Technical Assistance Report

Project Number: 46158-001
Policy and Advisory Technical Assistance (PATA)
October 2012

People’s Republic of China: Industrial Development in Support of Yunnan’s Outward-Oriented Economic Development Strategy
CURRENCY EQUIVALENTS  
(as of 16 October 2012)

Currency unit  –  yuan (CNY)  
CNY1.00  =  $0.1594  
$1.00  =  CNY6.275

ABBREVIATIONS

ADB  –  Asian Development Bank  
ASEAN  –  Association of Southeast Asian Nations  
DOF  –  Department of Finance  
PRC  –  People’s Republic of China  
TA  –  technical assistance  
YASTI  –  Yunnan Academy of Scientific and Technical Information

TECHNICAL ASSISTANCE CLASSIFICATION

Type  –  Policy and advisory technical assistance (PATA)  
Targeting classification  –  General intervention  
Sector (subsector)  –  Industry and trade (industry and trade sector development)  
Themes (subthemes)  –  Economic growth (promoting economic efficiency and enabling business environment, widening access to markets and economic opportunities), regional cooperation and integration (trade and investments), private sector development (private sector investment)  
Location (impact)  –  Rural (medium), urban (medium), regional (medium)

NOTE

In this report, “$” refers to US dollars.

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I. INTRODUCTION

1. During the 2011 country programming mission, the Government of the People’s Republic of China (PRC) requested the Asian Development Bank (ADB) to provide Yunnan Province with policy and advisory technical assistance (TA) for Industrial Development in Support of Yunnan’s Outward-Oriented Economic Development Strategy. Following consultations with the Yunnan provincial government and other stakeholders during 11–13 April 2012, a fact-finding mission during 16–17 July 2012 agreed on the objectives, scope, implementation arrangements, costs, and terms of reference of the TA. The mission also assessed the executing agency’s capacity to execute the TA. The design and monitoring framework is in Appendix 1.2

II. ISSUES

2. Yunnan has abundant natural resources, hydropower potential, and tourist attractions. Geographically, it is strategically located in the southwestern part of the PRC and serves as the gateway connecting the country to Southeast and South Asia and beyond. However, Yunnan is one of the poorest provinces in the PRC. Promoting Yunnan’s economic development is an urgent need to address poverty in the province and promote regionally balanced development in the country. Developing Yunnan’s characteristic industries with strong growth potential is seen as an engine of inclusive growth. Such development needs to capitalize on abundant resources and human resource potential and take full advantage of Yunnan being an important land bridge to members of the Association of Southeast Asian Nations (ASEAN) and beyond.

3. Promotion of regionally balanced development for inclusive growth. Rapid economic growth in the PRC since the onset of economic reforms in 1978 has dramatically reduced poverty. The number of absolute poor per PRC poverty standard in rural areas fell from 250 million in 1978 to just 27 million in 2010, and the incidence of poverty declined from 15% to 2%.4 However, worsening income inequality has emerged as a serious concern. Income gaps have widened between urban and rural areas, and between the eastern coastal and less-developed central and western regions.

4. The government has steadily increased investments in a vast array of programs aimed specifically at poverty reduction. 5 In February 2012, the State Council announced the Plan for Further Promoting the Economy of the Western Regions, a step to narrow the gap between the country’s wealthy coastal provinces and its underdeveloped western regions. The Yunnan provincial government has made substantial efforts to accelerate its economic development, as stipulated in the Twelfth Five-Year Development Plan of Yunnan Province, 2011–2015. However, Yunnan needs to properly orient its development plan and focus development efforts on selected characteristic industries to improve its trade competitiveness, and further propel its economic development and contribute toward a more regionally balanced and inclusive growth.

