# REQUEST FOR TENDERS

RFT: ClimSA_2024_006
File: AP_3/35
Date: 13 August 2024
To: Interested Tenderers/experts/firms
From: Terry Atalifo, CimSA Regional Climate Centre (RCC) Coordinator

**Subject**: **Request for tenders (RFT):** Evaluation of Climate Model Skills used by National Meteorological & Hydrological Services in the Pacific Region.

## 1. Background

1.1. The Secretariat of the Pacific Regional Environment Programme (SPREP) is an intergovernmental organisation charged with promoting cooperation among Pacific islands countries and territories to protect and improve their environment and ensure sustainable development.

1.2. SPREP approaches the environmental challenges faced by the Pacific guided by four simple Values. These values guide all aspects of our work:

- We value the Environment.
- We value our People.
- We value high quality and targeted Service Delivery.
- We value Integrity.

1.3. For more information, see: www.sprep.org.

## 2. Specifications: statement of requirement

2.1. SPREP wishes to call for tenders from qualified and experienced tenderers/experts/firms who can offer their services to evaluate the skill of climate models used by National Meteorological and Hydrological Services in the Pacific region.

2.2. The Terms of Reference of the consultancy are set out in Annex A.

2.3. The successful Tenderer must supply the services to the extent applicable, in compliance with SPREP's Values and Code of Conduct (https://library.sprep.org/sites/default/files/sprep-organisational-values-code-of-conduct.pdf). Including SPREP's policy on Child Protection, Environmental Social Safeguards, Fraud Prevention & Whistleblower Protection and Gender and Social Inclusion.

2.4. SPREP Standard Contract Terms and Conditions are non-negotiable.

## 3. Conditions: information for Tenderers

3.1. To be considered for this tender, interested Tenderers must meet the following conditions:

i. Submit a detailed Curriculum vitae detailing qualifications and previous relevant experience for each proposed personnel;
ii. Provide three referees relevant to this tender submission, including the most recent work completed;

iii. Complete the **tender application form** provided (Please note you are required to complete in full all areas requested in the Form, particularly the Statements to demonstrate you meet the selection criteria – DO NOT refer us to your CV. Failure to do this will mean your application will **not** be considered). Provide examples of past related work outputs. For the Technical and Financial proposals, you may attach these separately.

iv. Provide a copy of a valid business registration/license.

3.2 Tenderers must declare any areas that may constitute a conflict of interest related to this tender and sign the **conflict-of-interest form** provided.

3.3 **Tenderer is deemed ineligible due to association with exclusion criteria, including** bankruptcy, insolvency or winding up procedures, breach of obligations relating to the payment of taxes or social security contributions, fraudulent or negligent practice, violation of intellectual property rights, under a judgment by the court, grave professional misconduct including misrepresentation, corruption, participation in a criminal organisation, money laundering or terrorist financing, child labour and other trafficking in human beings, deficiency in capability in complying main obligations, creating a shell company, and being a shell company.

3.4 Tenderer must sign a declaration of **honour form** together with their application, certifying that they do not fall into any of the exclusion situations cited in 3.3 above and where applicable, that they have taken adequate measures to remedy the situation.

## 4. Submission guidelines

4.1. Tender documentation should demonstrate that the interested Tenderer satisfies the conditions stated above and in the Terms of Reference and is capable of meeting the specifications and timeframes. Documentation must also include supporting examples to address the evaluation criteria.

4.2. Tender documentation should be submitted in English and outline the interested Tenderer's complete proposal:

a) **SPREP Tender Application form and conflict of interest form.** *(Please note you are required to complete in full all areas requested in the Form, particularly the Statements to demonstrate that you meet the selection criteria – DO NOT refer us to your CV. Failure to do this will mean your application will **not** be considered). Provide examples of past related work outputs*
*For the Technical and Financial proposals, you may attach these separately.*

b) **Honour form**

c) **Curriculum Vitae** of the proposed personnel to demonstrate that they have the requisite skills and experience to carry out this contract successfully.

d) **Technical Proposal** which contains the details to achieve the tasks outlined in the Terms of Reference.

e) **Financial Proposal** – provide a detailed outline of the costs involved in successfully delivering this project submitted in United States Dollars (USD) and inclusive of all associated taxes.

