

Terms of Reference

Technology Needs Assessment: Trinidad and Tobago

Expert Consultants for Climate Change Adaptation and Mitigation

1 Background

The current Global Technology Needs Assessment (TNA) project, deriving from window (i) of the Strategic Program on Technology Transfer, is designed to support countries to carry out improved Technology Needs Assessments within the framework of the United Nations Framework Convention on Climate Change (UNFCCC).

The purpose of the TNA project is to assist participant developing country Parties identify and analyse priority technology needs, which can form the basis for a portfolio of environmentally sound technology (EST) projects and programmes to facilitate the transfer of, and access to, the ESTs and know-how in the implementation of Article 4.5 of the UNFCCC Convention. Hence TNAs are central to the work of Parties to the Convention on technology transfer and present an opportunity to track an evolving need for new equipment, techniques, practical knowledge and skills, which are necessary to mitigate GHG emissions and/or reduce the vulnerability of sectors and livelihoods to the adverse impacts of climate change. The main objectives of the project are:

1. To identify and prioritize through country-driven participatory processes, technologies that can contribute to mitigation and adaptation goals of the participant countries, while meeting their national sustainable development goals and priorities (TNA).
2. To identify barriers hindering the acquisition, deployment, and diffusion of prioritized technologies.
3. To develop Technology Action Plans (TAP) specifying activities and enabling frameworks to overcome the barriers and facilitate the transfer, adoption, and diffusion of selected technologies in the participant countries.

Further, the TNA process will develop Concept Notes for attracting funding to implement selected technologies in priority areas of national relevance.

To support and facilitate the TNA process, an expert is being recruited for the execution of activities in relation to climate change mitigation (focussing on electric power generation, transport and industry) and climate change adaptation (treated holistically as building climate

change resilience into development), under the direct supervision of the National TNA Coordinator.

The overall consultancy is to be completely executed by the end of September 2020.

The general and key tasks of the Expert Consultant for the relevant sector(s) are described below.

2 Overall tasks

The expert consultant will work in close collaboration with the TNA Coordinator, and the national TNA team. In relation to the project work plan detailed at Annex 1, it is expected that the project work will be completed by November 2020. His/her overall task is to support the TNA process for mitigation in various prioritised sectors in the country's Nationally Determined Contribution¹ under the Paris Agreement (power generation, transportation, industry) and in the context of adaptation the agriculture, water resources, biodiversity, coastal resources, human health, infrastructure and human settlements sectors as detailed in the findings of the climate risk vulnerability and capacity assessment². In this regard, the Expert Consultant would be expected to use the NDC Implementation Plan and the activities and actions detailed therein to guide the technologies needs assessment, as well as recommendations made in the climate risk vulnerability assessment. The specific activities would range from engaging with stakeholders, attending and contributing to technical meetings and developing the national TNA project reports for selected technologies in the sectors. Consistent with domestic and global objectives, the Expert Consultant will be responsible for providing the national TNA team with the process-related and methodological/technical advisory services needed for developing Technology Action Plans (TAPs) at the country level. The role of the Expert Consultant will thus be to lead and undertake activities such as research, analysis and synthesis for the prioritized sectors in support of the TNA exercise and in close collaboration with the TNA team. The Expert Consultant will apply a participatory approach to the TNA process, involving a wide range of stakeholders while ensuring a multi-sector and multi-disciplinary scope, bearing in mind the specific context of the sectors for mitigation identified in the NDC and for adaptation identified in the vulnerability

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<https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Trinidad%20and%20Tobago%20First/Trinidad%20and%20Tobago%20Final%20INDC.pdf>

2 <https://www.planning.gov.tt/content/vulnerability-and-capacity-assessment-report-trinidad-and-tobago-jan-2019>

assessment³. Moreover, the Expert Consultant will facilitate the tasks of communication with the national TNA team members, outreach to stakeholders, formation of networks, information acquisition, and coordination and communication of work products.

