

Proposed TA Subproject: Key Indicators for Asia and the Pacific 2018-2020 – Key Indicators for Asia and the Pacific 2018 (Subproject 1)

**Under the Cluster Regional RDTA 0022
“Key Indicators for Asia and the Pacific 2018–2020”**

A. Background

1. The proposed subproject is part of the cluster regional research and development technical assistance that will support the preparation of the flagship publication—the Key Indicators for Asia and the Pacific (KI)—for the next 3 years. The publication provides (i) the latest comprehensive compendium and analysis of trends in economic, social, financial, and environmental indicators—including those pertaining to the Sustainable Development Goals (SDGs)—for ADB’s regional members; (ii) a unique set of reliable and accurate statistics on global value chains (GVCs) that capture trade links across countries and industries while accounting for the complex input–output relationships involved in producing goods and services; and (iii) a special report that provides in-depth, data-intensive analysis of an important policy issue. In addition to disseminating its statistics through print and digital media, ADB’s statistical database system (SDBS)—the associated online database of the *Key Indicators*—enables users to access and analyze statistics on economic and social themes. The statistics portal, a related online resource accessible to ADB staff, disseminates information on data resources available in ADB and offers links to non-ADB data resources.

B. Rationale

2. The TA is designed to address development issues from two perspectives: (i) informing policy discussions on inclusive growth through rigorous empirical analyses of survey and administrative data; and (ii) disseminating official statistics of the developing member countries (DMCs), other economic and social indicators, and survey data sets in an integrated format and through both print and digital media as well as through online databases.

3. While the region has experienced rapid economic growth, there is widespread acknowledgment that growth could be made more inclusive. This indicates a need to rigorously assess and build evidence on the types of policy and institutional frameworks needed for more inclusive development. Given ADB’s strategic agenda of promoting inclusive growth and managing for development results, the TA will support high-quality microeconomic research along five pipelines: (i) poverty, inequality, social protection, and labor markets; (ii) human capital development, including education and health; (iii) firm competitiveness, including entrepreneurship and small and medium-sized enterprises; (iv) infrastructure and urbanization; and (v) GVCs and trade. These pipelines will feed directly into the *Key Indicators* special report and additional reports. The topics for a given year will be decided in consultation with higher management and key sector groups, but are mandated to fall within these five areas of work.

4. Evidence-based decision-making relies on being able to easily access credible statistics and data sets for informing cross-country and within-country analyses on a wide variety of topics, including those pertaining to SDGs as well as trade links across countries.

5. Since both the research and statistics portions of the *Key Indicators* are critical for understanding inclusive growth and developing evidence-based policies in the region, the *Key Indicators* was identified as a corporate priority during the TA resource allocation meeting.

C. Impact and Outcome

6. The impact of the subproject will be enhanced evidence-based policy making, investment decisions, and project design in ADB's DMCs. The outcome will be the sustained use of *Key Indicators* data and analysis by DMC officials, economic researchers, civil society, and other users. The Design and Monitoring Framework is in Appendix 1.

D. Methodology and Key Activities

7. Subproject 1 will cover the KI 2018 cycle and will produce the KI 2018 publication. The subproject will support the (i) preparation of background research papers; (ii) continued data collection from national, international, and ADB sources plus modernization of ADB database systems such as the SDBS; (iii) publication of the *Key Indicators* (print and online versions), including the production of statistical tables¹ for SDGs, country and regional trends, GVCs, and special reports; and (iv) workshops for knowledge sharing and dissemination of key results and policy recommendations.

