%, from 1,551.55 billion ton-km to 2,889.10 billion ton-km. In 2012, rail container traffic reached 4.71 million twenty-foot equivalent units (TEU) from 3.11 million TEU in 2004. In 2005 and 2011, the modal shares for container traffic in TEU were 58.21% and 57.65% by roads, 37.25% and 37.99% by water, and 4.54% and 4.36% by rail. Rail container traffic represented only 2.38% of total railway freight traffic by weight, compared with 37% in the United States and 20% in the European Union.

5. Shifting container transport to railways from other modes, especially from road transport, would alleviate traffic congestion on roads; reduce fuel consumption; and contribute to mitigating adverse environmental and climate change effects, and improving citizen’s health by reducing air pollution from vehicle emissions. The China Railway Corporation (CRC) recognizes this opportunity and has been making efforts to upgrade its outdated container infrastructure and equipment.3 By 2012, 18 new railway container transport terminals had been constructed, and 5 of the 33 existing container-handling stations upgraded.

---

1 The TA first appeared in the business opportunities section of ADB’s website on 29 August 2013.
3 The railway reform introduced in March 2013 transferred railway operations responsibilities of the former Ministry of Railways to CRC.
6. In a broader context, expansion of CRC’s intermodal container transportation services, particularly in the underdeveloped landlocked provinces in the central and western regions, will support the PRC’s western development strategy to narrow the gap between the coastal region and the central and western regions. It is also essential for lowering the PRC’s overall logistics cost to gross domestic product ratio. This ratio is currently more than 18%, which is twice that of the European Union and the United States. The PRC’s high ratio is a challenge for its global competitiveness and hampers the speed of economic development in the western PRC.

7. A key issue for rail container transport development is how to improve CRC’s container marketing capacity. CRC needs to develop modern marketing methods, learning from intermodal marketing experience of railways in the European Union and the United States. This includes (i) applying strategy management and marketing management tools to analyze cargo shippers and competitors, and determining the proper position for CRC’s rail container services in the market; (ii) creating the necessary services and products to attract customers in targeted market segments; (iii) selecting the most effective channels for marketing container transport services to various shipper groups; and (iv) determining the optimal compensation scheme for CRC service chain partners.4

8. In developed countries, multimodal transportation has proved to be a good approach to offer competitive container services and maximize efficiency. A rail-based intermodal container system (RICS) integrates other modes where they offer advantages on the route between origin and destination, and provides door-to-door services rather than merely station-to-station. In addition, containerization provides an opportunity to increase the value of transport services by including supplemental services, such as door-to-door transport, packaging, as well as transloading. Railway container transport development can play a key role in an efficient multimodal transport system due to its efficiency for long-distance transport. However, the PRC’s railway container transport services lack cooperation with potential business partners in the inland waterway, marine, aviation, and road transport sectors. This reduces rail container transport’s competitiveness and prevents CRC from capturing a larger share of the freight transport market despite the potential advantages of offering low-cost, safe, all-weather transportation across a large network.

9. CRC needs to set up a properly designed system to provide high-quality container services at a competitive cost. This would include selecting the optimal location for multimodal container transport hubs; adopting suitable designs and layouts for container handling; developing seamless interfaces with other transport networks (e.g., highway, sea, river, pipeline); and establishing information technology platforms to share information with service chain partners (e.g., drayage carriers) and customers.

10. Appropriate institutional arrangements will be critical for the efficient management and operation of the RICS. Whereas international experience indicates that a RICS is most effective when operated on a competitive environment, CRC’s current railway container transport management system is planning oriented and inward looking, with monopolistic characteristics. China Railway Container Company, owned by CRC, has been working as a booking agency under CRC, rather than as an independent operating company. Railway administration bureaus manage the container-handling stations and provide container transportation services to clients. CRC receives revenue from container transportation; then distributes it to various railway administration bureaus and China Railway Container Company. Such revenue distribution is

4 For example, this may include use of door-to-door revenue sharing instead of markups over CRC’s rates, which could help CRC reap a higher percentage of the value created.
often based on the financial need of each business unit and not based on profit contribution. This arrangement entails unnecessary coordination costs and leads to low operating efficiency. CRC realizes that it urgently needs to restructure its container operation system to support service quality improvements and become more market oriented, user friendly, and operationally efficient.