4.3. Provide three referees relevant to this tender submission, including the most recent work completed.

4.4. Tenderers/bidders shall bear all costs associated with preparing and submitting a proposal, including cost relating to contract award; SPREP will, in no case, be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

4.5. The tenderer/bidder might be requested to provide additional information relating to their submitted proposal if the Tender Evaluation Committee requests further information for the purposes of tender evaluation. SPREP may shortlist one or more Tenderers and seek further information from them.

4.6. The submitted tender proposal must be for the entirety of the Terms of Reference and not divided into portions which a potential tenderer/bidder can provide services for.

4.7. The Proposal must remain valid for 90 days from date of submission.

4.8. Tenderers must insist on an acknowledgement of receipt of tender.

## 5. Tender Clarification

5.1. a. Any clarification questions from Tenderers must be submitted by email to procurement@sprep.org before 26th of August 2024. A summary of all questions received, complete with an associated response, posted on the SPREP website www.sprep.org/tender by 30th of August 2024.

b. The only point of contact for all matters relating to the RFT and the RFT process is the SPREP Procurement Officer.

c. SPREP will determine what, if any, response should be given to a Tenderer question. SPREP will circulate Tenderer questions and SPREP's response to those questions to all other Tenderers using the SPREP Tenders page (**https://www.sprep.org/tenders**) without disclosing the source of the questions or revealing any confidential information of a Tenderer.

d. Tenderers should identify in their question what, if any, information in the question the Tenderer considers is confidential.

e. If a Tenderer believes they have found a discrepancy, error, ambiguity, inconsistency or omission in this RFT or any other information given or made available by SPREP, the Tenderer should promptly notify the Procurement Officer setting out the error in sufficient detail so that SPREP may take the corrective action, if any, it considers appropriate.

## 6. Evaluation criteria

6.1. SPREP will select a preferred Tenderer on the basis of SPREP's evaluation of the extent to which the documentation demonstrates that the tenderer offers the best value for money, and that the tender satisfies the following criteria:

6.2. A proposal will be rejected if it fails to achieve 70% or more in the technical criteria and its accompanying financial proposal shall not be evaluated.

### I. Technical Score – 70%

| Criteria | Detail | Weighting |
|---|---|---|
| **Qualification** | Minimum qualifications of a master's degree in Meteorology, Climate Science, Climate Change, Environmental Science, or another relevant technical field is desirable. | 10% |
| **Experience** | At least 10 years of work experience in climate modelling including the evaluation of climate model skills. | 15% |

| | | |
|---|---|---|
| **Technical Experience** | Experience in evaluating climate model hindcast skills, determining appropriate skill metrics, developing methodologies to document and capture the experiences and best practices of NMHS and publishing of results in a reputable peer reviewed scientific journal. | 15% |
| **Technical Skills** | Competent skill in evaluating and comparing climate model performance in terms of hindcast skills and experiences. Negotiating with the providers of climate model information to make real-time verification information available publicly.<br><br>Candidates should demonstrate that their performance is driven through independent or collaborative efforts with excellent coordinating and communication skills | 15% |
| **Technical Proposal/Methodology** | Provided detailed summary on the proposed methodology, execution approach and timeline. | 15% |

### II. Financial Score – 30%

The following formula shall be used to calculate the financial score for ONLY the proposals which score 70% or more in the technical criteria:

$$\text{Financial Score} = a \times \frac{b}{c}$$

Where:
a = maximum number of points allocated for the Financial Score
b = Lowest bid amount

c = Total bidding amount of the proposal

## 7. Variation or Termination of the Request for Tender

a. SPREP may amend, suspend or terminate the RFT process at any time.

b. In the event that SPREP amends the RFT or the conditions of tender, it will inform potential Tenderers using the SPREP Tenders page (**https://www.sprep.org/tenders**).

c. Tenderers are responsible to regularly check the SPREP website Tenders page for any updates and downloading the relevant RFT documentation and addendum for the RFT if it is interested in providing a Tender Response.

d. If SPREP determines that none of the Tenders submitted represents value for money, that it is otherwise in the public interest or SPREP's interest to do so, SPREP may terminate this RFT process at any time. In such cases SPREP will cancel the tender, issue a cancellation notice and inform unsuccessful bidders accordingly.