8. The topic of the special report for KI 2018 is urbanization. The *World Urbanization Prospects 2014* reports that 90% of the projected urban growth between now and 2050 will be concentrated in cities in the developing world (Asia and Africa).² While conventional wisdom tells us that opportunity comes with urbanization and that cities are engines of aggregate economic growth, recent studies suggest that urbanization in developing countries does not necessarily lead to quality jobs or formalization of the labor market. In fact, the correlation between rates of urbanization and economic growth was shown to be weaker in developing countries. Thus, understanding what policy-amenable factors enable urban areas to create quality jobs is an urgent priority. Tentatively titled "Future of Asian Cities: Urbanization and Jobs," the 2018 report will focus on the city's role as the traditional engine of growth and as an important locus for policy making to create more and better jobs. A profile of Asian cities with respect to their size and geography, mode of formation, and governance and regulation will be presented to examine how structures of production and employment differ across cities. Subproject 1 will also investigate how employment opportunities and enterprise formation and growth are largely affected by policies on land use regulations and city governments' planning and financing of urban infrastructure. Case studies will be carried out in selected cities (e.g., understanding the role of economic and/or industrial zones in providing quality jobs). Results of the studies will inform policy makers in Asia and the Pacific on the most efficient and sound urban policies and institutions to be adopted to attain inclusive growth.

9. The subproject will support additional survey work and reports related to urbanization and the other four research pipelines mentioned in paragraph 3 to build up strategic capabilities in sectors that generate considerable knowledge returns. These will be published as stand-alone reports or background papers. Background research papers will be published through

¹ Statistical tables on country, regional trends, and SDGs include all ADB DMCs and the three developed member economies in the region (Australia, Japan, and New Zealand).

² United Nations, Department of Economic and Social Affairs, Population Division. 2014. *World Urbanization Prospects: The 2014 Revision, Highlights*. New York.

appropriate vehicles to maximize the dissemination and impact of the analyses conducted, e.g., policy briefs, journal publications, and/or as special supplements to the *Key Indicators*. To ensure that the research pipelines address inclusive policy development in the region, feasibility assessments and consultations will be used to identify unanswered policy questions and lay out approaches to respond to these questions.

10. The subproject will continue to support innovative statistics- and research-related work on GVC indicators (initiated in the *Key Indicators 2015*) because of their importance in understanding the benefits of trade for the region's entrepreneurs and workers. The Development Economics and Indicators Division (ERDI) pioneered the production of original indicators to quantify and analyze the phenomenon of international production sharing in a globalized economy. While measuring the scale and structure of GVCs is a highly complicated task, ERDI has implemented new methods that provide a powerful framework for measurement. Building on these developments, the TA will help selected DMCs³ produce data for more credible measurement and policy analysis on GVC issues.

11. The *Key Indicators* will be widely disseminated to its target audience in coordination with ADB's Department of External Relations (DER). Dissemination will start with an international media launch followed by seminar presentations to key government officials, business people, academia, and other research groups. The *Key Indicators* will be uploaded to the ADB website and disseminated through social media postings, blogs or an op-ed⁴. A limited number of hard copies of KI will be printed for distribution to regional member statistical partners and selected institutions, agencies, organizations, target audiences, such as ADBI Think Tank network, etc.

12. Coordination will be done with the DER to be able to efficiently monitor and evaluate the expected outcome, that is, by communicating the required information to include in DER's media monitoring reports.

13. On the data side, unforeseen circumstances and delays such as data submissions from the statistical partners might affect the production schedule. Regular follow up with the statistical partners, including through the resident missions, will be undertaken to minimize this risk. For the special report some other institutions might also come up with reports on similar topics.

E. Cost and Financing

14. The subproject is estimated to cost \$1,000,000, which will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-V). The cost estimates and financing plan is in Appendix 2.

F. Implementation Arrangements

15. ADB will be the executing agency, while ERDI will be the implementing division. ERDI will coordinate with other ADB units (regional and other departments, resident missions, and sector and thematic groups) and statistical partners in ADB regional members in undertaking

³ Includes Bangladesh; Bhutan; Fiji; Hong Kong, China; India; Indonesia; Kazakhstan; Malaysia; Mongolia; Nepal; the People's Republic of China; Pakistan; the Philippines; the Republic of Korea; Singapore; Sri Lanka; Taipei, China; Thailand; Timor-Leste; and Viet Nam.

⁴ An op-ed is a written piece of work typically published by a newspaper or magazine that expresses the opinion of a named author usually not affiliated with the publication editorial board.

the subproject activities. The subproject will be implemented from November 2016 to March 2020.

