

**Kingdom of Cambodia
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**SELECTION OF CONSULTANTS
REQUEST FOR PROPOSALS**

Selection of Consulting Services

For

Project Implementation Support Consultant

Client	Ministry of Education, Youth and Sport
Country	Cambodia
Project Name	Science and Technology Project in Upper Secondary Education (STEP)
ADB Loan No.	4244-CAM
Assignment	Project Implementation Support Consultant
Contract No.	CS-01
Selection Method	Quality and Cost Based Selection (QCBS)

Issued on: 11 March 2024

Section 7. Terms of Reference

Project Implementation Support Consultant Ref No.: CS-01

I. Objective and Purpose of Assignment

The Science and Technology Project in Upper Secondary Education (STEP UP) will support the government's human capital development agenda by improving the effectiveness of upper secondary education (USE). The project will increase access to quality education, strengthen science, technology, engineering, and mathematics (STEM) teaching and learning, and strengthen educational leadership and management capacity. It continues the Asian Development Bank's (ADB) support in Cambodia to the USE system with a focus on STEM education. It aims to address the increasing demand for high-quality human resources to support Cambodia's rapidly evolving industrial, technology-oriented, and knowledge-based economy. The project interventions will target secondary resource schools that have received previous ADB support as well as equitably broadening the scope to raise standards in other upper secondary schools (USSs), including general technical high schools (GTHSs) across the country.

The project implementation support consultants (PIC) will provide technical assistance and guidance to the Ministry of Education, Youth, and Sport (MoEYS) in ensuring the successful and timely implementation and completion of STEP-UP in accordance with the project design, objectives and detailed components as described in the project administration manual (PAM) and other loan documents.

II. Scope of Work

The consultants will provide direct support to the Project Management Unit (PMU) and, when requested by the PMU, to the three implementing agencies (IAs): Institute of Technology of Cambodia (ITC), National Institute of Education (NIE) and the Directorate General of Education (DGE).

The overall duration of the PIC services will be 5 years. The PIC will also be based at PCU office located at 6th floor, New Admin Building, St.380, Sangkat Beoung keng kang I, Khan Boeung Keng Kang, Phnom Penh, Cambodia.

It is expected that members of the PIC team will undertake provincial field visits, as needed, where project activities are ongoing or planned.

III. Detailed Tasks and/or Expected Outputs

Duties will comprise assisting the PMU on the following specific tasks and any others as may be reasonably requested by the PMU in support of STEP-UP implementation. The Consultant will support the overall planning, coordination, and execution of project activities, including but not limited to:

- (a) Ensuring that project activities align with the project design, including any modifications that may be agreed during implementation;
- (b) Providing technical assistance and guidance to the PMU and, overseeing overall project administration with the PMU, Project Implementation Units (PIUs), and PMU's technical offices: : procurement and consulting requirements; preparing annual work plan and budget (AWPB),
- (c) Ensuring compliance with loan covenants, relevant ADB requirements and policies, the PAM, the gender action plan (GAP), financial management action plan, the risk assessment and risk mitigation action plan, social and environmental safeguard requirements, and other requirements;

- (d) Working closely with PMU and PIUs, including technical units (TUs), to monitor and assess regularly the achievements of the project outcomes and outputs as well as proposing technical solutions to address barriers that hinder successful achievements of the project outcomes and outputs;
- (e) Prepare, in coordination with the PMU, quarterly and consolidated annual reports; ;
- (f) Preparing a draft Project Completion Report; and
- (g) Do other tasks as assigned by project management.

DETAILED TERMS OF REFERENCE

A total of **362** person-months (pm) will be required, consisting of **102** pm of international inputs and **260** pm for national inputs. The PIC will provide the following international and national key experts whose scope of services and deliverables are defined below:

1. **International Team Leader/Learning Assessment and Education Management Specialist (40 person-months, intermittent, 2023–2028)**

Tasks and Responsibilities

The Team Leader will work with and support the STEP UP Project Management (the EA's PMU and PIUs) to ensure objectives and activities are met across the project's interventions. S/he, supported by the Deputy Team Leader, will be responsible for:

- (i) providing directions to and coordinating with international and national consultants of the PIC firm, and collaborating with other individual consultants and other services contract providers of the project in the performance and delivery of their activities and deliverables in a quality and timely manner;
- (ii) providing quality technical inputs to the EA's Project Director and Manager, the PMU's management team and the PIU heads toward ensuring achievements of targets and performance indicators presented in the project's design and monitoring framework (DMF), GAP and PAM through the following:
 - a. guiding the EA, the PMU management and the IAs/PIUs' on planning and monitoring their responsible interventions, milestone activities and targets and performance indicators as presented in the project's DMF and GAP;
 - b. guiding and coordinating with the PMU's and PIUs' responsible staff and consultants on planning, implementing and monitoring their responsible interventions and milestone activities as presented in PAM, Procurement Plan, Contract Award and Disbursement Projections Plan, Environment and Social Safeguards Plans; and
 - c. guiding and coordinating with the EA's assigned education specialists and IAs/PIUs' staff on planning, implementing and monitoring their responsible interventions and milestone activities at school level.
 - d. Supporting and providing oversight to Pre-Service Training and Continuous Professional Development (CPD) interventions at NIE, Secondary Resource Schools (SRS), SRS Network Schools, New Generation Schools (NGS), and other target upper secondary schools (USS) through the EA's and IAs' staff and education specialists;
- (iii) providing technical guidance to the PIC experts and EA's/IAs' responsible staff and education specialists in undertaking immediate impact studies or assessments of interventions under the project as well as establishing quality control measures and reporting systems to ensure immediate impact or positive changes of education interventions are regularly monitored, evaluated, and reported for necessary improvements and interventions;
- (iv) establishing quality control measures and reporting system to ensure civil works complies with and delivers high quality renovation, rehabilitation, and construction in accordance with the design standards (i.e., photographic and reported evidence at key construction stages) to be adhered to by project's site engineer(s) and the EA's supervising engineer;