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2 The TA first appeared in the business opportunities section of ADB’s website on 4 August 2012.
3 In the PRC, “characteristic industry” commonly refers to an industry or industrial cluster in which a region has competitive advantage. These comparative advantages or characteristics are developed from the region’s specialities in technology, culture, talents, natural resources, geographical location, and ecological environment.
4 The government revised the poverty line to CNY2,300 per person per annum in November 2011, which has resulted in more than 100 million rural persons reclassified as poor.
5 According to past and current five-year plans for national economic and social development; the China Rural Poverty Alleviation and Development Outline, 2001–2010 and 2011–2020; and other policy-related initiatives.
5. **Acceleration of outward-oriented economic development.** In July 2009, the President of the PRC proposed to make Yunnan the major gateway for the PRC’s cooperation with Southeast and South Asia, and the Mekong River valley. The State Council, in its Opinions on Supporting Yunnan Province to Accelerate the Construction of an Important Gateway Open to the Southwestern Region issued in May 2011 (the State Council Gateway Opinions), highlighted development of characteristic industries as one of the eight measures, which also include strengthening basic infrastructure, optimizing logistics and corridors, deepening trade relationships with neighboring countries, protecting the environment, ensuring social services, and accelerating poverty alleviation. In 2010, Yunnan’s foreign trade increased by 67% where 34.5% of Yunnan’s total foreign trade was with ASEAN members. The establishment of the ASEAN Economic Community by 2015 will create further favorable environment for Yunnan’s foreign trade.

6. **Acceleration of characteristic industries development.** The Yunnan provincial government recognizes the contribution of industrial development to local and regional economies. It called for accelerating the development of characteristic industries and actively mobilizing financial sources in its Twelfth Five-Year Development Plan. Subsequently, the Yunnan provincial Department of Finance (DOF) through its Yunnan Characteristic Industries Development and Financial Source Mobilization Action Plan, 2011–2015, identified 13 key characteristic industries for support.

7. However, these selections were based on existing volume of industrial production and trade patterns and did not take into account opportunities arising from future trade and supply chain development linking Yunnan and ASEAN member countries. Prudent evaluation criteria from the perspective of developing an outward-oriented economy need to be applied when identifying characteristic industries. A comprehensive and effective strategy for characteristic industry development is required to attract investment, encourage private sector participation, and promote cross-border trade. In addition, the government needs to upgrade the industrial structure to move toward low-carbon and high value-addition part of the production chain.

8. The ADB’s country partnership strategy for PRC, 2011–2015 promotes inclusive growth with a focus on the lesser-developed interior regions as one of three strategic pillars, along with environmentally sustainable growth and regional cooperation and integration. ADB’s Regional Cooperation and Integration Strategy supports trade and investment cooperation and integration. The TA support complements initiatives led by the PRC and Yunnan province for poverty reduction and inclusive, regionally balanced growth through characteristic industry

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6 The State Council committed that the government would support the gateway project through tax policies, financing, investment, and various forms of compensation.
7 With the cooperation of the Yunnan Academy of Scientific and Technical Information.
8 Non-ferrous metals, ferrous metals, phosphorus chemicals, biopharmaceuticals, equipment manufacturing, sugar processing, grain and oil products, paper processing, beverages, tea products, fruit and vegetable processing, livestock poultry processing, and rubber products. The report also proposed five major objectives (developing industry; increasing fiscal revenue; expanding employment; stimulating investment; and serving agriculture, farmers and rural areas), three indicators (fiscal revenue reaching 100 million, the germination of initial public offerings, and support for enterprises’ expansion), and complementary measures. In the early 1990s, Yunnan government announced plans to develop five pillar industries: tobacco, mining, power (mainly hydropower), bio-industry, and tourism. Priority industries were later selected to include bio-industry, optoelectronics, high-end equipment manufacturing, advanced materials, energy conservation and environmental protection, and new energy resources for the Twelfth Five-year Plan period.
development. The TA will help the provincial government maximize the economic benefits from transport infrastructure development in the region and the free-trade agreement between the PRC and ASEAN, and will also help address emerging social issues arising from the accelerated pace of urbanization and industrialization.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

9. The impact of the TA will be inclusive, regionally balanced growth in the PRC, with Yunnan’s outward-oriented economic development as a key part. The attainment of this impact will be demonstrated through the establishment of characteristic industry bases, increased trade, and higher provincial gross domestic product. The TA outcome is the development strategy for selected characteristic industries adopted by the Yunnan provincial government that focuses on establishing industrial bases to support outward-oriented economic development.

