

TERMS OF REFERENCE FOR CONSULTANTS

A. Introduction

1. The People's Republic of China (PRC) has a long tradition of formulating five-year plans to address development challenges and promote social and economic development. The plans lay out the strategic objectives of the country, set up work priorities of the government, and provide guidance for market activities. Since the founding of the PRC, the country has formulated a total of 13 five-year plans; each one has had a significant impact on the PRC's development during the plan period. The Asian Development Bank (ADB) provided support through number of technical assistance (TA) that provided strategic advice to both the 12th and 13th plans. Currently, the implementation of the 13th plan, 2016–2020 is ongoing, and close to midterm. The Government plans to start the midterm review of the 13th plan in June 2018 and then, drawing on the review's findings and conclusions, start the preparation of the 14th plan, which will cover the period 2021–2025. This will be a critical period for the PRC as it aims to move beyond the current goal of a “moderately prosperous” society and transitions towards a high-income economy and a modern society focused on developing the broader well-being of the population.

2. Three areas tightly relevant to this broader well-being of the population were jointly identified and selected by the National Development and Reform Commission (NDRC) and ADB for the proposed TA.

- (i) **People-centered and environmentally sustainable urbanization.** The substudy will focus on issues in these areas: (a) low-carbon and climate-resilient urban development; (b) city-cluster and urban–rural development cooperation and partnerships; and (c) social inclusion, covering issues of the social protection design and accessibility to social protection benefits and basic public services, making cities healthier, and the migrant-related aspects of these challenges.
- (ii) **Demographic transition.** The substudy will cover the following issues: (a) trends and characteristics of demographic transition; (b) family planning policies and services, including the two-child policy, reproductive health for mothers, and others that respond to the needs of families following the policies; (c) health and education services for infants and young children; (d) and other salient demographic issues including the skewed birth ratio, regional and urban–rural distributions of population, and migration.
- (iii) **Ecological civilization.** The substudy will build on past and ongoing ADB work, and international best practices to recommend necessary policy reforms for environmental protection (air, water, and soil pollution control), ecosystem and natural resources management, and environmental regulation and administration.

3. The TA will be divided into two phases. The immediate goal of the TA is to conduct a midterm review of the 13th plan in the above-mentioned three key areas. The midterm review will assess progress against the objectives of the 13th plan in these areas, the effectiveness of the policy changes and institutional and or legal reforms that have been implemented, and the challenges that remain to achieve the goals of the 13th plan. It will also discuss the challenges to the 13th plan posed by trends in global and domestic socioeconomic context.

4. The second phase of the TA will build on the findings and conclusions of the midterm review and carry research in these three areas forward to provide inputs into the preparation of the 14th plan. The research will draw on relevant international experience in formulating its analysis and recommendations. The proposed reforms will be sequenced and linked to a central

theme of transitioning to higher quality development in the pursuit of national well-being. To this end, the second phase will develop an overarching central theme for the study that will be discussed and agreed once the governments priorities for the 14th plan are more firmly established. An overview report will be prepared that will summarize the findings, conclusions, and policy recommendations under the overarching central theme.

5. To facilitate the transition from the midterm review of the 13th plan to the initial research of the 14th plan, and to better define the overarching central theme for the study, it is proposed that a high-level academic conference be convened in the second half of 2018. The conference will involve senior PRC government officials, eminent international experts, and celebrated national specialists to (i) comment on the midterm review; (ii) discuss the latest thinking on “new models of progress” and how the PRC may apply these to its own long term-strategy; and (iii) commission a series of papers for the conference that could provide the intellectual underpinnings for the study for the 14th plan.¹ The conference would aim to draw experts from the PRC, ADB, Canada, France, Germany, Japan, Republic of Korea, United Kingdom, United States, and others.

6. The proposed TA will require a total of 45 person-months of consulting services (11 international consultants for a total of 22 person-months and 8 national consultants for a total of 23 person-months).² ADB will engage individual consultants and procure TA financed goods in accordance with ADB Procurement Policy (2017, as amended from time to time) and the associated Project Administration Instructions/TA Staff Instructions. Table below presents a summary of consulting services required.

International Specialists	Person-months^a	National Specialists	Person-months
Structural economist	2.0	Social sector specialist	3.5
Social economist	2.0	Social protection specialist	2.0
Social protection specialist	2.5	Renewable energy, energy efficiency (including in buildings and construction), and smart grids specialist	4.0
Social sector specialist	3.5	Sustainable and climate resilient urban form specialist	4.0
Low-carbon urban specialist	4.0	Urban planner and city cluster development specialist	3.0
Urban planner and city cluster coordination specialist	3.0	Urban and urban-rural development specialist	2.0
Air pollution control specialist	1.0	Education specialist	1.5
Water pollution control specialist	1.0	Industry and city cluster development economist	3.0
Soil pollution specialist	1.0		
Natural resources management specialist	1.0		
Environmental regulation and administration specialist	1.0		
Total	22.0	Total	23.0

^a Total inputs includes person-months charged to different fund sources (footnote 7 of the Technical Assistance Report).

