

## TERMS OF REFERENCE FOR CONSULTANTS

1. The TA facility will initially provide 77 person-months' consultant inputs (24 person-months international and 53 person-months national) to support the preparation of ensuing projects and implementation of ongoing projects. The consultants will be recruited using individual consultant selection method and deployed based on the requirements of each project being prepared or implemented. The TA facility will also recruit one firm to carry out demand assessments for ensuing skills projects, which may include a tracer study or an employer study depending on the availability of existing data and information. Since the assignment is expected to be small, the firm will be recruited using consultant qualification selection and bio-data technical proposal. ADB will engage the consultants following the ADB Procurement Policy (2017, as amended from time to time) and its associated project administration instructions and/or staff instructions.

### A. Individual Consultants

#### (a) International

2. **Skills planning and program specialist (international, 4 person-months).** The specialist will provide technical inputs to the executing and implementing agencies for the designs of proposed skills development projects. The key tasks are to (i) carry out detailed assessments for proposed designs of the skills development projects, along with results from demand assessments; (ii) assess the proposed trade areas and level of courses based on local training demands and employment opportunities and finalize training programs; (iii) develop technical specifications for civil works and equipment, as needed, in coordination with the architect and the procurement specialist; and (iv) develop overall institutional development plans, including curriculum development, training of trainers, leadership and management development, etc. The specialist will have (i) an advanced degree in economics, business management, education management or related fields; (ii) at least 15 years of experience in working TVET or skills development projects in developing country texts with proven records in successful outcomes; (iii) expert knowledge on international and national best practices in skills training, including the application of e-learning and innovative training delivery modality; and (iv) strong knowledge on best examples and lessons from skills training programs and partnership models in India.

3. **Education sector specialist (international, 5 person-months).** The specialist will assist the executing and implementing agencies of the proposed project on school education in developing the program's design for RBL. The key tasks are to (i) carry out additional assessments of the key sector issues at the central and state levels of participating states, building on the preliminary sector assessment; (ii) assess the progress and outcomes of ongoing initiatives at the state-level, especially regarding school complex/cluster plans, improving learning infrastructure, continuous teacher development, students-centered pedagogic methods, school management plans, etc.; (iii) assess the government's central scheme in addressing key identified issues and prepare the programs' soundness assessment; (iv) assess the government's central program's results chain and develop the program's results assessment and framework for participating states, in close consultation with key stakeholders at the central and state levels; and (v) coordinate with relevant government agencies at the central and state levels to identify appropriate program activities, including implementation timelines, sequencing of activities and reforms as needed, identification of capacity building requirements, and necessary interventions. The specialist should have (i) an advanced degree in education, economics, or other related fields; (ii) at least 15 years of experience in working on school education policies, strategies, and reforms; (iii) expert knowledge of issues and challenges in school education at varying levels; and (iv) good

working knowledge of ADB's RBL modality and its requirements for all program-related assessments and documents.

**4. Institutional development specialist (international, 4 person-months).** The specialist will assess the institutional arrangements of the proposed projects and identify capacity building components for project designs and implementation, including for governance and management structures of new skills training institutes, as required. The key tasks are to (i) review all project due diligence assessments and identify key risk areas in project implementation arrangements for effective project outcomes; (ii) develop risk management plans and/or capacity building components (or program action plan), including the required personnel and configuration of project management teams; (iii) identify key institutional development plans for proposed new establishments of training or other entities and develop resource and other requirements for setting up proper governance and management structure for successful operation and sustainability; and (iv) explore the feasible partnership models both in education and skills development that can optimize the efficient delivery of outputs. The specialist will have (i) an advanced degree in economics, business management, education sector planning or related field; (ii) at least 12 years of experience in developing and managing large education or TVET-related projects, preferable funded by multilateral development agencies; (iii) expert knowledge of international and national best practices in institutional development or management of educational and TVET agencies; and (iv) excellent consultation and communication skills to work with government agencies.

