Technology Needs Assessments (TNA) Phase IV

Part I: Project Information

GEF ID
10171

Project Type
EA

Type of Trust Fund
GET

CBIT
☐CBIT

Project Title
Technology Needs Assessments (TNA) Phase IV

Countries
Global, Comoros, Ethiopia, Guinea-Bissau, Maldives, Niue, Papua New Guinea, Solomon Islands, Somalia, South Sudan, St. Kitts and Nevis, Timor Leste, Tonga, Tuvalu, Yemen, Kiribati

Agency(ies)
UNEP

Other Executing Partner(s):
UNEP DTU Partnership (UDP) and National Agencies

Executing Partner Type
Others

GEF Focal Area
Climate Change

Taxonomy

Rio Markers
Climate Change Mitigation
Climate Change Mitigation 1

Climate Change Adaptation
Climate Change Adaptation 1

Type of Reports	Submission Date	Expected Implementation Start	Expected Completion Date	Expected Report Submission to Convention
UNFCCC Technology Needs Assessment	9/30/2023	7/1/2020		

Duration
36In Months

Agency Fee($)
436,050

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CCM-EA	GET	4,590,000	1,535,000
		Total Project Cost($) 4,590,000	**1,535,000**

B. Project description summary

Project Objective

Provide participating countries targeted financial and technical support to prepare new or updated and improved TNAs, including TAPs, for prioritized technologies that reduce GHG emissions, support adaptation to climate change, and are consistent with Nationally Determined Contributions and national sustainable development objectives.

Project Component	Expected Outcomes	Expected Outputs	GEF Project Financing($)	Confirmed Co-Financing($)
1. Technology Needs Assessments (TNA) and development of Technology Action Plans (TAP)	Outcome 1. TNA process conducted by national stakeholders, and TNA/TAP results are available to be integrated into national planning processes and to be funded and implemented by interested stakeholders	Output 1: Tools, methodologies and capacity building packages are further developed and applied to support the implementation of the TNA/TAP process Output 2: TNA and TAP reports completed, including project ideas, with national consensus on concrete actions for implementation	4,112,808	1,496,322
Evaluations			60,000	
Project Management Cost (PMC)			417,192	38,678
		Sub Total ($)	**4,590,000**	**1,535,000**

Project Management Cost (PMC)

	Sub Total($)	**0**	**0**
	Total Project Cost($)	**4,590,000**	**1,535,000**

C. Source of Co-Financing for the Project by Name and by Type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
GEF Agency	UNEP	In-kind	Recurrent expenditures	50,000
Others	UDP	In-kind	Recurrent expenditures	150,000
Others	CTCN	In-kind	Recurrent expenditures	910,000
Government	17 national government contributions	In-kind	Recurrent expenditures	425,000
			Total Co-Financing($)	**1,535,000**

Describe how any "Investment Mobilized" was identified

N/A

D. GEF Financing Resources Requested by Agency, Country and Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)
UNEP	GET	Global	Climate Change	CC Set-Aside	4,590,000	436,050
				Total Gef Resources($)	**4,590,000**	**436,050**

Part II. Enabling Activity Justification

A. ENABLING ACTIVITY BACKGROUND AND CONTEXT

Provide brief information about projects implemented since a country became party to the convention and results achieved

A.0) Changes in project design

(a) Two (2) additional countries have joined the project since the concept note phase: Bahamas and Lesotho

Some countries had expressed their interest in joining the project at concept note stage but did not send their endorsement letter on time. In agreement with the Global Environment Facility (GEF) Secretariat, the project has invited these countries to submit their letter of endorsement during the preparations of the EA request document. The two following countries have submitted endorsement letters:

Country	Type	Justification
Bahamas	SIDS	Endorsement letter submitted on 10 October 2019. As per it's NDC, the Bahamas intends to achieve mitigation actions through an economy-wide (reduction) in GHG emission of 30% when compared to its Business as Usual (BAU) scenario by 2030. In this context, the development and diffusion of renewable energy resources and technologies is key. However, the Bahamas will require international support in the form of finance, investment, technology development and transfer and capacity-building in its efforts to capitalize on greater utilization of renewable sources of energy and adapt to the negative impacts of climate change that affect various sectors of the economy. The TNA will help the Government of Bahamas identifying its most impactful priority technology actions for unlocking financing and investments.

Lesotho	LDC	Endorsement letter submitted on 14 October 2019. Lesotho undertook the first Technology Needs Assessment (TNA) exercise in 2004. Further exercises to identify technologies needs for mitigation and adaptation have been done to a limited extend when identifying potential mitigation and adaptation measures within the framework of the preparation of national communications. Lesotho's Second National Communication and NDC underlined many capacity and technology constraints that the country faces in addressing climate change challenges. A further and more comprehensive assessment for technology needs is required to address specific adaptation and mitigation actions. The Technology Needs Assessment Phase IV project will support the country in this regard. This project is in accordance with the Government's national priorities, including the priorities identified in the *National Climate Change Policy 2017; National Energy Policy, 2015*; *Sustainable Energy Strategy 2017*; and *National Strategic Development Plan II, 2018.*

(b) Budget increase related to 2 additional countries

As for the other countries that already joined the TNA Phase IV project, Bahamas and Lesotho have submitted their endorsement letters with the $295,650 GEF funds required per country to undertake the TNA process (comprised of $270,000 for the project and $25,650 agency fee).

The inclusion of these 2 additional countries led to an increase of:

· $540,000 in the total project cost from $4,050,000 in the concept note to $4,590,000, and to an increase in the agency fee from $384,750 in the concept to $436,050.

· $160,000 in co-financing, $50,000 in-kind co-financing from the two additional participating countries ($25,000 each) and $110,000 increase in in-kind co-financing from the Climate Technology Centre and Network (CTCN).

A.1) Global environmental and/or adaptation problems, root causes and barriers that need to be addressed

The Paris Agreement identified technology as a key area where developing countries need support, and in particular LDCs (Least Developed Countries) and SIDS (Small Islands Developing States). In its article 10, the agreement states that "*Parties share a long-term vision on the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions*" (Para 1, article 10). In particular, the decision calls for a technology framework that facilitates:

(a) The undertaking and updating of technology needs assessments (TNAs), as well as the enhanced implementation of their results, particularly technology action plans and project ideas, through the preparation of bankable projects; (b) The provision of enhanced financial and technical support for the implementation of the results of the technology needs assessments; (c) The assessment of technologies that are ready for transfer; (d) The enhancement of enabling environments for and the addressing of barriers to the development and transfer of socially and environmentally sound technologies; (para 68). The agreement also affirms the importance of building capacities of developing countries to "*facilitate technology development, dissemination and deployment" and that "Capacity-building should be country-driven, based on and responsive to national needs, and foster country ownership of Parties […] guided by lessons learned, including those from capacity-building activities under the Convention, and should be an effective, iterative process that is participatory, cross-cutting and gender responsive*" (article 11, para 1 and 2).

In December 2018, the Technology Framework was adopted by the COP (Conference of Parties). The Framework reiterates that, under its theme of Implementation, actions and activities in this area of work include "*Facilitating the undertaking and updating of TNAs, as well as enhancing the implementation of their results, particularly technology action plans and project ideas, and capacity-building related to TNAs*". In addition, under its theme of Support, the Framework highlights that there should be provided "*enhanced technical support to developing country Parties, in a country-driven manner, and facilitating their access to financing for innovation, including for RD&D, enabling environments and capacity-building, developing and implementing the results of TNAs, and engagement and collaboration with stakeholders, including organizational and institutional support*". Since the creation of the UNFCCC Technology Mechanism in 2010, the Technology Executive Committee (TEC) analyses TNAs and develops guidance to support countries to enhance the effectiveness and utility of the TNA process. The TEC has provided policy messages to the COP on TNAs and has also produced specific policy briefs.

This fourth phase of the global TNA project will build national capacities and support the institutionalization and implementation of the TNA process for an additional 17 developing countries, all being either Least Developed Countries (LDCs) or Small Island Developing States (SIDS). The countries included in this Enabling Activity request (the 17 which have submitted Letters of Endorsement) explicitly mention in their policy documents (Nationally Determined Contributions (NDC), National Communications (NC) or national climate strategies) the need for external support to conduct technology transfer in a consistent manner.

A.2) Baseline scenario and any associated baseline projects

The project responds directly to Article 4.5 of the United Nations Framework Convention on Climate Change (UNFCCC), which states, inter-alia, that the *"[...] developed country Parties and other developed Parties shall take practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention. In this process, the developed country Parties shall support the development and enhancement of endogenous capacities and technologies of developing country Parties. Other Parties and organizations in a position to do so may also assist in facilitating the transfer of such technologies*."

Developing country parties have been conducting TNAs since COP 7. The Global Environment Facility (GEF) initially funded 92 non-Annex I parties' TNAs, 78 supported by the United Nations Development Programme (UNDP) and 14 by the United Nations Environment Programme (UNEP). The TNAs conducted between up until 2008 are the so-called '1st Generation TNAs'.

The GEF, in response to Decision 4/CP.13 (Development and transfer of technologies under the Subsidiary Body on Implementation), which was adopted in 2007 at COP 13 in Bali, Indonesia, created the Poznan Strategic Programme on Technology Transfer to scale up the level of investment for technology transfer and proposed a new funding window to support countries in undertaking enhanced technology needs assessments (TNAs), conducting technology pilot projects and implementing large scale climate technology projects.

In this context, in November 2009, UNEP started the implementation of the new GEF-financed Global TNA project (TNA Phase I) and introduced a new feature in the process with a view to facilitate the implementation of follow-up actions: the Technology Action Plan (TAP). The TAP is an action plan consisting of a group of measures to address identified barriers to the development and transfer of a prioritized technology. In addition, under this new and enhanced TNA approach, beneficiary countries also develop preliminary project concepts for concrete actions supporting the implementation their prioritized technologies. Countries that had done their first generation of TNA were eligible by GEF to join the new Global TNA project, hence some countries part of TNA Phase I, II, III or IV have a so-called 'first generation' TNA. Hence, TNAs conducted from 2009 and onwards, are the so-called '2nd Generation TNAs' since they now include TAPs as a main output.

As such, with GEF funding, UNEP with UNEP DTU Partnership (hereinafter referred to as UDP, the former UNEP Risø Centre) as the Executing Agency supported 36 countries to conduct their TNA process during 2009-2013 (Phase I of the 'second generation of TNAs' as per the Poznan Strategic Programme on Technology Transfer), an additional 27 countries between 2014 and 2018 (TNA Phase II), and, is currently supporting 23 more countries to do so since May 2018 (TNA Phase III). UDP is a leading international research and advisory institution on energy, climate and sustainable development. The detailed list of countries already supported is presented in the table below:

Region	**1st Generation TNAs (1998 - 2008)**	**TNA I (2009-2013)**		**TNA II (2014-2016)**	**TNA III (2018-ongoing)**
		Round 1	**Round 2**		

Africa	1. Benin 2. Botswana 3. Burkina Faso 4. Burundi 5. Cape Verde 6. Chad 7. Comoros 8. Congo 9. Côte d'Ivoire 10. Democratic Republic of Congo 11. Egypt 12. Ethiopia 13. Ghana 14. Guinea 15. Kenya 16. Lesotho 17. Madagascar 18. Malawi 19. Mali 20. Mauritania 21. Mauritius 22. Namibia 23. Niger 24. Senegal 25. Seychelles 26. Tanzania 27. Togo 28. Tunisia	1. Cote d'Ivoire 2. Mali 3. Morocco 4. Senegal	5. Ethiopia 6. Ghana 7. Kenya 8. Mauritius 9. Rwanda 10. Sudan 11. Zambia	1. Burkina Faso 2. Burundi 3. Egypt 4. Gambia 5. Madagascar 6. Mauritania 7. Mozambique 8. Seychelles 9. Swaziland 10. Tanzania 11. Togo 12. Tunisia	1. Benin 2. Central African Republic 3. Chad 4. Djibouti 5. Eritrea 6. Guinea 7. Liberia 8. Malawi 9. Niger 10. Sao Tome and Principe 11. Uganda

Asia and the Pacific	1. Bhutan 2. Cambodia 3. China 4. Indonesia 5. Islamic Republic of Iran 6. Jordan 7. Lao People Democratic Republic 8. Lebanon 9. Niue 10. Philippines 11. Samoa 12. Sri Lanka 13. Thailand 14. Viet Nam	1. Bangladesh 2. Cambodia 3. Indonesia 4. Thailand 5. Vietnam	6. Bhutan 7. Lao PDR (TNA only) 8. Lebanon 9. Mongolia 10. Nepal 11. Sri Lanka	1. Jordan 2. Lao PDR (TAP only) 3. Malaysia 4. Philippines	1. Fiji 2. Islamic Republic of Afghanistan 3. Myanmar 4. Nauru 5. Vanuatu

Europe and CIS	1. Albania 2. Armenia 3. Azerbaijan 4. Croatia 5. Georgia 6. Malta 7. Republic of Moldova 8. Tajikistan 9. Turkmenistan 10. North Macedonia 11. Uzbekistan	1. Georgia	*2.* Azerbaijan 3. Kazakhstan (TNA only) 4. Moldova	1. Armenia 2. Kazakhstan (TAP only) 3. Turkmenistan 4. Uzbekistan	1. Ukraine

Latin America and Caribbean	1. Antigua and Barbuda 2. Bolivia 3. Chile 4. Colombia 5. Dominica 6. Dominican Republic 7. Ecuador 8. El Salvador 9. Guyana 10. Haiti 11. Jamaica 12. Paraguay 13. Peru 14. St Kitts and Nevis 15. St. Lucia	1. Argentina 2. Costa Rica 3. Guatemala 4. Peru	5. Cuba 6. Colombia 7. Dominican Republic 8. Ecuador 9. El Salvador 10. Bolivia	1. Belize 2. Bolivia 3. Grenada 4. Guyana 5. Honduras 6. Panama 7. Uruguay	1. Antigua and Barbuda 2. Dominica 3. Jamaica 4. Suriname 5. Trinidad and Tobago

Although technologies have been identified as a key factor of success to reach climate change related targets, the information contained in NDCs and existing documents are not sufficient to plan and implement technology projects that will enable the countries to reach their targets. The TNA – as a national participatory process providing in-depth analysis of technology options and actions – offers key information for decision-makers and planners to implement nationally prioritized climate technology actions. As the continuation of the three previous phases of TNAs, this project benefits from lessons learnt and best practices from previous experience. The main lessons learned are the following:

· Even though the TNA project seeks to address a highly complex set of issues (climate change) with limited resources, TNA Phase II and III are showing that the TNA/TAP process is receiving stronger attention from decision makers in governments since (i) countries had to come up with their NDCs, and (ii) the CTCN and the Green Climate Fund (GCF) became operational. The TNA is seen as a good tool (i) to identify the technologies a country needs to implement its NDC, (ii) to generate technical assistance requests for CTCN and (iii) to create a pipeline of projects for GCF and other funding sources. It is to be noted however that a number of countries – especially LDCs - are not sufficiently

equipped to prepare funding requests after the TNA/TAP process has been completed, and many of them need improved data and analysis to confirm the feasibility and bankability of the prioritized climate technology actions included in their TAPs.