B. Methodology and Key Activities

10. The TA will help the government identify 3–5 characteristic industries particularly those with potential to contribute to Yunnan’s outward-oriented economic development and prepare the development strategy for selected characteristic industries. Key activities of the TA will proceed in three phases: (i) conducting background studies, (ii) establishing selection criteria and prioritizing characteristic industries, and (iii) preparing a strategy and action plan, and knowledge products for developing the selected characteristic industries. In the TA inception, a workshop for the executing and implementing agencies, researchers, and other key stakeholders will be organized to discuss the TA implementation plan. A seminar or workshop will be organized for each phase to disseminate and discuss major findings and implications for next steps.

11. TA outputs will correspond to the three phases: (i) an analysis of Yunnan’s potential to develop an outward-oriented economy aimed at industrial integration and trade with ASEAN countries, based on studies (i)–(iii) below; (ii) a cost–benefit analysis of adopting policies and enabling conditions that will promote selected characteristic industries of Yunnan based on the study (iv) below; and (iii) a strategy and action plan for developing and sustainably expanding selected characteristic industries, based on studies (v)–(vi) below. The TA will deliver a comprehensive report that will comprise six studies on:

(i) **Yunnan’s outward-oriented economic development and industrial integration and trade with members of ASEAN.** The study will analyze Yunnan’s industrial and trade structures in comparison with those of ASEAN countries, assess the outward-oriented economic development strategy in line with the State Council Gateway Opinions, recommend policies to promote Yunnan’s outward-oriented economic development and trade with ASEAN countries, and propose development options for characteristic industries in Yunnan.

(ii) **Characteristic industries’ development in Yunnan.** The study will analyze the development of characteristic industries in Yunnan in connection with the requirements for outward-oriented economic development, analyze their current status and trends, identify and explain their contribution to implementation of the State Council Gateway Opinions, and recommend policies to accelerate the development of Yunnan’s characteristic industries.
Case studies of characteristic industries in Yunnan. The studies will select typical characteristic industries supporting outward-oriented economic development; analyze them from the perspectives of the region, industry, and enterprise; identify factors for success and constraints; and assess policy options.

Establishment of evaluation criteria and methodology and selection of key characteristic industries. The study will analyze the evaluation criteria and methodologies of comparable countries for selecting key strategic industries, collect and process data using statistical analysis, and prioritize characteristic industries through quantitative analysis.

Construction of characteristic industrial bases in Yunnan. The study will propose approaches to constructing industrial bases for selected characteristic industries, quantitatively analyze existing data, identify measures to support the construction of the characteristic industrial bases, and propose an action plan.

Development strategy for selected characteristic industries. The study will offer key policy recommendations, prepare a strategy and action plan, and produce knowledge products to promote the development of characteristic industries in Yunnan.

C. Cost and Financing

12. The TA is estimated to cost $500,000, of which $400,000 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, transportation, and other in-kind contributions. The cost estimates and financing plan are in Appendix 2.

D. Implementation Arrangements

13. The executing agency will be the DOF, and the implementing agency will be the Yunnan Academy of Scientific and Technical Information (YASTI). DOF will designate a project coordinator and will be responsible for the overall execution and coordination of TA activities. Under the guidance of DOF, YASTI will be responsible for day-to-day TA implementation. DOF and YASTI will, in coordination with ADB, provide necessary guidance to consultants, particularly to ensure study consistency and avoid any overlap. Consultants will discuss the study framework with DOF, YASTI, and ADB and regularly report to them on study progress and results.

14. The TA is included in the list of delegated TA projects for 2012. The fact-finding mission reviewed DOF capacity for procurement and managing consulting services for the TA. As only individual consultants are intended to be selected, simplified capacity assessment was conducted. The review found that DOF had sufficient experience in implementing projects funded by ADB and the World Bank, including procurement and supervising consulting services involving international consultants. The assessment concluded that DOF’s capacity was

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11 An industrial base can be regarded as an industrial complex capable of conducting research and development; and designing, producing, delivering, and maintaining industrial systems, components, or parts to meet industrial requirements. It can be one of industrial cluster, industrial park, border trade zone, raw material base, processing base, exporting base, or industrial belt.