**5. Advanced agriculture specialist (international, 2 person-months).** The specialist will work closely with other skills specialists in guiding the designs of skills development projects that include agricultural training programs. The key tasks are to (i) review the existing models of advanced skills programs in the agriculture sector in India and abroad, especially those involving high technology elements; (ii) carry out necessary analyses and stakeholder consultations in the relevant states for the suitability of potential agriculture-related training programs and the existing demand; (iii) develop the design of the structure of training programs, including curriculum outlines, targeted trainees, infrastructure requirements, human resource requirements, and possible partnership arrangement for knowledge and technical transfers; (iv) facilitate the identification of potential partners and initiate partnerships. The specialist should have (i) an advanced degree (preferably doctorate degree) in agricultural economics or other related fields; (ii) at least 12 years of experience in teaching agricultural education, designing and implementing agricultural programs; (iii) expert knowledge on various high-technology models of agricultural education or training programs worldwide; and (iv) strong knowledge of agricultural development and education or training programs in India.

**6. Monitoring and evaluation specialist (international, 3 person-months).** The specialist will support the executing and implementing agencies of the programs proposed for results-based lending (RBL) in preparing the program design and results documents. The key tasks are to (i) prepare the programs' results framework by assessing the relevant government agency's medium-term program's results chains and identifying a subset of the government's results framework for the program; (ii) finalize the RBL program design, boundary, components, and activities for ADB financing, including implementation timelines, sequencing of activities and reforms (if required), capacity building requirements, etc; (iii) prepare a design and monitoring framework—including the disbursement-linked indicators matrix—and a capacity development and program action plan; and (iv) develop integrated risks assessment and mitigation measures, based on other inputs for the program. The specialist should have the following qualifications: (i) an advanced degree in education, economics, or related disciplines; (ii) at least 15 years of relevant work experience especially in education sector planning in several developing country

contexts; (iii) extensive experience in supporting ADB's RBL or similar lending modality with multilateral institutions; and (iv) strong interpersonal skills and experience in working in developing countries.

7. **Financial management specialist (international, 1 person-months).** The consultant will conduct financial analysis for proposed RBL programs (i.e., school education, Kerala skills development program), and prepare detailed and disaggregated cost estimates for all elements of the proposed programs. The key tasks are to (i) review the governments' expenditure framework and assess the adequacy of budgets/investments required to implement and sustain key elements of the proposed program; (ii) ensure that the RBL program's results framework is robustly backed by a realistic expenditure framework, assessing the effectiveness, efficiency, and adequacy of the expenditure framework; (iii) prepare a summary expenditure framework and financing plan for the RBL; (iv) conduct consultations with different groups of stakeholders to verify assessment finding and recommend on expenditures and financing for the RBL; (v) carry out an assessment on fiduciary systems and capacities, annual fiduciary reviews (if available), recent audit reports, and recommend measures to address identified weaknesses in financial management; and (vi) identify actions to be included in the DLI matrix and program action plan. The specialist will have (i) an advanced degree in accounting, finance, or a related field, and will have a recognized professional accountancy qualification; (ii) at least 10 years of experience in costing and assessing education expenditures; and (iii) familiarity with RBL programs and its financial analysis requirements.

8. **Pool of experts or resource people (international, 5 person-months).** The international experts in the areas of school education and skills training across different trade areas will be drawn as resource people to provide technical expertise and capacity building support for the proposed and ongoing projects, as needed. The areas of expertise may cover emerging pedagogic practices, capacity building models for school governance and management, TVET trade-specific e-learning modalities, and so on. International experts will also be used as facilitators and resource people for seminars and workshops.