· In many countries, national capacity is rather low. Capacity building and training is critical to ensure the process results in quality outputs for the countries. This is even more important since the TNA Phase III project, where participating countries are essentially LDCs and SIDSs (as for the TNA Phase IV). For this reason, additional trainings are planned and offered to countries now (i.e. since TNA Phase III) with one additional regional training and a training at national level on the tools used for the TNA/TAP process. In addition, participating countries strongly value peer-to-peer exchange which is now further enhanced since TNA Phase III project, with the inclusion of an additional regional training workshop bringing the countries together.

· The engagement of the financial/funding community, private sector and the banking and investments sectors remains a challenge despite the efforts made by the TNA countries to bring these stakeholders on board. For private sector and investors, the challenge is that engagement depends on their business interests and therefore they can be best engaged once the priority technologies have been identified. They can then provide valuable inputs, notably for the barrier analysis and development of the TAP. Donors and development partners participate in the TNA/TAP process but there is a need for more emphasis by TNA country governments on disseminating and "selling" their climate technology priorities to their in-country funding community at the end of the TNA/TAP process. More emphasis is given to dissemination of the TNA results under the TNA Phase III project with countries developing a targeted dissemination/communication plan.

The evaluations of previous TNA phases (terminal evaluation of TNA Phase II is currently on its way, and expected to be completed by February 2020) and the TNA guidance and analysis conducted by the UNFCCC Technology Executive Committee (TEC) provide sound information for further enhancement of the TNA process and related guidance. This includes the paper on 'Experiences, lessons learned and good practices in conducting TNAs and implementing their results' presented at the nineteenth meeting of the TEC, September 2019. In this context and as for TNA Phase III, this fourth phase will continue (i) reviewing and strengthening tools and methodologies, (ii) reinforcing national capacities and quality of TNA/ Technology Action Plans (TAP) outputs and (iii) strengthening the relationships with donors and investors at national level with a view to increase the uptake of these products.

Under TNA Phase IV, the planned activities will further enhance the main improvements initiated for TNA Phase III:

· National trainings for a wider team of stakeholders in the country (i.e. National TNA committee) in order to strengthen capacities and engagement of a wider array of stakeholders from various concerned sectors (such as Finance, Economic Affairs, Energy, Health, Agriculture and Transport). This will strengthen commitment of the national TNA stakeholders in supporting and informing the TNA process and therefore contribute to increase the quality of TNA and TAP products. It will also enable countries to develop TAP outputs in smaller groups with sectoral experts, collaborating with national consultants. In addition, this will contribute to raise the interest of high-level policy makers in the TNA and will facilitate the integration of the TNA/TAP results into national planning processes. This activity is proposed as part of Output 2.

· Peer-to-peer exchange and learning through inter-country workshops, conducted in country with successful previous TNA experience to facilitate best practices and knowledge sharing between countries, also including cooperation with 'champions' from previous phases of TNA. This activity is proposed as part of Output 2.

· Targeted dissemination of TNA results through targeted dissemination plans and briefs as well as national events and roundtables to present TNA/TAP products to potential donors (including funding mechanisms), development partners and investors. This will facilitate the creation of partnerships between the government and these actors for the financing and implementation of technology actions prioritized by the countries. More specifically, based on donors and investors interest from the TAP, a number of project ideas will be identified to be developed more in-depth, and to be translated into sound project concepts to be proposed to targeted donors/investors. This activity is proposed as part of Output 2.

Finally, it is noteworthy to mention that among these 17 countries, some have undergone a so-called "1st generation" Technology Needs Assessment (prepared before 2008). At that time no barrier analyses, identification of enabling frameworks for technology transfer nor Technology Action Plans (TAP) had been performed – activities that will now be completed as part of the TNA Phase IV project. The results of these "1st generation" TNAs led to inform national sector strategies, rather than to the implementation of actual technology inclusive projects.

A.3) Consistency with National Priorities

Efforts on technologies have been identified by most developing countries as one of the main conditions for the implementation of their respective NDCs. Of the 113 non-Annex I Parties that submitted NDCs (representing almost 75% of all non-Annex I Parties) 94% mention technology. Overall, SIDS and LDCs raised technology issues more frequently than other non-Annex I Parties. Nearly half of the LDCs have listed the identification of technology needs as an area of efforts. The preparation of the NDCs has in many countries incentivized exploration of linkages between development and climate, as well as development of new national climate polices, and can be seen as an important step in a transition towards low carbon economies and resilient countries.

The project proposes to build on NDCs developed by participating countries, to support their implementation and updating, as well as supporting other ongoing planning processes, under or outside the framework of the UNFCCC. Therefore, the work will be embedded and tailored to country priorities.

Many countries are taking steps to follow a low-carbon and climate-resilient development path as reflected in their respective National Communications to the UNFCCC, National Climate Change Strategies and related action plans (Low Emission Development Strategies (LEDS), Low Carbon Development Plans, NAMAs, NAPAs), National Energy Plans and Strategies, National Investment Plans (NIPs), Medium-Term Expenditure Frameworks (MTEFs), Poverty Reduction Strategy Papers (PRSPs) or National Development Plans

(NDPs) etc. At the national level, many countries have highlighted their need for assistance in determining both technology priorities and the measures needed to overcome barriers that prevent them from acquiring these technologies under market or near-to-market conditions.

The table below provides information on the alignment of the TNA Phase IV project with the participating countries' national priorities:

Country	Evidence of country commitments or country needs in the TNA process
Bahamas	As per it's NDC, the Bahamas intends to achieve mitigation actions through an economy-wide (reduction) in GHG emission of 30% when compared to its Business as Usual (BAU) scenario by 2030. In this context, the development and diffusion of renewable energy resources and technologies is key. However, the Bahamas will require international support in the form of finance, investment, technology development and transfer and capacity-building in its efforts to capitalize on greater utilization of renewable sources of energy and adapt to the negative impacts of climate change that affect various sectors of the economy. The TNA will help the Government of Bahamas identifying its most impactful priority technology actions for unlocking financing and investments.
Comoros Union	As a SIDS and Party to the UNFCCC since 1994, the Union of the Comoros has shown its commitment to combating climate change. Several initiatives have been undertaken to reduce the effects of climate change at the national level. Since 2011, the country has developed a Strategic Framework for Climate Change Programming and a National Climate Change Policy since 2015. The country has defined its NDC in relation to the commitments of the Paris Agreement. These main activities are aimed at increasing the resilience of the vulnerable population to the effects of climate change while improving their incomes and accessing clean technologies for their needs. In addition, as the Comoros Union has put its focus on green growth for development by adopting the Accelerated Growth Strategy for Sustainable Development (SCADD), technology transfer remains a priority for the government and is incorporated into this flagship document at Axis I "Acceleration, diversification and sustainability of growth". This TNA Phase IV project will enable the country to identify the priority technologies that will be required to achieve the above-mentioned objectives.
Ethiopia	Through its NDC, Ethiopia is working to reduce 64% of its emission by 2030 from the BAU from Agricultural, Forest, Industry and Transport sectors. Ethiopia has also developed its NAP. Technology transfer is at the epicenter of these strategies. As such there is a dire need: - To identify/update the most vulnerable sectors and subsectors require technological provision. - To update identify, analyze, evaluate, and prioritize technological needs for the prioritized sectors - To build technology utilization capacity at community level in relation to the relevant adaptation options. More importantly a national roadmap for the implementation of the Climate Resilient Green Economy Strategy (CRGE) and NAP are currently being developed, so this TNA project is very timely for the country.

Guinea-Bissau	Guinea-Bissau's Nationally Determined Contributions (NDC) has identified the Agrarian sector (agriculture, livestock and forestry), the Coastal Zone sector, and the Water sector as priority sectors for climate change adaptation. Furthermore, it has recognized that the Agrarian sector (agriculture and forestry) and Energy sector are priority for climate change mitigation. For both climate change adaptation and mitigation, the country's NDC recognizes the need for clean technologies and capacity building. Therefore, a TNA is a pre-requisite for Guinea-Bissau to determine how to reduce GHG emissions and adapt to the adverse effects of climate change
Kiribati	As an LDC and SIDS, Kiribati has developed key strategies and plans, which seek to promote emission reduction initiatives, the transition towards renewable energy and more importantly addressing adaptation needs throughout the country, which in turn will strengthen the island's resilience and adaptive capacity in addressing climate change impacts. The TNA phase IV project will enable the Government through its technical agencies to understand capacity gaps and technology needs as a whole and inform key partnerships and development assistance to address these gaps. This will complement and inform the following key plans and strategies of Kiribati: NDC, Joint Implementation Plan for Climate Change and Disaster Risk Reduction, Integrated Energy Roadmap, and Integrated Environment Policy.
Lesotho	Lesotho undertook the first Technology Needs Assessment (TNA) exercise in 2004. Further exercises to identify technologies needs for mitigation and adaptation have been done to a limited extend when identifying potential mitigation and adaptation measures within the framework of the preparation of national communications. Lesotho's Second National Communication and NDC underlined many capacity and technology constraints that the country faces in addressing climate change challenges. A further and more comprehensive assessment for technology needs is required to address specific adaptation and mitigation actions. The Technology Needs Assessment Phase IV project will support the country in this regard. This project is in accordance with the Government's national priorities, including the priorities identified in the *National Climate Change Policy 2017; National Energy Policy, 2015*; *Sustainable Energy Strategy 2017*; and *National Strategic Development Plan II, 2018.*
Maldives	Maldives NDC states that the unconditional 10% reduction target could be increased up to 24% in a conditional manner, in the context of sustainable development, supported and enabled by availability of financial resources, technology transfer and capacity building. Hence, technology transfer is key for the implementation of the country's NDC. Currently there are no TNAs prepared for the Maldives. TAP for the main NDC sectors, namely Energy, Transport and Waste sectors will be essential to contribute to the NDC implementation roadmap. Hence, TNA Phase IV project will be fundamental for the successful implementation of NDC in the Maldives. The Maldives Climate Change Policy (MCPF) recognizes technology transfer as a building block which is essential for the execution of the climate change policy in the Maldives. The government of Maldives is currently seeking international cooperation, knowledge sharing and support to implement MCPF. The TNA project will be one such endeavor which would assist Maldives towards achieving the aforementioned policy goals of MCPF.

Niue	The Technology Needs Assessment Phase IV project is in accordance with the Government's national priorities, including the priorities identified in the National Adaptation Plan of Action as well as the Intended Nationally Determined Contributions (INDC) of Niue. The country's key guiding document for building resilience to climate change are the National Climate Change Policy (2009). The vision of which is for a "Safer, More Resilient Niue to Impacts of Climate Change and Towards Achieving Sustainable Livelihood". In addition, the Policy Goal is "To promote understanding of and formulate appropriate responses to the causes and effects of climate change in support of national sustainable development objectives". Among the main objectives of the country's Policy Goal are the two following: (1) develop effective adaptation responses and enhance adaptive capacity in order to protect livelihoods, natural resources and assets, and vulnerable areas to the impacts of climate change to all sectors; and (2) mitigate the causes of climate change and implement effective mitigation measures to reduce greenhouse gas emissions – which are aligned with the TNA phase IV project objectives.
Papua New Guinea	The TNA process as an ideal opportunity for Papua New Guinea to identify and prioritise climate change mitigation and adaptation technologies for all its selected sectors that were defined in the country's NDC. Thus, the TNA project will enable Papua New Guinea to identify and determine its technology priorities for mitigating GHG and adapting to the adverse effects of climate change by means of cross sector wide approach. Hence, Papua New Guinea's commitment to addressing and responding to climate change, through cross sector national action, directly supports and will be central to achieving the goals of responsible green growth. The TNA process will support Papua New Guinea's existing mechanisms to address climate change such as the Climate Change Management Act (CCMA) (2015) and the country's NDCs to UNFCCC. All of these will contribute to the country's overall social, environmental and economic development objectives and the national climate change reduction targets as set out in Papua New Guinea Vision 2050.
Saint Kitts and Nevis	St. Kitts and Nevis submitted its Initial NCs in 2001. However, the document did not address issues related to technology needs with regards to mitigation of GHG emission or adapting to climate change. As a result of this gap, a TNA as part of Phase II of the Enabling Activities was conducted in 2006. A TAP was never prepared. The climate is changing rapidly, so there is a need to ensure that St. Kitts and Nevis develops and utilizes the most appropriate decision-support tools and methodologies, and to engage in an updated assessment of the technology needs and requirements. It is essential that the country elaborates on the technology framework to further promote and facilitate enhanced action on technology, development and transfer. This would assist the country in achieving its NDC targets as well as implementing the Paris Agreement. St. Kitts and Nevis prepared a National Climate Change Policy in 2017, which provides an overarching guide on how climate change will be addressed to achieve a low carbon and climate resilient economy. The Policy highlights the need to conserve and build the resilience of our human and natural systems by adapting to the adverse impacts of climate change, through capacity building, the application of cleaner and energy efficient technologies, and relevant research and development. The outcomes of the TNA and TAP would articulate the required technology as well as formulate the appropriate actions. It can also help to create a pipeline of programmes and projects with the plan to target various financial sources for implementation. This TNA Phase IV project is therefore an opportunity for St. Kitts and Nevis to update its TNA as well as create a TAP.