12 YASTI is subordinate to the Yunnan Provincial Science and Technology Department but also an independent public welfare organization in scientific research fully financed by the province. Key features of the implementing agency relevant to TA implementation include that it is a Yunnan institution for formulating development strategy; supporting provincial policy, decision making, and strategic planning; and evaluating provincial projects.
adequate to recruit individual consultants, procure goods through shopping procedures, and manage the study in cooperation with the implementing agency. It recommended approving the delegation of the TA to DOF. In line with the enhanced partnership approach, delegation is limited to the selection of international and national consultants, and short-term resource persons. ADB will negotiate and sign the contracts with consultants and resource persons. After contract signing, implementation is the responsibility of DOF.

15. The TA will be implemented over 20 months, starting on 1 November 2012 and ending on 30 June 2014. The TA will require 4.0 person-months of international consulting services and 24.5 person-months of national consulting services. The consultants will deliver, in both English and Chinese, a comprehensive report comprising six studies. They will be recruited in accordance with ADB’s Guidelines on the Use of Consultants (2010, as amended from time to time). The outline terms of reference for the consultants are in Appendix 3. The office equipment provided under the TA for the consultants will be procured in accordance with ADB’s Procurement Guidelines (2010, as amended from time to time) and handed over to DOF upon TA completion. TA proceeds will be disbursed in line with ADB’s Technical Assistance Disbursement Handbook (2010, as amended from time to time). DOF may use an advance payment facility to procure equipment and conduct seminars and workshops.

16. Major project activities will be regularly monitored and reported on by DOF and/or YASTI, as well as by ADB review missions. Consultants’ reports will be presented at workshops and seminars organized to validate findings. Reports will be made available on the ADB website in English and Chinese and published in accordance with ADB’s Public Communications Policy (2011).

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 $400,000 on a grant basis to the Government of the People’s Republic of China for Industrial Development in Support of Yunnan’s Outward-Oriented Economic Development Strategy, and hereby reports this action to the Board.

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13 Two staff members of the executing and implementing agencies participated in training for executing agencies of delegated TA organized by the Central Operations Services Office in June 2012.
# 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>
</table>
| **Impact** | Inclusive, regionally balanced growth in the PRC with Yunnan’s outward-oriented economic development as a key part | At least two characteristic industrial bases established by 2020  
Yunnan’s foreign trade to gross regional product ratio increased from 11% during 2009–2010 to 15% by 2025  
Yunnan’s per capita GDP improved from 53% of national average in 2010 to 68% by 2025 | China Statistical Yearbooks  
National and provincial databases | Assumption  
Development of characteristic industries to remain as the key driver of economic development recognized by the government |
| **Outcome** | Development strategy for selected characteristic industries focusing on establishing industrial bases to support outward-oriented economic development | Adoption of a development strategy for selected characteristic industries by the Yunnan provincial government (by June 2014) | Government’s announcements | Assumptions  
Consensus on the study’s recommendations reached by the government and other stakeholders  
No major change in the strategic directions of the government |
| **Outputs** | 1. An analysis of Yunnan’s potential to develop an outward-oriented economy aimed at industrial integration and trade with ASEAN countries  
2. A cost–benefit analysis of adopting policies and enabling conditions that will promote selected characteristic industries to achieve Yunnan’s outward-oriented economic development  
3. A strategy and action plan, and policy implications for outward-oriented economic development and characteristic industries development in Yunnan (by April 2013)  
Identification of key characteristic industries in support of Yunnan’s outward-oriented economic development strategy (by September 2013) | Policy implications for outward-oriented economic development and characteristic industries development in Yunnan (by April 2013)  
Identification of key characteristic industries in support of Yunnan’s outward-oriented economic development strategy (by September 2013) | Databases of the government and research institutes  
Summary of consultations | Assumptions  
Availability of quality data and background papers  
Good evaluation criteria and methodology model identified for selecting key characteristic industries  
Stakeholder consultations with balanced and wide participation  
Risks  
Consensus on selecting characteristic industries not reached  
Some selected characteristic industries vulnerable to safeguard issues |
### Design Summary

