

<b>Country</b>	<b>Vanuatu</b>
<b>Request ID#</b>	<b>2019000058</b>
<b>Title</b>	Feasibility Study for Low Emission Land Transport Sector in Vanuatu
<b>NDE</b>	Mrs Esline Garaebiti, Director General, Ministry of Climate Change, Government of Vanuatu, e- <a href="mailto:gesline@vanuatu.gov.vu">gesline@vanuatu.gov.vu</a> ; Tel: +678 22068
<b>Proponent</b>	Mr. Antony Garae, Director, Department of Energy, Ministry of Climate Change, Government of Vanuatu; E – <a href="mailto:gantony@vanuatu.gov.vu">gantony@vanuatu.gov.vu</a> ; Tel: +678 25201

### **Summary of the CTCN technical assistance**

*The summary should provide a brief description of the problem (barrier to climate technology deployment) and how the technical assistance will address it (brief summary of outputs and activities). Please also briefly indicate national actors involved and the anticipated timeline. Please note this summary will be used for public communication purposes so it is important that it is well written. (maximum 1250 characters including spaces)*

Vanuatu is a small island country in the Pacific which depends almost entirely on imported fossil fuel for its energy and transport needs.

The continuous reliance on these fossil fuels is not only unsustainable for Vanuatu but goes against Vanuatu's national climate change mitigation ambition as reflected in its Nationally Determined Contributions, its Climate Change and Disaster Risk Reduction Policy, its National Energy Roadmap and Vanuatu's National Sustainable Development Plan.

Vanuatu imports over 56 million litres of fuel each year with diesel being the largest volume (63%). Of this, land transport has the lion share of 50% followed by electricity (38%). Consequently, it is safe to say that the largest contributor of GHG emissions in Vanuatu comes from the land transport sector.

There is very little information available on the land transport sector. The information on land transport are very fragmented due to the unclear institutional frameworks in place. It is therefore very difficult to make evidence-based decision making in terms of policy and legislative frameworks for low emission transport system.

Hence, Vanuatu has made this CTCN request to study the land transport sector and clearly identify the feasibility of reducing GHG emissions through the implementation of energy efficiency measures in Vanuatu's land transport sector.

This technical assistance is aimed at clearly identifying the feasibility of reducing GHG emissions through the implementation of energy efficiency measures in Vanuatu's land transport sector.

The general objectives are to:

- i. Identify the policy, legislative and regulatory barriers to improving the energy efficiency in Vanuatu's land transport sector

- ii. Identify the technical, financial, institutional, awareness and capacity barriers to improving the energy efficiency in Vanuatu's land transport sector
- iii. Develop an implementation plan, budget and an M&E framework for the barrier removals for supporting a vibrant and low emission land transport sector in Vanuatu
- iv. Develop a GCF Project Concept Note for Vanuatu using the information and data collected from the feasibility study

The anticipated activities to be performed by the TA would include:

- i. Desktop Study and Inception Report – this report would confirm the consultant's understanding of the assignment, his/her approach and methodology and some of his/her findings on the current status of land transport sector in Vanuatu
- ii. Mission trips, Consultations and Workshops – The TA will make two trips to Vanuatu on this assignment- one towards the start and the other towards the end of the assignment. The consultant is expected to conduct extensive consultations with key stakeholders including a series of national workshops for face-to-face meetings. All matters relating to the gender aspects of the project will be dealt with in the workshops.
- iii. Surveys and Baseline Assessments – The consultancy may consider conducting surveys during the assignment to confirm any uncertainty in the assignment and to establish baseline data for the project for future M&E purposes.
- iv. Capacity Development on Low Emission Land Transport - – Given that energy efficiency in the land transport will be new for many people in Vanuatu especially when we are considering introducing electric vehicles, it is important that some of the policy makers including senior officials of the Government are aware and taught on the benefits of switching to electric vehicles.

It is expected that the following deliverables will be the outcome of this TA:

- i. Draft Feasibility Study Report on Low Emissions in Vanuatu's land transport Sector
- ii. Final Feasibility Study Report on Low Emissions in Vanuatu's land transport Sector
- iii. Draft a GCF Project Concept Note Proposal for the funding of the Low Emission in Vanuatu's Land Transport Sector
- iv. Consultation and Workshop Reports
- v. Capacity Development Report

Expected Duration of the assignment will be for a period of at least 6-8 months.

**Agreement:**

*(If possible, please use electronic signatures in Microsoft Word file format)*


**National Designated Entity to the UNFCCC  
Technology Mechanism**

Name: Mrs. Esline Garaebiti

Title: Director General, Ministry of Climate Change,

Date:

Signature:

10/08/2020  


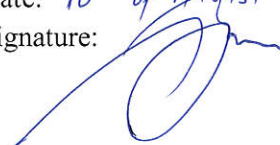
**Proponent** (signature of the Proponent is optional)

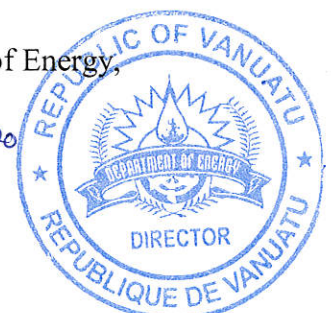
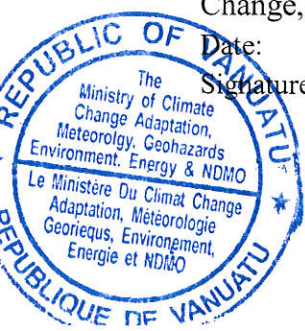
Name: Mr. Antony Garae

Title: Director, Department of Energy,  
Ministry of Climate Change

Date: 10<sup>th</sup> of August 2020

Signature:





**UNFCCC Climate Technology Centre and Network (CTCN)**

Name: Rose Mwebaza

Title: CTCN Director

Date: 12/08/2020

Signature: 

**1. Background and context**

*Please provide a brief description of the background and context for the CTCN Response Plan. Please include national and sectoral information using recognized and publicly available sources. (maximum 2500 characters including spaces).*

**Energy Scenario in Vanuatu**

Vanuatu is an archipelago with a population of 234,000 people spread across 83 volcanic islands in the West Pacific. It faces the challenges of managing its heavy reliance on fossil fuel while providing clean, reliable and affordable electricity to the 67% of its population who still live without it. In accordance with the Vanuatu National Energy Road Map, the Government of Vanuatu has set targets of increasing access to electricity as well as increasing utilization of renewable energy.