11. The RICS is a new concept for CRC and will require intensive capacity development. CRC, through the government, is seeking ADB assistance to develop its approach to railway container transport development and strengthen its associated capacity. The TA is in line with ADB’s Strategy 2020\(^5\) and Sustainable Transport Initiative Operational Plan,\(^6\) which identify railway container transport and logistics development as a strategic priority and a core operational subsector to achieve sustainability, energy efficiency, and emissions reduction.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

12. The impact will be a sustainable, efficient, and environment-friendly RICS that supports domestic and regional trade and logistics efficiency in the PRC. The achievement of this impact will be demonstrated by rapidly increasing domestic and cross-border railway container transport traffic and reduced logistics cost. The outcome will be a RICS development strategy and railway container transport market development program adopted by CRC.

13. The TA outputs will comprise (i) a report and recommendations for a RICS development strategy, (ii) a railway container transport market development study, and (iii) a plan for operations and institutional development for market-oriented and efficient operations.

14. A policy brief for senior government and CRC leaders will be released with the final report. It will summarize the TA findings on international best practices; lessons from the experience of development of rail container services in other countries; and the recommended RICS development strategy for the PRC, supported by implementable market development and organization development plans that can be launched within a year.

B. Methodology and Key Activities

15. The key activities to attain the TA outputs include the following:

(i) Conduct a comprehensive market analysis to understand the dynamics of the PRC’s container transport market, including (a) the current size of the market and the achievable size in 3–5 years with improvement in CRC service and handling capacity; (b) the strengths and weaknesses of competing modes (e.g., highway, inland waterway, coastal); (c) CRC’s strategy to increase market penetration for that segment of the market and to strengthen its strategy with partners in serving the containerized transport market; and (d) the reasons why CRC has not been successful in expanding its container traffic and what can be learned from international experience.

---


(ii) Study international best practices and lessons applicable for railway container transport development; identify gaps between CRC and major container companies in developed countries; and draw upon the results of the analysis and develop recommendations, including for CRC’s container development strategy.

(iii) Recommend steps that can be adopted by CRC management to (a) transform its operating culture and develop a productive, effective organization; (b) increase service quality and operating efficiency; (c) penetrate and grow the targeted market segments; (d) manage the revenue streams for long-term profitability; and (e) work with marketing and operations partners to deliver a high-quality, door-to-door service at competitive cost.

16. The TA will include two international study tours and two domestic training events on RICS planning, management, operations and marketing. The international study tours will be used to benchmark international best practices, initiate discussions with potential strategic partners and obtain training in modern logistics management from recognized academic institutions. Two workshops will be conducted at the inception and interim report stages to discuss the objectives, solicit inputs, share knowledge, and review TA accomplishments. A seminar will be arranged at the final report stage to disseminate the international best practices and TA findings. The TA will be undertaken in close consultation with relevant CRC departments, the government, user groups, potential partners, private sector stakeholders, international development partners, and other relevant agencies. It will take into consideration previous studies carried out by the government, ADB, the Organization for Economic Co-operation and Development, the World Bank, and other agencies. CRC will provide the consultants with relevant data, materials, recent studies, and reports required for the TA; assist in arranging workshops and the seminar; and liaise with government, relevant agencies, and stakeholders. The TA will involve research, fieldwork, training, stakeholder consultations, and knowledge transfer.

C. Cost and Financing

17. The TA is estimated to cost $570,000, of which $450,000 will be financed on a grant basis by ADB’s Technical Assistance Special Fund (TASF-other sources). The government will provide counterpart professional and support staff; office space with furniture; utilities (including high-speed internet and telecommunication access); materials, maps, available data, and documents required by the TA; local transportation to field study sites; cost of interpreters; and other support. Details of the cost estimates and financing plan are in Appendix 2.

