

DRAFT TERMS OF REFERENCE

1. The implementation period of the transaction technical assistance (TRTA) will last 18 months, from January 2020 to June 2021, with the Asian Development Bank (ADB) as the executing agency. The government of Australia will review and provide technical inputs and guidance in finalizing the consultants' outputs. The TA will use consulting services from a firm and individual consultants. The TA will mobilize and engage an estimated 43.5 person months of total consulting services.

2. A firm will be recruited to help prepare the investment project, undertake the necessary due diligence and support project readiness and project management capacity. National individual consultants will also be recruited to provide advisory support, assist the government during project start-up including preparation of the project management unit recruitment and coordination work. Both the consultancy firm and national consultants will be selected and supervised by ADB while both ADB and DHERST will supervise and provide guidance in preparing and finalizing the outputs to be delivered for the ensuing project. The Government of Australia will also provide feedback and guidance as necessary.

I. CONSULTANCY FIRM

A. Objectives of the Assignment

3. The purpose of the assignment is to prepare the investment project, undertake due diligence, and project documentation for the Improved TVET for Employment in Papua New Guinea (PNG). The firm will also assist in building the capacity of the government during their assignment including implementing project management trainings and coaching as required.

B. Selection Method

4. The selection of the firm will be done through a quality and cost-based selection method with a quality cost ratio of 80:20 and full-technical proposal. The terms of reference are output-based as opposed to traditional input-based terms of reference. The specific outputs for the consultant firm are described below. The firm will be requested to focus on proposing how to produce and deliver the required outputs of high quality rather than on proposing quality inputs for the consulting service. It is estimated that the firm will be engaged from January to October 2020.

C. Scope of Services

5. Outputs and deliverables will include the following:

1. Project scoping and design

6. The output will include the scoping and designing of the project to improve priority TVET colleges proposed by the government¹ for better outcomes and increase employment opportunities in priority sectors such as construction trade and agriculture/agribusiness in the

¹ Indicative priority institutions include: Port Moresby Technical College, Bougainville Technical College, Madang Technical College, Mt Hagen Technical College, Highlands Agricultural College, Goroka Technical College, PNG National Polytechnic Institute, West New Britain Technical College, Western Province Technical College and Don Bosco Technical Institute.

context of the Higher and Technical Education Reform Act 2019. Key sector analysis and assessments will be required to effectively scope and prepare the project design. The relevant key output areas and assessments would include, but are not necessarily limited to the following:

- (a) **Existing governance and management capacity of TVET institutions.** Assessment of the interventions required for the governing councils, principals and senior staffs to enhance the overall governance and management capacity and promote competitiveness of priority TVET institutions. It will include consideration of the governance manual developed by DHERST and how TVET institutions will comply with the new accountability and compliance requirements such as in the areas of (i) financial and strategic planning, management and current monitoring and evaluation systems, including information requirements for monitoring the quality of TVET and assess current hardware and software in use and identify investment needs to improve data collection; (ii) budgeting; (iii) resource utilization and overcoming resource constraints and developing alternative revenue streams; (iv) effective and efficient management of physical and technological infrastructure and equipment; leadership and people management skills; (v) program quality assurance ensuring the match between program offerings and the demand of enterprises, industry and the economy; and (vi) support for enrolled students to achieve their learning goals. It will explore opportunities on whether and how governing councils, principals and senior staff such as from DHERST and priority technical colleges could be exposed to best practices in the governance and management of TVET in other countries. Assessment will also be done on how a framework could be established and what pilot initiatives are feasible for technical colleges to partner with secondary technical schools, supporting further the concept of Centers of Excellence acting as central points to satellite schools, to increase pathway opportunities for secondary students to post-secondary TVET (e.g., 2-3 schools per TVET institute).
- (b) **Delivery capacity and quality of TVET provision in priority sectors.** Assessment will focus on priority institutions and identify the skills and capacity of teachers to design and deliver quality education in priority sectors such as construction trade and agribusiness/agriculture and explore additional support required for the training packages to be developed by DHERST through the National Skills Development Agency. Assessment on skills and capacity of teachers include: (i) current in-service training system for TVET teachers, including content of training programs and delivery modalities with consideration of potential gender issues; (ii) capacity of the TVET institutes and recommend strategies to further strengthen their teaching capacity; (iii) pre-service training of TVET teachers; (iv) provide recommendations to further strengthen continuous professional development of TVET teachers and managers considering financial, intuitional, organizational and gender aspects and innovative delivery mechanisms and ways to upgrade teachers' skills; (v) explore mechanisms to prevent turnover of newly qualified teachers from the training and industry e.g. trainer career ladders; (v) undertake a feasibility study of having TVET trainers in partnership with industry and enterprises whereby teachers will have time to spend in industry to update their industry knowledge and skills; and (vi) assess the possibility of working in partnership with and further utilizing the expertise of existing teacher training providers (e.g. Australia Pacific Training Coalition (APTC)). The assessment will also identify a location where there is capacity and commitment to establish and develop TVET teacher training and what support are required for this to occur. Currently TVET teacher training is only being delivered to some