Vanuatu's generation fuel mix includes diesel, wind, solar, hydro, and biofuels with a 2016 renewable share of 20% for the Union Electrique du Vanuatu Limited concession areas.

**On-going efforts on sustainable energy in Vanuatu**

Vanuatu has set itself targets and has achieved satisfactory progress on most of these. It has set itself a target of increasing electricity access by households in concession areas to 75% by 2020 and has achieved 71.7% in 2017. In 2018, it surpassed its 60% target of increasing electricity access by households in off-grid areas in 2020 and have achieved 64.4%. It has set itself a target of increasing electricity access by public institutions (on- and off-grid) by 80% in 2020 and have achieved 71.6% in 2018. Furthermore, its target of increasing the proportion of electricity generated from renewable energy sources to 65% by 2020 was only 18% in 2017.

**Energy efficiency in land transport**

Vanuatu's effort to reduce reliance on fossil fuel and increase access to clean, reliable and affordable energy sources has focused mostly on the 38% of the fuel imports that is used for power generation. Very little has been done about the 50% of the fuel imports that is consumed in the land transport sector.

The nature of land transportation in Vanuatu is made up of individual business owners

operating public transport services, such as buses and taxi services, though, few major tour companies operating larger fleets of bus services to meet mainly the demands of tourism industry. Nevertheless, Buses and taxis have dominated the mode of land transportation services in Vanuatu.

The main land transport issues and constraint to sustainable economic development identified in Vanuatu can be summarized as follows; poor condition of road infrastructure; the lack of management and planning across all government agencies and institutions responsible for land transportation, main functional weaknesses occur in operations, finance, management and planning of a land transport sector. While social issues cannot be ignored such as, increased number of vehicles plying in the limited network of roads may become a problem in the future given the limited scope to expand the existing routing infrastructure mainly in Port Vila. Environmental health concerns on the traffic fumes has been highlighted also as contributing factor to increasing rate of respiratory cases in the two major urban centers, Port Vila and Luganville. The high cost of fuel remains to be an issue in land transportation contributing to the high vehicle operating costs each year. Municipal and provincial governments having a key role in planning, operations and ownership of land transportation assets, are constrained by the lack of planning and management capacity to perform these tasks.

Vanuatu faces unique challenges in its transport sector and have therefore approached CTCN for technical assistance by way of a study aimed at clearly identifying the feasibility of reducing GHG emissions through the implementation of energy efficiency measures in Vanuatu's land transport sector.

This study will not only demonstrate but also unleash:

- i. the policy, legislative and regulatory barriers to improving the energy efficiency in Vanuatu's land transport sector
- ii. the technical, financial, institutional, awareness and capacity barriers to improving the energy efficiency in Vanuatu's land transport sector
- iii. an implementation plan, budget and an M&E framework for the barrier removals for supporting a vibrant and low emission land transport sector in Vanuatu
- iv. a GCF Project Concept Note for Vanuatu using the information and data collected from the feasibility study

## **2. Problem statement**

*Founded on the national and sectoral context as detailed in the section above, please include a brief problem statement clarifying the main problems and barriers for climate change mitigation and/or adaptation in terms of climate technologies that the CTCN Response Plan will address and overcome. (maximum 1250 characters including spaces).*

There is little to no progress in improving the climate change mitigation aspects of the land transport sector in Vanuatu. This is due to a number of barriers:

- Policy and Legislative - The lack of quantified energy efficiency target in the

transport sector. This is due to lack of adequate technical information in the land transport sector. Policy makers felt reluctant to make bold decisions without reliable data and tangible evidence.

- Financial Barriers – Vanuatu relies heavily on donor funding due to its fragile economy and limited income generation initiatives. There is inadequate budget allocated to make improvements in the land transport sector;
- Technical and Institutional Barriers – limited capacity and skilled personnel in country to conduct technical assessments and feasibility study on the future of low emission land transport sector in Vanuatu. The institutional arrangements need to be assessed on its effectiveness and efficiency in addressing land transport sector issues in Vanuatu
- Education and Awareness - The technological improvements in the land transport sector is only known and appreciated by few people. The majority of the people don't understand the climate change, environmental and economic benefits that derived from the use of low efficient land transport system.

The public transportation system in Vanuatu is still inefficient due to no transport routing systems established. The public transportation system in Vanuatu is owned by individuals with no control from the central or provincial government. This makes the number of buses and taxis uncontrollable leading to more air pollution and increased emission of greenhouse gases.

Vanuatu lacks the policy and legislative framework to control the importation of inefficient vehicles into the country. There is no preferential treatment for the importation of energy efficient vehicles into the country. For example, the importation of hybrid vehicles and electric vehicles would be charged the same duty and other taxes just like other normal vehicles. This creates lack of interest for the introduction of energy efficient vehicles into the country and therefore no capping of GHG emissions in the transport sector. For vehicle performance and lifetime monitoring, there is nothing in place to limit the amount of GHG emissions from the transport sector.

The lack of education and awareness on the importation and use of low emission vehicles is a barrier to the rapid uptake of energy efficient vehicles into the county. Although people are cognizant on caring for the planet earth and mitigating climate change, if people are not educated on the environmental and economic benefits of using energy efficient vehicles, their choices will be influenced more on the capital cost rather than the environmental and economic benefits of low emission vehicles. Low emission vehicles are more expensive compared to other conventional vehicles but much cheaper in the long run. It is also good for the environment.