- (v) ensuring the implementation of the GAP and other social safeguards requirements and reporting the achievements in quarterly progress and annual reports and semi-annual safeguards monitoring reports;
- (vi) overseeing the completion of baseline and other relevant studies and ensuring that data is disaggregated by gender, beneficiary groups (indigenous peoples) and region/province;
- (vii) working with and supporting the PMU to prepare the regular implementation progress of the project for reporting to the EA's head, and regular meeting of the project steering committee;
- (viii) working and supporting the PMU to prepare (i) quarterly and annual project implementation progress and (ii) semi-annual environment and social safeguards monitoring reporting for submission to ADB; and
- (ix) supporting the EA to prepare the project completion report for submission to Ministry of Economy and Finance and ADB.

Minimum Qualification Requirement

- (i) At least 15 years previous (education) program/project management experience required.
- (ii) At least 10 years school management and learning assessment experience required.
- (iii) Experience in STEM Education and/or EdTech would be an added advantage.
- (iv) Tertiary qualification in education.
- (v) Fluent English language skills (spoken and written).
- (vi) Data analysis, reporting and presentation skills would be an added advantage.
- (vii) Experience with education projects and programs in Cambodia, and/or other Southeast Asian project implementation experience required.
- (viii) Khmer language skills would be an added advantage.

2. International Education Technology (EdTech) Specialist (20 person-months, intermittent, 2023-2027)

Tasks and Responsibilities

The Education Technology Specialist (International) will have extensive experience in the application of digital technologies to improve education outcomes either in developed and, or developing country contexts. The EdTech specialist will work with and support the EA's assigned education specialists and IAs'/PPIUs' staff to ensure goals are met across key interventions of EdTech covering hardware, software, automation, data collection, professional development and student learning improvement. The overall focus will be to ensure integration of digital technologies to achieve education outcomes from a schooling perspective. As a key expert of the STEM-EdTech project team, the specialist will have responsibility for providing technical inputs to and work with the assigned specialists and staff in the development of a range of digital technology solutions in the project's target upper secondary schools (USSs), and throughout the various IAs. S/he will be responsible to:

- (i) collaborate with and assist the EA's assigned education specialists and IAs'/PIUs' staff to guide a specialized firm to design, develop, implement (deploy and train key stakeholders in the MoEYS-(EMIS Department, Department of Planning), and troubleshoot a modern "real-time" 20 school data collection and analysis system (school information system and education management information system/EMIS). This will include:
 - a. assisting the EA/IAs in managing a selected firm that will install, configure, and develop the capacity of the selected EA's education specialists and IAs' staff, education staff of provincial and district offices, and the project's targeted schools to be able to fully carry out their respective duties in data collection data, entering data, performing data analysis functions, data reporting and sharing, and managing OpenEMIS21 to meet school, provincial and national planning parameters;
 - b. incorporation of the OpenEMIS census and school information systems with rollout to all 554 USS during the 3-year training and operationalization period;

- c. assisting DGPP and/or DMIS in planning for and implementation of training to school directors of the targeted USS on the use of OpenEMIS at the school information level and to relevant Provincial Office of Education (POE) and District Office of Education (DOE) personnel for inclusion and oversight;
 - d. providing support to DGPP and/or DMIS in monitoring the use of the OpenEMIS system in 554 USSs as the basis for future expansion into all public schools (and possibly private schools); and
 - e. guiding and monitoring DGPP and/or DMIS in conducting evaluation study in Years 2 and 5 to capture lessons learned and immediate positive changes or impact resulting from the project's investment.
- (ii) Apply best practices²² in edtech to support the stem-edtech project team to develop and facilitate²³ a continuous professional development (CPD) program²⁴ for national institute of education (NIE) lecturers, general and technical upper secondary stem teachers, and school principals focused on integration of technology in teaching and learning, especially strengthening stem education in upper secondary schools (i.e., school-based stem framework, competency-based education and assessment, lab safety, and technology in:
- a. guiding and monitoring DIT and DGSE in conducting evaluation study in years 3 and 5 to capture lessons learned and immediate positive changes or impact resulting from the project's investment.
- (iii) provide digital education technical assistance to NIE to effectively implement an improved STEM practicum approach including a feedback system on the relevance of PRESET for program improvement;
- (iv) provide digital education technical assistance as needed to CDDE in the development of project-based learning, e- books, and training materials (OpenEMIS);
- (v) assist responsible IA/PIU in facility needs assessments (space requirements, electricity loads, device settings/placement etc.) prior to design and deployment of all EdTech equipment at the school, training institute, and MoEYS department levels
- (vi) provide technical input to the IA's technical department(s) and PMU's procurement team in preparing technical specifications for EdTech equipment procurement;
- (vii) guide, monitor, and provide continuous feedback and improvement for school level EdTech equipment deployment to ensure installation and training at targeted GTHS and USSs is completed satisfactorily;
- (viii) assist the VOD in the selection of service to develop and deliver digital education modules²⁵ including periodic feedback and monitoring of progress and deployment of the new modules and teacher capacity to deliver such modules;
- (ix) provide digital education advice, as required, during the design/implementation phase of the Cambodia Science and Technology Center (CSTC);
- (x) ensure the implementation of the GAP as it relates to EdTech in targeted USSs; and
- (xi) assist the project, where needed, on all other EdTech related issues as is prudently requested by the IA.