#### **(b) National**

9. **Teacher development specialist (national, 4 person-months).** The specialist will review the current policies and practices in pre-service and in-service teacher development programs, assess effectiveness of the programs in participating states, and recommend measures for continuous teacher development, including online and peer-learning models, that can be suitable for different levels of schooling in participating states. The specific tasks are to (i) review the policies, strategies, and institutional capacities related to pre- and in-service teacher development programs, including those in STEM subjects; (ii) gather data and information on the supply and quality of teachers for core subjects; (iii) recommend specific plans for supporting teacher professional development and appropriate teaching practices in core subjects, including proven effective online practices and other best practices that can provide technology-based solutions for enhancing teaching/learning practices, particularly in core subjects and STEM; (iv) assess broad issues affecting the development of teachers and principals, including performance assessment, recruitment and deployment, financial and non-financial incentives, and recommend policy actions to be included in the proposed program; and (v) coordinate with other specialists to ensure strategic directions related to teacher training and principal leadership are consistent with other aspects of the proposed program. The specialist will have (i) an advanced degree in education, economics, or related fields; (ii) at least 10 years of experience in leading the preparation of human resource development policies and programs for teachers and education administrators; (iii) expertise in teacher training systems and developing approaches in student-

centered pedagogy; and (iv) good knowledge of best practices in teacher training in STEM subjects.

10. **Curriculum and assessment specialist (national, 3 person-months).** The specialist will support the implementing agencies of participating states in assessing the current status of STEM education and other higher-order knowledge in secondary education and recommend measures to improve those subjects. The main tasks are to (i) assess changes required in secondary education curricula to strengthen STEM education and other 21st century skills (e.g., critical thinking, collaboration, etc.); (ii) conduct consultations with different stakeholders to develop strategic approaches and interventions and identify key priorities; (iii) identify required learning and teaching modalities, including textbooks, learning materials, EdTech programs; (iv) identify materials to support teacher training institutions and pedagogical advisors; and (v) provide inputs into background assessments and program design documents, including the design and monitoring framework, DLI matrix, program action plan and others. The specialist will have (i) an advanced degree in education, education administration/management or related fields; (ii) at least 10 years of experience in reviewing and developing secondary education curricula; (iii) expert knowledge of emerging pedagogic practices in STEM and other advanced subjects; and (iv) familiarity with online learning and teaching programs across India.

11. **Vocational education specialist (national, 3 person-months).** The specialist will assess the integration of vocational education in secondary education across participating states of the proposed program and recommend most feasible ways for vocational education programs specific to each state. The key tasks are to (i) review the ongoing extent of vocational programs in secondary education in the participating states and assess their relevance and effectiveness; (ii) identify best practices for integrating vocational education in India and abroad and associated challenges; (iii) develop pilot programs for specific subjects in vocational education for participating states or identify the existing programs that can be scaled up; (iv) based on the proposed programs, recommend policies and delivery modalities which may include partnership models, training of trainers, etc; and (v) recommend the procedures for adopting specific curricula, learning materials, tools and equipment as needed, and assessment and certification procedures. The specialist will have (i) an advanced degree in education management, TVET, business management or related fields; (ii) at least 10 years of experience in developing vocational education programs, preferably working with state or national governments; (iii) expert knowledge of best practices across different states in India; and (iv) good knowledge of state educational systems to incorporate vocational education subjects.

12. **EdTech and online education specialist (national, 2 person-months).** The specialist will (i) map out available EdTech programs in India and abroad that can be used for different levels of schooling (e.g, primary and secondary education) and for different areas such as teacher training, adaptive learning, formative assessments, STEM subjects, activity-oriented learning, etc.; (ii) review the scope of current implementation of various EdTech programs across participating states, and draw lessons from existing evaluations of the programs as much as possible; (iii) assess challenges and opportunities and outline detailed implementation requirements of various EdTech programs, such as localization and training requirements; and (iv) recommend national best practice programs for each of learning and teaching areas, along with a list of international best practice programs that can be adopted for use in India for the proposed project on supporting school education. The specialist should have (i) preferably an advanced degree in education, business management, or related fields; (ii) at least 5 years of relevant experience in promoting the use of and evaluating the effectiveness of various EdTech programs, especially in classroom learning and teaching; and (iii) expert knowledge of both nationally and internationally available EdTech programs and their implementation status in school education.