<table>
<thead>
<tr>
<th>Knowledge Products for Developing Selected Characteristic Industries</th>
<th>Performance Targets and Indicators with Baselines</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Term strategy and policy for developing selected characteristic industries submitted to the government (by April 2014)</td>
<td>Knowledge products produced (by May 2014)</td>
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### Activities with Milestones

1. **An analysis of Yunnan’s potential to develop an outward-oriented economy aimed at industrial integration and trade with ASEAN countries**

   1.1 Inception workshop (January 2013)
   1.2 Assessment of the roles of Yunnan’s industrial and trade structure for outward-oriented economic development in line with the State Council Gateway Opinions (April 2013)
   1.3 Identification of key features and status of Yunnan’s characteristic industries (April 2013)
   1.4 Recommendations on how to promote Yunnan’s outward-oriented economic development and strengthen trade links with neighboring countries (April 2013)
   1.5 Analysis of selected cases of characteristic industries including their competitive advantage (April 2013)
   1.6 Interim seminar (April 2013)

2. **A cost–benefit analysis of adopting policies and enabling conditions to develop characteristic industries to achieve Yunnan’s outward-oriented economic development**

   2.1 Development options proposed for characteristic industries to integrate Yunnan’s industries with those of neighboring countries and provinces (August 2013)
   2.2 Selection of key characteristic industries for strategic formulation (August 2013)
   2.3 Midterm workshop (September 2013)

3. **A strategy and action plan for developing selected characteristic industries**

   3.1 Development strategy and action plan proposed for selected characteristic industries (February 2014)
   3.2 Final dissemination workshop (March 2014)
   3.3 Submission of final report (April 2014)
   3.4 Production of knowledge products (May 2014)

### Inputs

ADB provides $400,000 including national and international consultancy inputs and administrative support.

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount ($'000)</th>
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<tbody>
<tr>
<td>International consultants (4.0 person-months)</td>
<td>100.00</td>
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<tr>
<td>National consultants (24.5 person-months)</td>
<td>140.00</td>
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<tr>
<td>International and local travel</td>
<td>30.00</td>
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<tr>
<td>Reports and communications</td>
<td>10.00</td>
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<tr>
<td>Equipment</td>
<td>10.00</td>
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<td>Seminars and workshops</td>
<td>50.00</td>
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<tr>
<td>Miscellaneous administration and support costs</td>
<td>10.00</td>
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<tr>
<td>Contingencies</td>
<td>50.00</td>
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Government will provide counterpart support in the form of office space, counterpart staff, transportation, and other in-kind contributions.

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### COST ESTIMATES AND FINANCING PLAN

($'000)

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<tr>
<td><strong>Asian Development Bank</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>1. Consultants</td>
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<tr>
<td><strong>Total</strong></td>
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</table>

Note: The technical assistance is estimated to cost $500,000, of which contributions from the Asian Development Bank are presented in this table. The government will provide counterpart support in the form of office space, counterpart staff, transportation, and other in-kind contributions. The value of government contribution is estimated to cover 20% of the total technical assistance cost.

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

<sup>b</sup> Office equipment and facilities to support the implementation of this technical assistance may include laptop computers, printers, fax machines, scanners, cameras, digital recorders, copy machines, and office consumables. All equipment purchased will be handed over to the Yunnan provincial government upon the completion of technical assistance.

<sup>c</sup> Includes honoraria for resource persons in workshops, the costs of translation and/or interpretation, and the costs of disseminating the final report. Specific budget and arrangements are subject to prior approval from the Asian Development Bank.

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

A. General

1. The technical assistance (TA) will help the government to identify 3–5 characteristic industries—particularly those with potential to contribute to Yunnan’s outward-oriented economic development in line with the State Council Gateway Opinions—and prepare a comprehensive development strategy. The TA will be implemented over 20 months, starting in November 2012 and ending in June 2014. It will require 4.0 person-months of international consulting services and 24.5 person-months of national consulting services.

2. The consultants will produce six reports in close consultation with the executing agency, the Yunnan provincial Department of Finance; the implementing agency, the Yunnan Academy of Scientific and Technical Information; and other central, provincial, and local government departments and agencies to ensure acceptance of the outcome of the TA. The executing and implementing agencies will, in coordination with the Asian Development Bank (ADB), provide guidance to consultants to ensure the consistency of the studies while avoiding overlap. All consultants will discuss the study framework with the executing and implementing agencies and ADB and regularly report to them on study progress and results. The team leader will be responsible for the quality of all outputs and their timely completion.