¹ This model was used in the 2010 Cairncross Foundation study “Medium and Long-Term Development and Transformation of the Chinese Economy” headed by Edwin Lim and Michael Spence.

² A total of 12 person-months of national consulting services and 2 person-months of international consulting services will be required to support the sub-studies on demographic transition. These consulting services will be financed by ADB. 2018. *Technical Assistance for Country Diagnostic Studies in Selected Developing Member Countries (Subproject 4)*. Manila.

B. Terms of Reference

7. **Structural economist** (international, 2 person-months). The structural economist should have doctoral degree in economics or related area, with minimum of 10 years of relevant experience and provable activities in macroeconomic analysis, national and or regional development strategy, mid- to long-term social and economic development planning, and industrial policy. Solid experience and in-depth understanding of the PRC is a requirement. A mastery of English language is also a requirement. The structural economist will carry out the following tasks, but not limited to:

- (i) liaise with ADB and lead the team of consultants on the overview component;
- (ii) lead the preparation of a technical report on the strategic direction of the PRC, including identifying the key challenges, proposing solutions, recommending policy reforms and institutional changes, and ensuring high quality of the report;
- (iii) help organize the high-level academic conference, which is planned to take place in the last week of August 2018, through identifying and inviting keynote speakers, participating preparatory meeting with government agencies, and advising conference structure;
- (iv) act as a resource person in the high-level conference, including presenting the report and joining panel discussions;
- (v) review the reports prepared by the other three sub-teams, namely urbanization, eco-civilization, and demographic transition, and provide constructive comments to improving the reports; and
- (vi) participate roundtable discussion and policy dialogues with senior government officials as required.

8. **Social economist** (international, 2 person-months). The social economist should have doctoral degree in economics or related areas, with a minimum of 10 years of relevant experience and provable activities in macroeconomic analysis, national and or regional development strategy, mid- to long-term social and economic development planning, and industrial policy. Solid experience and in-depth understanding of the PRC is a requirement. A mastery of English language is also a requirement. The structural economist will carry out the following tasks, but not limited to:

- (i) work together with the ADB concerned staff and the lead the policy dialogues with relevant government agencies on balance social and economic development to pursue national well-being;
- (ii) prepare a technical report on balanced social and economic development in the PRC, including identifying the key challenges, proposing solutions, recommending policy reforms and institutional changes, and ensuring high quality of the report;
- (iii) help organize the high-level academic conference, which is planned to take place in the last week of August 2018, through identifying and inviting keynote speakers, participating preparatory meeting with government agencies, and advising conference structure;
- (iv) act as a resource person in the high-level conference, including presenting the report and joining the panel discussions; and
- (v) review on the reports prepared by the other three sub-teams, namely urbanization, eco-civilization, and demographic transition, and provide constructive comments to improve the reports.

9. **Social protection specialist** (international, 2.5 person-months). The specialist should have professional expertise and experience in social sector and social protection. Knowledge of social protection system and household registration system in the PRC is required. The specialist will undertake the following:

- (i) work closely with team members and ADB;

- (ii) deliver the final English version of an inception report which includes (a) structure of the overall study, covering the first and the second phase studies, (b) the focal issues to be reviewed and analyzed under the above-mentioned first phase study, (c) methodology and structure of the first phase study, (d) outlines of the first phase study report, (e) the focal issues to be examined under the second phase study, (f) methodology and structure of the second phase study, and (g) outlines of the second phase study report;
- (iii) deliver the final English version of the interim report which is the output of the first phase study;
- (iv) deliver the English version of the final report which is the output of the second phase study, including policy recommendations;
- (v) advise the national social sector expert on (a) specifying the detailed issues to be analyzed under the first and second phase studies, (b) methodology and structure of the studies, (c) analyses, and (d) preparing draft reports of the first and second phase studies respectively; and
- (vi) based on the above-mentioned deliverables, deliver presentations at project workshops.

10. **Social sector specialist** (national, 3.5 person-months). The specialist should have professional expertise and experience in social sector and social protection, including experiences on conducting survey. Professional knowledge of social protection system and household registration system in the PRC is required. The specialist will undertake the following:

- (i) work closely with team members and ADB;
- (ii) lead the overall study, including the first and second phases;
- (iii) with other team members and ADB guidance, select the three cities for the case studies based on the survey analysis, including sampling for quantitative analysis, key informant interviews, and focus group discussions;
- (iv) with other team members, conduct the survey and the relevant analysis;
- (v) deliver the draft English version of an inception report which includes (a) structure of the overall study, covering the first and second phase studies, (b) the focal issues to be reviewed and analyzed under the above-mentioned first phase study, (c) methodology and structure of the first phase study, (d) outlines of the first phase study report, (e) the focal issues to be examined under the second phase study, (f) methodology and structure of the second phase study, and (g) outlines of the second phase study report;
- (vi) deliver the draft English version of the interim report which is the output of the first phase study;
- (vii) deliver the draft English version of the final report which is the output of the second phase study, including policy recommendations; and
- (viii) based on the above-mentioned deliverables, deliver presentations at project workshops.