Given that there is little introduction of energy efficient vehicles in Vanuatu, the technical know-how of these new energy efficient vehicles are limited. This is a barrier to many individuals who wish to buy or import highly energy efficient and low emission vehicles.



	<p>Activity 2.1: Conduct a desktop study of the legislative / policy, institutional, technical, market, financial and information / awareness barriers to low carbon development in Vanuatu’s land transport sector. The approach used for conducting the desk study, references and findings of the study will be documented as a report under deliverable 2</p>																																								
		<p>Activity 2.2: Conduct 2 stakeholder consultation and a follow up field mission in Vanuatu for assessing the potential barriers faced by land transport sector in Vanuatu , separating perceived from actual barriers, and to identify efficient and effective barrier removal measures.</p> <ul style="list-style-type: none"> <li>The objective of consultation will be to inform the stakeholders about the objective of the study and to seek their support to conduct a survey on the barriers faced by land transport sector in Vanuatu. The draft questions in the survey will be introduced, and preliminary thoughts of the stakeholder will be sought on the barriers. Efforts should be made to engage stakeholders (total about 20-30 exclusive participants in each workshop- 2 workshops) throughout the value chain of the land transport sector including users from all genders and a wide range of social groups;</li> <li>The consultation will be followed by a field mission to collect relevant data and information from relevant stakeholders in the value chain of land transportation sector through a structured survey. Beyond barriers, the survey would aim to collect relevant data and information related to potential interventions and its implementation to overcome the barriers. The summary of the discussions undertaken in each site visit will be documented as a report under deliverable 2.</li> </ul>																																							
		<p>Activity 2.3: Based on the survey conducted in Activity 2.2, develop a barrier analysis with potential interventions to remove barriers. While the suggested barrier removal interventions will be based on international experience, it should fit to the local conditions in Vanuatu.</p> <p><b>Deliverable 2:</b></p> <ol style="list-style-type: none"> <li>Stakeholder consultation reports with the draft survey</li> <li>Report on desk study and field visit survey conducted</li> <li>A draft report on proposed interventions for barrier removal</li> </ol> <p><b>Output 3: A concept note on low carbon land transport sector programme for Vanuatu is developed and adopted</b></p>																																							
		<p>Activity 3.1: Develop a concept note on the feasibility of based on a multi-stakeholder Objective Oriented Project Planning workshop to design Vanuatu’s barrier removal program for the land transport sector. The barrier removal program will clearly come up with the following:</p> <ul style="list-style-type: none"> <li>identified barriers to develop low carbon land transportation in Vanuatu,</li> <li>proposed interventions to remove the barriers,</li> </ul>																																							

<ul style="list-style-type: none"> <li>• techno-economic feasibility of the identified interventions fitting to the local socio-economic conditions including the role of gender mainstreaming from implementation aspect</li> <li>• detailed action plans with required budget and timeline to implement the barrier removal interventions.</li> </ul> <p>The best possible role that innovation and digital technologies may play to support the effective implementation (e.g. market uptake) of the proposed interventions shall be explored and documented under the program.</p>			
<ul style="list-style-type: none"> <li>• Activity 3.2: The draft concept note on the program will undergo 2 multi-stakeholder Objective Oriented Project Planning workshops to ensure bottom approach is followed in adopting the program.</li> </ul> <p>The concept note on the feasibility study will be revised incorporating the feedback from the consultation workshop and will be reviewed by NDE and Project proponent for finalization.</p> <p>To ensure the effective continuation of the work carried out under this technical assistance, the program should be developed in align with the requirements of the template of the GCF note. GCF concept note template should be attempted to be filled with best available data and information generated from the program. However, based on the gaps identified from the feasibility of the proposed barrier removal interventions, most suitable approach, as applicable, will be followed with suitable supporting mechanisms for example strengthening institutions, if found as a gap, may be advised to be addressed through readiness support from GCF.</p>			
<p><b>Deliverables 3:</b></p> <ul style="list-style-type: none"> <li>i) Draft feasibility report on barrier removal program for the land transport sector of Vanuatu</li> <li>ii) Stakeholder Consultation report</li> <li>iii) Final feasibility report on barrier removal program for the land transport sector of Vanuatu</li> </ul>			
<p><b>Output 4: Capacity Development on low carbon land transport</b></p> <p>Activity 4.1: A three days capacity building program will be organized in Vanuatu including the findings of the study and way forward</p> <p>The efforts should be made to balance the gender ratio of the up-takers of the capacity building program.</p>			
<p>The travel for undertaking this activity should be clubbed with Activity 3.2.</p>			
<p><b>Deliverables 4:</b></p>			



Activities and Outputs	Input: Human Resources (Title, role, estimated number of days)	Input: Travel (Purpose, national vs. international, number of days)	Inputs: Meetings/events (Meeting title, number of participants, number of days)	Input: Equipment/Material (Item, purpose, buy/rent, quantity)	Estimated cost <i>Please accumulate the costing at Activity and Output level and provide an estimated costing range for each activity and the total Response Plan</i>
CTCN Impact Description, iv) Closure and Data Collection report.					
<b>Output 2:</b> Barriers to low carbon development in Vanuatu's land transport sector and how best they can be removed are identified and analyzed.	75,500 – 88,500 (PM-20, LTE-20 & GE-15)				75,500  88,500
<b>Activity 2.1:</b> Conduct a desktop study of the legislative / policy, institutional, technical, market, financial and information / awareness barriers to low carbon development in Vanuatu's land	7,000 – 8,000 (PM-5, LTE-5)				7,000  8,000