In close collaboration with the National TNA Coordinator, the rest of the national TNA team and the regional centre, the Expert Consultant will be responsible for, *inter-alia*:

- a) Organising at least three consultative stakeholders meetings and workshops (inception, TNA Validation, and TAP finalisation/validation).
- b) Identification and prioritization of technologies for the relevant sector(s) through a participatory process with a broad involvement of relevant stakeholders, including;
 - (i) Identification and consultation with relevant stakeholders and facilitation of the sector working groups to be set-up,
 - (ii) Identification of institutions for data and other support, and
 - (iii) Collecting, analysing and synthesising information and data to prepare concept notes (technology fact sheets) for the sectors.
- c) Leading the process of analysing with the stakeholder groups how the prioritized technologies can be implemented in the country and how implementation circumstances could be improved by addressing the barriers and developing an enabling framework based, *inter-alia*, on undertaking of local market and other assessments, as may be required;
- d) Prepare and finalize the TNA, Barrier Analysis and Enabling Framework (BAEF) and TAP reports, with project ideas, and advocacy and policy briefs, and with inputs of stakeholders included.
- e) Prepare working papers and other TNA-related documents as may be required to ease the consultative process and harnessing inputs from stakeholders during meetings, workshops, amongst others.

³ The findings of the anticipated vulnerability assessment underway as part of the preparation of the country's Third National Communication under the UNFCCC shall also be taken into account as may be available during the course of execution of this task for the sectors identified in the study referenced at footnote 2.

- f) Provision of any other inputs, as may be required, relevant to related parts of the TNA process and output targeted as may be requested by the TNA Coordinator, the UNEP DTU Partnership (UDP), Regional Centres and the national TNA Steering Committee.

The Expert Consultant will be required to use best practices, guidelines, methodologies and technical guidance available through the UDP and other approved sources.

The following table provides an overview of the key tasks to be conducted by the Expert Consultant.

3 Specific tasks

	Tasks	Deliverables	Timeframe	Additional remarks
1.	<p>Identify priority technologies for mitigation and adaptation in the context of, and based on the country's Nationally Determined Contribution (NDC) under the Paris Agreement, and based on the findings of the most recent climate risk vulnerability assessment respectively. In respect of the latter, findings of the anticipated vulnerability assessment underway as part of the preparation of the country's Third National Communication under the UNFCCC shall also be taken into account as may be available during the course of execution of this task.</p> <p>Review of existing relevant documentation at the national level (NDC, NDC Implementation Plan, climate risk vulnerability and capacity assessment, Carbon Reduction Strategy, sectoral policies, National Communications, first TNA, etc.)</p> <p>In close collaboration with the TNA Co-ordinator, , the Expert Consultant will support and facilitate:</p> <ul style="list-style-type: none"> • working groups consisting of technical experts and practitioners within each of the prioritized sectors. • through a participatory process, the identification of relevant technologies. • based on a multi-criteria analysis, the prioritization of the selected technologies (between 6 and 9 technologies). 	1.Portfolio of technologies for the sector	As per work plan	Detailed methodological guidelines for prioritizing technologies will be provided at a regional capacity building workshop.
2.	Prepare report on priority technologies (TNA report)	2. TNA report, containing prioritized list of technologies		Outline for TNA report to be provided by UDP.