11. **Social protection specialist** (national, 2.0 person-months). The specialist should have professional expertise and experience in social sector and social protection, including experiences on conducting survey. Professional knowledge of social protection system and household registration system in the PRC is required. The specialist will undertake the following:

- (i) work closely with team members and ADB;
- (ii) work with team members to conduct the study, including the first and second phases;
- (iii) assist the team leader in selecting the three cities for the case studies based on the survey analysis, including sampling for quantitative analysis, key informant interviews, and focus group discussions;
- (iv) with other team members, conduct the survey and the relevant analysis;
- (v) assist the team leader in preparing the draft English version of an inception report which includes (a) structure of the overall study, covering the first and second phase studies, (b) the focal issues to be reviewed and analyzed under the above-mentioned first phase

study, (c) methodology and structure of the first phase study, (d) outlines of the first phase study report, (e) the focal issues to be examined under the second phase study, (f) methodology and structure of the second phase study, and (g) outlines of the second phase study report;

- (vi) based on the survey, prepare draft reports for the first phase and second phase studies;
- (vii) assist the team leader in preparing the draft English version of the interim report which is the output of the first phase study;
- (viii) assist the team leader in preparing the draft English version of the final report which is the output of the second phase study, including policy recommendations; and
- (ix) based on the above-mentioned deliverables, deliver presentations at project workshops.

12. **Education specialist** (national, 1.5 person-months). The specialist should have professional expertise and experience in the education sector, including experiences on conducting survey. Professional knowledge of the education sector and household registration system in the PRC is required. The specialist will undertake the following:

- (i) work closely with team members and ADB;
- (ii) work with team members to conduct the study, including the first and second phases;
- (iii) assist the team leader in selecting the three cities for the case studies based on the survey analysis, including sampling for quantitative analysis, key informant interviews, and focus group discussions;
- (iv) with other team members, conduct the survey and the relevant analysis to the education sector;
- (v) assist the team leader in preparing the draft English version of an inception report which includes (a) structure of the overall study, covering the first and second phase studies, (b) the focal issues to be reviewed and analyzed under the above-mentioned first phase study, (c) methodology and structure of the first phase study, (d) outlines of the first phase study report, (e) the focal issues to be examined under the second phase study, (f) methodology and structure of the second phase study, and (g) outlines of the second phase study report; and
- (vi) based on the survey, prepare draft reports for the first and second phase study;
- (vii) assist the team leader in preparing the draft English version of the interim report which is the output of the first phase study;
- (viii) assist the team leader in preparing the draft English version of the final report which is the output of the second phase study, including policy recommendations; and
- (ix) based on the above-mentioned deliverables, deliver presentations at project workshops.

13. **Low-carbon urban specialist** (international, 4 person-months). The international specialist will have a postgraduate degree or equivalent, and at least 10 years of relevant experience in urban planning, low-carbon transport planning, policy advisory services, and related activities. Knowledge of and experience in climate change mitigation and adaptation planning at a city level would be an advantage. Specific experience from urban low-carbon transport planning and/or facilitation in the PRC will be a requirement. The specialist will be a recognized expert in the PRC. A mastery of the English language will be a requirement. The specialist will carry out the following tasks, but not limited to:

- (i) liaise with ADB and lead the team of consultants, and be responsible for coordinating the implementation of the study, including coordinating inputs from the other experts and preparing reports, and report structuring and editing of all inputs to ensure high quality of outputs;
- (ii) develop, during the inception phase, (a) an outline of the phase one and phase two reports, (b) a detailed workplan and method for the study, and (c) a chapter-by-chapter outline of the phase one report, and discuss with ADB and government agencies;

- (iii) develop criteria for selection and propose a list of international and domestic case studies on low-carbon urban development and transport for the survey and study in phase two, in close cooperation with the consultant team and ADB;
- (iv) review and summarize the 13th plan objectives with regards to low-carbon urban development and transport, and review provincial and municipal 13th five-year plans on the issues;
- (v) guide the collection of data and reports on 13th plan implementation progress;
- (vi) discuss with two national expert agencies the 13th year plan implementation successes and weaknesses, and identify key bottlenecks of implementing the objectives with regards to (a) renewable energy and energy efficiency (including in buildings and construction), and (b) sustainable and climate resilient urban form;
- (vii) guide two national expert agencies in preparing the inception report, phase one and phase two reports, and final report, compile and edit the reports, and prepare a presentation of the findings and recommendations;
- (viii) review related past and ongoing government, ADB, the World Bank, and other development partners loan and technical assistance projects and reports for findings and lessons learned related to low-carbon urban development and transport, and incorporate recommendations into the phase two report;
- (ix) prepare international case studies and identify lessons learned for application in the PRC on low-carbon transport development and coordination mechanisms;
- (x) prepare policy recommendations to enable low-carbon transport development in the PRC for the remaining years of the 13th plan as part of phase one, and develop a vision and policies for implementation during the 14th plan period;
- (xi) lead the consultations and discussions with key international and national experts, and with key stakeholders in the case study cities to coordinate infrastructure and environmental management, and develop recommendations for the 14th plan; and
- (xii) lead the preparation of output production and generation of dissemination materials and be a resource person in workshops including the dissemination workshop.