13. **Entrepreneurship development specialist (national, 2 person-months).** The specialist will review trade areas and training programs of the proposed projects and recommend potential linkages for entrepreneurship development. The key tasks are to (i) map out best practices in entrepreneurship support programs in TVET and other skills development institutes; (ii) create models of entrepreneurship support programs and links with market and financial support institutions; (iii) create a customized curriculum for entrepreneurship programs in GSP; and (iv) develop the detailed terms of reference for engaging an institutional partner and/or private industry partners for the program. The specialist will have (i) an advanced degree in business management, entrepreneurship, or related fields; (ii) at least 5 years of experience in supporting entrepreneurship and small business development programs; and (iii) good working knowledge of current initiatives in India and challenges for successful programs.

14. **Architect/engineer (national, 4 person-months).** The consultant will assist the executing and implementing agencies of the proposed projects in project designs and support the monitoring of completed civil works in ongoing projects. The key tasks are to (i) undertake detailed assessments of newly proposed training or education infrastructure and assist in developing architectural designs and technical specifications; (ii) develop preliminary designs incorporating workshop layouts based on the user requirements of specific training programs in close collaboration with the skills planning specialist and the equipment expert; (iii) support in preparing preliminary master infrastructure plan for required training infrastructure; (iv) develop the terms of reference for the request for proposal or bidding documents, as needed; and (v) provide advice in developing evaluation criteria for the tendering process. The specialist will have (i) an advanced degree in architecture, civil engineering, or related fields; (ii) at least 12 years of experience in developing education or training infrastructure with proven records; (iii) relevant experience in working as a team for development projects financed by multilateral development agencies; and (iv) expert knowledge on international and national best practices in developing TVET infrastructures.

15. **Equipment expert (national, 3 person-months).** The specialist will support the executing and implementing agencies during project designs and implementation to ensure the procurement of quality equipment in a timely manner. The key tasks are to (i) review the technical specifications of proposed equipment lists to assess their adequacy according to trade areas; (ii) finalize the packaging of equipment lists based on local and national market assessments; (iii) support in the preparation of bidding documents for procurement of equipment in close coordination with the procurement specialist; and (iv) analyze the lessons from procurement experiences in skills development projects across the states and propose feasible solutions to be adopted that can optimize the purchase of quality equipment within the required procurement principles. The qualifications for the specialists should include: (i) preferably an advanced degree in engineering, business administration, procurement, or related fields; (ii) at least 15 years of international experience in managing and facilitating the procurement of equipment; (iii) good understanding of equipment markets for engineering and other TVET-related equipment in India; and (iv) full familiarity with equipment procurement procedures in multilateral financing institutions (e.g., ADB, World Bank).

16. **Economist/project analyst (national, 3 person-months).** The specialist will assist the executing and implementing agencies of pipeline projects in finalizing the project designs and carrying out the economic and financial analyses. The main tasks are to (i) develop a framework for economic analysis appropriate for each project and collect necessary data to conduct required analysis according to ADB technical guidelines; (ii) support the consulting team in establishing baseline data for performance indicators and other relevant data for the analysis, such as job

placement rate and wage data for TVET graduates; (iii) gather relevant government budget and expenditure data to carry out financial analysis for loan processing; and (iv) support other project-related economic and financial analyses, which may include sector assessments and poverty reduction and social strategy. The specialist should have the following qualifications: (i) an advanced degree in economics, business administration, or related field from a reputed university; (ii) at least 10 years of experience working on education or skills development projects with national or state government agencies, preferably in external donor-funded projects; (iii) excellent quantitative analysis skills to carry out social, economic, and financial analyses and familiarity with required data sources; and (iv) excellent writing and communication skills.