Solomon Islands	The TNA project is in accordance with Solomon Island's national priorities, including the priorities identified in the country's NAPA and the NCSA. The effective implementation of the adaptation and mitigation measures in Solomon Islands' Intended Nationally Determined Contributions (INDC) is conditional upon the accessibility, availability and timely provision of financial resources, technology and capacity building support. The TNA will enable Solomon Islands to identify the priority technologies as well as the barriers to be removed to enable the proper deployment of the prioritized technologies.
Somalia	This TNA phase IV project is in accordance with Somalia's national priorities such as: (1) sustainable land management and food security through enhanced productivity; (2) integrated water management; (3) reducing risk among of vulnerable populations from natural disasters; (4) the utilization of renewable energy resources such as solar, hydroelectric and wind; (5) the introduction and advocating the use of more efficient kilns for charcoal making and efficient stoves for local use, in order to reduce trees filling for local use; and (6) reforestation using regional nurseries and forest plantation using indigenous and introduced suitable tree species. This Technology Needs Assessment project could will support Somalia's commitment to the relevant global environmental conventions. The project proposal was discussed with relevant stakeholders, including the global environmental convention focal points.
South Sudan	South Sudan's Nationally Determined Contribution (NDC) clearly emphasizes that the achievement of its objectives depends on access to adequate, predictable and sustainable financial resources, including technology transfer and capacity-building. The TNA project will help South Sudan in identifying the priority technologies and how to create the necessary conditions for transferring and installing these in the country.
Timor-Leste	Timor-Leste has been affected by the impacts of climate change in many critical sectors such as agriculture and food security, water, infrastructure, health etc. To address some of these impacts, the country has formulated its National Adaptation Program of Actions (NAPA) in 2011. In addition, the Intended Nationally Determined Contribution (INDC) of Timor-Leste was also submitted a few years back to the UNFCCC Secretariat. Within these two documents, some technology options for both adaptation and mitigation have been highlighted. However, a further assessment for technology needs is required to address specific adaptation and mitigation actions. In this regard, this Technology Needs Assessment project will allow Timor-Leste to increase resilience of people and ecosystems across the country.
Tonga	The project proposal (a) is in accordance with Tonga's national priorities to support the Energy Sector (including, Climate Proofing and Resilient Development, Secure and affordable Energy Technology and timely and accurate informed Society) and the country's commitment to the relevant global environmental conventions; and (b) was discussed with relevant stakeholders, including the global environmental convention focal points. Tonga has shown commitments on NDC, Tonga Energy Road Map, Renewable Energy targets and Energy Efficiency targets. The TNA will allow Tonga to assess technologies that are needed to meet its energy targets.
Tuvalu	The project proposal (a) is in accordance with Tuvalu's national priorities, including those identified in the National Adaptation Plan of Action and the country's commitment to the relevant global environmental conventions; and (b) was discussed with relevant stakeholders, including the global environmental convention focal points. The country's goal to pursue a zero-carbon development pathway by 2050 (as part of Tuvalu's Intended Nationally Determined Contribution) needs technological innovations and depends on the availability of finance and technologies. The TNA project will allow Tuvalu to identify priority technologies as well as what is required to deploy them.

Yemen	From the perspective of Yemen as an LDC, the TNA process is quite important to enable the country to deal with climate change adaptation as well as mitigation related issues. The project proposal is in accordance with the government's national priorities including those identified in the National Adaptation Programme of Action (NAPA), Nationally Determined Contributions (NDC), 1st, 2nd, and 3rd National Communications (NC), and the country's commitment to the relevant global environmental conventions. The TNA Phase IV project was also discussed with relevant stakeholders in Yemen, including the global environmental conventions focal points.

B. ENABLING ACTIVITY GOALS, OBJECTIVES, AND ACTIVITIES

The proposal should briefly justify and describe the project framework. Identify also key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable. Describe also how the gender equality and women's empowerment are considered in project design and implementation

B.1) Proposed alternative scenario and project framework with a description of project components, outcomes, outputs and deliverables

Like the three previous TNA phases, this project will provide targeted financial and technical support to assist participating developing countries to (i) carry out improved Technology Needs Assessments (TNAs) within the framework of Article 4.5 of the UNFCCC, and (ii) develop national Technology Action Plans (TAPs) for prioritized technologies that reduce greenhouse gas emissions, support adaptation to climate change, and are consistent with national sustainable development objectives.

Lessons learnt and planned improvements for TNA Phase IV

The project builds on best practices and lessons learnt from previous phases, and takes into consideration the findings and recommendations from the TNA Phase I evaluation that was completed in October 2016. The project will also seek to integrate the recommendations from the TNA Phase II evaluation which has been initiated and is expected to be completed in February 2019.

a) Mainstreaming TNA findings and results

This fourth phase of the TNA project will be further embedded into national planning processes. TNA/TAP outputs will support countries for the updating and implementation of NDCs, and support the formulation of planning and reporting documents, and possibly other national planning processes under the UNFCCC such as the National Adaptation Plans (NAPs).

b) Engaging development partners, donors and investors

Experiences from the previous TNA Phase I, II and III confirm that countries are motivated to take ownership and participate in the project activities when stakeholders see a strong possibility for the TNA/TAP process to enhance prospects for attracting investments from public and private sources. Therefore, the engagement of the development assistance partners and finance community at country level is critical to increase opportunities for support of TNA follow-up actions (i.e. TAP implementation). The project will seek out and strengthen (or where necessary, help create new) implementation-focused networks and partnerships involving financial institutions such as regional development banks and donor organizations, as well as national, regional, sectoral and international technology centres during the preparation and finalization of the TNA and TAP reports. The project will also encourage the engagement of these actors at an early stage and throughout the whole process. As part of these efforts, key results and findings of the TNA process will also be summarized into targeted briefing notes/policy briefs to close the process and make the TNA findings accessible and user-friendly.

c) Training a wider group of national stakeholders

National trainings for a wider group of stakeholders would strengthen stakeholder engagement and thereby the quality of the different outputs resulting from the TNA process. A new capacity building package for national TNA teams will be developed and two national training workshops will be delivered for all stakeholders working directly on TNA. In order to use the available resources efficiently, these efforts will be conducted as part of technical support missions (which were also offered during Phase I, II and III).

d) Promoting peer-to-peer learning and exchange

Peer-to-peer exchange and south-south cooperation is seen as very beneficial by the participating countries, as it leads to improved knowledge sharing on TNAs and TAP implementation. The project will facilitate showcasing of best practices from countries that have conducted a TNA; create global TNA stakeholder networks through electronic means (such as webinars).

e) Strengthening national capacities for project preparation and proposal writing

During TNA Phase III new and updated guidance for countries on preparation of bankable projects and proposal writing was developed - as an extension of other existing TNA guidance on accessing international funding for technology projects. The new guidance and newly developed training modules and e-learning under TNA Phase III will be provided to help TNA Phase IV countries in writing project concept notes and proposals, and in identifying which development partner, investment partner, donor or funding

mechanism to target for their prioritized technology actions. Tools were also further developed under TNA Phase III to facilitate the identification, engagement and connection with potential funders and investors especially those present and engaged at national level, and transform project ideas into ready-to submit project concepts to specific donors and investors. This will be utilized under TNA Phase IV to strengthen national dissemination of the information generated through the TNA/TAP process and to engage with funders and donors for the implementation of TNA and TAP priorities.

f) Ensuring strong stakeholder engagement

Proper stakeholder identification and engagement has also proved to be critical for conducting a successful TNA/TAP process since quality and success of the TNA/TAP process strongly depends on political will and stakeholder engagement. Attention is therefore needed to ensure a rigorous stakeholder mapping and a more targeted selection of the stakeholders to engage in the process. The inception missions to the participating countries will aim to identify potential "TNA champions" - notably to form the National TNA Committee[1][1] that provides leadership to the project in association with the National TNA coordinator - among the decision makers and stakeholders that must be involved in the TNA/TAP process. In addition to existing guidance on stakeholder involvement, TNA Phase IV will include a new guidance on gender considerations, both in terms considerations during selection, prioritization and assessment of technologies, but also during elaboration of action plans for the transfer and dissemination of technologies in local and national contexts.

g) Data and local expertise

Finally, local capacities and data availability strongly influences the quality and success of the TNA/TAP process and its outputs. While the project is not in a position to improve local data and information availability, there is a need to ensure more scrutiny in selecting the national TNA coordinator and local consultants, and to further improve or adapt tools, training and capacity building activities. The TNA project inception mission will aim to identify qualified national experts/consultants that would lead the different steps of the TNA/TAP process under the supervision of the national TNA coordinator.

In view of the above, the TNA Phase IV project will continue to offer countries the following new features that were introduced under TNA Phase III:

· Two national training workshops per country to train a wider group of national stakeholders on the overall process and different steps for conducting the TNA, and on the participatory planning and prioritization tools (e.g. multi criteria assessment tool, stakeholder engagement tools, and approaches for gender inclusiveness). This will strengthen the engagement and commitment of stakeholders to support and inform the national TNA process and therefore contribute to increased quality and ownership of TNA/TAP outputs. More emphasis on peer-to-peer exchange in regional workshops to facilitate best practices and knowledge sharing between countries, including from TNA Phase I, II and III through the participation of national experts from the previous phases.

· National events and roundtables, as well as targeted policy briefs and advocacy papers, to present TNA/TAP outputs to potential donors, development partners and investors. This will facilitate the creation of partnerships between the government and these actors for the financing and implementation of prioritized technology actions. More specifically, the roundtable discussions will permit to identify a number of project ideas of common interest to be developed more in-depth (e.g. into project concepts for interested donors or development partners, into PIFs to submit to GEF or GCF concept notes).

Technical assistance for participating countries

The project will provide funding and technical assistance to countries to conduct their TNA/TAP process. The technical assistance will be provided from project start and will include guiding participating countries to: (i) set up their national TNA team and select appropriate local consultants to prepare the various reports, (ii) develop a country tailored workplan and framework for conducting the TNA/TAP process, (iii) identify and engage all relevant stakeholders, as well as (iv) advocate and disseminate TNA/TAP results (including intermediary results along the process) to decision makers, donors, as well as national and international financial and business communities.

The technical assistance, capacity building and guidance will be provided by UNEP/UDP and the following partners referred to as Regional Centres (RCs): the University of South Pacific (USP) in the Pacific region; Environment and Development Action in the Third World (ENDA) and University of Cape Town (UCP) in Africa; and University of West Indies (UWI) for the Caribbean (see table below).

The collaboration with Regional Centres of excellence has been crucial for the success of TNA Phase I and II. Experience and feedback from participating countries tell us that it is crucial that regional centres have local expertise, hence it was for TNA III decided to collaborate with new regional centres for the Pacific and the Caribbean regions, where in both cases the new regional centres have experience with SIDS and local conditions of the respective countries. For the African countries participating in the project, the collaboration with ENDA for the Francophone group of countries, and UCT for the Anglophone countries will be continued. The table below shows the climate change expertise area and region for each RC collaborating with UDP for the execution of the project.

	AREA OF EXPERTISE		REGION		
REGIONAL CENTRE	**Mitigation**	**Adaptation**	**Africa**	**Asia and Pacific**	**LAC**
University of South Pacific, Fiji	X	X		X	
Enda, Senegal	X	X	X		
University of Cape Town, South Africa	X	X	X		
University of West Indies, Jamaica	X	X			X

Regional Centres supporting TNA Phase IV countries

Besides collaboration with regional centres, the project will contract experts from TNA Phase I, II and III, who have shown excellent leadership as technology champions in their respective countries. These experts will support countries as part of TNA Phase IV through experience sharing and knowledge transfer based on their experiences with taking the TNAs/TAPs forward to implementation. One expert from each region will be contracted.

Project strategy

The Project Objective is to provide participating countries targeted financial and technical support to prepare new or updated and improved TNAs, including TAPs, for prioritized technologies that reduce greenhouse gas emissions, support adaptation to climate change, and are consistent with Nationally Determined Contributions and national sustainable development objectives.