## 8. Deadline

8.1. **The due date for submission of the tender is: 10th of September 2024, midnight (Apia, Samoa local time).**

8.2. Late submissions will be returned unopened to the sender.

8.3. Please send all tenders clearly marked '**RFT ClimSA_2024_06: Evaluation of Climate Model Skills used by National Meteorological & Hydrological Services in the Pacific Region'.**

Mail: SPREP
Attention: Procurement Officer
PO Box 240
Apia, SAMOA
Email: tenders@sprep.org (MOST PREFERRED OPTION)
Fax: 685 20231
Person: Submit by hand in the tenders' box at SPREP reception,
Vailima, Samoa.

Note: Submissions made to the incorrect portal will not be considered by SPREP. If SPREP is made aware of the error in submission prior to the deadline, the Tenderer will be advised to resubmit their application to the correct portal. However, if SPREP is not made aware of the error in submission until after the deadline, then the application is considered late and will be returned unopened to the sender.

SPREP reserves the right to reject any or all tenders and the lowest or any tender will not necessarily be accepted.

SPREP reserves the right to enter into negotiation with respect to one or more proposals prior to the award of a contract, split an award/awards and to consider localised award/awards between any proposers in any combination, as it may deem appropriate without prior written acceptance of the proposers.

**A binding contract is in effect, once signed by both SPREP and the successful tenderer. Any contractual discussion/work carried out/goods supplied prior to a contract being signed does not constitute a binding contract.**

**For any complaints regarding the Secretariat's tenders please refer to the Complaints section on the SPREP website** http://www.sprep.org/accountability/complaints

# Annex A: Terms of Reference

# Evaluation of Climate Model Skills used by National Meteorological & Hydrological Services in the Pacific Region

## Background

Weekly to seasonal climate forecasts have socioeconomic value, and the quality of the forecasts is important to various societal and economic applications. The National Meteorological and Hydrological Services (NMHS) in the western Pacific region have been providing climate services to many users over many decades and both models and NMHS capability to interpret and promote modelling output have improved significantly during this time. Climate services provide information to assist decision-making across many climate-sensitive sectors and the community and NMHS products have been developed with input from these users including access mechanisms that serve their needs.

Climate services are ideally built on high-quality data including high-skilled climate models to create targeted weekly to seasonal outlooks and integrate with sectorial information to support climate risk management across climate-sensitive sectors. The practice of assessing global and regional climate models to prepare sub-seasonal and seasonal outlooks is well established. Some, but not all, global and regional climate models (ACCESS-S, CLIP, etc.) providers make dynamical and statistical model skill information available to NMHSs to support the development of National scale seasonal (plus sub-seasonal) outlooks. Similarly, the practice of using multi-model ensemble (MME) climate predictions for operational climate services is well established. However, limited assessment has been undertaken in the western Pacific region to formally compare the performance of climate models (or MME's) which are currently available for the region.

## Objectives

The Secretariat of the Pacific Environment Programme (SPREP) via the ClimSA project is seeking to engage a consultant to:

1. Evaluate individual climate model(s) and multi-model ensemble model(s) hindcast skills for rainfall, air temperature and sea surface temperature using peer reviewed skill metrics at seasonal and sub-seasonal timescales for all WMO Global Producing Centre (GPC) for Long-Range Forecast (LRF) models and others used by members of the Pacific RCC-N. The review should also include seasonal and regional variations.
2. Determine which of the models outlined in (1) above are used by NMHSs', their preferences and reasons for their selection. Develop a methodology to capture such experiences and best practices if it is not available at this stage.
3. Determine if WMO GPC LRF including the Pacific RCC-N member model's hindcast and near real-time verification information (plus assessment method used) is publicly available for NMHS use. Document sources of information. Outline member plans for future provision of this information if not publicly available.

