CTCN
UN Climate Technology Centre & Network
UNFCCC Technology Mechanism

**CTCN Fast Technical Assistance (FTA)**
**Request Submission Form**

**Presentation of the Fast Technical Assistance** The Fast Technical Assistance (FTA) is the Climate Technology Centre & Network (CTCN) short time response to requests referring to technology prioritization, endogenous technologies assessment, policies and measures that are immediate priorities for the requesting country. FTA has duration **up to 2 months** and a total value typically **up to USD 15,000** (it may include a scoping mission, only if strictly necessary). The FTA is implemented by means of an international expert.

**Guidelines:**

- This Request Submission Form should be completed by the organisation requesting technical assistance from the Climate Technology Centre & Network (CTCN) in collaboration with the National Designated Entity (NDE) of the country in question
- The Form must be signed by the NDE. Please see updated contact list of NDEs here: http://unfccc.int/ttclear/support/national-designated-entity.html
- The Form can be submitted as a Word file containing a digital signature or as a signed and scanned PDF file in combination with an un-signed Word file

| | |
|---|---|
| **Requesting country:** | Republic of Palau |
| **Fast Request title:** | Coastal zone inundation - capacity development for bathymetry and wave modelling |
| **NDE** | Palau Automated Land And Resource Information Systems (PALARIS), Bureau of Budget and Planning, MOF, David K Idip Jr., Senior GIS Analyst, davidi@palaugov.org, PO Box 10052, Koror Palau, 96940. |
| **Request Applicant:** | Palau Automated Land And Resource Information Systems (PALARIS), Bureau of Budget and Planning, MOF, David K Idip Jr., Senior GIS Analyst, davidi@palaugov.org, PO Box 10052, Koror Palau, 96940. |

**Climate objective:**

☐ Adaptation to climate change
☐ Mitigation of climate change
☒ Combination of adaptation and mitigation of climate change

**Geographical scope:**

☐ Community level
☐ Sub-national
☒ National

If the request is at a sub-national level, please describe specific geographical areas (provinces, states, countries, regions, etc.).

**Sectors:**

Please indicate the main sectors related to the request:

| | | | |
|---|---|---|---|
| ☒ Coastal zones | ☐ Early Warning and Environmental Assessment | ☐ Human Health | ☐ Infrastructure and Urban planning |
| ☒ Marine and Fisheries | ☐ Water | ☐ Agriculture | ☐ Carbon fixation |
| ☐ Energy Efficiency | ☐ Forestry | ☐ Industry | ☐ Renewable energy |
| ☐ Transport | ☐ Waste management | | |

**CONTEXT OF THE ASSIGMENT** (up to half page):

*This section should present the climate problem and the national context within which it takes places (i.e. efforts to tackle it, climate policies and priorities etc). It should end with an explanation of the specific questions and issue the CTCN expert would have to address.*

The impacts of natural hazards on coastal communities are significant and becoming increasing frequent with climate change. Along with short-term events such as storms, the longer-term rise in sea-level and increasing storm intensity are affecting coastal ecosystems and infrastructure. Pacific Island communities require data products such as improved bathymetric and wave models to predict impacts in order to anticipate, prepare and recover from damaging events.

Many bathymetric and coastal surveys have been conducted in the waters surrounding Palau, the Solomon Islands, the Republic of Marshall Islands and Kiribati over many years, using single beam, multibeam and LIDAR survey techniques. This has created an extensive archive of data that is useful for coastal zone management and risk assessment. As part of the CTCN funded project *Capacity development to address risks in coastal zones*, available data has been compiled, processed, and integrated into a standardized bathymetric product for use in climate risk management and maritime planning. The original project proposal included a significant capacity development component. However, the project partners (GRID-Arendal, SPC, Geoscience Australia and the University of Sydney) were unable to deliver this aspect of the work due to the global CO-VID pandemic. This application is for funding to deliver the originally proposed training to technical personnel from the 4 Pacific Islands States - Kiribati, Palau, Solomon Islands and Marshal Islands.

The initial project compiled the existing data into a useful format, but capacity development is essential to capitalize on this product. With the proposed training personnel in the 4 states will be able to continue to develop and improve the bathymetric and wave models as additional data becomes available. This will support the countries in addressing challenges related to climate change and ensure continued data sovereignty.

The training focuses on integration of data into terrain models, the development and interpretation of wave models and a component focused on using this information to understand and predict coastal inundation. Increased capacity to synthesize data into useful information will provide tools for planners to outline areas of "high hazard", improve understanding of risk and enable future consideration of risks in coastal zone management and planning. Specifically, these tools can be used in the development of deterministic hazard maps and exposure assessment for key locations – crucial information for emergency response plans. The training deliverables will help managers make data driven decisions in areas such as shipping, coastal fishing, telecommunication cables, non-living resources (e.g., marine minerals, sand) and offshore energy development.