degree by Australia Pacific Technical Colleges under its Phase 3 program. Assessment will also look at the curriculum development procedures and recommend strategies to strengthen curriculum development and ensure that it responds to labor market demands and capacity required especially in priority sectors.

- (c) **Promotion of demand-driven TVET in priority sectors.** Related to the above, this will include assessment of key labor markets and industries in PNG particularly in construction trade and agriculture/agribusiness where there are opportunities for growth and demand for TVET services. The key areas to be covered include baseline survey and analysis of the current and projected demand and supply of skills in construction trade and agriculture/agribusiness; interaction between skills provision and these industries including seeking good models of industry linkages in PNG which could be adopted; feasible coordination strategies and mechanism among government agencies, training providers, industries, chambers of commerce and other relevant organizations to guide the design and revision of training programs and recommendations for enterprise-based training. The assessment will make use and update the Needs Analysis Study of TVET PNG Colleges (2011)² during the course of work with special focus on construction trade and agribusiness/agriculture.
- (d) **Skills development in agriculture.** Especially the assessment related to agribusiness/agriculture will look at the specific characteristics and potential of agriculture sector in PNG and barriers and opportunities for business and employment along the agriculture value chain. It will identify the types of programs and approaches necessary to equip the students with the skill sets to successfully gain employment, in consultation with agribusiness companies, or create their own livelihood through entrepreneurship. The assessment will identify what other factors contribute to the success of the sector and what sort of skills will be necessary to maximize its potential. Special attention will be provided on the skills and facilities/technologies necessary to promote climate smart agriculture and high-value agricultural products.
- (e) **Access to and equity in TVET provision.** Assessment on the incentives and barriers to participate in TVET including women and students from low income families and available programs to assist students' employment after graduation.
- (f) **Required TVET infrastructure upgrade and equipment support in priority sectors.** This will include a study to assess, quantify and cost and rank the infrastructure and equipment needs of selected TVET institutes for the construction trade and agribusiness/agriculture programs based on strategic plans, priority industry areas, availability of student pathways and any audits and inventory previously conducted. Based on the study, identify the most effective and feasible way to provide infrastructure support drawing from similar experience in PNG either by private or donor agencies. One option is to design a sustainable equipment and infrastructure fund that includes incentives for institutions to demonstrate progress in managing infrastructure and equipment and look at how the fund could be expanded through national and local government's own budget, financing with other donors, or through the public-private partnership modalities. From this said option, a transparent and robust mechanism for institute to apply funding and be held accountable for approved projects will also be established through performance-based funding categories. Selection criteria to include

² This report was commissioned through the Education Resource Facility - an Australian Government, AusAID-funded initiative.

(i) evidence of demand such as demonstrated support from industry, data relating to skills gaps and/or employment opportunities; (ii) tracer studies from previous student cohorts quantifying employment outcomes; (iii) inclusion of partnerships with local secondary schools/vocational training centers to provide pathways for students and/or knowledge transfer for teachers; (iv) evidence of the link to the institutional strategic and/or business plan; (v) ability to manage the project including costing, budgeting and reporting against milestones and indicators of success; and (vi) evidence of innovation in training content and delivery methodology. Initial support will be provided to each selected institute to help develop their application for funding.