**17. Management information specialist (national, 2 person-months).** The specialist will support the executing and implementing agencies of the proposed projects in reviewing and developing a management information system (MIS) that collates comprehensive data related to school education or skills training. The key tasks are (i) to review the existing MIS and assess its advantages and disadvantages to provide comprehensive information required in tracking the progress and outcomes of training programs or education performance; (ii) recommend the feasible MIS that can effectively gather training-related information (e.g., trainees, trainers, job placement of graduates) from relevant agencies; (iii) recommend efficient and effective models that are user-friendly across different levels of administrative structures; (iv) establish institutional mechanisms to collect comprehensive information; and (v) develop the terms of references for technical inputs and resource requirements for setting up the system during project implementation. The specialist will have (i) an advanced degree in computer science or information technology (IT) fields; (ii) at least 7 years of relevant work experience in building MIS systems in education or TVET related fields; (iii) experience in system development in IS design, website design, network management, software maintenance, and security systems; and (iv) proven track records of working with central or state government programs on education and/or skills development.

**18. Financial management specialist (national, 4 person-months).** The specialist will carry out the financial due diligence and capacity development for executing and implementing agencies according to ADB's financial management policies and procedures. The main tasks are to (i) conduct financial due diligence of the proposed executing and implementing agencies and prepare financial management capacity assessment reports; (ii) development risk management plans, along with financial management action plans related to governance, accounting and financial management, budgetary control, internal controls, audits, etc.; (iii) develop a financial management manual, as needed, and provide capacity building workshops to relevant government agencies; and (iv) support the executing and implementing agencies in budget planning and allocation for the proposed projects based on agreed fund flows and disbursement procedures. He/she will have the following qualifications: (i) an advanced degree in accounting, financing, or related field and a professional accountancy qualification; (ii) familiarity with ADB's financial management due diligence requirements; and (iii) at least 10 years of experience in designing and implementing donor-financed projects and in developing capacity building programs for government agencies at the national and state levels.

**19. Procurement specialist (national, 4 person-months).** The specialist will support in developing detailed procurement requirements of the project design and carrying out advance actions in procurement of civil works, equipment, and consulting packages, in coordination with ADB procurement specialists. The main tasks are to (i) conduct procurement capacity assessments of the executing and implementing agencies for the proposed projects according to ADB's guidelines on each lending modality, and develop relevant risk management (or program action in case of RBL modality) plans on procurement; (ii) develop procurement plans for project

designs in close coordination with relevant specialists under the TA team; (iii) assist the government agencies in carrying out advance procurement actions, which may include developing bidding documents and evaluating technical and financial proposals; and (iv) organize capacity building workshops on required procurement procedures for the agencies of new projects and ongoing projects, as needed. He/she will have (i) an advanced degree in civil engineering or related field and at least 15 years of experience in managing procurement requirements in donor-funded projects; (ii) full familiarity with procurement guidelines in multilateral financial institutions (e.g., ADB, World Bank); and (iii) prior experience in working on education or skills development projects in India with major procurement issues.

**20. Environment safeguard specialist (national, 3 person-months).** The specialist will work with the executing and implementing agencies of the proposed projects and prepare relevant assessment reports (depending on lending modality) on environment and involuntary resettlement impacts according to the Government of India regulations and the ADB's Safeguard Policy Statement. The key tasks are to (i) conduct screening for potential environmental and other safeguard impacts of the proposed projects/programs, including climate change impacts (for projects involving civil works), and identify the level of assessment and resources required to address the issues; (ii) identify applicable laws, rules, regulations and procedures for managing the environmental and social safeguard impacts based on the national and state government requirements; (iii) prepare appropriate frameworks or documents depending on lending and project modality, which may include safeguard system assessments (in case of RBL programs), environmental review and assessment framework, or initial environmental examinations (IEE) incorporating environmental management plans (EMPs); (iv) work closely with executing/implementing agencies and the design team to incorporate IEE findings and EMP measures into designs, including adaptation and mitigation measures of climate change, if needed; (v) assess the capacity of government agencies to implement relevant safeguard measures and provide necessary capacity building supports for each of government agencies. He/she will have (i) an advanced degree in environmental engineering, environment policy or other related fields; (ii) at least 7 years of experience in conducting environmental assessments, as well as RBL-related system assessments, preferably in donor-funded projects; and (iii) prior knowledge and experience in ADB's safeguard policy on environmental and social due diligence.