	<ul style="list-style-type: none"> Prepare TNA report, which will be validated by TNA Coordinator and TNA team through workshops, and the TNA Steering Committee. 	and describing the process followed.		
3.	<p>Conduct barrier analysis and prepare Enabling Framework for the deployment and diffusion of prioritized technologies.</p> <p>Conduct:</p> <ol style="list-style-type: none"> 1. Analysis of market and barriers for development, deployment and diffusion of priority technologies for the chosen adaptation and mitigation technologies. 2. identify measures to overcome barriers 3. Propose Enabling Framework to overcome barriers identified for the chosen technologies. 	3. Report on Barrier Analysis and Enabling Frameworks for development for the deployment and diffusion of priority technologies in the sector		TNA Expert Consultant will participate in a regional TNA capacity-building workshop on barrier analysis and Enabling framework development.
4.	<p>Prepare a Technology Action Plan (TAP)</p> <p>In collaboration with TNA Coordinator, TNA team and stakeholders, the Expert Consultant () will:</p> <ul style="list-style-type: none"> Develop technology action plan for deployment and diffusion of prioritised technologies in the country. Propose project/programme concepts based on priority technologies selected for future funding. 	4. Technology Action Plan based on format agreed for the project, in the prioritized sectors.		Template for the TAP will be shared by UDP at the regional capacity-building workshop.

5.	<p>Support development of sector advocacy and policy briefs (at least one per sector, or as determined by the TNA Coordinator) and organise dissemination event</p> <p>Based on the work previously delivered in the TNA project,</p> <ul style="list-style-type: none"> • the Expert Consultant will prepare a targeted sector brief, support its dissemination and present it in a national TNA dissemination and donor engagement event organised by the National TNA coordinator., in consultation with the Expert; • Convene consultation workshop to present initial findings; and • Convene validation workshop, as necessary and required, to finalise the deliverables 			
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4 Support documents

Process related:

- Organising the National Technology Needs Assessment (TNA) Process
- Multi-criteria analysis guide notes, mitigation and adaptation
- Overcoming Barriers to Transfer and Diffusion of Climate Technologies
- Guidance for preparing a Technology Action Plan
- Presentations provided at capacity building workshops

Technology related

- Six Technology guidebooks from UDP
- Climatetechwiki (Online Technology database)
- TNA Technology factsheet database
- CTCN website

Other documents

- Report of past TNA, National communications, sectoral Policies, Strategies and Action Plans, nationally relevant management plans, etc.

5 Qualifications

- a) The Expert Consultant should possess at least a postgraduate degree in a relevant field for the tasks such as environmental management, environmental related science, environmental technology, climate change science/policy/technology or other related field
- b) The Expert Consultant should possess at least 5 years of work experience in the relevant sectors or related fields, or demonstrated experience in conducting technology needs assessments.

6 Profile and Skills

The Expert Consultant should have applied knowledge in mitigation and adaptation related technologies and a good understanding of technology needs assessment methodology. . He/she should be familiar with the relevance of, and the ability to analyse national development objectives and sector policies in the context of technology needs and application for climate change. Moreover, the Expert Consultant should have good coordination and facilitation skills, and possess proven analytical capabilities, as well as excellent writing skills.

7 Working Arrangement

The Expert Consultant will be contracted directly by the UNEP DTU Partnership (UDP) on a part-time basis, and will be required to be available for the performance of the tasks and delivery of the required outputs. He /She will be required to be available for the timely delivery of milestones relevant to the specified tasks over the duration of the project, as required by the TNA Coordinator. Payment of fees will be based on the deliverables.

8 Selection Process and selection criteria

The selection will be carried out by the National TNA Coordinator with the assistance of UDP. The selection will be based on criteria such as relevant qualifications, experiences, skills, national and international development objectives and sector policies, understanding of the methodological approach to the assignment, a good understanding of local context, and well-established networks in the country.

9 Language

All working papers, draft reports and Final Report must be prepared and submitted in soft copies in English Language.

10 Intellectual Property Rights

All information, results and products, whether tangible or intangible, resulting from the project will be considered as the property of UDP and the Ministry of Planning and Development (MPD) of Trinidad and Tobago. The consultants will be duly acknowledged within the reports for their contribution.

11 Application Procedure

To express your interest send your CV, covering letter and addresses for 3 references, to the National TNA Coordinator, Kishan Kumarsingh at kishan.kumarsingh@planning.gov.tt and Gordon Mackenzie at goma@dtu.dk by 23 May 2019. Applications received after midnight (Trinidad and Tobago time) on 23 May 2019 will not be considered.