- (g) **Skills transfer and employment from infrastructure programs.** Assessment of possible mechanisms that would facilitate skills transfer from international contractors to locals and potential employment in infrastructure projects. The assessment can draw from the experience of relevant countries applicable in PNG. An assessment and design of a potential national forum, in conjunction with the National Skills Development Agency, and how to ensure its relevance and effectiveness will also be undertaken. This national forum will invite key stakeholders such as companies, contractors, training provider and government agencies to share global practices and case studies on skills transfer initiatives for large projects; report on initiatives undertaken to increase the proportion of PNG nationals employed in infrastructure projects and on progress made to date; discuss impediments to and incentives for skills transfer and employment of nationals; reach consensus on steps to make greater progress and document these in a communique or similar. Recommendations on how partnership between training providers and companies/contractor to ensure training availability for future infrastructure projects could be facilitated and support to the government in strengthening partnership mechanisms for skills transfer and employment according to the conclusions of the national forum will be provided.

2. Project Due Diligence

7. **Sector assessment.** A separate sector assessment will be produced which include overall sector performance, problems and opportunities, sector strategy and ADB sector assistance and experience and potential strategic focus and how it fits into the overall sector work in the country.

8. **Social and Gender Assessment.** A poverty, social and gender assessment will be carried out and contribute to the project design and preparation of the required project documentation based on ADB requirements. The report will include (i) assessment of poverty, social and gender issues in TVET; (ii) assessment of the gender-based violence in TVET colleges and measures to address gender-based violence issues in the project; (iii) identifying interventions to address challenges and constraints in the TVET system particularly in reducing gender gaps in TVET (e.g., overall enrolments, female enrolments in non-traditional fields, share of teaching staff); (iv) identifying priority interventions and procedures to promote participation by and benefits to women, the poor, indigenous people, and other disadvantaged groups in the proposed project³ (v) include summary poverty reduction and social strategy and gender action plan in the report based on the opportunity to mainstream gender or promote gender equality in the project as per ADB requirements. The assessment should also be able to contribute to the

³ Assessment will also draw from the findings of the IFC Study on the potential need for an all-female construction trade training college.

project design and monitoring framework and collect key sex-disaggregated baseline data to be monitored during the project implementation.

9. **Financial Due Diligence.** Conduct financial due diligence based on the proposed project design and components, including financial sustainability analysis and evaluation, preparing detailed financial models for the project and making recommendations on how to achieve sustainability and viability along with relevant financial covenants. Undertake a financial management capacity assessment of the executing agency and implementing agency, which will include identifying areas of internal control where ADB could assist the implementing agency/executing agency to improve their financial management and reporting. This includes an assessment of all the selected TVET colleges to be supported by the project according to the requirement of ADB and at the same time how they can improve their financial management (Output 1). Design disbursement arrangements and funds flow mechanism for the project and auditing and any necessity for capacity for using Advance procedure or the Statement of Expenditure procedure, prepare detailed project cost estimates for all project activities including financial benefit analysis and sensitivity analyses of project components that have a cost-recovery objective, and conduct an assessment of integrity risks. Identify and justify if there is a need for use of the imprest fund and determine capacity to manage it. The firm will prepare the relevant text for inclusion in the Project Administration Manual and other Report and Recommendation of the President (RRP) linked documents in ADB format as required. Financial management guidance materials are available at <https://www.adb.org/projects/operations/financial-management-resources>.

10. **Economic Due Diligence.** Undertake project economic analysis covering key areas as outlined in *ADB. 2017. Guidelines for the Economic Analysis of Projects. Manila*. This will include, among others, project cost-benefit analysis including sensitivity and risk analysis on key variables, as well as distribution analysis including calculation of the project's poverty impact ratio, to gauge the project's overall economic net benefits. Quantifying project benefits may require the development and conduct of surveys with key students and key industries.

11. **Procurement Assessment.** The deliverables will include (i) assessing the procurement capacity of concerned government agencies, (ii) providing training and guidance to procurement matters, where needed based on the emerging project design and potential TVET institutions to prioritize, (iii) developing potential lists of goods and services to be procured under the project and prepare an indicative procurement plan in accordance with government regulations and ADB's Procurement Guidelines; (iv) preparing terms of reference for the project management unit and other required consultants during project implementation in accordance with ADB Procurement Policy (2017, as amended from time to time) and (v) setting up a documentation and monitoring system for procurement activities to ensure timely project implementation progress.