14. **Renewable energy, energy efficiency (including in buildings and construction), and smart grids specialist** (national, 4 person-months). The national expert will have a master's degree in renewable energy and smart grids systems or equivalent, with a minimum of 5 years of relevant experience in urban renewable energy and smart grids planning, policy advisory services, and related climate resilient adaptation and mitigation. Knowledge of and experience in climate change mitigation and adaptation planning at a city level would be an advantage. Specific experience from urban smart grid planning and/or facilitation in the PRC will be a requirement. The specialist will be a recognized expert in urban renewable energy and smart grids planning in the PRC. A mastery of the English language will be a requirement. The specialist will carry out the following tasks, but not limited to:

- (i) liaise with the team leader and provide support in leading the team and communicating with ADB, be the communication focal person for the PRC Government counterparts, and support the team leader in implementing the study, including coordinating inputs from the other experts and preparing the reports, and report structuring and editing of all inputs to ensure high quality of outputs;
- (ii) support the team leader in developing, during the inception phase, (a) an outline of the phase one and phase two reports, (b) a detailed workplan and method for the study, and (c) a chapter-by-chapter outline of the phase one report, and discuss with ADB and government agencies;
- (iii) contribute to the development of criteria for selection and propose a list of possible international and domestic case studies on urban renewable energy and smart grids for

the survey and study in phase one, in close cooperation with the consultant team and ADB;

- (iv) review and summarize the 13th plan objectives with regards to urban renewable energy and smart grids, and review provincial and municipal 13th five-year plans on the issues;
- (v) carry out the collection of data and reports on the 13th plan implementation progress on urban renewable energy and smart grids;
- (vi) discuss with the team leader, the other experts, and ADB, the 13th plan implementation successes and weaknesses, and identify key bottlenecks of implementing the objectives with regards to urban renewable energy and smart grids development;
- (vii) contribute to the preparation of (a) the inception report, phase one and phase two reports, and final report, and (b) presentation materials of the findings and recommendations;
- (viii) review related past and ongoing government, ADB, the World Bank, and other development partners loan and technical assistance projects and reports for findings and lessons learned related to urban renewable energy and smart grids development, and incorporate recommendations into the phase two report in discussion with the team leader;
- (ix) prepare domestic case studies and identify lessons learned on urban renewable energy and smart grids development, and coordination mechanisms;
- (x) contribute to the preparation of policy recommendations to enable urban renewable energy and smart grids development in the PRC for the remaining years of the 13th plan as part of phase one, and develop a vision and policies for implementation during the 14th plan period;
- (xi) contribute to consultations and discussions with stakeholders in case cities to coordinate infrastructure and environmental management, and develop recommendations for the 14th plan for the urban renewable energy and smart grids development case cities, and for urban renewable energy and smart grids development coordination in the PRC at large; and
- (xii) contribute to the preparation of output production and generation of dissemination materials and be a resource person in workshops including the dissemination workshop.

15. **Sustainable and climate resilient urban form specialists** (national, 4 person-months). The national specialists will have master's degree in urban planning, urban geography or equivalent, and preferably with related experience in climate adaptation and mitigation. Knowledge of and experience in climate change mitigation and adaptation planning at a city level would be an advantage. Specific experience from sustainable and climate resilient urban form planning and management work in the PRC will be a requirement. A mastery of the English language will be a requirement. The specialists will carry out the following tasks, but not limited to:

- (i) support the team leader in developing, during the inception phase, (a) an outline of the phase one and phase two reports, (b) a detailed workplan and method for the study, and (c) a chapter-by-chapter outline of the phase one report focusing on sustainable and climate resilient urban form planning and management section;
- (ii) propose a list of possible domestic cases for sustainable and climate resilient urban form for the data collection for phase one and for the study in phase two, in close cooperation with the team leader and ADB;
- (iii) review and summarize the 13th plan objectives with regards to sustainable and climate resilient urban form, and review provincial and municipal 13th five-year plans on the issues, and report successful cases and bottlenecks for implementation;
- (iv) carry out the collection of data and reports on the 13th plan implementation progress on sustainable and climate resilient urban form management and efficiency;
- (v) discuss with the team leader, the other team experts, and ADB the 13th plan implementation successes and weaknesses, and identify key bottlenecks of implementing

the objectives with regards to sustainable and climate resilient urban form management and efficiency;