16. The outputs from the *KI 2018* will be produced by a team of ERDI international, national, and administrative staff with significant inputs from international and national consultants. An estimated 26 person-months of international consultancy services (15 and 11 person-months of which will be engaged as individual, and as a team of experts under a consulting firm, respectively), and 167 person-months of national consultancy services will be needed for the subproject, i.e., production processes for the special reports, statistical tables (country, SDG,⁵ and regional tables; GVC indicators), special pilot indicators and data sets, the statistics portal and SDBS, and development activities related to improving data quality and promoting effective dissemination of results and findings.

17. For the background research papers, special report and stand-alone reports, the international consultants (economists and manuscript editors) will (i) engage in economic analysis and write the reports, (ii) prepare background reports and original research related to the theme, and (iii) conduct manuscript and economics editing. The national consultants (economists or statisticians or data specialists) will assist in (i) data gathering, data cleaning, and updating indicators; (ii) conducting further research on the indicators; (iii) laying out text and tables; and (iv) manuscript and/or copyediting. Surveys may be conducted in selected DMCs as deemed necessary to improve the relevance and originality of the analysis⁶.

18. For the statistical portion, international consultants (writers) will be engaged to draft narratives on trends in the region as evidenced by statistical indicators. The national consultants (economics and statistics specialists and graphic designers) will assist in (i) preparing statistical tables and commentaries, (ii) laying out text and tables, and (iii) manuscript and/or copyediting.

19. International (economists) and national (research associates and economists) consultants will also be engaged to prepare the GVC section and develop new indicators on future topic(s) of importance to economic policy making.

20. To improve ADB's statistics portal, SDBS, and other data systems, national consultants (data analysts) will (i) conduct a comprehensive cleaning, review, and assessment of the existing data, databases, data sources, and newly procured additional data sets; (ii) develop a system modernization plan; and (iii) produce additional functionalities and changes in the statistics portal as indicated in the plan. All data sets such as basic statistics, other external databases, household survey data sets, and tools that can be integrated into the statistics portal will also be brought in. The TA will engage a reputable information technology company through the consultants' qualification selection method using biodata technical proposals to update and enhance AsiaData (*Key Indicators* mobile application), which will function for both Android and Apple handheld devices. The ERDI will also work closely with the DER and the Office of Information Systems and Technology to improve accessibility of KI to the public through improved search, visualization and download features.

21. Resource persons will be engaged for workshops and training events, e.g., *Key Indicators* workshops for the special report, training on a theme of interest, and subregional

⁵ Collaboration will be done with ADB's Strategy and Policy Department to ensure consistency in the SDG data and indicators being released in the KI vis-à-vis SPD's progress reporting on SDGs.

⁶ A written confirmation of no-objection will be secured from the DMCs prior to conducting the survey per requirement of OM D 12/OP and Article 14(iii) of the ADB Charter.

workshops for the statistical tables. Travel of ADB staff participating as resource persons may be supported in accordance with the appropriate administrative guidelines.

22. The terms of reference for consultants is in Appendix 3. Consultants will be engaged in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). Disbursements will be made in accordance with ADB's *Technical Assistance Disbursement Handbook* (2010, as amended from time to time). Procurement of equipment will follow ADB's Procurement Guidelines (2015, as amended from time to time). Equipment purchased will comply with ADB guidelines on accountability of assets purchased under the TA, and disposal will follow the procedures in the relevant project administration instructions.