12. **Safeguards Due Diligence.** Prepare safeguards due diligence consistent with the project designs for involuntary resettlement, environment, and indigenous peoples in accordance with ADB's Safeguards Policy Statement 2009 (SPS) and country safeguard systems. The environmental assessment will be commensurate with the potential risk and level of environmental impact identified during the screening. The environmental assessment will elaborate the baseline and impacts identified during the assessment. The assessment will clearly define and show on maps and drawings the project impact area if necessary. The assessment will include an environmental management plan if there will be civil works. The structure of the report will be agreed with ADB. Prepare either a due diligence report (DDR) or a Land Acquisition and Resettlement Action Plan (LARP) under social safeguards. The DDR will be prepared for

government land or existing government lease. If any private land is required to be acquired, restriction on land use or access will take place, assets on private or government land will be affected, or an easement created for any land-based infrastructure, a LARP is to be prepared. If some components of the project (including specific sites) will not be known upon project approval, then a resettlement framework to guide the safeguards planning for such components will be prepared. For existing sites that have already been acquired prior to the project, an audit will be undertaken to check if there are any outstanding involuntary resettlement issues and prepare a corrective action plan as required. All these documents will be prepared in accordance with ADB SPS requirements and prescribed templates. If screening reveals that indigenous peoples (IPs) are present in or have a collective attachment to the project area(s) and the project will have potential positive and adverse effects on IPs, an indigenous peoples plan (IPP) will be prepared. If IPs are the majority of project beneficiaries and when only positive impacts are identified, a separate IP plan is not required but the elements of an IP plan are integrated in the overall project design. This also requires assisting the government to organize free, prior and informed consultations with the affected IP communities about the project and that there is broad community support for the proposed project. The consultant will also prepare for a Stakeholder Consultation and Participation Plan including the timing, type and facilitation of consultations with key stakeholders including women.

13. **Risk Assessment and Risk Management Plan.** In accordance with ADB's format.
14. **Assessment of fraud and corruption.** Assessment of fraud and corruption related risks concerning all project activities, and preparation of the mitigation plan for these risks. ADB published project procurement related reviews on transport sector projects and a water project in PNG will be referred to in undertaking the assessment.
15. **Project Administration Manual.** Prepare the Project Administration Manual and detailed implementation plan based on the final project design. This includes identifying the overall implementation arrangements and structure including involvement of the provincial government and priority institutions during implementation, timeline to ensure timely execution of proposed project components taking into account the reform measures being proposed and the time it will likely take to activate these reforms and composition of the project management unit, consultant experts and other potential staff resources within the government, procurement, project monitoring and reporting. The institutional capacity of the implementing agency and other relevant government offices in sustaining the project outputs will also be assessed to identify capacity building activities which could be integrated into the project design. The existing management information system will be assessed and recommendations on how to further improve its functionality to support the project and serve the overall management needs of DHERST will also be taken into account in designing the project.
16. **Project readiness and project management capacity of the implementing agency.** The output will include project management capacity assessment and training and capacity building exercises to address identified capacity requirements of implementing agencies during due diligence.

Indicative List of Experts from the Consulting Firm

Position	Min. Qualification Requirements	Indicative Person-months
TVET Specialist (TVET governance and management)	The consultant will be the team leader of the Transaction Technical Assistance (TRTA) and should have an advanced degree in education,	5 person-months, international (Team)