D. Implementation Arrangements

18. As the executing agency for the TA, CRC will be responsible for supervising and monitoring TA activities. A leading group comprising representatives of the State Railway Administration of the Ministry of Transport, ocean shipping companies, and relevant CRC departments will be established to meet regularly, oversee implementation, and provide guidance to the consultants. Additional leading group meetings will be held when specific issues need to be discussed. A project coordinator will be assigned to supervise and coordinate day-to-day TA activities; monitor progress; resolve problems; arrange meetings; and liaise with relevant CRC departments and other concerned entities including the National Development and Reform Commission, private logistics operators, and transport providers. Consultations with stakeholders, particularly those from the private sector such as major shippers and receivers, transport intermediaries, logistics operators, and potential partners from other modes will be held monthly to strengthen the involvement of stakeholders during TA implementation.
19. The TA will require about 20 person-months of national and about 9 person-months of international consulting services. ADB will engage a team of national consultants through a consulting firm using the quality- and cost-based selection method with a quality and cost weighting of 90:10. A simplified technical proposal will be required in accordance with ADB’s Guidelines on the Use of Consultants (2013, as amended from time to time). The 90:10 weighting is appropriate because (i) the TA is an advanced assignment requiring a high degree of expertise in RICS development; and (ii) the TA is likely to have a significant impact on the future development of sustainable railway and integrated transport systems in the PRC. ADB will engage individual international consultants in accordance with the Guidelines on the Use of Consultants. Individual consultants are needed, as the TA covers specializations such as railways, containerization, and logistics that are unlikely to be available within a single firm. The outline terms of reference for consultants are in Appendix 3.

20. The TA proceeds will be disbursed in accordance with ADB’s Technical Assistance Disbursement Handbook (2010, as amended from time to time). Any procurement under the TA will be conducted in accordance with ADB’s Procurement Guidelines (2013, as amended from time to time).

21. The TA will be implemented from 15 May 2014 to 31 December 2015. The consultants will submit regular working papers, inception report, interim report, draft final report and final report to CRC and ADB. All reports are to be submitted in English. Details of the requirements for working papers and reports are in the Appendix 3.

22. The consultants will hold regular coordination meetings with CRC and stakeholders to discuss and address issues they face. Workshops will be held periodically to present the findings and recommendations of the working papers, and report and solicit feedback from key stakeholders. Major project activities will be regularly monitored by and reported to ADB administration missions and CRC. Consultants’ reports will be presented at workshops and seminars organized to validate and disseminate their findings. The reports and performance of consultants will be monitored and evaluated by CRC, ADB staff, and peer reviewers at critical stages. The reports will be posted on the ADB website in a timely manner.

IV. THE PRESIDENT’S DECISION

23. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of $450,000 on a grant basis to the Government of the People’s Republic of China for Railway Container Transport Development, and hereby reports this action to the Board.
## DESIGN AND MONITORING FRAMEWORK

<table>
<thead>
<tr>
<th>Design Summary</th>
<th>Performance Targets and Indicators with Baselines</th>
<th>Data Sources and Reporting Mechanisms</th>
<th>Assumptions and Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact</strong></td>
<td>Railway container traffic volume increases to 8.48 million twenty foot equivalent unit (TEU) in 2020 from 4.71 million TEU in 2012. International railway container traffic volume increases to 2.11 million TEU in 2020 from 1.23 million TEU in 2012. Logistics cost to gross domestic product ratio decreases to 14% by 2020 from 18.1% in 2012.</td>
<td>Government and CRC statistics</td>
<td>Government, CRC, and stakeholder interest and continuous implementation of recommended improvement methods are sustained even after TA completion. CRC and the government completely implement the strategy for sustainable railway container transport development.</td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td>RICS development strategy and market development program adopted by CRC</td>
<td>RICS development strategy and market development program accepted by CRC by 2016</td>
<td>ADB TA completion report CRC plans, reports, guidelines, and regulations on railway container transport development</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>Recommendations submitted to the government, CRC, and ADB by December 2015</td>
<td>Final report, TA review mission reports, and TA completion report</td>
<td>CRC provides counterpart support as committed. Various stakeholders, private sector, railway administration bureaus, and container companies provide support and participate actively. Information and data needed to support policy analysis are accessible. CRC implements the recommendations well and smoothly.</td>
</tr>
</tbody>
</table>
### Design Summary