- (vi) contribute to the preparation of (a) the inception report, phase one and phase two reports, and final report, and (b) presentation materials of the findings and recommendations on sustainable and climate resilient urban form management and efficiency;
- (vii) review related past and ongoing government, ADB, the World Bank, and other development partners loan and technical assistance projects and reports for findings and lessons learned related to sustainable and climate resilient urban form management and efficiency, and incorporate recommendations into the phase two report;
- (viii) prepare domestic case studies and identify lessons on sustainable and climate resilient urban form management and efficiency;
- (ix) contribute to the preparation of policy recommendations to enhance the efforts in the PRC on sustainable and climate resilient urban form management and efficiency for the remaining years of the 13th plan as part of phase one, and develop a vision and policies for implementation during the 14th plan period to make further progress on more efficient and sustainable and climate resilient urban form planning and management in the next stage of urbanization;
- (x) contribute to consultations and discussions with stakeholders in the case cities on improving sustainable and climate resilient urban form management, and develop recommendations for the case cities and improvement of sustainable and climate resilient urban form management and efficiency in the PRC at large; and
- (xi) contribute to the preparation of output production and generation of dissemination materials and be a resource person in workshops including the dissemination workshop.

16. Urban planner and city cluster coordination specialist (international, 3 person-months). The international specialist will have a postgraduate degree in urban planning or equivalent, and at least 15 years of relevant international experience on city planning, policy advisory services, and related activities. Specific experience from city cluster coordination planning and/or facilitation will be a requirement. The specialist will be an internationally acclaimed urban planner and city cluster coordination specialist, and experience and familiarity with urban planning and policy in the PRC will be required. The specialist will carry out the following tasks, but not limited to:

- (i) liaise with ADB and lead the team of consultants, and be responsible for the implementation of the study, including coordinating inputs from the other experts and preparing reports, and report structuring and editing of all inputs to ensure high quality of outputs;
- (ii) develop, during the inception phase, (a) an outline of the phase one and phase two reports, (b) a detailed workplan and method for the study, and (c) a chapter-by-chapter outline of the phase one report, and discuss with ADB and government agencies;
- (iii) develop criteria for selection and propose a list of possible international case studies for city cluster development and coordination and of domestic cases for city clusters for the survey and study in phase two, in close cooperation with the consultant team and ADB;
- (iv) review and summarize the 13th five-year plan objectives with regards to city cluster development and review provincial and municipal 13th five-year plans on the issues;
- (v) guide the collection of data and reports on the 13th five-year plan implementation progress;
- (vi) discuss with the three national experts and ADB the 13th plan implementation successes and weaknesses, and identify key bottlenecks of implementing the objectives with regards to city cluster development, urban-rural integration, and land use management efficiency;

- (vii) guide the three national experts in preparing the inception report, phase one and phase two reports, and final report, compile and edit the reports, and prepare a presentation of the findings and recommendations;
- (viii) review related past and ongoing ADB loan and technical assistance projects and reports, interview ADB mission leaders and TA consultant team leaders on findings and lessons learned related to city cluster development, and incorporate recommendations into the phase two report;
- (ix) prepare international case studies and identify lessons learned for application in the PRC on city cluster development and coordination mechanisms, infrastructure planning, environmental management cooperation, and other areas of cooperation;
- (x) prepare policy recommendations to enable city cluster development in the PRC for the remaining years of the 13th plan as part of phase one, and develop a vision and policies for implementation during the 14th plan period;
- (xi) lead the consultations and discussions with key international and national experts, and with key stakeholders in the case city clusters to develop (a) governance mechanisms and coordination of infrastructure and environmental management and (b) recommendations for the city cluster cases and for city cluster coordination in the PRC at large; and
- (xii) lead the preparation of output production and generation of dissemination material and be a resource person in workshops including the dissemination workshop.

17. Urban planner and city cluster development specialist (national, 3 person-months). The national specialist will have a master's degree in urban planning or equivalent course, and at least 10 years of relevant experience on city planning, policy advisory services, and related activities. Specific experience from city cluster coordination planning and/or facilitation in the PRC will be a requirement. The specialist will be a known expert and urban planner and city cluster coordination specialist in the PRC. A mastery of the English language will be a requirement. The specialist will carry out the following tasks, but not limited to:

- (i) liaise with the team leader and provide support in leading the team and communicating with ADB, be the communication focal person for the PRC Government counterparts, and support the team leader in implementing the study, including coordinating inputs from the other experts and preparing reports, and report structuring and editing of all inputs to ensure high quality of outputs;
- (ii) support the team leader in developing, during the inception phase, (a) an outline of the phase one and phase two reports, (b) a detailed workplan and method for the study, and (c) a chapter-by-chapter outline of the phase one report, and discuss with ADB and government agencies;
- (iii) contribute to the development of criteria for selection and propose a list of possible international case studies for city cluster development and coordination (including land use management and efficiency) and of domestic cases for city clusters (including land use management and efficiency) for the survey and study in phase two, in close cooperation with the consultant team and ADB;
- (iv) review and summarize the 13th plan objectives with regard to city cluster development and review provincial and municipal 13th five-year plans on the issues;
- (v) carry out the collection of data and reports on the 13th plan implementation progress on city cluster development and coordination including land use management and efficiency;
- (vi) discuss with the team leader, the other experts, and ADB the 13th plan implementation successes and weaknesses, and identify key bottlenecks of implementing the objectives with regards to city cluster development including land use management and efficiency;
- (vii) contribute to the preparation of (a) the inception report, phase one and phase two reports, and final report, and (b) presentation materials of the findings and recommendations;

- (viii) review related past and ongoing ADB loan and technical assistance projects and reports, interview TA consultant team members for findings and lessons learned related to city cluster development including land use management and efficiency, and incorporate recommendations into the phase two report in discussion with the team leader;
- (ix) prepare domestic case studies and identify lessons learned on city cluster development and coordination mechanisms, infrastructure planning, environmental management cooperation, and other areas of cooperation;
- (x) contribute to the preparation of policy recommendations to enable city cluster development (including enhanced land use management and efficiency) in the PRC for the remaining years of the 13th plan as part of phase one, and develop a vision and policies for implementation during the 14th plan period;
- (xi) contribute to consultations and discussions with stakeholders in the case city clusters to develop (a) governance mechanisms and coordination of infrastructure and environmental management, and (b) recommendations for the city clusters cases and for city cluster coordination in the PRC at large; and
- (xii) contribute to the preparation of output production and generation of dissemination material and be a resource person in workshops including the dissemination workshop.

18. **Industry and city cluster development economist** (national, 3 person-months). The national specialist will have a master's degree in economic geography, economics, urban planning or equivalent course, and at least 10 years of relevant experience on industry cluster development planning and promotion, economic cluster development planning and implementation, product- and supply-chain planning, related policy advisory services, and other related activities. Specific experience from economic and industry cluster development planning and/or facilitation in the PRC will be a requirement. The specialist will be a known expert and urban economist and industry cluster development specialist in the PRC. A mastery of the English language will be a requirement. The specialist will carry out the following tasks, but not limited to:

- (i) liaise with the team leader and provide support in implementing the study, including contribution to preparing reports, to ensure high quality of outputs;
- (ii) contribute to the development of criteria for selection and propose a list of possible international case studies for city cluster, including economic and industry cluster development and coordination and of domestic cases for city clusters, including economic and industry cluster development for the survey and study in phase two, in close cooperation with the consultant team and ADB;
- (iii) review and summarize the 13th plan objectives with regards to economic and industry cluster development and review provincial and municipal 13th five-year plans on the issues;
- (iv) carry out the collection of data and reports on the 13th plan implementation progress on economic and industry cluster development;
- (v) discuss with the team leader, the other experts, and ADB the 13th plan implementation successes and weaknesses, and identify key bottlenecks of implementing the objectives with regards to economic and industry cluster development;
- (vi) contribute to the preparation of (a) the inception report, phase one and phase two reports, and final report, and (b) presentation materials of the findings and recommendations;
- (vii) review related past and ongoing ADB loan and technical assistance projects and reports, interview TA consultant team members for findings and lessons learned related to city cluster development including land use management and efficiency, and incorporate recommendations into the phase two report in discussion with the team leader;
- (viii) prepare domestic case studies and identify lessons learned on city cluster development and coordination mechanisms, infrastructure planning, environmental management cooperation, and other areas of cooperation;

- (ix) contribute to the preparation of policy recommendations to enable economic and industry cluster development in the PRC for the remaining years of the 13th plan as part of phase one, and develop a vision and policies for implementation during the 14th plan period;
- (x) contribute to consultations and discussions with stakeholders in the case of city clusters including economic and industry cluster development to develop (a) governance mechanisms and coordination of infrastructure and environmental management, and (b) recommendations for the city clusters cases and for economic and industry cluster development in the PRC at large; and
- (xi) contribute to the preparation of output production and generation of dissemination material and be a resource person in workshops including the dissemination workshop.