DESIGN AND MONITORING FRAMEWORK

Impact the TA is Aligned with			
Evidence-based policy making, investment decisions, and project design in ADB's DMCs enhanced.			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome Use of <i>Key Indicators</i> data and analysis by DMC officials, economic researchers, civil society, and other users sustained	By 2018: a. <i>Key Indicators</i> referred to in 45 regional media citations Baseline (median of 2012–2014): 42 b. <i>Key Indicators</i> cited in 20 major newspapers and publications Baseline (median of 2012–2014): 16 c. Seven (7) citations to <i>Key Indicators</i> made by DMC officials and/or policy makers and non-ADB researchers within 3 years after dissemination activities Baseline: Not applicable	a. DER media monitoring reports b. DER media monitoring reports c. Reports from resident missions and local newspapers	Unforeseen changes in the global or regional political, economic, and technological environment may render <i>Key Indicators'</i> messages inopportune. Other institutions produce a similar type of report.
Outputs 1. Research papers and statistics for <i>Key Indicators</i> prepared and published	By 2018: 1a. 5 or more background papers and/or reports written 2015 baseline: 5 1b. Three or more communications products released, which could include web stories, data visualizations, social media postings, blogs, or an op-ed ^a . 2015 baseline: 3 1c. Two separate reports published (<i>Key Indicators</i> statistical report, and Special Report) 2015 baseline: 1 integrated report 1d. At least 16,500 web downloads of various publications related to <i>Key Indicators</i> work 2015 baseline: 16,000 per year 1e. At least three background papers published either as a report, working paper series, and/or policy brief or journal paper Baseline: 3	1a. TA progress reports 1b. DER monitoring reports 1c. Published <i>Key Indicators</i> statistical report and special report 1d. ADB website download statistics 1e. Published ADB working papers; published policy briefs and/or journal papers	Unforeseen circumstances and delays such as data access issues affect the production schedule.
2. ADB statistics portal developed; SDBS, and related data systems implemented and upgraded	By 2018: 2a. 40,500 annual hits for statistics portal 2014–2015 baseline: 40,000 2b. 2,500 annual hits for SDBS 2014 baseline: 2,400 2c. Features of new SDBS interface validated Baseline: Not applicable	2a. Data hits on statistics portal, and user feedback 2b. Data hits on SDBS, and user feedback 2c. TA progress reports	
3. Workshops for knowledge	By 2018: 3a. One or more Special Report preparation	3a. TA progress reports	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
sharing and dissemination conducted	or consultation workshops conducted 2015 baseline: 1 3b. Five dissemination workshops conducted 2015 baseline: 5	3b. Back-to-office reports	
Key Activities with Milestones			
Output 1: Research papers for the special report, and statistics for <i>Key Indicators</i> prepared and published			
1.1. Engage consultants and commission research (November 2016–June 2018)			
1.2. Draft, edit, and publish background papers (December 2017–December 2019)			
1.3. Generate statistical tables (January–August 2018)			
1.4. Draft, review, and edit <i>Key Indicators</i> contents (June–August 2018)			
1.5. Finalize and disseminate publications (<i>Key Indicators</i> reports and working papers) (August 2018–March 2019)			
Output 2: Development of ADB statistics portal, SDBS, and related data systems implemented and upgraded			
2.1 Engage consultants (November 2017–March 2018)			
2.2 Identify priority areas for modernization (October 2017–June 2018)			
2.3 Implement improvements or upgrades to SDBS and statistics portal (July–October 2018)			
2.4 Update <i>Key Indicators</i> mobile application AsiaData (November 2017–October 2018)			
Output 3: Workshops for knowledge sharing and dissemination conducted			
3.1 Engage resource persons (January–December 2017)			
3.2 Conduct preparation workshop (January 2018)			
3.3 Conduct <i>Key Indicators</i> launch (October 2018)			
3.4 Hold series of academic launches and other dissemination workshops (October 2018–March 2019)			
TA Management Activities			
Hiring of consultants (November 2016– March 2020)			
Procurement of IT equipment, information and knowledge services (schedule to be determined)			
Inputs			
ADB: \$1,000,000			
Assumptions for Partner Financing			
Not applicable			

ADB = Asian Development Bank, DER = Department of External Relations, DMC = developing member country, IT = information technology, SDBS = statistical database system, TA = technical assistance.

^a An op-ed is a written piece of work typically published by a newspaper or magazine that expresses the opinion of a named author usually not affiliated with the publication editorial board.