<table>
<thead>
<tr>
<th>Activities with Milestones</th>
<th>Performance Targets and Indicators with Baselines</th>
<th>Data Sources and Reporting Mechanisms</th>
<th>Assumptions and Risks</th>
</tr>
</thead>
</table>

### Activities with Milestones

1. **Recommendations for RICS development in the PRC**
   1.1 Review existing policies and development plans on railway container transport development (July 2014)
   1.2 Research international best practices (November 2014)
   1.3 Study and identify the direction and approach to adopt a RICS and draft recommendations (March 2015)
   1.4 Consult with stakeholders (August 2015)
   1.5 Finalize recommendations for RICS development and provide to the government, CRC, and ADB (December 2015)

2. **Railway container transport market development study**
   2.1 Conduct desk review of international experience in developing a RICS (July 2014)
   2.2 Conduct workshops and international benchmarking and training visits (May 2015)
   2.3 Draft market development strategy and conduct consultations (August 2015)
   2.4 Finalize market development strategy and submit to the government, CRC, and ADB (December 2015)

3. **Operations and institutional development plan**
   3.1 Review the current status of operation modes and conduct of institutional arrangements (July 2014)
   3.2 Complete study on international practices (November 2014)
   3.3 Provide domestic training (June 2015)
   3.4 Draft plan and conduct internal discussion and consultation (August 2015)
   3.5 Finalize plan and submit to the government, CRC, and ADB (December 2015)

### Inputs

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount ($'000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Consultants</td>
<td>336.0</td>
</tr>
<tr>
<td>2. Equipment</td>
<td>5.0</td>
</tr>
<tr>
<td>3. Training, workshops, seminars, and conferences</td>
<td>62.0</td>
</tr>
<tr>
<td>4. Surveys</td>
<td>8.0</td>
</tr>
<tr>
<td>5. Miscellaneous administration and support costs</td>
<td>5.0</td>
</tr>
<tr>
<td>6. Contingencies</td>
<td>34.0</td>
</tr>
</tbody>
</table>

**Note:** The government will provide counterpart professional and support staff; office space with furniture; utilities (including high-speed internet and telecommunication access); materials, maps, available data, and documents required by the TA; local transportation to field study sites; cost of interpreters; and other support.

COST ESTIMATES AND FINANCING PLAN
($'000)

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian Development Bank Financing&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>1. Consultants</td>
<td></td>
</tr>
<tr>
<td>a. Remuneration and per diem</td>
<td></td>
</tr>
<tr>
<td>i. International consultants (9 person-months)</td>
<td>174.00</td>
</tr>
<tr>
<td>ii. National consultants (20 person-months)</td>
<td>113.00</td>
</tr>
<tr>
<td>b. Air travel</td>
<td></td>
</tr>
<tr>
<td>i. International</td>
<td>16.00</td>
</tr>
<tr>
<td>ii. Domestic</td>
<td>13.00</td>
</tr>
<tr>
<td>c. Reports, translation, and communications</td>
<td>20.00</td>
</tr>
<tr>
<td>2. Equipment&lt;sup&gt;b&lt;/sup&gt;</td>
<td>5.00</td>
</tr>
<tr>
<td>3. Training, workshops, seminars, and conferences&lt;sup&gt;c&lt;/sup&gt;</td>
<td>62.00</td>
</tr>
<tr>
<td>4. Surveys</td>
<td>8.00</td>
</tr>
<tr>
<td>5. Miscellaneous administration and support costs</td>
<td>5.00</td>
</tr>
<tr>
<td>6. Contingencies</td>
<td>34.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>450.00</strong></td>
</tr>
</tbody>
</table>

Note: The technical assistance (TA) is estimated to cost $570,000, of which contributions from the Asian Development Bank are presented in the table above. The government will provide counterpart professional and support staff; office space with furniture; utilities (including high-speed internet and telecommunication access); materials, maps, available data, and documents required by the TA; local transportation to field study sites; cost of interpreters; and other support. The value of government contribution is estimated to account for 21.05% of the total TA cost.