B. Consulting Requirements

1. Senior Industrial Development Specialist and Team Leader (national, 6 person-months, intermittent)

3. The consultant will lead the studies on (i) the evaluation criteria and methodology and the selection of key characteristic industries and (ii) the development strategy for selected characteristic industries. The consultant should ideally have a master's degree and 10 years of experience in areas related to industrial development, development economics, and international trade. To serve as team leader, the consultant must have demonstrated outstanding organizational performance and be proficient in English. His or her responsibilities will include the following tasks:

   (i) guide, coordinate, and supervise the inputs from all team members and take responsibility for all study outputs and deliverables;
   (ii) coordinate closely with relevant government officials and ADB;
   (iii) organize the inception, midterm, and final report workshops;
   (iv) set the evaluation criteria and methodology for selecting characteristic industries in Yunnan, with the support of the international industrial development specialist;
   (v) prioritize characteristic and competitive industries suitable for Yunnan based on the advice of the international industrial development specialist and technical inputs from the national industrial statistician;
   (vi) finalize the study on the evaluation criteria and methodology and selection of key characteristic industries;
   (vii) analyze the background and the basic conditions for characteristic industry development in Yunnan;
   (viii) propose appropriate development modalities and strategies for characteristic industries in Yunnan;
   (ix) propose the strategic positioning and the selection of strategies, supporting measures, and major action plans for characteristic industry development as part of the effort of implementing the State Council Gateway Opinions;
(x) propose key policy recommendations to promote the development of Yunnan’s characteristic industries; and
(xi) finalize the study on the development strategy for selected characteristic industries.

2. Trade and Industry Development Specialist (national, 3 person-months, intermittent)

4. The consultant will prepare a study on Yunnan outward-oriented economic development and industrial integration and trade with members of the Association of Southeast Asian Nations (ASEAN). The consultant should ideally have a master's degree and 7 years of experience in areas related to international trade, regional cooperation, and industrial development. Specifically, the consultant’s will include the following tasks:
   (i) analyze Yunnan’s industrial and trade structure in comparison with ASEAN countries,
   (ii) assess the outward-oriented economic development strategy in line with the State Council Gateway Opinions,
   (iii) review other attempts in the People’s Republic of China to engineer an industrial base,
   (iv) provide policy recommendations to promote Yunnan’s outward-oriented economic development and trade with ASEAN countries,
   (v) propose development options for characteristic industries in Yunnan to integrate them with those in Southeast Asian countries, and
   (vi) finalize the study on Yunnan’s outward-oriented economic development and industrial integration and trade with ASEAN countries.

3. Characteristic Industries Development Specialist (national, 4 person-months, intermittent)

5. The consultant will conduct a study on characteristic industries development in Yunnan. He or she should ideally have a master's degree and 7 years of experience in areas related to industrial development and development economics. Specifically, the consultant’s responsibilities will include the following tasks:
   (i) analyze the strengths, weaknesses, opportunities, and threats regarding characteristic industry development in Yunnan in connection with the requirements of the outward-oriented economic development strategy;
   (ii) analyze the current status and trends of characteristic industry development in Yunnan;
   (iii) identify and explain characteristic industries’ contributions to implementation of the State Council Gateway Opinions;
   (iv) provide policy recommendations to accelerate the development of Yunnan’s characteristic industries; and
   (v) finalize the study on characteristic industries development in Yunnan.

4. Industrial Specialists (3 national specialists, 4.5 person-months, intermittent)

6. Each consultant will undertake a case study on characteristic industries in Yunnan. The consultants should ideally have master's degrees and 7 years of experience in areas related to industrial development and development economics. Specifically, the consultants' responsibilities will include the following tasks:
(i) select one typical characteristic industry supporting outward-oriented economic development;
(ii) analyze the selected characteristic industry from the perspective of the region, industry, and enterprise;
(iii) identify factors for success and binding development constraints and assess policy measures; and
(iv) finalize the case study on characteristic industries in Yunnan for the selected industry.