19. **Urban and urban-rural development specialist** (national, 2 person-months). The national specialist will have a master's degree in urban planning or equivalent, and at least 10 years of relevant experience on city planning, policy advisory services, and related activities. Specific experience from urban-rural integration planning and implementation work in the PRC will be a requirement. A mastery of the English language will be a requirement. The specialist will carry out the following tasks, but not limited to:

- (i) support the team leader in developing, during the inception phase, (a) an outline of the phase one and phase two reports, (b) a detailed workplan and method for the study, and (c) a chapter-by-chapter outline of the phase one report focusing on the urban-rural integration section;
- (ii) propose a list of possible domestic cases for urban-rural integration for the data collection for phase one and for the study in phase two, in close cooperation with the team leader and ADB;
- (iii) review and summarize the 13th five-year plan objectives with regards to urban-rural integration, review provincial and municipal 13th five-year plans on the issues, and report successful cases and bottlenecks for implementation;
- (iv) carry out the collection of data and reports on the 13th plan implementation progress on urban-rural integration;
- (v) discuss with the team leader, the other experts, and ADB the 13th plan implementation successes and weaknesses, and identify key bottlenecks of implementing the objectives with regards to urban-rural integration;
- (vi) contribute to the preparation of (a) the inception report, phase one and phase two reports, and final report, and (b) presentation materials of the findings and recommendations on urban-rural integration;
- (vii) review related past and ongoing ADB loan and technical assistance projects and reports, interview ADB mission leaders and TA consultant team leaders and members for findings and lessons learned related to urban-rural integration, and incorporate recommendations into the phase two report;
- (viii) prepare domestic case studies and identify lessons learned on urban-rural integration;
- (ix) contribute to the preparation of policy recommendations to enhance the efforts in the PRC on urban-rural integration for the remaining years of the 13th plan as part of phase one, and develop a vision and policies for implementation during the 14th plan period to make further progress in integrating and balancing urban and rural development;
- (x) contribute to consultations and discussions with stakeholders in the case city clusters on improving urban-rural integration, and develop recommendations for the city clusters cases and urban-rural integration in the PRC at large; and
- (xi) contribute to the preparation of output production and generation of dissemination material and be a resource person in workshops including the dissemination workshop.

20. **Air pollution control specialist** (international, 1 person-month). An international consultant will be engaged to review international experiences and best practices on air quality management. Based on this review and on the interim assessment of the progress toward the quantitative and qualitative targets set by the PRC government in its 13th plan with respect to air pollution control, the expert will propose necessary policy adjustment to better accomplish the 13th plan and propose and recommend necessary policy reforms to be included in the preparation of the 14th plan.

21. The consultant should have the following qualifications and work experience: (i) post-graduate degree in environment policy or other related fields; (ii) a minimum of 15 years of relevant working experience in policy design and evaluation; with a track record of research and publications on air pollution control policies, preferably with familiarity with air pollution control in the PRC; (iii) fluent in English writing and speaking; and (iv) attention to details, working with initiative, and commitment to meeting deadlines. The specialist will carry out the following tasks, but not limited to:

- (i) review international experiences on air quality management and identify best practices suitable for implementation in the PRC;
- (ii) based on the above and the interim review of the 13th plan progress (2016-2017), make reasonable projections on the trends and prospects of achieving 13th plan targets by 2020 and propose adjustments to the target indicators wherever justifiable;
- (iii) propose and recommend necessary policy reforms for air pollution control to be included in the preparation of the 14th plan;
- (iv) participate in meetings and workshops with ADB and relevant government ministries to present and discuss the analysis and results;
- (v) submit a report to ADB that summarizes and documents the key international best practices and recommendations to the PRC government according to the agreed time schedule; and
- (vi) other activities requested by ADB project officer related to this interim review.

22. **Water pollution control** (international, 1 person-month). An international consultant will be engaged to review international experiences and best practices on water resources conservation and pollution control. Based on this review and on the interim assessment of the progress toward the quantitative and qualitative targets set by the PRC government in its 13th plan with respect to water pollution control, the expert will propose necessary policy adjustment to better accomplish the 13th plan and propose and recommend necessary policy reforms to be included in the preparation of the 14th plan.

23. The consultant should have the following qualifications and work experience: (i) post-graduate degree in water environment policy or other related fields; (ii) a minimum of 10 years of relevant working experience in policy design and evaluation with respect to water pollution control, policy and environmental reforms, or related field in the PRC; (iii) excellent interpersonal communication skills and attention to detail, including fluency in speaking and writing in English; and; (iv) stakeholder engagement experience in the water sector and commitment to meeting deadlines.

24. The specialist will carry out the following tasks, but not limited to:

- (i) review international experiences on water pollution control and identify best practices suitable for implementation in the PRC;
- (ii) based on the above and the interim review of the 13th plan progress (2016-2017), make reasonable projections on the trends and prospects of achieving 13th plan targets by 2020 and propose adjustments to the target indicators wherever justifiable;

- (iii) propose and recommend necessary policy reforms for water resources management and pollution control to be included in the preparation of the 14th plan;
- (iv) participate in meetings and workshops with ADB and relevant government ministries to present and discuss the analysis and results;
- (v) submit a report to ADB that summarizes and documents the key international best practices and recommendations to the PRC government according to the agreed time schedule; and
- (vi) other activities requested by ADB project officer related to this interim review.