Activities and Outputs	Input: Human Resources (Title, role, estimated number of days)	Input: Travel (Purpose, national vs. international, number of days)	Inputs: Meetings/events (Meeting title, number of participants, number of days)	Input: Equipment/Material (Item, purpose, buy/rent, quantity)	Estimated cost Please accumulate the costing at Activity and Output level and provide an estimated costing range for each activity and the total Response Plan
transport sector <b>Activity 2.2:</b> Conduct 2 stakeholder consultations and a follow up field mission in Vanuatu for assessing the potential barriers faced by land transport sector in Vanuatu, separating perceived from actual barriers, and to identify efficient and effective barrier removal measures.	19,000 – 22,000 (PM-10, LTE-10 & GE-10)	18,000 – 21,000 (travel cost to Vanuatu and DSA to conduct consultations)	9,500 – 11,000 (1 workshop each in Port Vila and Santo & 20 participants each – (PM-5, LTE-5))	8,000 – 10,000 (Venue, Catering and travel & DSA of local officials to Santo)	54,500  64,000
<b>Activity 2.3:</b> Based on the survey conducted in Activity 2.2, develop a barrier analysis with potential interventions to remove barriers.	9,500 – 11,000 (PM-5, LTE-5 & GE-5)	4,000 – 5,000 (local travel costs in Vanuatu; The international travel and DSA are budgeted in Activity 2.2)		13,500	16,500
<b>Output 3:</b> A concept note on	60,500 – 72,000 (PM-15 & LTE-15)			60,500	72,000

Activities and Outputs	Input: Human Resources (Title, role, estimated number of days)	Input: Travel (Purpose, national vs. international, number of days)	Inputs: Meetings/events (Meeting title, number of participants, number of days)	Input: Equipment/Material (Item, purpose, buy/rent, quantity)	Estimated cost Please accumulate the costing at Activity and Output level and provide an estimated costing range for each activity and the total Response Plan
low carbon land transport sector programme for Vanuatu is developed and adopted					
<b>Activity 3.1:</b> • Develop a concept note based on a multi-stakeholder Objective Oriented Project Planning workshop to design Vanuatu’s barrier removal program for the land transport sector.	19,000 – 22,000 (PM-10, LTE-10 & GE-10)	18,000 – 21,000 (travel costs to Vanuatu and DSA to conduct consultations)	9,500 – 11,000 (1 workshop each in Port Vila and Santo & 20 participants each – (PM-5, LTE-5))	8,000 – 10,000 (Venue, Catering and travel & DSA of local officials to Santo)	53,500  64,000
<b>Activity 3.2:</b> The draft concept note on the program will undergo 2 multi-stakeholder Objective Oriented Project Planning workshops to ensure bottom-up approach is followed in adopting the	7,000 – 8,000 (PM-5, LTE-5)	The international travel and DSA for this activity are budgeted in Activity 3.1	Please refer the budget in Activity 3.1	Please refer the budget in Activity 3.1	7,000  8,000



**CTCN**

CLIMATE TECHNOLOGY CENTRE & NETWORK

**Technical Assistance Response Plan -  
Terms of Reference**

<b>Activities and Outputs</b>	<b>Input: Human Resources</b> <i>(Title, role, estimated number of days)</i>	<b>Input: Travel</b> <i>(Purpose, national vs. international, number of days)</i>	<b>Inputs: Meetings/events</b> <i>(Meeting title, number of participants, number of days)</i>	<b>Input: Equipment/Material</b> <i>(Item, purpose, buy/rent, quantity)</i>	<b>Estimated cost</b> <i>Please accumulate the costing at Activity and Output level and provide an estimated costing range for each activity and the total Response Plan</i>
<p>program.</p> <p><b>Output 4: Capacity Development on low carbon land transport</b></p> <p><b>Activity 4.1:</b> A three days capacity building program will be organized in Vanuatu including the findings of the study and way forward. The efforts should be made to balance the gender ratio of the up-takers of the capacity building program.</p>	9,800 – 11,200 <i>(PM-7, LTE-7)</i>	The travel will be clubbed with the travel for Activity 3.2. Additional DSA – 2,800 – 3,500 .	9,500 – 11,000 <i>(1 workshop each in Port Vila and Santo &amp; 20 participants each – (PM-7, LTE-7)</i>	8,000 – 10,000 <i>(Venue, Catering and travel &amp; DSA of local officials to Santo)</i>	35,700
<b>Estimated range of costing for the entire Response Plan</b>					168,900
<p>There are travels proposed to in Activity 2.2, clubbed with Activity 2.3 and in Activity 3.2, clubbed with 4.1. The Response Plan is prepared, when the world is facing the global pandemic of COVID-19. All the travels and face to face meetings will be planned and undertaken after a detailed assessment of the risks due to COVID 19 and following the related advisory by the national and local government from the country where the project is located and the country where the implementer is located. This must be assured through a letter of undertaking provided by the authority of the entity requesting for travel and meetings, before it is conducted.</p> <p>In the scenario of continued lockdown and travel restrictions, there are uncertainties of travelling by the international consultant. To have the minimal impact of this risk on the timeline and workplan, the situation has to be monitored closely and alternate approaches may be suggested in discussion with the</p>					199,400

Government of Vanuatu. In case, the alternate approaches are to be adopted, the budget will be revised accordingly with revised plan, and the reasonable additional activities may be suggested with the leftover budget. The revised plan will be agreed by CTCN and NDE before being adopted for implementation.

**5. Profile and experience of experts**

*Based on the required Human Resources identified in section 4 (Resources required and itemized budget) please provide a description of the required profile of all involved experts for the implementation of the CTCN Response Plan.*