Position	Min. Qualification Requirements	Indicative Person-months
expert)/Team Leader	economics or related discipline and at least 15 years' experience in undertaking assessments and designing projects in the TVET sector. The expert will work closely with all key government agencies and key stakeholders and will be responsible for the overall planning and implementation of the TRTA, design the project and preparation of reports. The expert will oversee the delivery and consolidation of all the TRTA findings.	Leader); 2 person-months, national
TVET capacity building and training specialist	Should have proven experience in designing and assessing systems for continuous professional development programs for teachers and principals in the TVET sector. The training expert should be familiar with the pre-service and in-service training system of TVET teachers and managers.	3.5 person-months
Labor market/project economist	Degree in economics or other relevant field. At least 8 years of experience in carrying out labor market and economic analysis particularly in education sector. Demonstrated ability to conduct economic analysis in accordance with ADB guidelines. Work experience in the Pacific or other similar environments is an advantage.	3.5 person-months
TVET Facilities and Equipment Specialist	The consultant will have a degree in engineering and related field and have significant work experience related to TVET facility management and maintenance.	4 person-months
Agriculture/agribusiness Specialist	At least 8 years of relevant experience related to agribusiness development and agriculture value chain. Combined work experience in the fields of agriculture TVET, agriculture value chain promotion and agribusiness skills development especially in PNG or similar context is highly preferred.	2.5 person-months
Financial Management Specialist	Degree in accounting, finance, or a related field, and will have a recognized professional accountancy qualification. The expert should have at least 8 years' experience, including in financial due diligence (FDD). Experience in social sector projects preferably in TVET and financial management assessments and analysis in accordance with ADB guidelines will be preferred.	3.5 person-months
Gender and Social Development/Safeguards Specialist	Advanced degree in gender studies or other relevant discipline, and at least 8 years' expertise in assessments of gender and social development issues surrounding females, the poor, indigenous people, and other disadvantaged groups, preferably in the context of the education sector. The specialist will have experience in the use of participatory methodologies to collect and analyze information and develop relevant action plans, as well as a good understanding of relevant ADB policies and requirements.	2 person-months, international; 3 person-months national

Position	Min. Qualification Requirements	Indicative Person-months
Environment/Climate and Disaster Risk Specialist	Degree in environment science or related field. At least 5 years of experience in development projects preparing environmental assessments, environmental management plans and environmental assessment review frameworks. The expert should also have an experience in preparing climate change and disaster risk vulnerability assessments. Work experience in the Pacific is required.	2 person-months international; 2 person-months national
Procurement Specialist	Degree in business administration or related field. At least 8 years of experience in procurement capacity on development projects preferably under similar international supported education or TVET projects, with demonstrated experience with ADB procurement and consultant guidelines.	3.5 person-months

II. INDIVIDUAL CONSULTANT

17. **TVET Advisor (4 person-months).** A TVET Advisor will be engaged to assist in finalizing the design of the project to ensure its relevance, effectiveness and government ownership both at the national and local level. He will work alongside the consulting firm and ensure inputs and coordination with all relevant stakeholders.

1. Working closely with the design firm, assist in supervising the overall project design and preparation particularly getting inputs from all key stakeholders such as the provincial government and priority technical colleges to effectively contextualize the implementation arrangements of the project.
2. Contribute in strategizing an effective sequencing and integration of project activities in the overall work programs and priorities of provincial government and priority technical colleges to achieve maximum project impacts.
3. Identify project risks which requires mitigation measures and assist in building the capacity and engagement of selected TVET colleges in preparation for the project implementation.
4. Liaise and advocate for the proposed project to facilitate ownership of key stakeholders and gather relevant inputs in finalizing the project scope and design.
5. Assist in bringing in experience from other well performing TVET institutions and programs from construction trade and agriculture/agribusiness sectors that the project can learn from.

18. **Minimum Qualification and Requirements.** The consultant should have an in-depth understanding of TVET in PNG and its historical development and preferably with an experience working for internationally funded development projects. The consultant should have a technical expertise in TVET system and governance and service provision and possess an ability to nurture cooperation and relationships between national and local governance, TVET technical colleges and commercial institutions and industries.

19. **Project Management Coordinator/Procurement Specialist (3 person-months).** The consultant will be recruited as a national expert to support the government in undertaking necessary preparatory work to ensure timely project start-up and facilitate coordination during the

project preparation and initial phase of implementation while the project management unit is not yet in place. Among the key tasks include:

1. Assist the International Procurement Specialist in undertaking due diligence.
2. Assist the government in preparing for the recruitment of the project management unit including facilitating all necessary review and clearance as required.
3. Assist in facilitating the coordination and work of the Project Preparation Steering Committee which is envisaged to continue during project implementation.
4. Assist in liaising with other key stakeholders to ensure timely commencement of project implementation.

20. **Minimum Qualification and Requirements:** The Project Management Coordinator/ Procurement Specialist will have a degree in education, social sector or equivalent and at least 5 years' experience in project supervision and management and have performed a coordinator role. Experience in education/TVET and working with internationally funded projects will be highly preferred.