The Project Outcome (Outcome 1) will be "Technology Needs Assessment (TNA) processes conducted by national stakeholders in the 17 participating countries, and TNA/TAP results available to be integrated into national planning processes and to be funded and implemented by interested stakeholders". Participating countries will also gain improved in-country capacity on the methodologies and process of conducting a TNA, including stakeholder engagement, multi-criteria analysis, barrier analysis, and preparation of project concepts.

To achieve its overall objective and main outcome, the project is designed around one single component (Component 1: Technology Needs Assessments and development of Technology Action Plans) that will deliver two main outputs:

- Output 1: Tools, methodologies and capacity building packages are further enhanced and applied to support the implementation of the TNA/TAP process

· Output 2: TNA and TAP reports completed, including project ideas, with national consensus on concrete actions for implementation

The outputs of the project will be generated via a transparent participatory approach, with strong stakeholder engagement, which will enable national consensus on priority technologies and actions. The TNA in this project aims to support participating countries to implement their commitments under the Paris Agreement and the revision of their NDC. The TNA/TAP will also help countries in developing their project pipelines for the different financial instruments under the climate change convention (i.e. Green Climate Fund, Global Environment Facility, Adaptation Fund) as well as other potential funds and donors. Provided the political environment in supported countries is conducive to climate action, the project outputs will lead to policy changes and finance flows into priority technology areas. With successful and adequate support mechanisms in place, the project can expect to contribute to accelerating the deployment of technologies that reduce greenhouse gas emissions and/or improve resilience to climate change in the target countries.

Ø ***Output 1: Tools, methodologies and capacity building packages are further developed and applied to support the implementation of the TNA/TAP process***

Output 1 will strengthen stakeholder involvement and capabilities (skills, knowledge, and tools) of key national actors/players in developing TNAs, TAPs and project concept notes. This will lead to the delivery of quality TNAs with a robust nationally driven technology prioritization process for both mitigation and adaptation, improved Barrier Analysis and Enabling Framework reports, TAPs to support accelerated implementation of technologies, and better articulated project ideas. Good communication and awareness raising of TNA/TAP results all along the process will increase interest among national and international institutions, including among private sector and other non-state actors for taking up TNA/TAP results for implementation.

The main purpose of Output 1 is to provide participating countries with (i) methodologies, guidance and tools for conducting technology needs assessments and developing technology action plans covering both adaptation and mitigation aspects, (ii) strengthened national capacities for conducting the TNA/TAP process, and (iii) support to facilitate sharing information and results generated through TNA/TAP processes and secure buy-in for TNAs from senior officials and potential donors/financiers.

The activities to be developed under Output 1 will aim to improve existing methodologies, develop new guidance, build national capacities through national, regional and global level training workshops, and lastly to mobilize governments, development organizations, public and private financiers, and private sector actors for TAP implementation.

Output 1 will be structured around three sub-outputs, corresponding to the three previously-mentioned areas specified under the output’s main purpose:

Sub-Output 1.1: Methodologies, guidance and tools for technology needs assessments and action plans covering both adaptation and mitigation aspects are updated/developed.

Activity 1.1.1 Improvements to existing methodologies, guidance and tools

Step-by-step guide for countries conducting a Technology Needs Assessment: the guidance will be updated to reflect latest changes in methodology development, including on Indigenous peoples, integrating transformational change aspects of technologies, and guidance on technology in cities. Also, additional guidance on dissemination of TNA results at the national level will be developed.

In addition to the updates specified above, there will be a general update of the various existing TNA guidance documents where needed.

Activity 1.1.2: Development of new methodologies, guidance and tools

Guidance on transformational aspects of technology transfer: In the new Technology Framework[2][2], as agreed by Parties during COP24, it is envisaged that there is a potential for 'Reviewing the TNA guidelines and updating them as necessary with a view to TNAs leading to plans and implementation that are aligned with the transformational changes envisioned in the Paris Agreement'. Hence this new guidance will provide recommendations to countries on how to integrate such aspects when preparing their TNAs and TAPs;

Guidance on aspects of indigenous people and technology: Climate change poses threats and dangers to the survival of indigenous communities worldwide, even though indigenous peoples contribute the least to greenhouse emissions. Indigenous peoples are vital to, and active in, the many ecosystems that inhabit their lands and territories and may therefore help enhance the resilience of these ecosystems. In addition, indigenous peoples interpret and react to the impacts of climate change in creative ways, drawing on traditional knowledge and other technologies to find solutions which may help society at large to cope with impending changes. With this new guidance, it is envisioned to create more visibility on such aspects, and to familiarize TNA stakeholders with these, so they can be taken into account as appropriate during the TNA and TAP preparation stages.

Guidance on technology in the context of cities: Cities represent enormous potential as the world's economies and wealth generation are anchored to cities. Many countries and cities are taking advantage of urbanization, building on this economic growth. Sustainable development can only be built upon sustainable cities. So far, there has been limited attention to cities in countries with regards to TNA and TAP priorities, however, this new guidance will inform the TNA stakeholders about how to include cities as potential priority areas in their work under the project.

E-learning on aspects of transformational change aspects of technology transfer, indigenous people and technology, as well as on aspects of technology and cities: UDP will develop e-learning training material based on the new guidance as specified above.

Sub-Output 1.2: Strengthened national capacities for conducting the TNA/TAP process

Activity 1.2.1: Training of trainers workshop

Before any in-country activities, a training-of-trainers workshop will be held to ensure a unified understanding of processes, methodologies and approaches. This workshop is intended for UDP country coordinators & Regional Centre staff, who will subsequently be involved and responsible for delivering national and regional training workshops.

Activity 1.2.2: National workshops

Two (2) national training workshops per country will be conducted to facilitate a broader national capacity building on the TNA and TAP process and its participatory tools and related issues, including technology transfer and diffusion process. The national workshops will focus on the concept of technologies and their relevance for local contexts, multi criteria analysis methodology, stakeholder engagement approaches, gender inclusiveness and so forth. This is intended to build in-country capacities on technology transfer related issues, increase national ownership of the process as well as to encourage national stakeholders to integrate information and results generated through the TNA/TAP process into other national processes.

Activity 1.2.3: Regional workshops

The TNA Phase IV will provide three (3) regional training workshops per region (separate for Francophone and Anglophone Africa), a total of 12 capacity building workshops. Peer to peer experience sharing will also be facilitated during the regional workshops, where TNA Phase either I, II or III champions will be invited to share their experiences from conducting and implementing their TNAs. The experience from TNA I, II and III showed a need to increase the number of regional training workshops from two (2) to three (3) per region. Having three regional training workshops will allow more time for training on issues such as economic assessments, preparation of TAPs as well as more capacity building for the development of sound project concepts, which can be linked to other processes, including implementation plans for how to reach national NDC targets.

The 4 regions for the capacity building workshops are as follows:

- The Caribbean: Saint Kitts & Nevis and the Bahamas
- The Pacific: Kiribati, Maldives, Niue, Papua New Guinea, Solomon Islands, Tuvalu, Tonga and Timor-Leste
- Africa (Anglophone + Yemen): Lesotho, Somalia, South Sudan, Ethiopia and Yemen
- Africa (Francophone): Comoros Union and Guinea-Bissau

Sub-Output 1.3: Information, lessons learnt and results generated through TNA/TAP processes are disseminated and communicated

Activity 1.3.1: Advocacy and networking actions to secure buy-in for TNA from senior officials and donors/financiers

At national level, activities will aim at reaching-out/communicating, advocating and networking to attract high-level governmental support and engage with donor coordination groups (including local representatives from the Multilateral Development Banks), local banks/financiers, Chambers of Commerce and private sector (such as business associations) all along the TNA/TAP process.

At the inception stages, initial consultations will be undertaken with government and donor coordination groups to do some intelligence gathering, find a good entry point to anchor the TNA/TAP process and facilitate the engagement of donors and decision makers, i.e. for TNA/TAP results to feed-in a national planning process such as the NDC process, and identify opportunities to reach-out to public and private decision makers in the country (this was a successful approach that the national TNA coordinator from Lebanon has used in TNA Phase I to engage the decision makers in her country).

Building on the outcomes of these consultations, UNEP/UDP will work with the national TNA teams to develop national project workplans that include a series of activities (with milestones) to foster interactions between practitioners in the fields of investment/finance, technology and policy, and to provide regular updates, briefings and disseminate results to key decision makers, the donor/development partner community, and financial and business communities in the country.

The outputs will include a series of targeted, tailored and country specific briefings and advocacy documents, as well as letters of intent from donors/financiers to support project ideas prioritized in the TAPs.

Activity 1.3.2: Regional and global level dissemination actions

At regional and global levels, activities will aim at disseminating tools, results and best practices; stimulating peer-learning and use of TNA results and promoting priority project ideas and technology actions identified by participating countries to donors, development banks and public and private investors.

At the regional level, the TNA Phase IV project will link with existing technology transfer networking initiatives to disseminate results and promote priority project ideas and technology actions from countries to regional and global stakeholders such as GCF and Adaptation Fund (AF) accredited entities, the CTCN, the GCF, the GEF, the COP, as well as business networks.

At global level, while ‘traditional’ dissemination events such as COP side events, workshops, and conferences will be important tools for diffusion and learning, the project will also utilize information and communication technologies to reach out to the global community. During TNA Phase I a website for the TNA project (www.tech-action.org) was created. The website provides all important project information, such as country reports, technology prioritization factsheets as well as methodologies and tools for the TNA process. This website was uploaded in a new version during TNA Phase III, and will continue to be regularly updated to facilitate improved access to TNA/TAP results for development partners as well as public and private investors. In addition, newsletters will be prepared and disseminated regularly to TNA participants, partner institutions and networks.

Ø ***Output 2: TNAs and TAP reports completed, including project ideas, with national consensus on concrete actions for implementation.***

Output 2 will enable the 17 participating countries to reach (i) a national consensus on technologies for low carbon and climate resilient development in priority sectors, and (ii) a nationally endorsed agreement on actions to be implemented to respond to prioritized technology needs for low carbon and climate resilient development. Participating countries will conduct an in-depth analysis of the actual barriers, including economic and social, that hinder the transfer and uptake of priority technologies, followed by an assessment of the political, institutional and financial options to overcome these barriers. On this basis comprehensive national plans to create enabling framework conditions agreed by key stakeholders in the countries will be prepared in consistency with the domestic, regional, and global contexts.

The main purpose of Output 2 is to provide technical assistance and funding for participating countries to assess their technology needs for both mitigation and adaptation and develop a national action plan to respond to these needs. When participating countries already conducted a TNA earlier, the objective is to review them and make them more strategic and useful in an operational sense, not least in the light of the recent development under the Paris Agreement and requirements for countries to meet their national targets set out in their NDCs.

The activities that will be developed under this output will enable participating countries to identify, prioritize and assess their technology needs, including the identification of enabling framework conditions, for both mitigation and adaptation and thereby support the development of national technology action plans to respond to the prioritized technology needs. As a result, it is expected that key information on national needs and priorities related to climate technology is available from TNAs and TAPs, to help countries meet UNFCCC commitments such as NDCs as well as other sustainable development priorities.

Output 2 will be structured around the five following sub-outputs:

Sub-Output 2.1: TNA reports are developed/updated and approved

Activity 2.1.1: Setting up and preparing for the TNA Process

To achieve the objectives, outputs and expected outcomes of the TNA process, a national TNA team must be formed. This team will, under the leadership of a National TNA Coordinator, conduct the TNA process (see Annex K for further clarification).

Activity 2.1.2: Identification and prioritization of sectors and technologies

The first step is to prioritize sectors based on national development priorities and identification of key GHG emitting sectors. For mitigation, sector prioritization has been conducted very recently for most countries as part of the development of their NDC. For adaptation, some countries have already identified their priority sectors as part of their NAP process.

The prioritization of technologies, within the selected priority sectors, is the first analytical step in the TNA process. The conclusions of this step shall be reported in the first of the three deliverables: Technology Needs Assessment report. The process for identifying and prioritizing technologies follows the approach for conducting Multi-Criteria Analysis. It includes the analysis of the current situation (local context, plans, strategies, policies), preparing technology factsheets and other information, defining criteria for assessing adaptation and mitigation technologies, and organizing stakeholder consultations.

Sub-Output 2.2: Barrier Analysis & Enabling Framework (BAEF) reports are developed and approved

Activity 2.2.1: Analyze the market conditions and diffusion barriers for each of the technologies selected under sub-Output 2.1

The national TNA teams will identify all possible barriers to technology transfer and diffusion through literature survey, interviews and facilitated workshop brainstorms, screening their long-list of barriers to select the most essential ones, and classify their selected essential barriers into a hierarchy of categories.

Activity 2.2.2: Identifying measures to create an enabling framework for the technologies selected under Output 2.1

The national TNA teams will identify specific measures through facilitated workshops. This will include identification and analysis of successful policy measures from national experience and other countries, pre-assessing their potential feasibility in the local context.

The report for the BAEF is the second of the three deliverables that participating countries are expected to submit, and the one for which it is encouraged that countries dedicate most resources to prepare given the analytical requirements.

Sub-Output 2.3: TAP reports (including project ideas) are developed and approved

Activity 2.3.1: Setting the TAP ambition

Based on the results from sub-outputs 2.1 and 2.2, the TNA team will describe the scale and context for technology deployment and diffusion, referred to as the country's TAP 'ambition'. The TAP ambition will be in line with national development goals and NDC targets.

