

REQUEST FOR TENDERS

Subject: Request for tenders (RFT): Regional waste management improvements and investment opportunities

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: <u>www.sprep.org</u>.

2. Specifications: statement of requirement

- 2.1. SPREP wishes to call for tenders from qualified and experienced consultants who can offer their services to deliver the development of the first iteration of the regional waste management improvements and investment opportunities (prospectus).
- 2.2. The Terms of Reference of the consultancy are set out in Annex A.
- 2.3. The successful consultant must supply the services to the extent applicable, in compliance with SPREP's Values and Code of Conduct: <u>https://library.sprep.org/sites/default/files/sprep-organisa-tional-values-code-of-conduct.pdf.</u> 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 applicants

- 3.1. To be considered for this tender, interested consultants must meet the following conditions:
 - i. Submit a detailed Curriculum vitae detailing qualification 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 <u>tender application form</u> provided (*Please note you are required to complete in full all areas requested in the Form, particularly the Statements to*

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iv.

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. Must meet local registration requirements

- 3.2 Tenderers must declare any areas that may constitute 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 consultant 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 consultant'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 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.
 - f) Where relevant provide:
 - i. Business registration/license (For Entities/ Individual consultant's as per relevant national legislations)
 - ii. Tax Identification Number (TIN) Letter (If applicable for Individual consultant's as per relevant national legislations)
- 4.3. Provide three referees relevant to this tender submission, including the most recent work completed.

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- 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 applicants must be submitted by email to procurement@sprep.org before 25 November 2024. A summary of all questions received complete with an associated response posted on the SPREP website www.sprep.org/tender by 27 November 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 (<u>https://www.sprep.org/tenders</u>) 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 consultant 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 – 80%

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| Criteria | Description | Weighting |
|-------------|---|-----------|
| | Demonstrated experience in GIS data scrubbing and analysis | 20% |
| | Demonstrated experience in waste industry data analysis with | 20% |
| | evidence provided of the skills and experience that will assist | |
| | the delivery of the job, and avoidance of double counting or in- | |
| | appropriate analysis based on not understanding industry ac- | |
| Experience | tivities, or impact on data selection for various analysis actions. | |
| | Demonstrated experience in Small Island Developing States | 5% |
| | (SIDS) presenting complex topics in simplified way | |
| | Examples provided of past works relevant to this activity (links | 10% |
| | to initiatives or products that provide insight into research ap- | |
| | proach) | |
| | Detailed methodology to deliver the required project compo- | 20% |
| | nents and provide detail to the panel the value proposed by the | |
| Methodology | tenderer. | |
| | Risk Plan (with mitigation measures) that will ensure the suc- | 5% |
| | cessful delivery of the project. | |

II. Financial Score – 20%

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

Financial Score = a X
$$\frac{b}{c}$$

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

- $7.1\,$ 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 (<u>https://www.sprep.org/tenders</u>).
 - 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

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- 8.1. The due date for submission of the tender is: 04 December 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 PWP-345: **Regional waste management im**provements and investment opportunities
 - Mail: SPREP Attention: Procurement Officer PO Box 240 Apia, SAMOA Email: <u>tenders@sprep.org</u> (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 applicant 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 <u>http://www.sprep.org/accountability/complaints</u>



Annex A: Terms of Reference Regional Waste Management Improvements and Investment Opportunities

1. BACKGROUND

The Secretariat of the Pacific Regional Environment Programme (SPREP) is working with the European Union's Delegation to the Pacific, and 14 Pacific Island Countries and Timor-Leste to undertake the PacWastePlus Programme (the Project) which seeks to improve and enhance waste management activities and the capacity of governments, industry, and communities to manage waste to reduce the impact on human health and the environment.

PacWastePlus seeks to generate improved economic, social, health and environmental benefits for Pacific Island Countries arising from stronger regional economic integration and the sustainable management of natural resources and the environment. The programme activities will be designed to assist Countries to ensure the safe and sustainable management of waste with due regard for the conservation of biodiversity, reduction of marine litter, health and well-being of Pacific Island communities, and climate change mitigation and adaptation requirements.

Activities for PacWastePlus will focus on targeted priority waste streams which are: hazardous wastes (specifically **asbestos**, **e-waste** and **healthcare waste**); and solid wastes (specifically **recyclables**, **organic waste**, **disaster waste**, **and bulky waste**).

2. INTRODUCTION TO PROJECT

PacWastePlus has invested significant funding and resources into the development of updated and consistent waste management data for each country participating in the PacWastePlus Programme, as well as assisting the development of a regional waste audit methodology, and developing a regional waste data collection, monitoring, and reporting framework to assist decision making and directed investment opportunity in the region.

As part of the broader regional data project elements of PacWastePlus, we are now seeking to design and collate a Regional Waste Management Improvements and Investment Opportunities for the Pacific. The intent of the prospectus is to create a geodatabase that collects and houses waste and related data, and utilises demographical data and population projections, to forecast when it is likely that infrastructure will become overloaded, in an attempt to (i) assist countries to plan for changes or system improvements, and (ii) provide private industry the opportunity to understand potential investment opportunities and when they may be viable.

The intent of this project is to design and implement the initial phase of the development of the Prospectus.

3. EXPECTED OUTCOME

The PacWastePlus Programme seeks to deliver the development of the first iteration of the Regional Waste Management Improvements and Investment Opportunities. It is expected the Prospectus will be developed internally in SPREP utilising the services of the following sections / staff:

- PacWastePlus team (likely Solid Waste Project Officer)
- WMPC Solid Waste Adviser
- WMPC Hazardous Waste Adviser
- WMPC Pollution Advisor
- WMPC Project Managers (ISLANDS, PAWES, POLP, SWAP)
- EMG Advisor
- EMG GIS Specialists
- Additional partner project external inputs as needed (ADB, World Bank, PRIF, etc.)