<b>Experts required</b>	<b>Brief description of required profile</b>
<p><i>Please use the same titles for all experts as applied in section 4.</i></p> <p><b>Project Manager (PM)</b></p>	<p><i>Please provide a short description of expertise and experience needed (education, sectors of expertise, years of experience, country experience, language requirements, etc.).</i></p> <p>The project manager shall have the following expertise and experience:</p> <ul style="list-style-type: none"> <li>• Demonstrated experience of leading and managing a team of experts from different cultural backgrounds and fields of expertise</li> <li>• Have at least 15 years of experience in managing and conducting research and surveys, stakeholder engagements and developing technical programmes and financial proposals.</li> <li>• Prior experience of working in the land transport and / or energy sector of Pacific Island Countries and understanding of greenhouse mitigation through energy efficiency will be an added advantage</li> <li>• Experience of working collaboratively with governments, regional and international organizations</li> <li>• Have proficiency in reading, writing and speaking English and must be able to communicate with stakeholders effectively and to deliver on outputs in a timely manner.</li> </ul>
<p><b>Land Transport Expert (LTE)</b></p>	<p>The Land Transport Expert shall have the following expertise and experience:</p> <ul style="list-style-type: none"> <li>• An expert in the land transport sector of SIDS, both in the infrastructure / technical and engineering aspects as well as policy aspects too</li> <li>• At least 10 years of experience working for the land transport sector of a SIDS</li> <li>• Knowledge of both civil and mechanical engineering would be an advantage</li> <li>• Familiarity with e-mobility and renewable energy-based transport systems and technologies</li> <li>• Years of experience in stakeholder consultations and developing funding proposals</li> <li>• Developing national programmes in the land transport sector</li> </ul>
<p><b>Gender Expert (GE)</b></p>	<p>The Gender Expert shall have the following expertise and experience:</p>

	<ul style="list-style-type: none"> <li>• Understanding and demonstrated ability to incorporate gender considerations in the removal of barriers to sustainable development in SIDS,</li> <li>• At least 10 years of field experience working with women, youths and rural communities,</li> <li>• Understanding of the culture and diversity in Melanesia</li> <li>• Have proficiency in reading, writing and speaking English and must be able to effectively communicate with stakeholders.</li> </ul>
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## **6. Intended contribution to impact over time**

*Please provide a brief description of the intended contribution to impact over time of the outcome and outputs provided by this technical assistance on resilience to climate change and/or carbon abatement. To the extent possible, please quantify the intended impact contribution, for example by indicated estimated number of people potentially impacted over time, GDP contribution of the focus sector, carbon emissions by the focus sector, etc. This intended contribution to impact is what will happen if the objective (as articulated in section 3) is met. Please ensure relevant complementarity with text in sections 7 to 12. (maximum 1250 characters including spaces)*

*As mentioned earlier, Vanuatu's land transport is heavily dependent on imported fossil fuels. The inefficiency in the transportation system caused by weak policies and regulations in the sector, excess number of vehicles leading to traffic congestion, increased air pollution and other social problems further reinforces the need to find critical solution to this lingering problem. This TA will be the entry point for a transformation change in Vanuatu's land transport sector and Energy Efficiency and moves Vanuatu closer to achieving its Nationally Determined Contributions and its sustainable development goals,*

*The Feasibility Study will outline the barriers to achieving a low emission land transport sector through energy efficiency measures. The funding proposal will be the stepping stone to reach out to donor communities including the Green Climate Fund (GCF) to secure funding to implement the priority activities including the policy and regulatory changes required that is being outlined in the feasibility study report.*

*Vanuatu is a Least Developed Country and a Small Island State that requires technical and financial support to achieve its climate change ambitions as outlined in its Nationally Determined Contributions and the Sustainable Development Goals (SDGs).*

## **7. Relevance to NDCs and other national priorities**

*Please identify relevance and contribution from the technical assistance to the Nationally Intended Contributions (NDC) and other relevant national prioritized efforts (TNAs, TAPs, NAPs, NAMAs, etc.). (maximum 2500 characters including spaces)*

*The Nationally Determined Contribution of Vanuatu has emphasized on achieving the outcomes and targets under the National Energy Road Map (NERM) and Second National Communication (SNC) extended to 2030. The mitigation contribution for the Vanuatu NDC submission is a sector specific target of transitioning to close to 100% renewable energy in the electricity sector by 2030. This target would replace nearly all fossil fuel requirements for electricity generation in the country and be consistent with the National Energy Road Map (NERM) target of 65% renewable energy by 2020. This contribution would reduce emissions in the energy sector by 72Gg by 2030. Emissions in this sector were around 130 Gg in 2010 but are expected to rise to 240 Gg by 2030 (3% per annum).*

*The Vanuatu Energy Roadmap calls for 20% improvement in diesel efficiency by 2020 and a comprehensive data collection established to set realistic targets and begin energy efficiency initiatives*

*The Energy Efficiency in Land Transport Sector in Vanuatu which the TA is focused on has the overall aim of reducing Vanuatu's GHG emissions by reducing inefficiencies in the*

land transport sector Thus, the initiative is very much aligned with the following national policies:

- **Vanuatu Climate Change and Disaster Risk Reduction Policy 2016 – 2030** – prioritizing green growth and low carbon development
- **National Energy Roadmap 2016 – 2030** which has an overall goal of reducing dependence on fossil fuels and promoting energy efficiency
- **National Sustainable Development Plan (2016 - 2030)** – overarching policy framework. It has a strong environmental pillar which emphasised on renewable energy and energy efficiency including improvements in the transport sector for a reliable, effective and efficient transport system

**Draft Green Climate Fund Country Programme for Vanuatu.** Vanuatu through its GCF Country Programme has highlighted energy efficiency in the land transport sector as a priority in its effort to reduce GHG emission and its reliance on expensive fossil fuels.

#### **8. Linkages to relevant parallel on-going activities:**

*Please identify relevant previous and ongoing public and private sector initiatives, projects or programmes that the CTCN assistance will specifically build on and contribute to. To the extent possible, please add practical and operational details on the linkages between existing activities and the CTCN assistance. (maximum 2500 characters including spaces)*

Vanuatu was part of a regional initiative known as the Pacific Appliance Labelling and Standards (PALS); a project being implemented by the Pacific Community (SPC) and supported by the Australian Government. With funding support from PALS project, Vanuatu was able to develop the legal and regulatory framework for the importation of electrical appliances/products into the country. These regulated electrical products include lighting, air condition, fridge and freezers and a few more will be added to the list in the near future. These regulated products must meet Vanuatu's minimum performance standards and must have clear energy labels on them so it can be allowed for entry into the country. The establishment of the legal and regulatory framework has contributed significantly to the country's fossil fuel consumption. The current TA will explore similar initiative to enhance energy efficiency in the transport sector

In 2018, Vanuatu through its Ministerial Cabinet has made a policy decision to ban importation of second hand vehicles in particular minibuses from overseas. This came about due to the increased accidents and related deaths from these imported second hand vehicles. It was observed that the accidents were caused by mechanical problems arising from these fast deteriorating conditions of these imported reconditioned vehicles. An important activity to be explored in this TA is the development of the legal and regulatory framework to control the importation of efficient vehicles.