Minimum Qualification Requirement

- (i) A post-graduate degree in field of learning design and education technology is required or related field.
- (ii) At least 10 years' experience in design, development, and delivery of ICT solutions for education systems (school, government, and/or private sector).
- (iii) At least 7 years' experience with ADB, World Bank, or other major donor or government financed projects in the education sector.
- (iv) Prior experience in Cambodia and/or other Southeast Asian countries is desirable.
- (v) Strong English language skills required (spoken and written).

3. International Education Monitoring and Evaluation Specialist (12 person-months, intermittent, 2023 – 2028)

Tasks and Responsibilities

The specialist (International) will work closely with national M&E specialist, the PMU's/IAs' assigned education specialist/counterpart staff, and relevant international and national specialists. S/he will report to the PIC's International and National Team Leader and have overall responsibility for ensuring all project indicators are understood, agreed, and implemented. S/he will also be key to ensuring all project activities are properly monitored, the results of activities are evaluated, and support to project reporting is upheld. S/he will be responsible to:

- (i) develop a comprehensive project M&E framework (PMEF) to generate qualitative and quantitative data systematically on the project's outcome and output performance indicators as stated in the project (DMF), Risk Management Matrix (RMM), and other indicators for the project performance monitoring including STEM-school level framework, school-based management, continuous professional development programs for subject teachers and school management, joint-partnership programs, capacity development of technical and education specialists;
- (ii) develop tools for PMEF implementation and reporting to be used by the PMU's and IAs' to track, analyse and report the overall implementation progress of the project and produce report for the project steering committee, project management, project performance rating (PPR), quarterly and annual progress reports, project implementation support mission, midterm and project completion reports;
- (iii) assess the existing capacity of the PMU's and IAs' assigned M&E specialists/counterpart staff, based on the capacity assessment findings, conduct capacity and skills and offer assistance to them to strengthen the project monitoring and evaluation at all levels; provide technical support to the PMU's and IAs' assigned M&E education specialists/counterpart staff to conduct orientation training to (a) the EA's/IAs' education specialists/counterpart staff, and relevant PIC specialists and individual experts, and (b) school management of the project's target schools;
- (iv) provide technical inputs and, or recommend to the PMU, IAs' education research specialists/counterpart staff, and pic's team leader on specific evaluation or impact studies to ensure the project's key intervention elements/areas are covered and available secondary data/information is shared;
- (v) assess the requirement of any tools or digital platforms that can improve the reach, targeting, and reporting of activities (i.e., OpenEMIS, online surveys, collaborative documents, etc.) and provide technical input to the IA's technical departments and PMU's procurement team in finalizing ToRs for procurement specialist;
- (vi) assist the PIC team leader and EA's civil engineering- counterpart staff in establishing quality control measures and reporting systems to ensure civil works complies with and delivers high quality renovation, rehabilitation, and construction in accordance with the design standards;
- (vii) perform other tasks as maybe reasonably required by the EA and ADB.

Minimum Qualification Requirement

- (i) Post-graduate degree in the field of education policy implementation and monitoring, social sciences, and/or economics.
- (ii) At least 10 years' experience in designing and developing education M&E systems, and evaluation/impact assessment of education programs and policies.
- (iii) At least 5 years' experience with ADB, World Bank (WB), other major donors or government agency-financed projects in the education sector.
- (iv) Strong English language skills (written and spoken).
- (v) Experience in Cambodia and/or other Southeast Asian countries is desirable.

4. International Public-Private Partnership Specialist (2 person-months, 2023-2024)

Tasks and Responsibilities

The Public-Private Partnership Specialist (International) will have extensive experience in establishing public-private partnerships (PPP). The international PPP specialist will work closely with the national PPP specialist and the implementing agencies, in particular ICT and DGE to: (i) develop a PPP strategy for the proposed Cambodia Science and Technology Center (CSTC), and (ii) advise MoEYS on how best to develop and implement PPP approaches in secondary education with tertiary and private sectors.

The PPP specialist (international) will be responsible for:

- (i) collaborating with ITC, business and industry, development partners, and the CSTC Feasibility Study consultant to develop a strategic PPP plan, including marketing and/or promotional strategy, to be implemented during the establishment and operation of the CSTC;
- (ii) collaborating with DGE to develop a PPP approach to USE with tertiary education and private sectors, which engages students in exploring post-secondary career opportunities (i.e., tertiary advanced placement, work experience, internships and apprenticeships, summer institutes, private sector support to USS curriculum, instruction, and resources, etc.); and
- (iii) integrating gender and inclusive approaches, where appropriate and/or required.

Minimum Qualification Requirement

- (i) At least 10 years of experience in establishing public-private partnership (PPP).
- (ii) At least 5 years of experience in managing PPP in education sector.
- (iii) A tertiary qualification in education, TVET, industrial relations, or other related fields.
- (iv) At least 15 years of work experience, preferably with a focus in Southeast Asia.
- (v) Strong English language skills (spoken and written).
- (vi) Experience in the education and training area and/or with science/innovation centers would be desirable.