25. **Soil pollution control** (international, 1 person-month). Based on the interim assessment of the progress toward the quantitative and qualitative targets set by the PRC government in its 13th plan with respect to soil pollution control, the expert will propose necessary policy adjustment to better accomplish the 13th plan and propose and recommend necessary policy reforms to be included in the preparation of the 14th plan. Recommendations will be based also on a review in international experiences and best practices.

26. The consultant should have the following qualifications and work experience: (i) post-graduate degree in environment policy or other related fields; (ii) a minimum of 10 years of relevant working experience in policy design and evaluation with respect to soil pollution control, policy and environmental reforms, or related field in the PRC; (iii) excellent interpersonal communication skills and attention to detail, including fluency in speaking and writing in English; (iv) stakeholder engagement experience in the sector; and (v) commitment to meeting deadlines.

27. The specialist will carry out the following tasks, but not limited to:

- (i) review international experiences on soil pollution control and identify best practices suitable for implementation in the PRC;
- (ii) based on the above and the interim review of the 13th plan progress (2016-2017), make reasonable projections on the trends and prospects of achieving 13th plan targets by 2020 and propose adjustments to the target indicators wherever justifiable;
- (iii) propose and recommend necessary policy reforms for soil pollution control to be included in the preparation of the 14th plan;
- (iv) participate in meetings and workshops with ADB and relevant government ministries to present and discuss the analysis and results;
- (v) submit a report to ADB that summarizes and documents the key international best practices and recommendations to the PRC government according to the agreed time schedule; and
- (vi) other activities requested by ADB project officer related to this interim review.

28. **Natural resources management specialist** (international, 1 person-month). An international consultant will be engaged to review international experiences and best practices on natural resources conservation and management. Based on this review and on the interim assessment of the progress toward the quantitative and qualitative targets set by the PRC government in its 13th plan, the expert will propose necessary policy adjustment to better accomplish the 13th plan and propose and recommend necessary policy reforms to be included in the preparation of the 14th plan.

29. The consultant should have the following qualifications and work experience: (i) post-graduate degree in environment policy or other related fields; (ii) a minimum of 10 years of relevant working experience in policy design and evaluation with respect to air pollution control and emission reduction in the PRC; (iii) at least 15 years of international experience in ecosystem and natural resources management both from policy, governance and practical implementation

level (for the international expert); (iv) fluent in English writing and speaking; and (v) attention to details, working with initiative, and commitment to meeting deadlines. The specialist will carry out the following tasks, but not limited to:

- (i) review international experiences on natural resources and identify best practices suitable for implementation in the PRC;
- (ii) based on the above and the interim review of the 13th plan progress (2016-2017), make reasonable projections on the trends and prospects of achieving 13th plan targets by 2020 and propose adjustments to the target indicators wherever justifiable;
- (iii) propose policy recommendations to enhance ecosystems protection and natural resources management in the PRC for the remaining years of the 13th five-year plan as part of phase one, and develop a vision and policies for implementation during the 14th five-year plan period;
- (iv) submit a report to ADB that summarizes and documents the key international best practices and recommendations to the PRC government according to the agreed time schedule; and
- (v) participate in meetings and workshops with ADB and relevant government ministries to present and discuss the analysis and results; and
- (vi) other activities requested by ADB project officer related to this interim review.

30. **Environmental regulation and administration** (international, 1 person-month). An international consultant will be engaged to review international experiences and best practices on environmental management. Based on this review and on the interim assessment of the progress toward the quantitative and qualitative targets set by the PRC government in its 13th plan, the expert will propose necessary policy adjustment to better accomplish the 13th plan and propose and recommend necessary policy reforms to be included in the preparation of the 14th plan.

31. The consultant should have the following qualifications and work experience: (i) post-graduate degree in environment policy or other related fields; (ii) a minimum of 10 years of relevant working experience in policy design and evaluation with respect to air pollution control and emission reduction in the PRC; (iii) fluent in English writing and speaking; and (iv) attention to details, working with initiative, and commitment to meeting deadlines. The specialist will carry out the following tasks, but not limited to:

- (i) review international experiences on environmental management and identify best practices and tools;
- (ii) based on the above and the interim review of the 13th plan progress (2016-2017), make reasonable projections on the trends and prospects of achieving 13th plan targets by 2020 and propose adjustments to the target indicators wherever justifiable;
- (iii) recommend possible improvements in policy and institutions to strengthen environmental and ecological regulation and administration during the 14th plan with in-depth analysis of the issues and rationales;
- (iv) as part of the above recommendation, assess additional resource or resource re-allocation needed to strengthen environmental and ecological regulation and administration;
- (v) contribute to the preparation of output production and generation of dissemination material;
- (vi) participate in meetings and workshops with ADB and relevant government ministries to present and discuss the analysis and results; and
- (vii) other activities requested by ADB project officer related to this study.