5. **Industrial Development Specialist** (international, 2 person-months, intermittent)

7. The consultant will provide advice and strategic inputs to the senior industrial development specialist and team leader and to the industrial statistician on the study on evaluation criteria and methodology and selection of key characteristic industries. The consultant should ideally have a master's degree and 7 years of experience in areas related to industrial development and development economics. Specifically, the consultant's responsibilities will include the following tasks:
   (i) review the background studies and analyze key features of industry development in Yunnan,
   (ii) outline the strategic direction for Yunnan's industrial development,
   (iii) analyze comparable countries' evaluation criteria and methodology for selecting key strategic industries,
   (iv) provide fundamental inputs to the senior industrial development specialist and team leader and to the industrial statistician toward establishing the evaluation criteria and methodology for selecting characteristic industries in Yunnan,
   (v) advise the national industrial statistician on applying evaluation criteria and methodology,
   (vi) provide inputs for the study on the evaluation criteria and methodology and selection of key characteristic industries,
   (vii) introduce international best practice experience in the industries' development strategy and provide advice and strategic inputs to the senior industrial development specialist and team leader for the study on the development strategy for selected characteristic industries, and
   (viii) assist the senior industrial development specialist and team leader in conducting the midterm and final workshops.

6. **Industrial Statistician** (national, 4 person-months, intermittent)

8. The consultant will assist the senior industrial development specialist and team leader in the study on evaluation criteria and methodology and selection of key characteristic industries. In particular, the consultant will quantitatively analyze how to prioritize characteristic industries using established evaluation criteria and methodology. The consultant should ideally have a master's degree and 7 years of experience in areas related to statistics, econometrics, and quantitative methods. Specifically, the consultant's responsibilities will include the following tasks:
   (i) participate in establishing the evaluation criteria and methodology for selecting characteristic industries in Yunnan,
   (ii) provide the model analysis,
   (iii) collect and process data using statistical analysis software,
   (iv) quantitatively analyze how to prioritize characteristic industries in Yunnan, and
(v) provide necessary inputs to the study on the evaluation criteria and methodology and selection of key characteristic industries.

7. **Industrial Base Development Specialist** (international, 2 person-month, intermittent)

9. The consultant will prepare a study on the construction of one selected characteristic industrial base in Yunnan and provide guidance to the national industrial base specialists for other selected characteristic industrial bases. The consultant should ideally have a master's degree and 7 years of experience in areas related to industrial development and industrial bases. Specifically, the consultant’s responsibilities will include the following tasks:

(i) review local and international experience and lessons relevant to the development of the key characteristic industries in Yunnan;

(ii) review methods for constructing selected characteristic industrial bases in Yunnan;

(iii) advise the national industrial base specialists on the theory, good international practice, and experience of industrial base construction and identify ways to adapt the lessons to the specific conditions in Yunnan;

(iv) propose approaches to constructing the selected characteristic industrial base in Yunnan;

(v) identify measures to support the construction of the selected characteristic industrial base in Yunnan;

(vi) propose an action plan to construct the selected characteristic industrial base in Yunnan; and

(vii) finalize the study on the construction of characteristic industrial bases in Yunnan for the selected characteristic industry.

8. **Industrial Base Development Specialists** (2 national specialists, 3 person-months, intermittent)

10. Each consultant will, with support from the international industrial base specialist, prepare a study on the construction of one selected characteristic industrial base in Yunnan. The consultants should ideally have a master's degree and 7 years of experience in areas related to industrial development and industrial bases. Specifically, the consultants’ responsibilities will include the following tasks:

(i) assist the international industrial base specialist in the review of domestic and global experiences and lessons relevant to the construction of the selected characteristic industrial base in Yunnan,

(ii) help the international industrial base specialist study the mode of constructing the selected characteristic industrial bases in Yunnan,

(iii) propose approaches to construct the selected characteristic industrial base in Yunnan,

(iv) identify measures to support the construction of the selected characteristic industrial base in Yunnan,

(v) propose an action plan to construct the selected characteristic industrial base in Yunnan, and

(vi) finalize the study on the construction of characteristic industrial bases in Yunnan for the selected characteristic industry.