5. International Education and Vocational Education and Training Qualifications Specialist (4 person-months, Intermittent, 2023-2024)

Tasks and Responsibilities

The specialist will have overall responsibility for facilitating the consultancy objectives and supported by the Qualifications Harmonization Specialist (National), s/he will be responsible for:

- (i) providing technical input to VOD to develop a MoEYS's and MLVT's harmonized education and vocational training framework with action plan, including operational guidelines, on promoting learning and vocational training paths of upper secondary students;
- (ii) based on the approved harmonized framework and action plan, including the operational guidelines, providing technical input to VOD to design and implement partnership arrangements with training providers and industries;
- (iii) developing resource materials for USS Career Guidance Counsellors to support career preparation for secondary students;
- (iv) providing capacity building training to VoD of MoEYS on management, implementation, monitoring and reporting the approved harmonized framework and action plan, including the operational guidelines, and the materials for the career guidance counsellors;
- (v) collaborating with project team members where there is overlap or alignment with other elements of the project (i.e., STEM careers);
- (vi) performing other tasks as maybe reasonably required by the EA, IA and ADB; and
- (vii) ensuring the implementation of the Gender Action Plan as it relates to career preparation

Minimum Qualification Requirement

- 1) At least a post-graduate degree in education (general and/or technical) .
- 2) At least 10 year-experience in developing education and TVET qualifications frameworks and/or secondary/post-secondary education and TVET related organizational development and harmonizing of the general secondary/post-secondary education and TVET.
- 3) Strong English language skills (spoken and written).

- 4) A background in career guidance counselling and, or industry- partnerships and education and TVET marketing would be an added advantage.
- 5) Previous Cambodian and/or other Asian experience would be an added advantage.

6. International STEM Specialist (24 person-months, intermittent over 3 years)

Tasks and Responsibilities

As a key expert of the STEM-EdTech project team, the specialist will have responsibility for working with and advising the EA and IAs/PIUs specialists and staff at all level on the development of STEM Education in target secondary schools and throughout the various IAs of the EA. S/he will be responsible for:

- (i) collaborating with relevant EA's assigned education specialists and IAs'/PIUs' staff and the project's targeted USSs to develop and implement a school-based STEM Framework²⁷ leading to effective implementation of STEM curriculum at school level including:
 - (a) a suite of multi-level documentation (i.e., guides, action plans, assessment tools) appropriate for Cambodian schools of various capacities/facilities/types;
 - (b) a range of expected behaviors and achievable targets across key areas (i.e., school governance, instruction, assessment, lab designs, extracurricular activities, community outreach) to enable school leaders, teachers, and mentors to pro-actively drive change at school level;
 - (c) assessment strategies to evaluate school STEM Education capability and development; and
 - (d) an implementation plan to pilot the STEM Framework across 30 USSs with regular monitoring and evaluation to ascertain the suitability of the framework, while identifying appropriate refinements with a view to nationwide integration.
- (ii) co-leading the STEM-EdTech project team to develop and facilitate a continuous professional development (CPD) program²⁸ for NIE teacher-educators, general and technical upper secondary STEM subject teachers, and school principals focused on strengthening STEM curriculum implementation in USSs (i.e., school- based STEM Framework, competency-based education and assessment, lab safety, and technology in education), in co-ordination with NIE and ITC/CSTC;
- (iii) providing technical assistance to NIE to effectively implement an improved STEM practicum approach including a feedback system on the relevance of PRESET for program improvement on an annual basis;
- (iv) collaborate with the relevant EA's assigned education specialists and school-based STEM subject technical leaders, to support the integration and implementation of the school- based STEM Framework through professional learning communities (PLC);
- (v) building on the available designs and laboratory safety/operations guidelines produced under the upper secondary education sector development programs (USES DP and USESDP-2) to design/update a STEM classroom/laboratory safety system including teacher guidelines for safe laboratory practices, use of safety equipment, student safety induction guidelines and code of conduct, safety signage, and a reporting system for accidents.
- (vi) Providing technical input to NIE for the production of lab safety videos.
- (vii) providing advice, as required, during the design phase of the Cambodia Science and Technology Center (CSTC).
- (viii) ensuring the implementation of the Gender Action Plan as it relates to STEM Education in target upper secondary schools.

Minimum Qualification Requirement

- 1) A tertiary qualification in STEM education field is required.
- 2) At least 7 years teaching experience in secondary-level science and/or mathematics including competency- based education and assessment.

- 3) Strong English language skills (spoken and written).
- 4) A working knowledge of continuous professional development (CPD) approaches in school settings is desirable.
- 5) Previous Cambodian and/or other Southeast Asian project implementation experience would be an added advantage.

7. National Deputy Team Leader/Education Management Specialist (60-person months intermittent, 2023–2028)

Tasks and Responsibilities

The Deputy Team Leader will have overall responsibility for guiding the project activities and assisting the Team Leader. S/he will be responsible for assisting the Team Leader:

- (i) in the provision of technical and project management support;
- (ii) to schedule and coordinate all project interventions and consultant inputs;
- (iii) providing directions to and coordinating with international and national consultants of the project's implementation consultants (PIC) firm, and collaborating with other individual consultants and other services contract providers of the project in the performance and delivery of their activities and deliverables in a quality and timely manner;
- (iv) providing quality technical inputs to the Project Director, the PMU's management team and the PIU heads toward ensuring achievements of targets and performance indicators presented in the project's design and monitoring framework (DMF), Gender Action Plan (GAP) and Project Management Manual (PAM) through the following;
- (v) guiding the EA, the PMU management and the IAs/PIUs' on planning and monitoring their responsible interventions, milestone activities and targets and performance indicators as presented in the project's DMF and GAP;
- (vi) guiding and coordinating with the PMU's and PIUs' responsible staff and consultants on planning, implementing and monitoring their responsible interventions and milestone activities as presented in PAM, procurement plan, contract award and disbursement projections, environment and social safeguards plans; and
- (vii) guiding and coordinating with the EA's assigned education specialists and IAs/PIUs' staff on planning, implementing and monitoring their responsible interventions and milestone activities at school level;
- (viii) supporting providing oversight to Pre-Service Training (PRESET) and Continuous Professional Development (CPD) interventions at NIE, Secondary Resource Schools (SRS), SRS Network Schools, New Generation Schools (NGS), and other target upper secondary schools (USS) and the EA's and IAs' staff and education specialists;
- (ix) providing technical guidance to the PIC experts and EA's/IAs' responsible staff and education specialists in undertaking immediate impact studies or assessments of interventions under the project as well as establishing quality control measures and reporting systems to ensure immediate impact or positive changes of education interventions are regularly monitored, evaluated, and reported for necessary improvements and interventions;
- (x) establishing quality control measures and reporting system to ensure civil works complies with and delivers high quality renovation, rehabilitation, and construction in accordance with the design standards (i.e., photographic and reported evidence at key construction stages) to be adhered to by project's site engineer(s) and the EA's supervising engineer;
- (xi) ensuring the implementation of the Gender Action Plan and other social safeguards requirements and reporting the achievements in quarterly progress reports and semi-annual safeguards monitoring reports;
- (xii) overseeing the completion of baseline and other relevant studies and ensuring that data is disaggregated by sex, beneficiary groups (indigenous peoples) and region/province;
- (xiii) working with and supporting the PMU to prepare the regular implementation progress of the project for reporting to the EA's head, and regular meeting of the project steering committee;

- (xiv) working and supporting the PMU to prepare (a) quarterly and annual project implementation progress and (b) semi-annual environment and social safeguards monitoring reporting for submission to ADB; and
- (xv) supporting the EA to prepare the project completion report for submission to Ministry of Economy and Finance and ADB.
- (xvi) to carry out other tasks as may be required or instructed by the Team Leader.

Minimum Qualification Requirement

- (i) At least 10 years previous (education) program management experience required.
- (ii) Previous project planning and implementation experience of education projects funded by one or more of the Government's major development partners in Cambodia is required.
- (iii) Fluent English language skills (spoken and written)
- (iv) A tertiary qualification in education or a related field.
- (v) Computer applications proficiency such as MSWord, Excel, Power Point, Messenger, Telegram, and video conferencing through Zoom, Google Meet, and MS Teams.
- (vi) Experience in STEM Education and/or EdTech would be an added advantage.

8. National Education Technology (EdTech) Specialist (20 person-months, intermittent, 2023-2027

Tasks and Responsibilities

As a member of the STEM-EdTech project team, the national specialist will have responsibility for supporting the development of a range of digital technology solutions in target secondary schools, and throughout the various implementing agencies responsible to the project.

S/he will be responsible to support the international EdTech Specialist to:

- (i) collaborate with and assist relevant MoEYS departments to guide a specialized firm to design, develop, implement (deploy and train key stakeholders), and troubleshoot a modern "real-time" school data collection and analysis system (school information system and education management information system/EMIS). This will include:
 - (a) assisting MoEYS in managing a selected firm that will install, configure, and develop the capacity of selected MoEYS technical and education specialists, education staff of provincial and district offices (respective to targeted schools) to be able to fully carry out their respective duties in entering data, managing the system, and performing data analysis functions to meet national planning parameters;
 - (b) incorporation of the OpenEMIS census and school information systems with rollout to all 554 USS during the 3-year training and operationalization period;
 - (c) assisting DGPP in planning for and implementation of training to school directors of targeted USS on the use of OpenEMIS at the school information level and to relevant POE and DOE personnel for inclusion and oversight;
 - (d) providing support to MoEYS in monitoring the use of the OpenEMIS system in 554 USS as the basis for future expansion into all public schools (and possibly private schools); and
 - (e) guiding DGPP in conducting evaluation research in Years 2-5 to capture lessons learned and immediate positive changes or impact resulting from the project's investment.
- (ii) apply best practices in EdTech to support the STEM- professional development (CPD) program³⁰ for National Institute of Education (NIE) lecturers, general and technical upper secondary STEM teachers, and school principals focused on strengthening STEM Education in upper secondary schools (i.e., school-based STEM Framework, competency-based education and assessment, lab safety, and technology in education);
- (iii) provide digital education technical assistance to NIE to effectively implement an improved STEM practicum approach including a feedback system on the relevance of PRESET for program improvement;
- (iv) provide digital education technical assistance as needed to CDDE in the development of project-based learning, e- books, and training materials (OpenEMIS);

- (v) assist MoEYS in quality assurance (appropriate devices to be selected based on need and application) of all stages of EdTech equipment procurement;
- (vi) assist MoEYS in facility needs assessments (space requirements, electricity loads, device settings/placement etc.) prior to design and deployment of all EdTech equipment at the school, training institute, and MoEYS department levels;
- (vii) guide, monitor, and provide continuous feedback and improvement for school level EdTech equipment deployment to ensure installation and training at targeted GTHS and USS is completed satisfactorily;
- (viii) assist the VOD in the selection of service to develop and deliver digital education modules including periodic feedback and monitoring of progress and deployment of the new modules and teacher capacity to deliver such modules;
- (ix) provide digital education advice, as required, during the design/implementation phase of the Cambodia Science and Technology Center (CSTC);
- (x) ensure the implementation of the Gender Action Plan as it relates to EdTech in targeted upper secondary schools; and
- (xi) assist the project, where needed, on all other EdTech related issues as requested by the international specialist.

Minimum Qualification Requirement

- 1) A tertiary qualification in education or related fields in combination with a deep understanding of IT.
- 2) At least 5 years' experience in design, development, and delivery of ICT solutions for education systems (school, government, and/or private sector).
- 3) Computer applications proficiency such as MSWord, Excel, Power Point, Messenger, Telegram, and video conferencing through Zoom, Google Meet, and MS Teams.
- 4) Strong English language skills are required (spoken and written).