Source: Asian Development Bank.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Amount
Asian Development Bank^a	
1. Consultants	
a. Remuneration and per diem	
i. National consultants	386.0
ii. International consultants	213.0
b. International travel	65.0
2. Workshops, seminars, and conferences ^b	80.0
3. Data, surveys, and studies ^c	141.0
4. Equipment ^d	10.0
5. Miscellaneous administration and support costs ^e	20.0
6. Contingencies	85.0
Total	1,000.0

^a The technical assistance (TA) subproject will be financed by the Technical Assistance Special Fund (TASF-V) of the Asian Development Bank (ADB).

^b Includes costs of dissemination activities and travel and related expenses, including ADB staff as resource persons, representation, preparatory works, implementation, and administrative support. Workshops, seminars, and conferences will occur only in ADB eligible member countries.

^c Includes cost of data purchase, field surveys, and other data collection.

^d Includes information-technology-related hardware. Procurement of equipment will follow ADB's Procurement Guidelines (2015, as amended from time to time). Equipment purchased will comply with ADB guidelines on accountability of assets purchased under the technical assistance, and disposal will follow the procedures of the relevant project administration instructions.

^e Includes costs of data support, subscription, software acquisition, representation, and printing

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. An estimated 26 person-months of international consultancy services and 167 person-months of national consultancy services will be needed.¹ Consultants will be engaged in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time) of the Asian Development Bank (ADB).

Table A3: Breakdown of Consulting Expertise

International	Person-Months^a	National	Person-Months^a
Economists and subject matter specialists	9.0	Economists, statisticians, or data specialists	66.0
Manuscript and economics editor	2.0	Economics and statistics specialists	70.0
Writer	2.0	Data analysts	24.0
Resource persons	2.0	Graphic designer	1.0
		Research associate	6.0
Senior information technology expert ^b	3.0		
Systems analyst ^b	3.0		
User-interface designer ^b	5.0		
Total	26.0		167.0

^a Engagement on an intermittent basis.

^b Expert(s) from firm.

Source: Asian Development Bank estimates.

A. Economists and Subject Matter Specialists (international, 6 consultants, total of 9 person-months, intermittent)

2. The purpose of this assignment is to undertake research and analysis on the selected special report topic. The output will include background papers for the special report and/or other themes of interest.

3. The specialists should have a strong background in development economics, economics, and/or other related subjects. They should have at least a master's degree in their field of expertise (with a doctorate degree preferred) and have more than 10 years of relevant work experience. The specialists should have expertise and/or an interest in the economies of Asia and the Pacific. A good publication record on urbanization, economic geography, technology and development, firm research and development, structural transformation, labor and employment, or global value chain will be an advantage. Extensive experience working with international databases, and the application and/or development of models and frameworks, input-output, computable general equilibrium, and other multidimensional frameworks will be highly desirable. They will carry out the following activities:

- (i) conduct empirical research and conduct surveys, if necessary;
- (ii) prepare and/or present background and/or follow-on research paper(s) on the proposed research topic(s) or theme of interests

¹ Lump-sum payments or output-based contracts will be considered when necessary.

- (iii) provide advice on the direction of research for the special report and/or other theme of interests, and potentially contribute subsection(s) to the special report and/or other theme of interests, with the following specific tasks:
 - a. review draft outline of special report prepared by ADB staff and provide comments and suggestions for its finalization;
 - b. brainstorm on potential terms of reference for background papers that will be funded through ADB related to the topic;
 - c. attend workshop(s) and provide comments and suggestions for the finalization of background papers;
 - d. provide advice to authors of the background papers as required;
 - e. draft a paper that will serve as one of the key highlights in the special report to be presented in 1-2 workshops; and
- (iv) perform other tasks as may be assigned by ERDI.

B. Manuscript and Economics Editor (international, 1 consultant, 2 person-months, intermittent)

4. The editor shall be responsible for the manuscript editing of the KI special report and assist in preparing the highlights, including the tables and charts in the publication. He or she should have at least a master's degree in the related field (a doctorate degree is preferred) and have more than 10 years of experience in writing and editing works. He or she will also assist in the preparation of the highlights and presentation materials for launch of Key Indicators.