Activity 2.3.2: Identifying actions and activities to include in the TAP

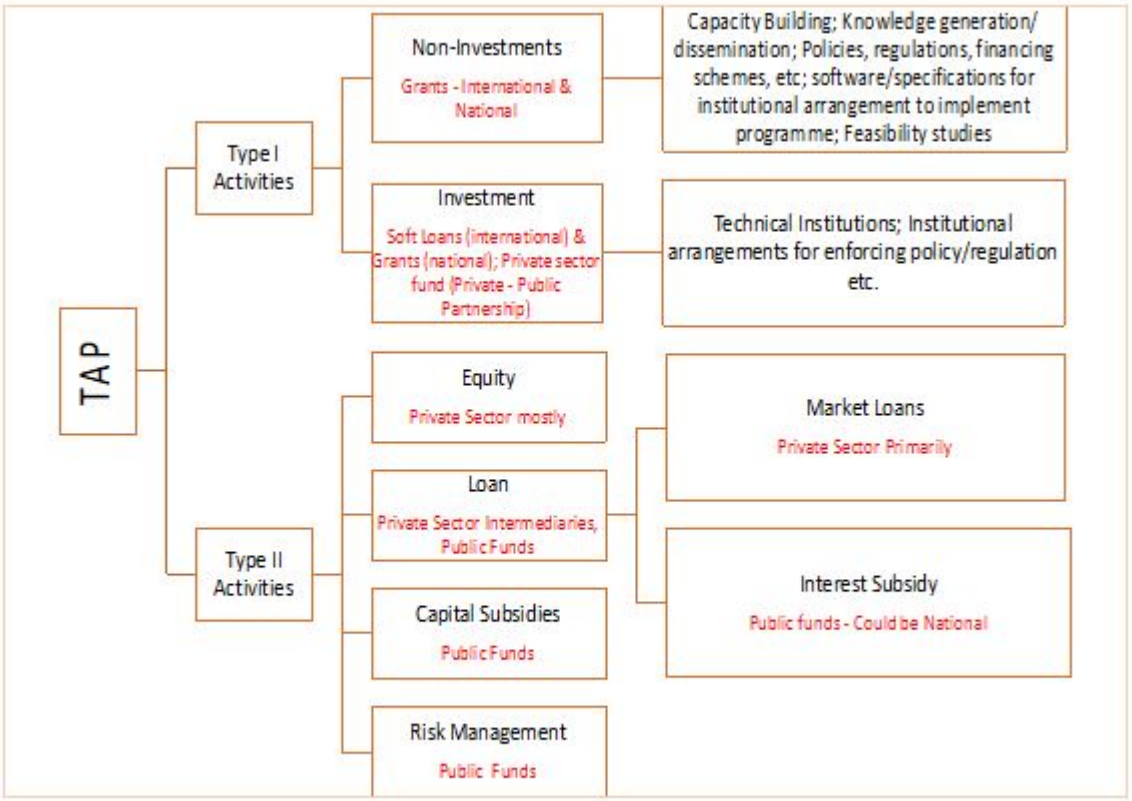
Based on the results from sub-outputs 2.1 and 2.2, national TNA teams will summarize and prioritize the barriers to deployment and diffusion for each technology, as well as select possible measures for addressing these based on their cost and benefits, effectiveness, efficiency, suitability and applicability.

These selected measures will then be turned into a list of Actions, which are then expanded into a set of specific activities, i.e. the specific things to be done to realize an Action. For each activity: (i) the relevant stakeholders will be identified, (ii) a timeframe will be defined and (iii) human and financial resources needed will be estimated. In addition, countries will select some Actions and put these forward in project ideas.

The TAP is the third of the three deliverables that participating countries are expected to submit. It will include a management plan for reporting, risk management, corrective measures, and contingency plans. The preparation of a TAP is the responsibility of the TNA coordinator in collaboration with national consultants and the sectoral or technology working groups within the TNA team, in collaboration with a group of relevant stakeholders.

Sub-Output 2.4: Project concepts are developed and approved

Each country will identify the most promising project ideas (i.e. the ones raising the most interest from decision makers and development partners), and develop and submit at least 1 project concept note targeted at a specific donor, financier or fund. The targeted donor, financier or fund will be identified and selected during project implementation. The project concepts will include detailed information on the level of support required (i.e. Institutional/policy strengthening costs, cost of assessments and feasibility studies required, etc.) for a specific Action. These project concepts will be targeted at specific donors or funding organizations (e.g. GEF, GCF, Adaptation Fund, etc.).



From TAP to implementation

In view of the nature of the TNA/TAP process and its outputs, project concepts will aim to address the barriers and establish the enabling frameworks for technology deployment and technology investments (i.e. Type I activities as per figure above). There may be opportunities to develop project concepts that include both a grant component and an investments component (i.e. a combination between Type I and Type II activities).

Sub-Output 2.5: TNA/TAP results are communicated and disseminated

Activity 2.5.1: National level communication and dissemination

During the TNA process planning stage, national TNA stakeholders will identify specific opportunities and activities for communicating on the TNA process and its results to decision makers and donors/financiers. Activities will include the development of national dissemination packages for disseminating the TNA results (including targeted briefs and documents for various audiences), the organization of national roundtables and national dissemination events

Activity 2.5.2: Global level communication and dissemination

A number of global workshops and events will be organized for sharing of experiences, and dissemination of results and best practices, including:

· TNA Phase IV kick-off workshop in collaboration with UNFCCC: The objective of this workshop is to share not only the results of TNA Phase I, II and III but also to share the experiences from TNA champions of Phase I, II and III. In addition to Phase I, II and III champions, representatives from the regional and international funding community will be invited to participate.

· Global experience sharing workshop in collaboration with UNFCCC: An experience sharing workshop will be organised after the third regional training workshops and before the final preparations of national TAPs. Thus, participating countries will have the chance to interact with other participating countries and share experiences from the process. Similar to the kick-off workshop, TNA champions of Phase I, II and III as well as representatives from the funding community will be invited.

Deliverables

The main deliverables under Output 1 will include:

· Updated and new methodologies and tools to complement existing guidance

· Country capacity building package to support national TNA teams

· Updated regional training package

· One (1) training of trainers workshop

· Two (2) national capacity building workshops per country for the members of national TNA committees, sector working groups and other relevant national stakeholders, a total of 34 workshops for the 17 countries

· Three (3) regional workshops per region for national TNA coordinators and TNA consultants, a total of 12 workshops

· Dissemination of tools and methodologies, including provision of the same to closely related initiatives and networks in order to support technology identification and prioritization work

· Outreach and awareness creation of TNA/TAP results, through preparation and distribution of outreach material and participation in international events, to increase funding and implementation of TNA/TAP results

· One (1) global kick-off workshop at the start of the project and one (1) experience sharing workshop at the end of the TAP preparation stage. These workshops include peer-to peer learnings with champions from TNA Phase I, II, III to facilitate inter-country collaboration and sharing of experience,. lessons learnt and best practices

· Three (3) side-events

· Newsletters

The main deliverables under Output 2 will be a series of minimum 3 reports plus one project concept note per country:

· A TNA report with a detailed description of how the TNA process has been conducted, information on prioritized sectors and subsectors in need of mitigation and adaptation technologies and which methodologies have been used for the prioritization of technologies. The report includes the results of the technology prioritization.

· A Barriers Analysis and Enabling Framework report that will include an in-depth analysis of the actual market, trade and other barriers that hinder the transfer, diffusion and uptake of the priority technologies identified in the first deliverable. In addition, the report includes an assessment of the policy, institutional and finance conditions required to overcome these barriers.

· A TAP report that will present action plans to respond to the country's prioritized technology needs for low carbon and climate resilient development. This report will include project concept notes on selected technology priorities.

· At least one project concept based on selected TAP Actions

· A series of national TNA/TAP dissemination packages (i.e. targeted policy and advocacy briefs)

B.2) Stakeholders

The governments of all participating countries have been consulted and the GEF Operational Focal Points (OFP) have issued Letters of Endorsement.

The project design benefits from the experience and feedback received from all the national stakeholders and regional centres engaged in previous phases. The approach and methodology are the same for all the participating countries and has been tested and proven (as well as constantly improved) in more than fifty countries to date. The majority of countries included in this new TNA Phase IV had previously approached UNEP, UDP, UNFCCC or CTCN through their UN National Climate Change Focal Points or National Designated Entities requesting support for conducting their TNA/TAP process.

The national stakeholders will be identified, consulted and brought on-board when the execution of the project will start, specific guidance in this regard is provided to the countries. As such, one of the first tasks for the national TNA teams will be to draw-up a specific list of stakeholders for consultation based on the priority sectors from their NDC selected for their TNA/TAP process. This list typically includes all the relevant institutions and agencies as well as representatives from the in-country donor community and national experts from academia/research, civil society and private sector (e.g. Ministries of Environment, Water, Transport, Energy, National Planning, Technologies, Finance, Municipal/County Councils, NGOs/CSOs/grassroots/community groups, academia, representatives of civil society as well as research centres, private firms importing and/or producing technologies for mitigation and/or adaptation, in-country financers, international donors).

Regional centres will be involved in the project, first as recipients of training and information, and in providing support directly to the countries. These regional centres are recognized climate change expert institutions in their respective regions such as the Environment and Development Action (ENDA, Senegal), the University of West Indies (UWI, Jamaica), the University of South Pacific (USP, Fiji), and the University of Cape Town (UCT, South Africa). These centers have gained considerable experience, knowledge and skills through their engagement in previous and current TNA phases and enhanced their expertise in providing technical assistance for TNAs and TAPs to countries. They will further contribute to project design, will be trained on any revised and new guidance to be delivered by the project, and will continue providing technical assistance to national teams.

Stakeholder Engagement Plan:

Main category	**Stakeholder name**	**Existing activities with potential to be leveraged**	**Content engagement, contributions to project implementation**
Executing Agency	UDP	Experience and know-how from TNA Phase I, II and on-going TNA Phase III project	UDP is the Executing Agency for the project at global level and is responsible for day-to-day management and execution of the project, including financial management and project reporting.

Main category	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to project implementation
Implementing Agency	UNEP	Experience and know-how from TNA Phase I, II and on-going TNA Phase III project TEC observer and member of the TEC's TNA taskforce Host organization for the CTCN	The project Implementing Agency is the UNEP Climate Mitigation Unit. It is responsible to the GEF for the project's oversight, the use of resources as written in the EA request Document, or any amendments agreed to it by all donors. The Energy and Climate Branch provides strategic guidance, supports the project and facilitates linkages with its other climate technology programmes and projects.
Recipient governments	Climate Change Focal Points and National Designated Entities	National Communications, CBIT, BURs, NDCs	The national entry point for a TNA is the UNFCCC focal point office. As for TNA Phase II and III, TNA Phase IV countries will be encouraged to nominate their TNA coordinators from the same office as the main focal points in the countries for the Technology Mechanism of the UNFCCC: the National Designated Entities (NDEs) of the CTCN. In cases where NDEs are not TNA Coordinators, they should have continuous collaboration with the TNA Coordinator and take actively part in the TNA process through participation in meetings etc. In addition, the National Steering Committee, which is the key guiding body of the project, should be comprised of members responsible for policy making from all relevant ministries as well as key stakeholders from the private sector. The National Steering Committee provides political acceptance to the TNA process within a country and will be responsible for political endorsement of the Technology Action Plans. In some countries there is an existing inter-ministerial National Climate Change Committee, which could also be utilized as a steering committee for the TNA project, ensuring coherence and linkages between national climate change activities.
Regional Centers (NGOs and academia)	ENDA, UWI, USP, UCT	TNA Phase I, II and III	Like in TNA I, II and III, the Regional Centers and consultants will, in cooperation with the staff at UDP, play a substantial role in providing technical support to the national TNA teams. The main responsibilities of the RCs will include organization and facilitation of regional training workshops, provision of technical and process support to the countries within the region during the whole project implementation, partnering with UDP in the organization and facilitation of regional experience sharing workshops for countries, and review and comment country deliverables.

Main category	Stakeholder name	Existing activities with potential to be leveraged	Content engagement, contributions to project implementation
Private Sector	thyssenkrupp, C40	Perspectives from the private sector including aspects of investment potential for technology providers	Provide perspectives from the private sector, on how TNAs and TAPs can be taken forward for implementation, during strategic events. This could be joint activities during COP but, for example, also through the Regional Climate Weeks of which UDP, UNEP and UNFCCC are co-organizers. Collaboration with C40 will be sought in the elaboration of Cities theme for TNA IV. UDP already has existing collaboration with C40. UDP and UNEP already engages with thyssenkrupp representatives, through its role as a business representative in the TEC, and strengthening of this collaboration during TNA IV will be sought as well.
Potential donors/financial institutions	Green Climate Fund, Adaptation Fund, Danida	Funding of piloting and implementing technology related projects	The Global TNA Project Steering Committee will be composed by a representative from the GEF but also from other organizations and institutions, e.g. Accredited Entities, the Green Climate Fund, the UNFCCC Secretariat, the UNFCCC Technology Executive Committee, the Climate Technology Centre and Network, etc.
International organisations	UNFCCC Secretariat, UNFCCC Technology Executive Committee member, CTCN	Perspectives from international policy context in view of the Paris Agreement and work of the UNFCCC Technology Mechanism	The two bodies of the UNFCCC Technology Mechanism, the TEC and the CTCN, will serve as an advisory role of the TNA Phase IV project, since both are members of the TNA Project Steering Committee. Also, the TNA Phase IV project will continue working closely with the CTCN in order for countries to receive support for taking their TNA/TAP results forward
Civil society	Community groups, local non-governmental organizations, indigenous groups, charitable organizations, faith-based organizations, professional associations, and foundations	Perspectiives from local and national contexts.	NGOs, labour leaders, faith-based organizations, religious leaders and other civil society representatives play a critical and diverse set of roles in societal development. The activities of civil society includes holding institutions to account and promoting transparency; raising awareness of societal issues; delivering services to meet education, health, food and security needs; implementing disaster management, preparedness and emergency response; bringing expert knowledge and experience to shape policy and strategy; giving power to the marginalized; and encouraging citizen engagement. Hence the engagement of the civil society in the national TNA process is important, since they speak the voice of society and also have the power to influence the actions of elected policy-makers and businesses.