## Methodology

The methodology to be employed includes:

1) A desktop evaluation in consultation with WMO GPC LRFs, Pacific RCC-N members and western Pacific NMHSs in the region to determine global or regional climate model output and hindcast skill information availability for the western Pacific region.
2) Determine and obtain suitable observations for use in assessing hindcast skill of forecasts associated with the selected variable.
3) Determine minimum requirements of climate models deemed to be appropriate for inclusion, e.g. minimum hindcast length for skill assessment to be undertaken, ideally 30 years minimum to capture the flavors of ENSO, IPO etc.
4) Consult with Pacific RCC-N members and determine appropriate skill metrics for selected variables.
5) Conduct an assessment to determine which climate model or models have sufficient hindcast skill at regional and national levels in the western Pacific region, evaluate model(s) hindcast skills for rainfall, air temperature and sea surface temperature and make recommendations on future use. This review should include seasonal and regional variations.
6) Document NMHS experiences including best practices on which model(s) are currently used operationally, which ones that are not available but of interest, develop a methodology to capture such experiences and best practices.
7) Work with climate model providers to make real-time verification data available to Pacific RCC-N and NMHS.
8) Present the findings to members of the Pacific RCC-N and western Pacific Island NMHSs.
9) Guide and support SPREP staff to publish findings in a reputable peer reviewed scientific journal.

## Deliverables

The consultant is expected to produce the following deliverables:

a) Completion of the consultant's work plan.
b) Desktop evaluation report on the availability of global and regional climate model output and hindcast skill information, suitable observations for use in accessing hindcast skill information, information on the minimum requirements of climate models deemed appropriate, including appropriate skill metrics for selected climate variables (E.g. rainfall, temperature, etc.).
c) Evaluate climate model(s) hindcast skills for the western Pacific region at regional and national levels and make recommendations.
d) Document National Meteorological and Hydrological Service (NMHS) climate model experiences, best practices and develop a methodology to capture such experience.
e) Work with climate model providers to make real-time verification data available to Pacific RCC-N and NMHS.
f) Present the all the findings to Pacific RCC-N and NMHS.
g) Guide and support SPREP staff to publish findings in a reputable peer reviewed scientific journal.

## Requirements

- ☞ Minimum qualifications of a master's degree in Climate Science, Climate Change, Meteorology or any other relevant technical field.
- ☞ At least 10 years of work experience and research in climate modeling, climate model skill assessments.
- ☞ Demonstrated knowledge in developing methodologies for evaluating climate model skills, evaluating and comparing climate modeling skills and documenting experiences including best practices.
- ☞ Candidates should demonstrate that their performance is driven through independent or collaborative efforts with excellent coordinating and communication skills.

## Work Arrangements

The consultant will work remotely and be supervised by the ClimSA Regional Climate Centre (RCC) Coordinator. Similarly, the consultant will be required to engage with western Pacific Island NMHSs, WMO GPC LRF and Pacific RCC-N members. If the consultant is required to conduct regional travel, additional funding will be granted.

## Characteristics of the Consultancy

| **Type of Consultancy** | **Individual or firm** |
|---|---|
| Contract Duration | 75 days over 6 months. |
| Place of Work | Home based with travel (the travel arrangement and cost will be paid directly by SPREP) |
| Means of Payment | The consultant will be paid on the approval of deliverables. |

## Timeline & Deliverables

The following milestones and deliverables will be used to track progress on this contract.

| **Tasks** | **Key Deliverables & Milestones** | **Due Date (75 days over 6-months)** |
|---|---|---|
| Familiarization process and initial consultations. | Endorse work plan | 3-days |
| Conduct a desktop evaluation in consultation with WMO GPC LRFs, Pacific RCC-N members and NMHS to determine global and regional climate model output and hindcast skill information availability including climate model evaluation methodologies. | Evaluation report on climate model skill output including hindcast skill information and methodologies to evaluate climate model skills. | 15-days |

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|---|---|---|---|---|
| Evaluate climate model(s) hindcast skill for the western Pacific region and make recommendations. | | Recommendations of Climate model(s) with acceptable hindcast skills. | | 25-days |
| Document NMHS experiences and best practices on which climate model(s) are used operationally, and anything they would like provided which isn't currently available. | | NMHSs' experiences and best practices documented. | | 5-days |
| Work with climate model providers to make climate model real-time verification data available. | | NMHSs' and Pacific RCC-N have access to real-time climate model verification data. | | 15-days |
| Presentation of climate model assessment finding to operational climate services and regional stakeholders. | | Presentation done. | | 2-day |
| Guide and support SPREP staff to develop a manuscript and publish the findings in a reputable peer reviewed scientific journal. | | Draft manuscript available. | | 10-day |

**End**…