5. The editor will review and edit the special report, statistical commentaries, graphs and tables of the *Key Indicators* in compliance with international editing standards and ADB's *Handbook of Style and Usage*. The work will include a number of editing rounds of the typeset version until the desired quality is achieved. The editor will also make suggestions regarding the layout of the publication and assist in preparing the highlights and presentation materials for the *Key Indicators* launch. In particular, the editor will carry out for the special report and highlights the following:

- (i) reorganize the text so that the subject matter is easy to understand and is logically presented;
- (ii) eliminate wordiness and repetition, and reduce ambiguity;
- (iii) query substantive discrepancies, possible typographical errors, and non-English terms;
- (iv) edit tables and figures, and recast if required;
- (v) ensure that subheadings are consistent and logical;
- (vi) check references to tables, figures, appendixes, and parts of the text;
- (vii) edit notes to ensure that the text references are correct;
- (viii) edit reference lists;
- (ix) edit the foreword and acknowledgment;
- (x) edit highlights;
- (xi) check final changes;
- (xii) work closely with the Key Indicators overall coordinator;
- (xiii) check and sign off on the layout; and
- (xiv) perform other relevant tasks as assigned by ERDI.

6. The output is a manuscript-edited special report, highlights and presentation materials.

C. Writer (international, 2 consultants, total of 2 person-months, intermittent)

7. The writer will be responsible for writing a high-quality thematic commentary based on sound statistical analysis for the statistical component (parts II, III, and IV) of the publication, highlighting recent trends and providing an overview of developments in the region and across countries. He or she will prepare highlights for the statistical components; assist in the preparation of the key messages, press releases, and other related materials; and make suggestions on the layout. Specific tasks of the writer include:

- (i) review the statistical commentaries within the earlier issues of *KI* and other statistical publications, and prepare a detailed outline including proposed graphs, charts and boxes for the commentaries for the following themes within the statistical component, ensuring consistency in the overall style, approach, and presentation: SDGs, and any other themes that may be introduced;
- (ii) draft commentaries covering the themes within the statistical component drawing on statistics from *KI* and external sources, and based on a sound statistical analysis;
- (iii) provide an informative overview of trends and developments as well as relevant emerging issues in the region and across countries;
- (iv) work closely with the concerned ERDI staff and national consultants in developing the graphs, charts, and boxes, including statistical boxes covering data comparability issues;
- (v) conduct a consultation on the proposed commentary and based on the feedback received, work closely with the concerned ERDI staff in finalizing the statistical commentaries ensuring full compliance with ADB's *Handbook of Style and Usage* and any other relevant guidelines;
- (vi) assist with the preparation of the Definitions and Foreword;
- (vii) prepare highlights for the statistical component as part of the overall highlights;
- (viii) assist in the preparations of the key messages, press releases and other related materials; and
- (ix) perform other tasks as assigned by ERDI.

8. The writer should have at least a master's degree in the related field and have more than 10 years of experience in writing and editing.

D. Information Technology Firm (a team of 3 international consultants each, total of 11 person-months, intermittent)

9. The firm will update and enhance AsiaData (*Key Indicators* mobile application), which will work for both Android and Apple handheld devices.

10. **Senior information technology expert—team leader** (international, 1 consultant, 3 person-months, intermittent). The expert should have a degree in computer science or a related field, and at least 10 years of information technology (IT) experience (of which 5 years in a managerial role). The expert will (i) coordinate application development, (ii) monitor team progress, (iii) liaise with ADB's Economic Research and Regional Cooperation Department and Office of Information Systems and Technology on the enhancement of the mobile application, (iv) undertake the analysis of business requirements and work with the systems analyst and the user interface designer, and (v) spearhead the application tests.

11. **Systems analyst** (international, 1 consultant, 3 person-months, intermittent). The analyst should have a degree in computer science or a related field, and at least 7 years of IT experience (of which 5 years in designing application systems). The analyst will (i) design a

workable system based on the business requirements and new mobile and computer operating systems; (ii) check security constraints of the current mobile application, including integration of solution and consideration for data privacy; (iii) monitor the application enhancement and propose refinements; and (iv) implement the turnover of the solution and application to ADB.