The project involves a wide range of stakeholders both at the national level in the 17 countries supported and those within partner institutions including RCs. One of the first tasks of each country team will be to draw-up a specific list of stakeholders for consultation. This will include relevant institutions and agencies as well as experts according to national circumstances who would be at the core of the project. Ministries of Environment, Water, Agriculture, Transport, Energy, National Planning, Technology and Science, Finance, Legal/Law/Policy formulation, Municipal/County Councils, grassroots/community groups representing households as potential technology users, representatives from indigenous peoples groups as well as academia, representatives of civil society and research centres linked to climate change mitigation and adaptation will be involved. Private enterprises importing and/or producing technologies for mitigation and/or adaptation will be associated, and so will potential in-country financiers, national focal points and agencies of climate funds (e.g. GEF OFPs, NDAs, NIEs, NDEs), and international donors.

The experience from the TNA Phase I, II and III is that most of the relevant sectors have been represented in the TNA teams and therefore the same institutional setting will be suggested for countries in TNA Phase III. This applies also to National Steering Committees. Emphasis will be made on bringing on board decision makers from both public and private sectors. It should be emphasized that it is seen as utmost important to have commitment to the TNA/TAP process from the private sector. The private sector should be represented in the National Steering Committee as well as in the sectoral working groups, and should also be consulted during the various stages of the TNA/TAP process from the identification of technologies and analysis of related barriers and enabling framework requirements to development of project ideas and concept notes.

In addition, UDP is part of the Technical University of Denmark and works closely with the RCs during the implementation of the project. The RCs are all part of the research community in the respective regions and internationally, including University of Cape Town (Africa), University of West Indies (in the Caribbean), and University of South Pacific (in the Pacific Islands). At country level, the TNA consultants are often also lecturers or researchers in the local universities, and universities and research institutions are, in most cases, also part of national working groups. The linkages with the national and regional research communities will continuously sought to be strengthened throughout project implementation.

Finally, select what role civil society will play in the project:

- *Consulted only;*

- *Member of project steering committee or equivalent decision-making body;*

B.3) Gender Equality and Women's Empowerment

TNAs and associated outputs such as prioritized technologies, and analyses of barriers to their transfer are expected to provide a powerful decision-support tool for technology transfer managers and development planners. Resulting Technology Action are expected to yield social benefits linked closely to reduction of greenhouse gas emissions while

reducing vulnerability of the society to climate change impacts, hence increasing climate resilience of most vulnerable groups and sectors, including women. While the capacity building elements are very strong and focused on producing high quality TNAs involving all relevant stakeholders at national levels as well as providing the roadmap for technology adoption, implications on gender on the one hand and civil society on the other will be seen when implementing the identified measures.

Gender analysis on technology transfer is being integrated in TNA guidance tools and methodologies in the currently on-going TNA phase III project and a specific guidebook for developing a gender-responsive TNA has been developed. This will be further improved and applied into the Phase IV project. In addition, gender considerations will be taken into account in the engagement of various stakeholders in the process and in the identification of key decision-makers, target users and national champions.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women's empowerment? ***Yes***

If possible, indicate in which results area(s) the project is expected to contribute to gender equality:

- closing gender gaps in access to and control over natural resources;

- improving women's participation and decision making; and or

- generating socio-economic benefits or services for women.

Does the project's results framework or logical framework include gender-sensitive indicators? ***Yes*** *(refer to indicators/targets C and 2 in Annex A)*

•Gender analysis:

To help ensure that both women and men can benefit from climate change adaptation and mitigation technologies and that gender inequalities in TNA project activities and outcomes will be reduced or eliminated, the TNA project focus on two key areas of activity to ensure integration of gender objectives in TNAs:

1. Institutionalization of gender-mainstreaming by the TNA team in order to create the long-term capacity to address gender issues in climate change adaptation and mitigation and to ensure that such issues are included in project documents.

2. Implementation of actions, including conducting gender analyses in considering technology options, agreeing on gender-specific goals in the TNA, and integrating gender issues into TAPs and throughout TNAs.

Because gender issues are different across countries, regions, sectors and types of technology, a systematic gender analysis of technologies assessed in the TNA will reveal gender-differentiated climate change needs and priorities, as well as gender inequalities in terms of opportunities and outcomes. Gender mainstreaming in the TNA can therefore redress these problems within the context of climate change.

•Gender Action Plan:

The gender action plan below details how gender equality and women empowerment will be mainstreamed in the TNA Project.

Task	**Gender Design Features/activities**
Cross-cutting approaches	· Equal training opportunities will be available for men and women · Team member employment on the project will comply with equal opportunity policies for both genders
Output 1	· A specific guidebook under the TNA project is dedicated to gender: 'Guidance for a gender-responsive Technology Needs Assessment'. The guide aims to provide practical guidance on how to address systematically existing and potential gender inequalities specific to the climate change adaptation and mitigation objectives set out in TNAs. · All training materials, methodology, and dissemination will be gender sensitive. · At least 30% of women trainees/participants in project workshops (all training and workshops' attendance lists shall be disaggregated by gender). Feedback questionnaires and their results will be disaggregated by gender.
Output 2	· Both male and female consultants will be encouraged to apply as consultants in countries · National TNA Coordinators will be encourage to diversify their committee and working groups, where appropriate, so competent experts of both genders are involved

B.4) Private sector engagement

Experiences from the previous TNA Phase I and II and the on-going TNA Phase III confirm that private sector stakeholders are motivated to participate in the project activities when they see a strong possibility for the TNA/TAP process to enhance prospects for business. Therefore, private sector actors such as technology producers/providers/installers generally only come on board once their technologies have been prioritized (i.e. when they see a real potential for future business opportunities). At that stage of the process, the TNA/TAP process becomes more interesting for them and they can provide valuable inputs notably for the barrier analysis and development of the TAP. In many cases, it is challenging to engage them formally and earlier in the process and the national TNA team (experts) often seek their inputs through one-to-one meetings.

It should be noted though that in each of the participating countries, the private sector will be formally represented in the National Steering Committees (usually through representatives of business associations or chambers of commerce) while the specific companies/entrepreneurs will be engaged in the sectoral working groups, and will be consulted by the national teams leading the TNA/TAP at various stages of the process from the identification of technologies and analysis of related barriers and enabling framework requirements to development of project ideas and concept notes.

B.5) Risks

The following table indicates the main risks identified that might prevent the project objectives from being achieved or may be resulting from project implementation, and proposes measures that address/mitigate these risks:

Risk description	Main category	Impact severity	Likelihood	Risk Mitigation Strategy and Safeguards	By Whom / When?

Risk description	Main category	Impact severity	Likelihood	Risk Mitigation Strategy and Safeguards	By Whom / When?
1. Project affected by political instability or unrest, leading to lack of engagement and commitment with stakeholders.	Political	High	Medium	UNEP, UDP and regional centers have many years of engaging with politically unstable countries. In some cases necessary workshops, training and meetings have been held outside of the country. Risk of non-engagement is significantly reduced through continued communication and follow up with national experts / consultants, counterparts within the national government entities, and clear communications to national entities on the benefits of the project.	UNEP, UDP and regional centers throughout project lifetime
2. Stakeholders not engaging as expected in the project	Institutional	Major	Medium	(i) Careful selection of potential champions, (ii) Use of regional centers networks, (iii) Demonstrate clear benefits to participants, access to networks and knowledge for improving business or institution. (iv) Support, interest and active involvement of decision makers within countries by utilising previous contacts at high level in ministries and government agencies.	UNEP, UDP and regional centers throughout project lifetime
3. Limited capacity of local partners hinders implementation.	Technical	Major	Medium	Selection of partners through competitive bidding, paying attention to established capacity. Resources dedicated to further capacity building	UNEP, UDP and regional centers in collaboration with National TNA focal points

Risk description	Main category	Impact severity	Likelihood	Risk Mitigation Strategy and Safeguards	By Whom / When?
4. Scaling up and replication of TAPs is unsuccessful	Financial	Major	Likely	The project aims to build strong local, national and international partnerships with all relevant stakeholders to support learning, scale up and replication. To reduce risk of failure to attract donor funding, the project will support country-led consultations with potential donors, with a view to establishing a clear understanding of donor funding policies, as well as securing technical support from donors in the formulation of project ideas from the TAPs. Since bilateral aid constitutes most aid flows to developing countries, the project will include specific provisions for periodic donor consultations focused on TNA-TAP activities, status updates, and next steps closely linked to existing national donor coordination mechanisms in the country. The project will also push for mainstreaming TNA/TAP priorities into national and sectoral development plans or strategies that influence (and are influenced by) the direction of donor support initiatives in the country. UNEP, UDP and regional centers work actively to encourage countries using TA mechanisms (i.e. CTCN, GCF Readiness) to help countries moving from TAP priorities to technology deployment projects. Overall, risk will be reduced significantly through the measures envisaged to bring investors, funders and national governments on board from an early stage to enhance the conditions for implementation.	UNEP, UDP and regional centers in collaboration with National TNA focal points and National TNA Steering Committees

B.6) Knowledge Management

The experience, lessons learnt and best practices will be documented along project implementation notably with a view to better respond to the needs of financiers and decision makers and improve the TNA/TAP methodology. Interactions with donors and development assistance partners will facilitate feedback on the TNA process and related methodologies. The project team (comprising UNEP, UDP and Regional Centre staff as well as internationally recruited consultants with experience from TNA I, II and III), together with national TNA teams will use any concerns/recommendations to design and implement improvements that will, in turn, lead to better quality TNAs, TAPs and specific project concepts for funding consideration.

The project will put a strong emphasis on the dissemination of the outputs produced at national, regional and international level. The efforts for national communication will be reinforced compared to previous phases of TNAs, to ensure that outputs will be reaching out and used by the target beneficiaries and users. The project will also enable stronger inter-country cooperation, beyond the current regional training support, as this could lead to better co-ordination of TNAs and requests for international support. The project will create links with successful TNAs to ensure up-to-date information dissemination, such as lessons learned and knowledge exchange between country teams and experts (South-South cooperation).

The website Tech-Action hosted by UDP keeps track of TNA project activities and impacts and includes all materials needed to do a TNA and TAP (http://www.tech-action.org/). In addition, the UNFCCC has recently updated its website on technologies, including information on TNAs where all TNA reports are also uploaded and information on TNAs is shared (http://unfccc.int/ttclear/tna). Both websites will continue serving for TNA Phase IV.

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[1] The National TNA Committee is the core group of decision makers and includes representatives responsible for implementing policies from concerned ministries, members familiar with national development objectives, sector policies, climate change science, potential climate change impacts for the country, and adaptation needs. Refer to Annex K for further description of the role and responsibilities of the National TNA Committee.

[2] https://unfccc.int/sites/default/files/resource/cma2018_3_add2_new_advance.pdf#page=4

C. DESCRIBE THE ENABLING ACTIVITY AND INSTITUTIONAL FRAMEWORK FOR PROJECT IMPLEMENTATION

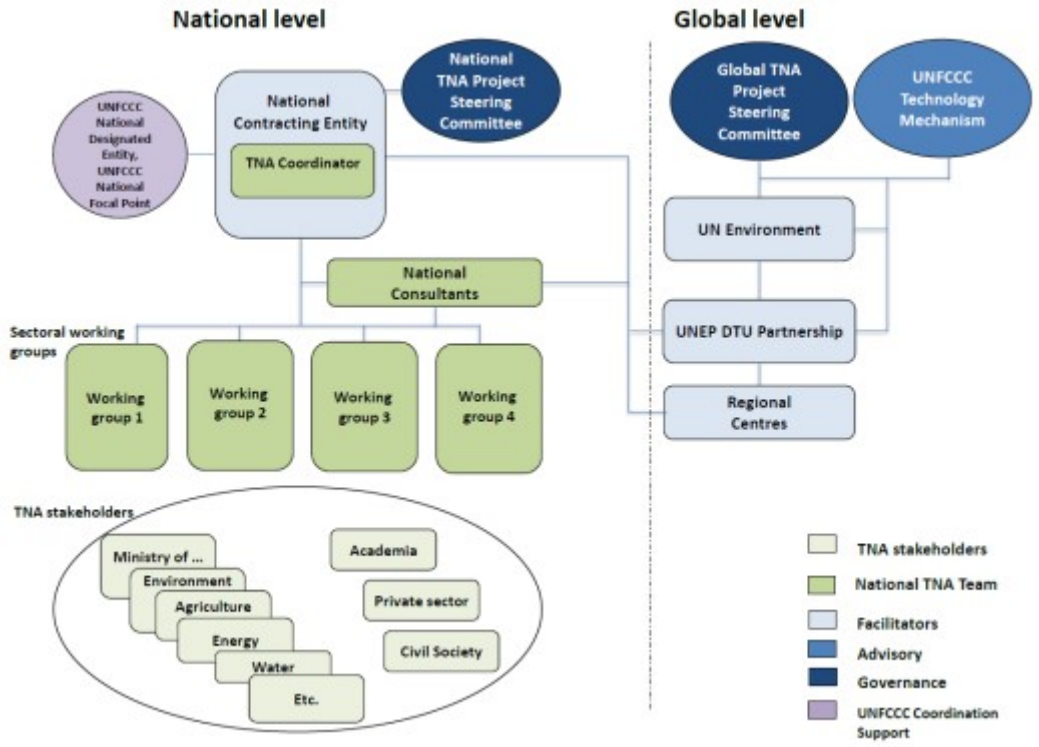
Discuss the work intended to be undertaken and the output expected from each activity as outlined in Table A

C.1) Institutional arrangements

As the GEF Implementing Agency, UNEP's GEF Climate Mitigation Unit will be responsible for project oversight and ensuring compliance with GEF and UNEP policies and procedures.