<sup>a</sup> Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-other sources).

<sup>b</sup> Including computer hardware and software, photocopiers, facsimile machine, and other equipment to be procured under the consultant’s contract, in accordance with procedures acceptable to ADB. Ownership of all equipment will be transferred to the China Railway Corporation upon completion of the TA.

<sup>c</sup> Two international training sessions on rail-based intermodal container system planning, management, operations and marketing, one in the European Union and one in the United States. Two domestic training sessions on marketing development and efficiency of operations, one in Beijing and one in Chengdu. Workshops, training, and seminars are to be implemented by the consulting firm, and the cost administered through the consulting firm’s contract.

Source: Asian Development Bank estimates.
OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Rail-Based Intermodal Container System Transport Experts (one international, 6 person-months; one national, 14 person-months)

1. The intermodal experts (national and international) will contribute to all tasks and act as the team leader (national) and deputy team leader (international). The team leader and deputy team leader will be responsible for ensuring close coordination between the national and international consultants, supervising the technical assistance (TA) activities, and generating the TA outputs with the support of other international and national experts.

2. The national expert will be a senior engineer and researcher with a degree in transport or logistics management, and demonstrated experience of at least 10 years in railway container transport and logistics development policies, planning, management, and operation. The international intermodal container expert should have an advanced degree in transport or logistics, and have extensive knowledge and experience (at least 15 years) with rail-based intermodal container system (RICS) operations, planning, and management in one or more developed countries and various developing countries, especially in turning around stagnant and poorly performing rail intermodal business units. Experience in the People’s Republic of China (PRC) is highly preferred.

3. The consultants’ responsibilities will include the following:
   
   (i) Review relevant national container and logistics development, and railway container transport and logistics development plans; examine progress made, particularly the current status of PRC railway container transport policies, administrative systems, and container infrastructure; and examine operations and business models, particularly cooperation with other modes and intermediaries, shippers, logistics companies, and clients to involve the private sector.
   
   (ii) Conduct an in-depth analysis of international best practices for RICS development, modes of operation, and institutional arrangements; a study of technical infrastructure development policy that the China Railway Corporation (CRC) can adopt to encourage and guide the transition from an independent railway container transport system to a RICS; identify gaps in railway container transport development between the PRC and developed countries, and the direction and approach to developing a RICS in the PRC; and carry out an operation and organization development study.
   
   (iii) Review the status of container transport in countries in the Central Asia Regional Economic Cooperation region, European Union, Greater Mekong Subregion, and other regions; identify the major international container corridors; analyze the current operation of international container transport including express international container trains; conduct a study on measures to improve cross-border rail container transport through unified invoices and waybills, single window and custom clearance and supervision, and health quarantine in the origin railway logistics centers and terminals.
   
   (iv) Identify and propose locations and activities for international benchmarking and training financed under the TA, and organize international visits.
   
   (v) Identify potential RICS lending projects that could be suitably supported by the Asian Development Bank (ADB).
(vi) While incorporating all inputs from other team members and consulting with the
government, CRC, and stakeholders, draft the final report including a briefing
note containing the three outputs and recommendations, and disseminate the
international best practices and main findings of the TA study through
workshops, seminars, and training.

(vii) The international expert will conduct training sessions on rail container operation
efficiency for CRC staff with assistance from the national experts.

B. Intermodal Marketing Development Experts (one international, 3 person-months;
one national, 4 person-months)

4. The experts will have degrees in transport and logistics or similar fields, and at least
10 years of experience in the container transport subsector, including experience on marketing
container and logistics services. Prior experience with third party logistics companies, transport
intermediaries (freight forwarders, intermodal marketing companies, non vessel operating
common carriers, and transport brokers), and container stack train operators will be highly
valued. The international expert should have experience in the PRC, and the national expert
demonstrated experience in railway container transport.