9. National Environment Consultant (PISC-EC) (8 person months intermittent, 2023-2028)

Tasks and Responsibilities

The consultant will provide technical assistance and support to the PMU and PIUs/IAs in fulfilling their responsibilities for EMP implementation, monitoring and reporting and safeguard documentation.

The role will include and not be limited to:

- (i) PISC-EC will function as point of contact for the DSCF EHS consultant and will co-ordinate all safeguard activities for the project including:
- (ii) Procurement: Ensure EMP is part of bidding documents.
- (iii) Review environmental capacity and experience of DSCF during recruitment.
- (iv) Document Reviews: Review and clear any contractor response to bidding document environmental requirements on behalf of the PMU, ensuring the contractors' response to the bidding documents is fully responsive to the project environmental safeguard requirements.
- (v) Prepare the semi-annual Environmental Monitoring Reports for submission to ADB.
- (vi) Update IEE and EMP to reflect final project design, as needed, or in case of unanticipated impacts, for submission to ADB.
- (vii) Grievance Redress Mechanism and disclosure: Ensure GRM is established and functions during implementation. Record all GRM complaints and resolutions. Ensure the EMP is translated into Khmer and disclosed locally.
- (viii) Permits: Ensure the contractor and/or project owner has requisite permits and permissions are in place for all works.
- (ix) Training: Raise awareness of ADB environmental safeguards requirements for the project within PMU and participating schools are aware of key steps in the ADB environmental safeguards process. Conduct training for the GRM focal points to ensure their roles and responsibilities are understood.

Minimum Qualification Requirement

- 1) The safeguards specialist shall have a graduate or post-graduate degree in environmental engineering/sciences, sociology, applied social sciences, or equivalent discipline.
- 2) At least 7 years' experience in environmental management, monitoring, impact assessment, and environmental safeguards implementation.
- 3) Working knowledge of ADB environmental safeguards requirements and national environmental management procedures.
- 4) Willingness to regularly travel to the project sites; ability to communicate and work effectively with local communities, contractors, and government agencies.
- 5) Good Khmer and English language communication skills (oral and written) and problem-solving skills; ability to analyze data and prepare technical reports.
- 6) Computer applications proficiency such as MSWord, Excel, Power Point, Messenger, Telegram, and video conferencing through Zoom, Google Meet, and MS Teams.

10. National Gender Equality and Social Inclusion (GESI) Specialist (20 person-months, intermittent, 2023 - 2028)

Tasks and Responsibilities

The National GESI Specialist will be responsible to:

- (i) ensure the project GAP is translated into Khmer and distributed to all target stakeholders at all levels during the first quarter (Q1) of the project's implementation;
- (ii) orient the GMSP focal points to the GAP and assist them in monitoring GAP activities in line with the MoEYS Gender Mainstreaming Strategic Plan in Education (GMSP 2021- 2025) and the SDG indicators on gender and education;
- (iii) lead in the provision of training on GESI in collaboration with external GESI resource persons;
- (iv) ensure MSS development process takes into consideration gender equality and social inclusion principles and elements;
- (v) ensure that all STEM teachers in target schools receive training on GESI and promote real time application at their school level;
- (vi) ensure that gender equality and social inclusion (GESI) principles are integrated in the content and pedagogical process of target upper secondary schools (USS);
- (vii) provide technical support in the inclusion of gender equality and social inclusion principles in the design and adaptation of innovative teaching and learning materials in teaching STEM;
- (viii) take active part in all phases of Cambodia Science & Technology Center (CSTC) implementation;
- (ix) ensure regular monitoring and reporting - at last quarterly - to the PMU and Asian Development Bank (ADB) on the progress of the GAP's implementation;
- (x) work with the PMU monitoring and evaluation (M&E) consultants and GMAG members to gather sex-disaggregated quantitative and qualitative information on the impacts of all project interventions on beneficiaries (e.g., via success stories, case studies, and quality of life changes) of USS teachers and non-teaching staff - especially on STEM-related work experiences;
- (xi) assist the PMU and GMAG focal points to track male and female USS student STEM performance (based on school assessments); monitor the disbursement and evaluate the impact of the external STEM skills extra-curricular program for USS students;
- (xii) conduct field monitoring missions to collect data reflecting progress on GAP targets and indicators, and prepare GAP progress reports to be submitted;
- (xiii) based on the findings from regular monitoring of GAP implementation and field visits, review and refine GAP activities with the main aim of ensuring intended gender results will be achieved;
- (xiv) ensure that the project's monitoring reports inform gender equality outcomes for the annual MoEYS Education Congress Reports;

- (xv) support the GMAG to attend the Annual Review Meetings of the Cambodian National Council for Women (CNCW), and feedback relevant information to the MoEYS departments involved in all CAM STEP UP project outputs;
- (xvi) work with multi-media agencies and communication consultants to showcase GESI-responsive STEM Education practices, including outstanding female students;
- (xvii) provide support for ADB review mission teams to ensure that GAP implementation is being adequately assessed and reported on; and
- (xviii) Prepare gender equality results at project completion
- (xix) perform other duties, as necessary.

Minimum Qualification Requirement

- (i) At least 7 years of experience in gender-related work in education, including the provision of capacity building, mentoring/on-the-job training.
- (ii) A tertiary qualification in social sciences, development studies, gender, or a related discipline.
- (iii) In-depth, working knowledge of the Gender Equality and Social Inclusion (GESI) Framework.
- (iv) A working knowledge of gender, diversity, and education policies and practices in Cambodia.
- (v) Previous experience on multilateral development projects, preferably financed by development partners including ADB.
- (vi) Strong English language skills (spoken and written).
- (vii) Computer applications proficiency such as MSWord, Excel, Power Point, Messenger, Telegram, and video conferencing through Zoom, Google Meet, and MS Teams.