At the operational level, the Public Works Department technicians are doing the annual vehicle road worthy checks. The vehicles are serviced, maintained and repaired by small auto-mechanic workshops. The TA will assess the needs of these technicians and explore improving the capacity of the in-country training institutions on auto mechanic to be able to accommodate the advancement in the vehicle industry in particular electric vehicles and hybrid cars.

#### **9. Anticipated follow up activities after this technical assistance is completed:**

*Please describe the expected future use of the outputs and deliveries produced by this technical assistance, after the CTCN implementation is completed, towards contributing to the anticipated*

*impacts over time articulated in section 6. For example, what organizations or stakeholders will use the outputs of the technical assistance after it is completed, for what purpose, at what scale and scope the outputs and deliveries will be applied, when and what will be the next steps undertaken, etc. (maximum 2500 characters including spaces)*

The Feasibility Study report generated from this TA will provide concrete evidence to the Vanuatu Government for immediate decision and action on energy efficiency particularly in the transport sector. The recommendations from the study report will assist the Vanuatu Government to appraise its current energy and transport policies and regulations to be inclusive of energy efficiency and also take immediate necessary steps to implementing the energy efficiency measures (barrier removal measures) in its land transport sector.

A deliverable from this TA will be the development of the funding proposal targeted at the Green Climate Fund (GCF) and other funding sources. The Vanuatu Government in particular the Ministry of Climate Change through the NDE and the Project Proponent (Department of Energy) will use this document to seek for funding from the GCF and other potential donors.

Once funding is approved, the implementation of the barrier removal activities identified in the study can be implemented. This would create a transformation change in Vanuatu's land transport sector, supporting Vanuatu's ambition and the global effort on reducing GHG emissions and achieving the Paris Agreement.

**10. Gender and co-benefits:**

<p>Imbedded in design of the activities:</p>	<p>The TA is designed with an imbedded intention to deal with the gender issues in the following ways as also reflecting in the request document:</p> <ul style="list-style-type: none"> <li>• The identification of the barriers and the corresponding measures on how they will be removed will look at the ways in which men, women, children and the disadvantaged can contribute to and benefit from the project. (Activity 2.1, 2.2 &amp; 2.3 for Output 2)</li> <li>• The consulting meetings and training workshops planned under the TA will address the gender aspects of the project</li> <li>• The consultation and programme design workshops will cover ways in which communities and households can productively contribute and benefit from improved efficiency in the land transport sector. (Activity 3.1 for Output 3)</li> </ul>
<p>Gender and co-benefits intended as result of the activities:</p>	<p><i>Please describe all gender aspects, women's equality and other co-benefits expected as a result of the CTCN technical assistance.</i></p> <ul style="list-style-type: none"> <li>• Likely generation of livelihoods as the positive developments from this TA will generate opportunities in vehicle maintenance and imports of more efficient vehicles, bicycles and hybrid and electric vehicles.</li> <li>• The TA will present opportunities for training and capacity building targeted at women on energy efficiency in the transport sector.</li> <li>• The TA will generate improved health not only from a cleaner air</li> </ul>

	from more efficient vehicles but also from the promotion of walking and cycling as efficient means of transport.
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## 11. Main in-country stakeholders in implementation of the technical assistance activities:

Using the table below, please list and describe the role of in-country stakeholders, participants and beneficiaries who will be involved in or directly consulted during implementation of the assistance.

In country stakeholder	Role in implementation of the technical assistance
National Designated Entity	Overall Oversight of the TA and consultation on the GCF proposal.
Energy Division, Ministry of Energy and Climate Change	Day to day management and coordination of TA.
Public Lands Transport Authority	Providing information on public land transport in general, current regulations, issues and challenges faced by public land transport, etc.
Bus / Taxi Owners Association	Inputs on the barriers in the land transport sector.
Ministry of Public Utilities	Data and data/information about road maintenance, vehicle maintenance, etc
Department of Customs and Inland Revenue	Data on vehicle imports, vehicle registration, fuel imports, etc
Communities	Sharing experiences with using the roads and vehicle registration, etc & Inputs on the barriers in the land transport sector.
Pacific Community's (SPC) Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE)	Technical Advice and support to the NDE and the Requesting Agency.

## 12. SDG Contributions:

Instructions: Please complete the grey section below for **a maximum of three SDGs** that will be advanced through this TA. A complete list of SDGs and their targets is available here.

Goal	Sustainable Development Goal	Direct contribution from CTCN TA (1 sentence for top 1-3 SDGs)
1	End poverty in all its forms everywhere	
2	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture	
3	Ensure healthy lives and promote well-being for all at all ages	
4	Ensure inclusive and equitable quality education and promote life-long learning opportunities for all	
5	Achieve gender equality and empower all women and girls	
6	Ensure availability and sustainable management of water and sanitation for all	
7	Ensure access to affordable, reliable, sustainable, and modern energy for all (consider adding targets for 7)	
	7.1 - By 2030, ensure universal access to affordable, reliable and modern energy services	
	7.2 - By 2030, increase substantially the share of renewable energy in the global energy mix	
	7.3 - By 2030, double the global rate of improvement in energy efficiency	TA will improve energy efficiency in the land transport sector of Vanuatu.
	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	
	7.b - By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support	
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	
10	Reduce inequality within and among countries	
11	Make cities and human settlements inclusive, safe, resilient and sustainable	Addressing emissions from land transport will make the capital city of Vanuatu cleaner and more healthier to live.
12	Ensure sustainable consumption and production patterns	
13	Take urgent action to combat climate change and its impacts	<i>All TAs should indicate relevance to Goal 13 and at least one target below (13.1 to 13.b).</i>
	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	TA will result in the inclusion of energy efficiency in transportation in the revised NDC of Vanuatu.
	13.3 - Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	
	13.a - Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible	
	13.b - Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities	
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	
15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	
16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
17	Strengthen the means of implementation and revitalize the global partnership for sustainable development	

### 13. Classification of technical assistance:

Please indicate primary type of technical assistance. Optional: If desired, indicate secondary type of technical assistance.