5. The tasks of the consultants will include the following:

(i) Review the relevant national and railway container transport policies and
development plans; review and assess in detail the status of national container
and railway container transport market development.

(ii) Carry out a comprehensive market analysis of the PRC’s container transport
market, including (a) the current size of the container transport market;
(b) projected size in 3–5 years with improved CRC services and increased CRC
handling capacity; (c) the strengths and weaknesses of competing modes
(e.g., highway, inland waterway, coastal); (d) the CRC strategy to penetrate that
segment of the market; (e) CRC’s potential strategic partners in serving the
container transport market; (f) potential and valuable partners that CRC could
work with to reach targeted customers, including determining if potential partners
who can contribute assets (e.g., containers, platform wagons) are more valuable
than pure non-asset-based transport intermediaries.

(iii) Conduct an in-depth study on international best practices for RICS marketing
(especially pricing), and identify the gaps in railway container transport market
development, including pricing between the PRC and developed countries.

(iv) Develop a suitable and efficient approach to strengthen the capacity for railway
container transport market development to transition to RICS development; and
hold consultations with CRC, the Station Railway Administration of the Ministry of
Transport, stakeholders, forwarders, shippers, and relevant agencies.

(v) Assist in developing a RICS development strategy and operation and
organization development study on railway container transport development; and
assist in proposing RICS lending projects that could be supported by ADB.

(vi) Develop and assist in preparing a policy brief highlighting the TA findings of
international best practices, lessons from the development experience of others,
consultants’ recommendations, and a RICS development strategy for CRC
implementation and dissemination to high-level policymakers and concerned
government departments.

(vii) The international expert will conduct training sessions on railway container
transport market development for CRC staff, assisted by the national experts.
C. Organization Development Expert (one national, 2 person-months)

6. The expert will have a degree in transport, logistics, organization development, or similar fields; and at least 10 years of experience in transport management and operations, including experience leading advisory services on institutional arrangements and reform of the rail subsector. The expert will have demonstrated experience in railway container transport and institutional arrangements.

7. The consultant’s tasks will include the following:

(i) Review relevant container development plan and regulations, and undertake a detailed review and assessment of CRC institutional arrangement practices.

(ii) Identify the institutional arrangement and management system requirements for sustainable RICS development, operating models and management, and market development in the PRC based on the best practices in developed countries; provide recommendations for CRC’s institutional arrangements to pursue RICS operating efficiency.

(iii) Assist in developing a RICS development strategy, operating model and management study, and market development strategy for institutional arrangements for container operation; assist in proposing RICS lending projects that can be supported by ADB; consult with CRC, stakeholders, and relevant agencies on these strategies and studies; and finalize the action plan for CRC implementation.

(iv) Assist in preparing a brief note on recommendations highlighting the best practices and findings of the TA for dissemination to high-level policymakers and concerned government departments.

8. The consultants will review and build on previous studies and reports prepared by ADB, the World Bank, CRC, and other development partners. They will review lessons from work and experience of other countries in developing similar projects.

D. Reporting Requirements

9. Two weeks after the start of the TA study, the consultants will submit a TA implementation plan (in English and Chinese) including the required data, materials and documents, survey program, and study plan to CRC and ADB. The first coordination meeting will be held among the consultants, CRC, and ADB to discuss and confirm the implementation plan 1 week after it is received. The consultants will submit to CRC and ADB (i) working papers presenting evidence, assessment, and options for consideration on key aspects of rail container services to be addressed by the TA; (ii) an inception report 12 weeks after commencement of services; (iii) an interim report 35 weeks after commencement of services; (iv) a draft final report after 58 weeks; and (v) a final report (including a five-page executive summary with key findings and recommendations) 2 weeks after receipt of review comments from CRC and ADB.

10. All reports will be written in English and translated into Chinese. Three hard copies and two soft copies of the inception, interim, and draft final reports (in English) will be submitted to ADB. Three hard copies and one soft copy of each report (in both Chinese and English) will be submitted to the executing agency. Ten hard copies and two soft copies of the policy brief note in English will be submitted to ADB, and 10 hard copies and two soft copies in both Chinese and English to CRC.