12. **User interface designer** (international, 1 consultant, 5 person-months, intermittent). The designer should have a degree in computer science or a related field, and at least 5 years of IT experience (of which 2 years in designing mobile applications). The designer will (i) design the enhancement of the mobile application, and (ii) ensure that the user interface is simple and efficient.

E. Resource Persons (international, 5 experts, total of 2 person-months, intermittent)

13. Resource persons will be engaged to participate as presenters or discussants in workshops, training events, and conferences. The resource persons should have (i) expert knowledge, and (ii) extensive experience and an excellent publication record on the special report topic.

F. Economists, Statisticians, or Data Specialists (national, 6 consultants, total of 66 person-months, intermittent)

14. The purpose of this assignment is to undertake research and analysis on selected special report topics. The output will include background papers and/or country-specific case studies for the special report and/or follow-on research papers.

15. The specialists should have at least a master's degree in their field of expertise (with a doctorate degree preferred) and more than 10 years of relevant work experience.² The specialists should have well-rounded knowledge of urbanization, economic geography, technology and development, firm research and development, structural transformation, labor and employment, or global value chains in their country assignment. They should be knowledgeable about the sources of good data, have the ability to access or collect them through survey techniques, and perform the necessary data evaluation. They should also have the ability to analyze the data using statistical and econometric techniques. An ability to identify research topics and prepare background papers on themes of interests using new methodologies and rigorous empirical approaches will be desirable.

16. Specific tasks are as follows:

- (i) describe major patterns and trends on the theme in their country, or perform analytical work on secondary dataset or dataset collected by conducting own survey;
- (ii) conduct empirical analysis characterizing the structure and dynamics of the country's economic transformation as may be required;
- (iii) provide detailed information of data holdings from various national sources as may be required;
- (iv) document and provide metadata of the country's time series data from various data sources and national databases as may be required;
- (v) perform analytical work on secondary dataset or dataset collected by conducting own survey;
- (vi) synthesize findings in a report;

² The work will be carried out in countries where high-quality data is available, which will be assessed during project implementation. Country of assignment will be determined upon initiating their recruitment as national consultants.

- (vii) potentially help design and field survey if needed;
- (viii) provide inputs to ERDI staff and international consultant regarding policies and interventions prevalent to their country that can be used to evaluate the impact of selected policies and interventions;
- (ix) present paper or analytical work in workshops;
- (x) conduct international travel to attend the workshops and/or assist international consultants as requested by ERDI; and
- (xi) perform other tasks as may be assigned by ERDI.

G. Economics and Statistics Specialists (national, 10 consultants, total of 70 person-months, full time)

17. The purpose of this assignment is to produce the *Key Indicators* questionnaires, country tables, Sustainable Development Goals tables, regional tables, and charts and figures in the write-ups, highlights, and presentation materials.

18. The specialists should have (i) a background in economics or statistics; (ii) at least 3 years of relevant work experience in statistics or research analysis; (iii) the technical and analytical skills required for the project; (iv) a good understanding of official statistics and national statistical systems; (v) advanced knowledge and proficiency in using Microsoft Excel, Microsoft Word, and other relevant software; (vi) experience in performing automated business processes and due diligence in data compilation and validation; (vii) good writing skills; and (viii) creativity in generating statistical graphs.

19. Specific tasks include:

- (i) gather, process, compile and validate survey data and statistics from assigned regional members and other sources;
- (ii) generate, review, and finalize assigned statistical tables under the guidance of ERDI international staff and the Key Indicators coordinator using applications of the Statistical Database System (SDBS);
- (iii) study the assigned themes, and together with their ERDI staff counterpart, analyze the available statistics data and other information;
- (iv) suggest or create statistical graphs in the analysis of commentaries;
- (v) review and update the statistical definitions and concepts that are used in the preparation of the *Key Indicators*;
- (vi) review or revise the statistics and write-ups or commentaries;
- (vii) implement the new aggregation methods; and
- (viii) perform other related technical and administrative tasks as may be assigned by the KI coordinator.