11. National Monitoring and Evaluation Specialist (25 person-months intermittent, 2023–2028)

Tasks and Responsibilities

The Monitoring and Evaluation Specialist (National) will support the international M&E Specialist to:

- (i) develop a comprehensive project M&E framework that ensures all indicators are properly accounted for, monitoring of such indicators is standardized, and leads to international standard evaluation of key activities;
- (ii) support the implementing agencies (IA) to prepare a report identifying M&E capacity gaps for relevant MoEYS departments containing recommendations for strengthening of M&E systems with data disaggregated by sex, age, and disability completed and endorsed by project leadership;
- (iii) support the project to develop the capacity of collecting, monitoring, reporting, and analyzing sex-, and age- disaggregated data on program implementation;
- (iv) work with all project consultants and IAs to ensure the M&E framework is understood and properly implemented including social inclusion and gender issues;
- (v) assess the existing M&E capability at MoEYS and offer assistance to strengthen project monitoring where need be;
- (vi) support developing a detailed plan to strengthen the monitoring and evaluation mechanisms;
- (vii) assess the targeted groups (staff, students, schools, etc.) to ensure ADB guidelines in economic status, geographic coverage, age, gender, disability, and other measures of vulnerability are adhered to and suggest measures for improvement;
- (viii) recommend measures, prepare training proposals, and conduct trainings to improve the performance of the M&E program;
- (ix) assess the requirement of any tools or digital platforms that can improve the reach, targeting, and reporting of activities (i.e., OpenEMIS, online surveys, collaborative documents, etc.); and

- (x) assist the team leader in establishing quality control measures and reporting systems to ensure civil works complies with and delivers high quality renovation, rehabilitation, and construction in accordance with the design standards.

Minimum Qualification Requirement

- (i) Tertiary qualification in the field of education policy implementation and monitoring, social sciences, and/or economics.
- (ii) At least 5 years' experience in designing and developing M&E systems that focus on education systems (school, government and/or private sector).
- (iii) At least 3 years' experience with ADB, World Bank (WB), other major donors or government agency-financed projects in the education sector.
- (iv) Strong English language skills (written and spoken).

12. National Public-Private Partnership Specialist (3 person-months, 2023-2024)

Tasks and Responsibilities

The Public-Private Partnership Specialist (National) will have responsibility for supporting the international specialist to:

- (i) collaborate with the Institute of Technology Cambodia (ITC), business and industry, development partners, and the CSTC Feasibility Study consultant to develop a strategic PPP plan to be implemented during the establishment and operation of the CSTC;
- (ii) collaborate with the Directorate-General of Education (DGE) to develop a PPP approach to upper secondary education with tertiary and private sectors, which engages students in exploring post-secondary career opportunities (i.e., tertiary advanced placement, work experience, internships and apprenticeships, summer institutes, private sector support to USS curriculum, instruction, and resources, etc.); and
- (iii) integrate gender and inclusive approaches, where appropriate and/or required.

Minimum Qualification Requirement

- 1) At least 5 years of experience in establishing public-private partnership (PPP) in Cambodia.
- 2) A tertiary qualification in education, TVET, industrial relations, or other related fields.
- 3) Strong English language skills (spoken and written).
- 4) Computer applications proficiency such as MSWord, Excel, Power Point, Messenger, Telegram, and video conferencing through Zoom, Google Meet, and MS Teams.
- 5) Experience in the education and training sector would be desirable.

13. National Qualifications Harmonization Specialist (14 person-months, 2023-2024)

Tasks and Responsibilities

The Qualifications Harmonization Specialist (National) will have responsibility for supporting the international specialist to:

- (i) providing technical input to VOD to develop a MoEYS's and MLVT's harmonized education and vocational training framework with action plan, including operational guidelines, on promoting learning and vocational training paths of upper secondary students;
- (ii) based on the approved harmonized framework and action plan, including the operational guidelines, providing technical input to VOD to design and implement partnership arrangements with training providers and industries;
- (iii) developing resource materials for USS Career Guidance Counsellors to support career preparation for secondary students;
- (iv) providing capacity building training to VoD of MoEYS on management, implementation, monitoring and reporting the approved harmonized framework and action plan, including the operational guidelines, and the materials for the career guidance counsellors;
- (v) collaborating with project team members where there is overlap or alignment with other elements of the project (i.e., STEM careers);
- (vi) performing other tasks as maybe reasonably required by the EA, IA and ADB; and

(vii) ensuring the implementation of the Gender Action Plan as it relates to career preparation.

Minimum Qualification Requirement

- (i) A tertiary qualification in education (general and/or technical) or another relevant field.
- (ii) At least 7 years' experience in general education and/or technical and vocational education and training (TVET).
- (iii) Strong English language skills (spoken and written).
- (iv) Computer applications proficiency such as MSWord, Excel, Power Point, Messenger, Telegram, and video conferencing through Zoom, Google Meet, and MS Teams.
- (v) A background in career guidance counselling would be an added advantage.