The UNEP DTU Partnership (UDP) will act as the project's Executing Agency at the global level. Its main task is to provide guidance to countries (i) on setting up national project implementation structures using the existing model from TNA I, II and III, and (ii) on conducting the TNA process. In this task, UDP will work with some selected regional institutions labelled as Regional Centres.

To achieve the outputs and outcome of the TNA process at the country level, national TNA teams must be formed (see figure below). The national TNA team will, under the leadership of a National TNA Coordinator, conduct the TNA process. The National TNA Team is an umbrella that refers to the TNA Committee, the sectoral working group and the national consultants.



Institutional structure for TNA implementation

This institutional structure in the participating countries will enable the engagement of key sectoral actors, including experts and decision makers, in the TNA process, and facilitate their use of its results. Key actors include representatives from key ministries, e.g. ministries of finance, trade, industry, transport, forestry, energy, water, health, and agriculture. The TNA process will be conducted through a stakeholder driven approach lead by the national TNA team, composed by the National TNA Coordinator, the TNA consultants and the sector working groups.

The national consultants are selected by the National Contracting Entity, with approval by the National TNA Project Steering Committee, and with support, guidance and approval from UDP as well. The consultants will work in close collaboration with the National TNA Coordinator and the sectoral working groups. The consultants are reporting directly to

the National TNA Coordinator. The consultants' overall task is to support the entire TNA process from identification and prioritization of sectors and technologies throughout the preparation of TAPs and project ideas. The consultants are essential to the implementation of the TNA project at national level and preparing its deliverables. Together with the National TNA Coordinator, the consultants participate in the national and regional capacity building workshops, and with the skills gained during this training, they facilitate the work in the sectoral working groups and produces the TNA deliverables under the auspices of the National TNA Coordinator.

The Global TNA Project Steering Committee will be composed by a representative from the GEF, UNEP its Implementing Agency role and UDP in its Executing Agency role, but also by representatives from other organizations and institutions. This includes, for example, the Word Bank, Green Climate Fund (GCF), Adaptation Fund, UNFCCC Secretariat, UNFCCC Technology Executive Committee, CTCN, NDC Partnership, the Least Developed Countries Technology Bank, GIZ, and UNIDO. The Steering Committee and its meetings will be jointly organised by UDP and UNEP.

A full description of the TNA institutional set up is described in the TNA guide note on 'Organising the National Technology Needs Assessment (TNA) Process'.

Finally, UNEP's Energy and Climate Branch (Economy Division), will provide in-kind backstopping services to UDP through strategic, technical and methodological support for project implementation; it will support the dissemination of results and engagement of donors/development partners to foster TAP implementation; and facilitate synergies and links between the project and UNEP's other climate change programmes and projects.

C.2) Coordination with other initiatives

To prepare the inception of the TNA/TAP process, each participating country will identify the relevant national GEF projects and initiatives for the national TNA team to link or coordinate with. The team of national consultants will further map and target relevant projects and initiatives to build on or engage with. The project will coordinate with and support or build on the country activities/results from the following programmes where operational:

· The Capacity-Building Initiative for Transparency (CBIT) funded by GEF which "supports developing country Parties, upon request, in meeting enhanced transparency requirements as defined in Article 13 of the UNFCCC Agreement in a timely manner".

· The Global Support Programme (GSP) funded by GEF which provides support to non-Annex I Parties in order to prepare National Communications (NCs) and Biennial Update Reports (BURs) that are submitted to the UNFCCC.

· NDC support programmes which support countries in strengthening and foster implementation of their national commitments to the Paris Declaration, including the NDC Partnership where collaboration has been established under TNA Phase III.

· GCF activities (notably readiness activities) in the countries; TNA is today recognized by GCF as a tool to support pipeline development.

The project will also encourage National TNA teams to use global initiatives and platforms offering technology knowledge or/and advisory support services such as:

· CTCN

· SDG Technology Facilitation Mechanism

· World Bank's InfoDev and its network of Climate Innovation Centers (CICs)

· UNIDO's Regional Centers for Renewable Energy and Energy Efficiency

· UN:CC Learn

· NREL's Clean energy solutions centre

· ENEA's Energy Access Programme

· weADAPT

The project will also continue its close collaboration with the Climate Technology Center and Network (CTCN), to increase opportunities related to technical assistance, knowledge sharing and networking activities. In this regard, the project will encourage the nomination of TNA coordinators to be within the same office as the National Designated Entities (NDEs) of the CTCN. Out of the 36 countries that participated in TNA phase I, 16 national TNA coordinators are now NDEs, and 15 other NDEs are part of the same institution as the TNA coordinator. Out of 27 countries participating in TNA phase II, 8 TNA focal points are also NDEs, and 6 other NDEs are part of the same institution than the TNA coordinator. Finally, out of the 23 countries participating in TNA phase III, 11 TNA coordinators are also NDEs, and the 4 others are part of the same institution as the NDE.

UNEP and UDP are also actively working with the UNFCCC TEC TNA task force. For example, in 2015 and 2016, they collaborated to develop a new guidance for preparing TAPs and there is an ongoing collaboration to enhance and monitor TAP implementation in developing countries. Building on this, the UNEP, UDP and the UNFCCC Secretariat also continuously collect and disseminate success stories, best practices, lessons and challenges within countries in terms of implementation of TAPs. This has resulted in the

publications 'Stories from the Technology Needs Assessments' (2017), 'Summary of Country Priorities Technology Needs Assessments 2015 – 2018' (2018) and a second 'Stories from the Technology Needs Assessments' (2019) – all of which can be found on the resource center of the TNA website.

The TNA process is a country led activity and TAP technology priorities and actions are directly responding and linked to the relevant priorities from national plans and strategies of participating countries, based on which the United Nations Development Assistance Framework (UNDAF) and country partnership strategies of other development partners are developed. As such, the national TNA teams will consult with relevant UN agencies and other development partners in the country during the TNA process.

[1] https://tech-action.unepdtu.org/resources/?fwp_content_type=tna-story

D. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT

D.1) Cost effectiveness

Technology issues are at the centre of climate change negotiations and at COP24 the Parties to the UNFCCC have re-emphasized the importance of conducting Technology Needs Assessments in developing countries and reiterated the need for the financial mechanisms under the convention to support this. Reduction of greenhouse gas emissions has a global benefit, and measures to reduce emissions must be undertaken in developing countries to meet goals agreed under the Convention and the Paris Agreement. GEF involvement is justified as this is a response to the UNFCCC decisions and guidance.

At the national level, successful implementation of this project in the participating countries will help their governments to remove barriers by (i) establishing the necessary enabling frameworks for accelerated technology transfer and diffusion of prioritized climate technologies, and (ii) lead to associated reductions in GHG emissions and an increase in the countries' resilience to challenges posed by climate change.

At the global level, UDP – a UNEP collaborating centre - is an important partner to the project, because it is a recognized partner under the UNFCCC and it is the architect behind the methodology and guidance that is developed for Technology Needs Assessments.

At the regional level, for cost-effectiveness purposes, UDP works with Regional Centres contracted under the project to organize and conduct the regional training workshops and act as regional TNA helpdesks for the countries. This approach has proven to be very efficient: while building the regional Centres capabilities, the project can leverage their networks within the countries and rely on their cultural sensitiveness and local knowledge within the different regions.

From experience, the participating countries highly value the peer exchanges on a regional level taking place as part of the TNA capacity building workshops. In TNA Phase IV, new approaches will be further explored to enhance peer to peer exchanges and learning as an autonomous way of building national capacities to conduct Technology Needs Assessments.

As far as other alternatives are concerned, when compared to the Enabling Activities project, the TNA project is more cost effective. Indeed, the Enabling Activities approach is built around a US$ 10 million umbrella project (providing international technical support) alongside stand-alone country projects of US$ 500,000 each. In the case of the TNA project, both the country activities and the international technical support are all included under the US$ 270,000 funding allocation per country.

Finally, the ultimate purpose of the TNA projects is to identify and analyse priority climate technologies to attract investments in the different countries. In this instance, the TNAs are recognized as an efficient and good tool to support countries in preparing their project pipelines for the funding mechanisms under the Convention and other potential funding sources.

D.2) Global environmental benefits and/or adaptation benefits

Global environmental benefits will stem from policy changes to promote technology development, transfer and deployment, and financial support gained for project implementation. These measures are expected to accelerate clean technology diffusion and bring about a reduction in greenhouse gas emissions and resilience to climate change effects as a result.

Other benefits expected to be delivered by the project include: better in-country coordination amongst institutions related to technology transfer and adoption; increased awareness of opportunities and associated benefits of technology adoption by decision makers buttressed by increased local capacity to assess adequate, priority technologies according to country needs, identify barriers to their adoption and recommend actions for ensuring the deployment of the prioritized technologies.

The project will ensure that environmental safeguards are included in any TAPs that are developed. Moreover, the actions of the TNAs and TAPs will present the opportunity to mitigate GHG emissions and/or reduce the vulnerability of sectors and livelihoods to the adverse impacts of climate change, thus strengthening resilience to climate change. Cleaner technologies will lead to reduced pollution which will result in improved health of the local population and reduce its vulnerability to the adverse impacts of climate change. The deployment of clean technologies will improve access to modern energy services and increase water and food security in the countries.

D.3) Innovation, sustainability and potential for scaling up

This project will take into account lessons learned from TNA Phase I and II. The project will include national training workshops in addition to regional trainings like for TNA Phase III. Having national workshops will allow having more national stakeholders trained, including a larger number of staff at the coordinating entity and the technology/sector working groups. The project will also continue strengthening and using e-learning materials that have been developed, tested and successfully used in TNA Phase II and are now also being used by the TNA Phase III countries to complement national, regional and global training workshops.

As for TNA Phase III, TNA Phase IV will also include donor roundtables at country level and strengthen country networks. In collaboration with the UNFCCC and its Technology Executive Committee, the project will continue tracking results implementation from TNA Phase I, II and III as a means for showing good examples and learning from countries carrying their TNA/TAP results forward after project completion.

Sustainability of impacts will come from policy change and funding for project proposals that follow the TNA process. If the project is successful in attracting funding and bringing about policy change there is an expectation that countries will be the recipients of more technologies. With the revision and enforcement of policy revisions, the increase in technology transfer would be sustained.

The project includes technical training for national consultants, national TNA coordinators as well as national stakeholders on identifying, prioritizing and assessing technologies, assessing barriers, identifying enabling framework conditions, and developing action plans to overcome these. This approach will promote sustainability beyond the lifespan of the project, since a wide range of national actors will have acquired knowledge and skills for technology assessments which are important for taking technology plans further to implementation. Moreover, it will increase capacity of the stakeholders to replicate the process and methodologies for assessing other technologies in detail, or in additional sectors, which may also be beneficial to the country, not least in terms of requirements for NDC implementation planning.

D.4) Benefits

Technology Needs Assessment presents a unique opportunity for countries to track their needs for new technologies, equipment, capacities and skills necessary to mitigate GHG emissions and reduce the vulnerability of sectors and livelihoods to climate change. TAPs systematically address practical actions necessary to reduce or remove policy, finance and technology related barriers to the uptake and scaling up of investment in low-carbon and climate resilient technologies.

Resulting technology actions are expected to yield social benefits linked closely to reduction of greenhouse gas emissions while reducing vulnerability of the society to climate change impacts, hence increasing climate resilience of most vulnerable groups and sectors. Direct benefits expected to be delivered by the project include: better in-country coordination amongst institutions related to technology transfer and adoption; increased awareness of opportunities and associated benefits of technology adoption by decision makers buttressed by increased local capacity to assess adequate, priority technologies according to country needs, identify barriers to their adoption and recommend action that are directly related to project activities. This TNA Phase IV project aims to support participating countries to implement their commitments under the Paris agreement and the revision of their NDC. Hence, some of the indirect benefits expected from the project include establishment of stable policy environments featuring strong incentives for increased flows of domestic and foreign investments in prioritized adaptation and mitigation technologies.

Global environmental benefits will stem from policy changes to promote technology development, transfer, and deployment, and financial support gained for project implementation. These measures are expected to accelerate clean technology diffusion and bring about a reduction in greenhouse gas emissions and resilience to climate change effects as a result. Other benefits expected to be delivered by the project include: better in-country coordination amongst institutions related to technology transfer and adoption; increased awareness of opportunities and associated benefits of technology adoption by decision makers buttressed by increased local capacity to assess adequate, priority technologies according to country needs, identify barriers to their adoption and recommend actions that are directly related to project activities.