<i>Please tick off the relevant boxes below</i>	<i>Primary</i>	<i>Secondary</i>
<input type="checkbox"/> 1. Decision-making tools and/or information provision	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> 2. Sectoral roadmaps and strategies	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> 3. Recommendations for law, policy and regulations	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4. Financing facilitation	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 5. Private sector engagement and market creation	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 6. Research and development of technologies	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 7. Feasibility of technology options	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> 8. Piloting and deployment of technologies in local conditions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> 9. Technology identification and prioritisation	<input type="checkbox"/>	<input type="checkbox"/>

*Please note that all CTCN technical assistance contributes to strengthening the capacity of in country actors.*

**14. Monitoring and Evaluation process**

*Upon contracting of the implementing partners to implement this Response Plan, the lead implementer will produce a monitoring and evaluation plan for the technical assistance. The monitoring and evaluation plan must include specific, measurable, achievable, relevant, and time-bound indicators that will be used to monitor and evaluate the timeliness and appropriateness of the implementation. The CTCN Technology Manager responsible for the technical assistance will monitor the timeliness and appropriateness of the Response Plan implementation. Upon completion of all activities and outputs, evaluation forms will be completed by the (i) NDE about overall satisfaction level with the technical assistance service provided; (ii) the Lead Implementer about the knowledge and learning gained through delivery of technical assistance; and (iii) the CTCN Director about timeliness and appropriateness of the delivery of the activities and outputs.*

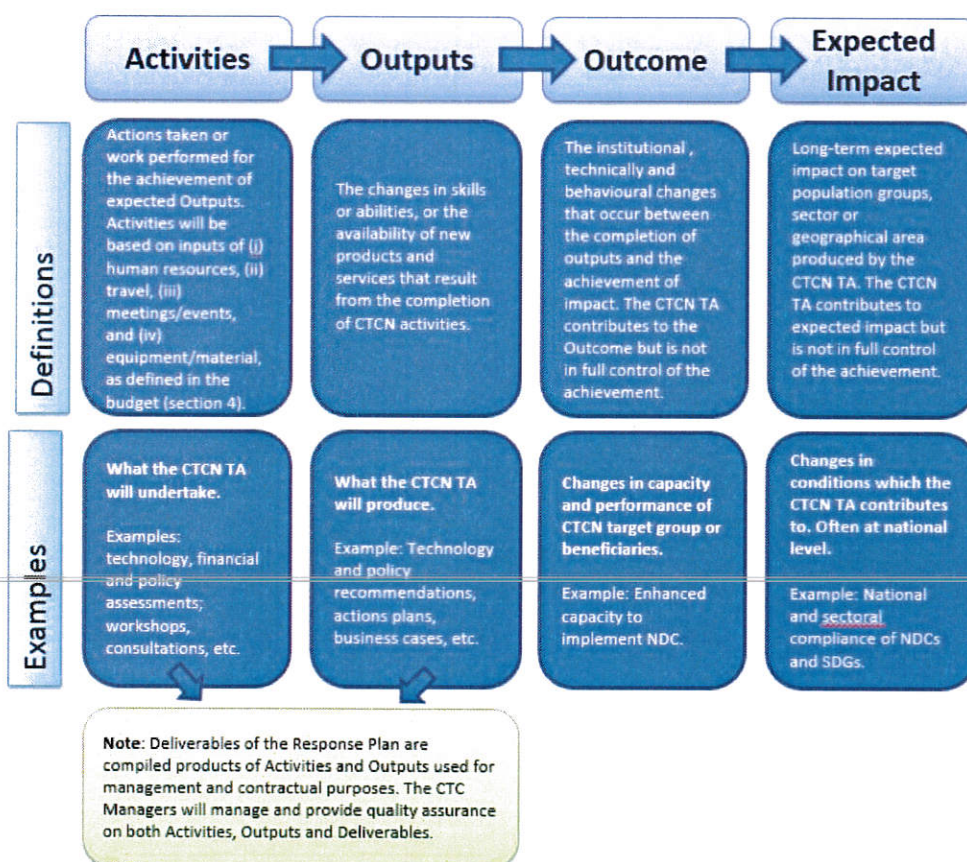
**Annex 1: Guidance note for designing a Response Plan (to be deleted when submitting the Response Plan)**

**1. Objective of the Response Plan**

The Response Plan is developed by CTCN specialists in response to a country request for technical assistance. It constitutes the Terms of Reference of the CTCN technical assistance that will be provided to the country and it provides the formulation of and subsequent basis for the monitoring and evaluation of the Response Plan implementation, as well as its expected outcomes and anticipated impacts.

**2. Results chain and Logical Framework Approach to be defined in the CTCN Response Plan**

The result chain is the causal sequence that stipulates the necessary flow of actions and processes to achieve desired objectives and results – beginning with inputs, moving through activities and outputs, and culminating in individual outcomes. The outcome will contribute to the desired impact in the society. The Logical Framework Approach is an analytical process used to support objectives-oriented project planning and management. It provides a set of pre-defined concepts which are used as part of an iterative process to aid structured and systematic analysis and management of the CTCN technical assistance.



### 3. Role of the Response Planning Design Team

The Response Planning Design Team is selected by the Climate Technology Centre (CTC). The composition of the team depends on each particular request but may include the National Designated Entity (NDE), the request Proponent, Climate Technology Manager of the CTCN, experts from the CTCN Consortium, UNIDO and UNEP experts from regional offices and other experts as needed.