H. Data Analysts (national, 2 consultants, total of 24 person-months, full time)

20. The analysts should have (i) experience in updating the statistical database system and in extensively using the statistics portal; (ii) a strong background in economics, statistics, computer science, or a related field; (iii) experience in data processing, analysis, and working with official statistics (statistics produced by governments); (iv) IT knowledge; and (v) advanced knowledge of Microsoft Excel and automated business processes. The analysts must exercise due diligence in compiling and validating data and work with the Development Economics and

Indicators Division staff to improve and maintain the statistical database system and the statistics portal. Detailed tasks are as follows:

- (i) identify priority areas for modernization based on user feedback and requests;
- (ii) propose new functionalities to be added to the portal;
- (iii) provide advice in selecting a new system or process to be used;
- (iv) implement changes to the SDBS and statistics portal by balancing business and technical requirements; and
- (v) update and maintain the two databases.

I. Graphics Designer (national, 1 consultant, 1 person-month, intermittent)

21. The purpose of this assignment is to produce the text layout and format the graphic elements of the *Key Indicators*, including the web version.

22. The designer will be responsible for text layout, encoding of corrections, and formatting of graphic elements of the publication, including refining its web version. The designer must be skilled in working with Creative Suite 4 (or 5), Microsoft Word, and Microsoft Excel, and will prepare InDesign, Illustrator, and PDF files of the interiors and covers using original manuscripts submitted in Microsoft Word and Microsoft Excel.

23. In particular, the designer will:

- (i) layout *KI*;
- (ii) typeset, reformat tables and charts, and encode corrections in the main text based on corrections received from ERDI staff and consultants;
- (iii) encode final text and graphical corrections from ERDI staff and consultants;
- (iv) prepare InDesign, Illustrator, Photoshop, and PDF files of the artwork, interior pages, and covers using original manuscripts submitted in MS Word, Microsoft Excel, and other formats;
- (v) apply template developed by ERDI in typesetting of the *KI*;
- (vi) ensure that (i) is formatted well and the layout is clear and concise; and
- (vii) perform other related tasks as assigned by ERDI.

J. Research Associate (national, 1 consultant, 6 person-months, intermittent)

24. The purpose of this assignment is to support research on assigned topics and other development issues as well as provide administrative support for data procurement and the publication process.

25. The associate should have a degree in economics, statistics, or related fields (with a master's degree preferred), and at least 2 years of relevant experience. The associate should be knowledgeable in using Stata and have a good understanding of economic theory and econometric analysis (or statistical methods).

26. The associate will work closely with Development Economics and Indicators Division staff and international and national consultants. The associates will perform the following tasks:

- (i) conduct a literature review on the assigned topics and prepare an overview of the hypotheses, methodologies used and major findings of recent and other related empirical research works (this also includes relevant policy recommendations and other cross-cutting issues);
- (ii) collect and process relevant time-series and cross-country data sets as well as micro-level data and able to identify appropriate econometric techniques in conducting data analysis;
- (iii) prepare a draft report on the initial findings and identify issues on the methodologies used in the literature and data constraint;
- (iv) perform econometric and statistical analysis on the data:
 - a. process data for statistical analysis (merge cleaned data from all sources and making sure that they are consistent);
 - b. provide detailed documentation on how the data processing was done;
 - c. perform statistical analysis, where necessary, using Stata; and
 - d. perform other economic analyses, as necessary;
- (v) assist in the procurement of micro-level survey data such as household income and expenditure surveys, labor force surveys, enterprise and firm surveys (for both formal and informal sectors);
- (vi) assist in the preparation and publication of reports and presentations by preparing:
 - a. all necessary tables and appendices based on the output generated from the analyses; and
 - b. tables, graphs and maps needed for the paper and/or presentations;
- (vii) format draft papers in accordance with ADB's *Handbook of Style and Usage* for publication; and
- (viii) perform other tasks as may be assigned by ERDI.