14. National STEM Subject Specialists (3 specialists required, 3*36 person-months)

Tasks and Responsibilities

The STEM Subject Specialists (National) will support the international specialist to:

- (i) provide advice and local context to the international STEM specialist to support the development of the school-based STEM Framework;
- (ii) work within the STEM-EdTech project team assisting in the design and delivery of a continuous professional development (CPD) program³¹ for National Institute of Education (NIE) lecturers, general and technical upper secondary STEM teachers, and school principals focused on strengthening STEM Education in upper secondary schools (i.e., school-based STEM Framework, competency-based education and assessment, lab safety, and technology in education);
- (iii) collaborate with school-based mentors to establish professional learning communities (PLC) in target USS using a phased approach and incorporating follow-up sessions to ensure ongoing teacher support and sustainability of CPD learning outcomes;
- (iv) liaise with school-based STEM department heads and mentors, and other key personnel to support the integration of the school-based STEM Framework through professional learning communities (PLC);
- (v) assist in the establishment of national/sub-national professional subject associations to promote sharing and learning among STEM teachers (i.e., Secondary Mathematics Teachers Association).
- (vi) collaborate with the EdTech Specialists to ensure integration of technology in STEM ensure integration of technology in STEM teaching in target USS classrooms;
- (vii) work with the STEM-EdTech project team and MoEYS personnel in the design and implementation of a competency- based STEM assessment; and
- (viii) to design a laboratory safety system appropriate to the local context.

Minimum Qualification Requirement

- (i) A tertiary qualification in a STEM subject
- (ii) At least 5 years teaching experience at upper secondary level in Cambodia in 2 or more STEM subjects selected from:
 - a. Chemistry
 - b. Biology
 - c. Physics
 - d. Earth Sciences
 - e. ICT
 - f. Mathematics
- (iii) Strong Khmer and English language skills (spoken **and written**).
- (iv) A working knowledge of continuous professional development (CPD) approaches in school settings including professional learning communities would be an added advantage.
- (v) Previous experience in education project implementation would be an added advantage.

15. National TVET Specialist (National, 2 person-months)

The specialist will provide technical assistance to the project team in relation to the upgrade of STEM equipment in GTHS workshops, with a view to strengthening the teaching and learning of STEM principals in the technical education program. In particular, s/he will be responsible for:

- (i) preparing an inventory of the existing STEM teaching and learning equipment in the 4 target GTHS;
- (ii) conducting a needs assessment to determine the requirements for STEM teaching and learning equipment;
- (iii) preparing a recommended shopping list, including detailed technical specifications, for STEM teaching and learning equipment to be procured;
- (iv) providing guidance to the target GTHSs in relation to proper positioning, training, maintenance, and use of workshop safety equipment; and
- (v) ensuring all work will be aligned with the CAM STEP UP Gender Action Plan (GAP).

Minimum Qualification Requirement

A TVET qualification in a STEM-related major.

- (i) At least 5 years teaching experience of a STEM-related major in a technical education program at a GTHS such as electricity, electronics, agronomy, animal husbandry, food processing, etc.
- (ii) Capacity to understand the STEM equipment needs of multiple STEM-related majors.
- (iii) Strong English and Khmer language skills (spoken and written).
- (iv) Computer applications proficiency such as MSWord, Excel, Power Point, Messenger, Telegram, and video conferencing through Zoom, Google Meet, and MS Teams.
- (v) Previous experience in education project implementation would be an added advantage.

IV- Outputs

The outputs of the International Team Leader/Project Implementation Specialist and National Deputy Team Leader/Project Implementation Specialist will comprise monthly and/or quarterly and consolidated annual reports on all project activities, as described in their TOR in Section V and included in the PAM. The format of the reports will be agreed with the MoEYS Project Manager at the start of work. Reports shall be as concise as possible, consistent with the need for comprehensive monitoring of all inputs.

In addition to monthly and quarterly/annual reports, the two Project Implementation Specialists shall from time to time, upon reasonable written requests from the MoEYS Project Manager, investigate, prepare and submit reports on any matter related to Project content and progress. The format and content of such ad hoc reports shall be agreed between the two Project Implementation Specialists and the Project Manager.

Other expert members of the Project Implementation Consultants' team shall produce reports on their work as agreed at contract negotiations and detailed in the final contract between MoEYS and the contracted consultant firm. For the purpose of preparing and submitting this RFP, it may be assumed that each expert (or pair of experts when an international and national expert are working together) shall submit to the MoEYS Project Manager, copied to others that may be specified by him:

- (a) a brief Inception Report 2-3 weeks after their input commences, highlighting any issues or hindrances that may affect data collection, analysis and timely completion of the final output required;
- (b) an Interim Report after approximately 65% of the scheduled time input has been completed, indicating progress and any key issues that require consideration by the MoEYS Project Manager;
- (c) a draft Final Report 2-3 weeks before their scheduled input is complete;
- (d) a Final Report upon completion of their scheduled input, taking account of comments received on the draft;
- (e) Support in the preparation of the project completion report
- (f) Specific outputs by each task in the ToR.

V. Counterpart Facilities

The Project Implementation Consultants shall be provided with airconditioned office space at the PCU office located at 6th floor, New Admin Building, St.380, Sangkat Beoung keng kang I, Khan Boeung Keng Kang, Phnom Penh, Cambodia. Basic office furniture including desks, chairs, filing cabinets and storage cupboards will be provided, together with a photocopier.

MoEYS will provide copies of all available background reports, school location maps and lists of current facilities relating to the work required on STEP-UP.

VI. Downstream Work

At this stage, downstream work by the Project Implementation Consultants is not foreseen.

VII. Reporting Requirements and Time Schedule for Deliverables

To be provided by the consultant firm.

VIII. Training and Capacity Building

Will discuss during the contract implementation as required.

IX. Deliverables

- (i) Consolidated annual progress reports.
- (ii) Support in the preparation of the government's project completion reports as specified in PAM