*Please list or attach relevant documents that will help the CTCN analyse the context of this request.*

**Alignment with national priorities**:

*Please describe how the technical assistance is consistent with national climate priorities such as: Nationally Determined Contribution, national development plans, poverty reduction plans, technology needs assessments, Low Emission Development Strategies, Nationally Appropriate Mitigation Actions, Technology Action Plans, National Adaptation Plans, sectorial strategies and plans, etc.*

| **Reference document** (please include date of document) | **Extract** (please include chapter, page number, etc.). |
|---|---|
| Nationally Determined Contribution (NDC) | Direct alignment and contribution to NDC implementation is required for all CTCN technical assistances. Please include a direct reference to the INDC/NDC document (chapter, page number, etc.).<br><br>RMI 2018<br>https://unfccc.int/sites/default/files/resource/180924%20rmi%202050%20climate%20strategy%20final_0.pdf<br>section 3, article 33, page 43<br><br>Solomon Islands 2021<br>https://unfccc.int/sites/default/files/NDC/2022-06/NDC%20Report%202021%20Final%20Solomon%20Islands%20%281%29.pdf<br>page 18 item H<br><br>Palau 2015<br>https://unfccc.int/sites/default/files/NDC/2022-06/Palau_INDC.Final%20Copy.pdf<br>Section 3.a<br><br>Kiribati 2022<br>https://unfccc.int/sites/default/files/NDC/2022-06/INDC_KIRIBATI.pdf<br>page 26 – strategy 2 |
| Technology Needs Assessment | Delayed due to Co-vid pandemic |
| National Adaptation Plans | RMI December 2020<br>https://unfccc.int/sites/default/files/resource/RMI-AdaptationCommunication_Dec2020.pdf<br>Section 3.3 – page 22<br><br>SI 2008<br>https://www.adaptation-undp.org/sites/default/files/downloads/solomon_islands_napa.pdf |

| | |
|---|---|
| | chapter 5 – page 72<br><br>Palau September 2013<br>https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/45823961_Palau-NC2-1-Final_Palau%20National%20Communication.pdf<br>chapter 3 – page 38<br><br>Kiribati 2007<br>https://library.sprep.org/sites/default/files/29_1.pdf<br>section 6.2.4 – page 44 |
| Nationally Appropriate Mitigation Actions | |
| Add others here as relevant | The project aligns with the regional Oceanscapes Framework which was endorsed by leaders in 2010. It addresses six strategic priorities identified for immediate implementation, including facilitating adaptation to a rapidly changing environment. |

**OBJECTIVE OF THE FTA** (up to 5,000 characters):

This section should present the overall objective of the assignment, including the result expected by the end of the Fast Technical Assistance

The fastrack funding will provide the participants from the 4 countries with:

1. Technical training in the development and interpretation of wave inundation models
2. Developing linkages and pathways to use these products in risk assessments related to climate change
3. Developing a best practice for the supply of data collected by external organizations in the EEZ of these states (tied to the MSR licencing as a requirement of UNCLOS).

The capacity building activity will build on the skills and knowledge developed through the Pacific maritime boundaries project, which has established a group of technical experts with skills necessary to benefit from focused technical assistance to develop coastal zone products. These products feed into management to support the development of inundation models and risk assessment for coastal communities and infrastructure. These models are highly relevant given the already occurring events and prediction of increasing catastrophic events related to climate change in the region.

The main objective of the technical assistance is to increase the capacity in the countries to utilize bathymetric and wave information to better understand coastal risk. Collecting bathymetric data is labour intensive and expensive – the proposed activity will build capacity within the countries to incorporate new bathymetric data into the models.

As the states pursue long term economic development, particularly in the blue economy, it is crucial that they can assess the inherent risks from climate change on society, business (e.g., tourism, transport etc.) infrastructure and marine biodiversity (including fisheries). Having accurate bathymetry and being able to predict inundation supports sustainable development.

**SCOPE AND ACTIVITIES OF THE PROPOSED FTA** (up to one page):

*The FTA should clearly contribute to mitigation or adaptation to climate change as described in the context of the assignment.*

*Within a clearly defined scope, the description of the FTA should be structured into the following:*

- *Expected activities*
- *Expected deliverables (following the structure of the activities)*
- *Expected use of the deliverables by the requesting organisation*

*Please note that the CTCN facilitates technical assistance and is not a project financing mechanism. All FTA has one mandatory activity, "Evaluation and communication".*

The training will occur over 5 days with the following expected activities and deliverables

***Activity 1: Overview of hydrographic concepts***
Deliverable 1: uncertainty model for bathymetric surface
Use of Deliverable: reference material to understand propagation of uncertainty and utility of data

***Activity 2: Overview of wave modelling concepts***
Deliverable 2: wave modelling framework using country-specific data
Use of Deliverable: forecasting locations and impacts of wave-driven coastal hazards

***Activity 3: Overview of coastal inundation concepts***
Deliverable 3: coastal inundation modelling framework using country-specific data
Use of Deliverable: forecasting locations and impacts of coastal inundation hazards

***Activity 4: Workshop on the scope of a regional GCF proposal***
Deliverable 4: Workshop report
Use of Deliverable: the results of the workshop will be used to progress the GCF proposal

***Activity 5: Evaluation and communication***
*The CTCN FTA Closure report will be completed at the end of the FTA (a template will be provided).*
Deliverable 5: FTA Closure report

**GENERAL TIME SCHEDULE OF EXPERT AND ACTIVITY/DELIVERY PLAN:**

*The activities under this contract must be completed within a period of 6 months. Please note that the maximum time for the assignment is 2 months.*

**Monitoring and impact of the assistance:**

By signing this request, I affirm that processes are in place in the country to monitor and evaluate the technical assistance provided by the CTCN. I understand that these processes will be explicitly identified in the CTCN Response Plan and that they will be used in the country to monitor the implementation of the technical assistance following standard CTCN procedures.

**Signature:**

NDE name: David K Idip Jr.

Date: June 29, 2022

Signature:

**THE COMPLETED FORM SHALL BE SENT TO THE CTCN@UN.ORG**