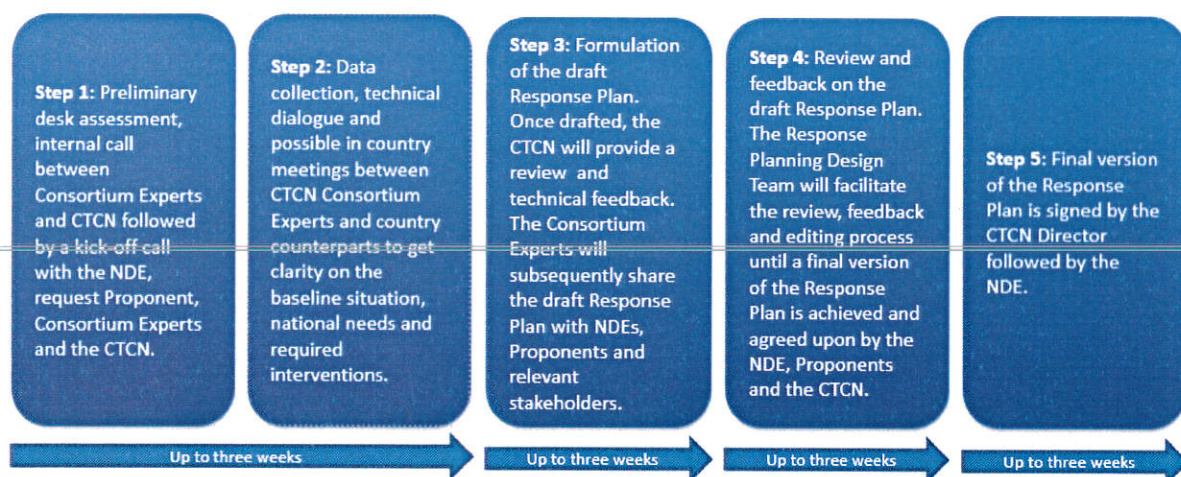
The role of CTCN Consortium experts is to lead the design of the Response Plan. The NDE will provide overall guidance on national context and priorities whereas the request Proponent will provide more detailed information on the sector, barriers and requested assistance. The Climate Technology Manager of the CTCN will provide quality assurance of timeliness and appropriateness of the Response Plan.

The Response Planning Design Team will draft all sections of the Response Plan template building on the information contained in the CTCN Request, based on expertise on the given topic and potentially further data collection, as required. This will be done by the CTCN Consortium Experts in consultation with the NDE, request Proponent and relevant stakeholders. The Response Plan has to be agreed to and approved by the NDE and the CTCN Director. This Response Plan will serve as the basis to identify, select and engage an expert institution from the Climate Technology Network or Consortium to lead the implementation of the CTCN Response Plan in the requesting country.

To the extent possible, staff from UNEP and UNIDO Regional, Sub-Regional and/or National Offices should be involve in all stages of formulation of the Response Plan to maximize synergies and avoid overlap with ongoing initiatives, as well as ensure relevance to regional and national context.

### 4. Process for designing the Response Plan

The Response Planning process should be completed over a period of up to 60 working days (12 weeks). Indicative steps and related timelines are laid out below:



### 5. Design Considerations

In order to maximize the impact of the technical assistance provided by the CTCN and provide an effective M&E process, the Response Plan should integrate as much as possible the considerations below:

Climate Technology focus: The Response Plan should have a clear focus on climate technologies, and identify activities that enable the identification, development, deployment or diffusion of one or several specific technologies (including equipment, techniques, knowledge and skills).

Barrier removal / Problem solving: The activities should contribute to address the specific problem statement identified in the Request. The barriers identified should be those hampering the identification, development, deployment or diffusion of one or several climate technologies or climate actions. Therefore, it may be necessary to limit the CTCN Response Plan to a set of activities for technical assistance commonly agreed with the NDE (and Proponent when needed) compared to the original request submitted. The CTCN will liaise with NDEs and Proponent in case the scope of the technical assistance deviates from the original request.

Use of the CTCN assistance by stakeholders: The Response Plan should identify clearly how the products of the CTCN assistance will be used in the short term once support is delivered, by who and when, to ensure it will lead to specific impacts in the country. The activities should engage the stakeholders that will use the concrete results of the assistance to deploy the technologies, including from the private sector, the public sector, research institutions, etc.

Within the scope of CTCN resources: The cost of the technical assistance provided by the CTCN cannot exceed USD 250,000 per Response Plan. Therefore, it may be necessary to prioritize activities and limit the CTCN Response Plan to a set of priority activities commonly agreed with the Proponent and the NDE to remain under this value. Under section 4 of the Response Plan template, an indicative activity based budget should be presented. The proposed budget is indicative and should present an estimated costing range per activity, output as well as a total costing range for the delivery of the Response Plan. Once the Response Plan is finalised and published for tendering, interested parties will provide competitive offer against the indicative budget.

CTCN activities and outputs should be linkable to monitoring and evaluation indicators: All proposed activities and outputs must be linkable to monitoring and evaluation indicators that are specific, measurable, achievable, relevant, and time-bound. The monitoring and evaluation process and corresponding indicators will be developed by the Lead Implementer as part of the work plan and will allow the CTCN technology Manager to monitor the timeliness and appropriateness of the implementation.

Synergies with existing efforts: The Response Plan should focus on activities that are not already being fully supported or that are in the process of being fully supported by another national, regional or international organization. Synergies and complementarity also require that the CTCN assistance is not duplicating past activities. It is possible in the Response Plan to indicate co-financing from the government, the Proponent or another stakeholder, that will maximize the effectiveness of the CTCN assistance.

Gender mainstreaming: The CTCN mission is to build or strengthen developing countries' capacities to identify technology needs, to facilitate the preparation and implementation of technology projects and strategies taking into account gender considerations. The Response Plan must therefore describe how gender considerations will be included and monitored within the proposed activities, and any gender co-benefits that will be gained as a result of implementing the CTCN technical assistance.