In addition, the TNAs and TAPs will contribute to achieving the Sustainable Development Goals (SDGs) particularly, but not exclusively, the following:

- Goal 6 “Clean water and Sanitation,” specifically, (6.A) “By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.”
- Goal 7 “Affordable and Clean Energy,” and specifically, (7.A) “By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology”.
- Goal (9) “Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation,” and specifically, (9.B) “Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities.”
- Goal (13) “Take urgent action to combat climate change and its impacts,” and specifically (13.1) “Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries”, (13.2) “Integrate climate change measures into national policies, strategies and planning” and (13.3) “Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning”.
- Goal (17) “Strengthen the means of implementation and revitalize the global partnership for sustainable development,” specifically, (17.14) “Enhance policy coherence for sustainable development.”, (17.16) “Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.”, and (17.7) “Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed.” will be achieved.

The project will ensure that environmental safeguards are included in any TAPs that are developed. Moreover, the actions of the TNAs and TAPs will present the opportunity to mitigate GHG emissions and/or reduce the vulnerability of sectors and livelihoods to the adverse impacts of climate change, thus strengthening resilience to climate change. Cleaner technologies will also lead to reduced pollution which will result in improved health of the local population. The deployment of clean technologies will improve access to modern energy services, and increase water and food security in the countries.

E. DESCRIBE, DESCRIBE THE BUDGETED M & E PLAN

The project will follow UNEP standard monitoring, reporting and evaluation processes and procedures. Substantive and financial project reporting requirements are summarized in Annex J. Reporting requirements and templates are an integral part of the UNEP legal instrument to be signed between the executing agency and UNEP.

The project's Monitoring and Evaluation (M&E) plan is in line the GEF's M&E policy and UNEP's Evaluation Policy and Programme Manual. In addition, the Project Results Framework (Annex A) includes SMART indicators for each expected outcome and end-of-project targets. These indicators along with the key deliverables and benchmarks included in the workplan (Annex L) will be the main tools for assessing project implementation progress and whether project results are being achieved. The means of verification and the costs associated with obtaining the information to track the indicators are summarized in Annex J. Other M&E related costs are also presented in the Costed M&E Plan and are fully integrated in the overall project budget.

The M&E plan will be reviewed and revised as necessary following the project inception missions in the 17 new TNA countries to ensure project stakeholders understand their roles and responsibilities vis-à-vis project monitoring and evaluation. Indicators and their means of verification may also be fine-tuned following the project inception missions in the 17 countries. Day-to-day project monitoring will be the responsibility of the project management team but other project partners will have responsibilities to collect specific information to track the indicators. It will be the responsibility of the Project Manager to inform UNEP and the Project Steering Committee (PSC) of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely fashion. As for TNA Phase I, II and III, the Project Manager and UNEP will have regular consultations with the PSC. The PSC will receive periodic reports on progress and will be asked to make recommendations to UNEP concerning the need to revise any aspects of the Results Framework or the M&E plan.

The PSC will receive periodic reports on progress and will make recommendations to UNEP concerning the need to revise any aspects of the Results Framework or the M&E plan. Project oversight to ensure that the project meets UNEP and GEF policies and procedures is the responsibility to the Task Manager in UNEP-GEF. The Task Manager will also review the quality of draft project outputs, provide feedback to the project partners, and establish peer review procedures to ensure adequate quality of scientific and technical outputs and publications.

Project supervision will take an adaptive management approach. The Task Manager will develop a project supervision plan at the inception of the project which will be communicated to the project partners during the inception workshop. The emphasis of the Task Manager supervision will be on outcome monitoring but without neglecting project financial management and implementation monitoring. Progress vis-à-vis delivering the agreed project global environmental benefits will be assessed with the PSC at agreed intervals. Project risks and assumptions will be regularly monitored both by project partners and UNEP. Risk assessment and rating is an integral part of the Project Implementation Review (PIR). The quality of project monitoring and evaluation will also be reviewed and rated as part of the PIR. Key financial parameters will be monitored quarterly to ensure cost-effective use of financial resources.

Findings from the TNA Phase II and III Terminal Evaluations will also be considered whenever relevant and applicable to the TNA Phase IV project as soon as the results from these evaluations are available to the project team.

In-line with UNEP Evaluation Policy and the GEF's M&E Policy the project will be subject to a Terminal Evaluation (TE). Additionally, a Mid-Term Evaluation (MTE) will be launched by the Project Manager before the project reaches its mid-point. The possibility of a Mid-Term Evaluation will be discussed with the Evaluation Office. The MTE and TE will take into account the recommendations and findings from the Terminal Evaluation of TNA Phase I, II and III. The PSC will participate in the MTE and develop a management response to the evaluation recommendations along with an implementation plan. It is the responsibility of the UNEP Task Manager to monitor whether the agreed recommendations are being implemented.

The Evaluation Office will be responsible for the TE and will liaise with the Task Manager and UDP (the Executing Agency) throughout the process. The TE will provide an independent assessment of project performance (in terms of relevance, effectiveness and efficiency), and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP, the GEF, executing partners and other stakeholders. The direct costs of the evaluation will be charged against the project evaluation budget. The TE will be initiated no earlier than six months prior to the operational completion of project activities and, if a follow-on phase of the project is envisaged, should be completed prior to completion of the project and the submission of the follow-on proposal. The TE must be initiated no later than six months after operational completion.

The draft TE report will be sent by the Evaluation Office to project stakeholders for comments. Formal comments on the report will be shared by the Evaluation Office in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six-point rating scheme. The final determination of project ratings will be made by the Evaluation Office when the report is finalised and further reviewed by the GEF Independent Evaluation Office upon submission. The evaluation report will be publicly disclosed and may be followed by a recommendation compliance process.

The total M&E budget for the TNA phase IV project is expected to be **US$ 60,000**, broken down as follows:

- Mid-Term Evaluation (MTE): US$ 20,000
- Terminal Evaluation (TE): US$ 40,000

F. EXPLAIN THE DEVIATIONS FROM TYPICAL COST RANGES (WHERE APPLICABLE)

As for the two previous global TNA projects funded by GEF, the TNA Phase IV project covers multiple countries (17 in total) and each country has its own project cooperation agreement and workplan. For this reason and in line with practices from previous global TNA projects approved by the GEF, the level of PMC required is similar to that of a Medium-Size Projects, i.e. up to 10% of the Subtotal project cost. Below is a more detailed justification to support the calculation of the total Project Management Costs (PMC) requested in PART I, Table B of this Enabling Activity request:

As explained above, the TNA Phase IV project will be implemented in 17 countries. Each of the 17 countries will prepare the following reports:

1. Technology Needs Assessment report (TNA reports),
2. Barrier Analysis and Enabling Framework report (BA&EF report),
3. Technology Action Plan (TAP), including project ideas
4. Project Concept Note(s)

To support the 17 project countries in conducting their TNA/TAP process, it will require the involvement of 6 to 8 people from UNEP DTU Partnership (UDP). It is estimated that over the 3 years about 197 hours are required for project management per country (see table below showing a breakdown of the corresponding management activities in terms hours and costing by country. UDP average hourly rate is approximately US$ 120 / hour). These management activities are more intensive at the start of the project and include the following:

- Conducting inception missions to 17 countries.
- Drafting of agreements with 17 countries and 4 Regional Centres.
- Developing terms of reference for experts (national and international).
- Supporting the development of 17 national workplans for the implementation of the TNA/TAP process.
- Monitor implementation of TNA/TAP process in 17 countries.
- Coordination of and preparations for the organization of regional training workshops and other TNA related events.
- Coordination of communication of progress, results, success stories and best practices.
- Day to day coordination and follow-up with 17 national TNA teams (TNA country coordinators and other local stakeholders such as national consultants, representatives from ministries and the local funding community).
- Day to day coordination with the TNA experts in UDP and the 4 Regional Centres/Regional Consultants.

- Reporting on project activities to UNEP and the Project Steering Committee (this includes financial reporting, bi-annual progress reporting and preparing the annual Project Implementation Review (PIR) report for GEF in collaboration with the UNEP Task Manager).

Below table provides an overview of the project management man-hours required to support each country over the 3-year project implementation period:

Country	Project management (hours)				Total PMC cost (US$) (Year 1 + Year 2 + Year 3)
	Year 1	Year 2	Year 3	Total	
Angola	65.65	65.65	65.65	196.95	23,540.7
Bahamas	65.65	65.65	65.65	196.95	23,540.7
Cabo Verde	65.65	65.65	65.65	196.95	23,540.7
Comoros	65.65	65.65	65.65	196.95	23,540.7
Equatorial Guinea	65.65	65.65	65.65	196.95	23,540.7
Ethiopia	65.65	65.65	65.65	196.95	23,540.7
Lesotho	65.65	65.65	65.65	196.95	23,540.7
Maldives	65.65	65.65	65.65	196.95	23,540.7
Niue	65.65	65.65	65.65	196.95	23,540.7
Papua New Guinea	65.65	65.65	65.65	196.95	23,540.7
Saint Kitts & Nevis	65.65	65.65	65.65	196.95	23,540.7
Solomon Islands	65.65	65.65	65.65	196.95	23,540.7
Somalia	65.65	65.65	65.65	196.95	23,540.7
South Sudan	65.65	65.65	65.65	196.95	23,540.7
Tonga	65.65	65.65	65.65	196.95	23,540.7
Tuvalu	65.65	65.65	65.65	196.95	23,540.7
Guinea Bissau	65.65	65.65	65.65	196.95	23,540.7
Total					**400,192**

On top of the manpower costs, the project management team will require US$ 17,000 of GEF funding for management-related travel, brining the **total PMC** amount to **US$ 417,192**.

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Focal Point Name	Focal Point Title	Ministry	Signed Date
Mr. Youssouf Elamine Y. Mbechezi	General Director	General Directorate of Environment and Forests – Comoros Union	3/7/2019
Mr. Wordy Hashim Abdullahi	Director General	Environment, Forest and Climate Change Commission - Ethiopia	3/27/2019
Mr. João Raimundo Lopes	Senior Technical Advisor	Secretariat of State for Environment - Guinea-Bissau	3/15/2019
Mr. Miruza Mohamed	Director & GEF OFP	Ministry of Environment - Maldives	3/3/2019
Mr. Haden T. Talagi	Director	Ministry of Natural Resources - Niue	3/15/2019
Mr. Gunther Joku	GEF OFP	Department of Environment and Conservation- Papua New Guinea	2/6/2019
Ms. Lavern Queeley	Director, Department of Economic Affairs and PSIP	Ministry of Sustainable Development - Saint Kitts and Nevis	3/11/2019
Mr. Chanel Iroi	Undersecretary - Technical	Ministry of Environment, Climate Change, Disaster Management and Meteorology - Solomon Islands	4/1/2019
Mr. David Batali Oliver	Director for Pollution Control	Ministry of Environment - South Sudan	4/3/2019
Mr. Joao Carlos Soares	Director General	Ministro do Coordenador dos Assuntos Economicos (MCAE) - Timor-Leste	4/2/2019

Focal Point Name	Focal Point Title	Ministry	Signed Date
Mr. Paula MA'U	Chief Environment Officer	Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications - Tonga	3/26/2019
Mr. Soseala Tinilau	Director	Department of Environment - Tuvalu	3/22/2019
Mrs. Nenenteiti Teariki Ruatu	Director, Environment and Conservation Division	Ministry of Environment, Lands and Agricultural Development - Kiribati	4/11/2019
Mrs. Rochelle Newbold	Director	The BEST Commission, Ministry of the Environment and Housing - The Bahamas	10/10/2019
Mr. Stanley Motsamai Damane	Director	Ministry of Tourism, Environment and Culture - Lesotho	10/14/2019
Mr. Mahdi Muhammad Gulaid	Deputy Prime Minister	Federal Government- Somalia	4/4/2020
Mr. Ammar Naser Al Aulaqi	Chairman of Environment Protection Authority	Ministry of Water and Environment - Yemen	3/17/2020

B. Convention Participation

Convention	Date of Ratification/Accession	National Focal Point
UNFCCC	10/31/1994	Mr. Abdou Salami Mihidjay - Comoros Union
UNFCCC	2/7/1995	Mr. Choi Being Yeeting - Kiribati
UNFCCC	4/5/1994	Mr. Fekadu Beyene Aleka - Ethiopia
UNFCCC	10/27/1995	Mr. Viriato Luis Soares Cassama - Guinea-Bissau
UNFCCC	11/9/1992	H.E. Mr. Abdullahi Majeed - Maldives
UNFCCC	2/28/1996	Mr. Richard Hipa - Niue
UNFCCC	3/16/1993	Ms. Gwendoline Sissiou - Papua New Guinea
UNFCCC	1/16/1993	Ms. June Hughes - Saint Kitts and Nevis
UNFCCC	12/28/1994	Mr. Chanel Iroi - Solomon Islands
UNFCCC	9/11/2009	Mr. Mahdi Mohammed Gulaid - Somalia
UNFCCC	2/17/2014	Mr. John Payai Manyok - South Sudan
UNFCCC	10/10/2006	Mr. Adao Soares Barbosa - Timor-Leste
UNFCCC	7/20/1998	Mr. Paula Pouvalu Ma'u - Tonga
UNFCCC	10/26/1993	Ms. Pepetua Election Latasi - Tuvalu
UNFCCC	2/21/1996	Mr. Abdulqader Mohammed Al-Kharraz - Yemen

Convention	Date of Ratification/Accession	National Focal Point
UNFCCC	3/29/1994	Ms. Rochelle W. Newbold - The Bahamas
UNFCCC	2/7/1995	Ms. Mabafokeng Felesiah Mahahabisa - Lesotho

Submitted to HQ

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