**21. Social development and gender specialist (national, 3 person-months).** The specialist will conduct social and gender analyses of proposed projects/programs and prepare required documents for loan processing. The key tasks are to (i) identify the areas for proactive gender measures and ensure the benefits to socially disadvantaged groups (e.g., scheduled tribes, scheduled castes) in project designs; (ii) prepare relevant documents such as gender action plans and indigenous peoples plans, with appropriate target indicators, as required for each lending modality; (iii) establish sex-disaggregated baseline indicators by gathering required data and other materials; and (iv) provide related inputs to other loan processing requirements, as requested. He/she will have (i) an advanced degree in social science or related fields with at least 10 years of experience in working on social and gender dimensions of development projects, especially in education and skills development programs; (ii) strong qualitative and quantitative analytic skills to review existing data and reports related to social, gender, and poverty analyses; (iii) familiarity with ADB's gender mainstreaming and social safeguard requirements; and (iv) strong writing and communication skills for document preparation and stakeholder consultations.

**22. TA coordinator (national, 8 person-months).** The coordinator will (i) work closely with TA specialists to ensure that synergies with capacity development components are tapped across the proposed and ongoing projects; (ii) support the organization of seminars or workshops with resource people engagement, as needed, and coordinate across the projects for timeline roll out

of capacity development initiatives; (iii) maintain detailed records of all capacity building activities and materials, and prepare synopsis reports to highlight the main achievements and concerns; and (iv) ensure all capacity building seminars and workshops are inclusive with required outreach activities and successful. The coordinator should have (i) at least a bachelor's degree in business management, communication, or related field; (ii) at least 6 years of experience in carrying out capacity development activities; (iii) good working knowledge of education and skills development projects in India; and (iv) excellent writing and communication skills.

23. **Pool of consultants (national, 5 person-months).** Short-term national consultants with specific expertise may be engaged, as needed, to provide technical inputs and capacity building support for project designs and project implementation. The expected inputs may cover the preparation of industry partnerships for specific trade areas in skills development projects, mapping of varying learning modalities on soft skills, lifelong learning, activity-based learning, etc. in school education, organization of stakeholder consultations or workshops for school education program in the participating states, organization of seminars and workshops both nationally and internationally for learning on best practices in adaptive learning and teacher development, and so on.

## **B. Consulting Firm**

24. **Demand assessments (approximately 4 months).** For the proposed skills development project at the state level, the consulting firm will carry out surveys of youth and employers, as well as consultations with key stakeholders in order to map out the current economic, industrial, and employment landscapes in the state and capture the perceptions and preferences of youth, workers, and employers. Based on empirical surveys and consultations, the firm will prepare a report consisting of the following: (i) economic, industrial, and employment mapping in the state to capture priority sectors in terms of employment potential and skills needs for next 5 years and beyond; (ii) a survey of employers to identify sector-wise and level-wise demand for skilled workforce in selected industries over the medium- and long-term; to assess policies and practices related to recruitment, training, and contracting; and (iii) a survey of youth and workers to identify preferences for and challenges in TVET enrollment and specific job attainment by gender and social group; and to capture key factors that may motivate and facilitate migration to other states or overseas for employment. The firm will be recruited through consultants' qualification selection method based on bio-data and prior experiences in similar studies.