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The project team will work collaboratively to confirm the scope of the Prospectus, and the possible project outputs which are expected to include:

- Written Report detailing all datasets included, and highlighting existing opportunities, and highlighting likely time horizons for major infrastructure improvement projects inferred by the analysis of the various datasets utilised to create the Report. The Report should identify any data/information gaps and include an assessment of the quality of the existing data (as data quality is a key consideration in any future feasibility and business case for new infrastructure).
- Online GIS Visualisation of the Regional Waste Management Improvements and Investment Opportunities

Datasets necessary to inform the first iteration of the Regional Waste Management Improvements and Investment Opportunities may include but may not be limited to the following (noting on those datasets included in Phase 1 are part of this tender process). Where tenderers feel there could / should be surrogates used due to issues with complexity, access the information, risk of 'double counting' etc. these should be detailed in the tender response.

| Major Data | Specific Dataset | Disaggregation | Comments | | Phase 1? |
|--|---|--------------------------|---------------------------|---|-------------|
| Group | | | SPREP (EMG) | Consultant | |
| $ = \omega + \omega $ | Country boundary / islands / landmass | | EMG to confirm and update | | \boxtimes |
| Coun tries & Ter- rito- ries | Territory boundary / islands / landmass | | EMG to confirm and update | | \boxtimes |
| 0 + % | EEZs | | EMG to confirm and update | | \boxtimes |
| | Population (in each country and terri- tory) | | EMG to confirm and update | | \boxtimes |
| | Population location (grid) | | EMG to confirm and update | | \boxtimes |
| | Household numbers (location grid) | | EMG to confirm and update | | \boxtimes |
| | Population forecast | 2030 | | Consultant to confirm | \boxtimes |
| | | | | and update | |
| hics | | 2040 | | Consultant to confirm and update | \boxtimes |
| Demographics | | 2050 | | Consultant to confirm and update | \boxtimes |
| Demo | | 2100 | | Consultant to confirm and update | \boxtimes |
| | Age | Census age categories | | Consultant to confirm and update | \boxtimes |
| | Gender | Census gender categories | | Consultant to confirm and update - Grid | |
| | | | | reference would be | |
| | | | | most appropriate and useful | |

i. **DATASETS**

| Major Data | Specific Dataset | Disaggregation | Comments | | Phase 1? |
|-------------------|----------------------------------|--|---------------------------|--|-------------|
| Group | | | SPREP (EMG) | Consultant | |
| | Education level | Census education catego- ries | | Consultant to confirm and update - Grid reference would be most appropriate and useful | |
| | Average household income | Census household income categories | | Consultant to confirm and update - Grid reference would be most appropriate and useful | |
| | Internet access | Census internet access cat- egories | | Consultant to confirm and update - Grid reference would be most appropriate and useful | |
| | Major Roads | | EMG to confirm and update | | \boxtimes |
| | Minor Roads | | EMG to confirm and update | | \boxtimes |
| | Mining Companies (chemical labs) | | | | |
| | Utilities | Water utility facilities | | | |
| | | Energy utility facilities | | | |
| | | Hospitals | EMG to confirm and update | | \boxtimes |
| ent | Health care facilities | Community clinics | | | |
| E | | Veterinarian clinics | | | |
| iro | | Early Education Centres | | | |
| Built Environment | Educational Institutions | Primary Schools | EMG to confirm and update | | \boxtimes |
| 브 | Educational institutions | Secondary Schools | EMG to confirm and update | | \boxtimes |
| 3ui | | Tertiary Institutions | EMG to confirm and update | | \boxtimes |
| | Maior Infractoriation | Sea ports | EMG to confirm and update | | \boxtimes |
| | Major Infrastructure | Air ports | EMG to confirm and update | | \boxtimes |
| | Heenitality Equilities | Resorts / Hotels | EMG to confirm and update | | \boxtimes |
| | Hospitality Facilities | Restaurants | | | |
| | Places of Worship | Churches | | | |
| | Sporting facilities | Stadiums | | | |

| Major Data | Specific Dataset | Disaggregation | Commen | its | Phase 1? |
|------------|--------------------------------|-----------------------------------|---|------------|-------------|
| Group | | | SPREP (EMG) | Consultant | |
| | | Public swimming pools | | | |
| | | Golf courses | | | |
| | | Tennis Facilities | | | |
| | | Ovals / sporting fields | | | |
| | Community event facilities | Public halls | | | |
| | | Plastics | | | |
| | | Chemicals | | | |
| | Major Manufacturing | Breweries | | | |
| | | Other?? | | | |
| | | Car sales yards | | | |
| | Automotive Facilities | Repair shops / panel beat- ers | | | |
| | | Residential | EMG to confirm and update | | |
| | | Industrial | EMG to confirm and update | | \boxtimes |
| | Zoning Data | Commercial | EMG to confirm and update | | \boxtimes |
| | | Forested / parks | EMG to confirm and update | | \boxtimes |
| | | Informal settlements | EMG to confirm and update | | |
| | | Native lands | EMG to confirm and update | | |
| | Land tenure | Public Lands | EMG to confirm and update | | |
| | | Private Lands | EMG to confirm and update | | |
| | Les Chattan and Les Thiles and | Government buildings | | | |
| | Institutional buildings | Military sites / barracks | | | |
| | Obinning geneter | Main destination | | | |
| | Shipping routes | Transit routes | | | |
| | | Main destination | | | |
| | Flight routes | Transit routes | | | |
| | Known Asbestos locations | | EMG to confirm from WMPC - Where mapped, locations of buildings containing Asbes- tos Containing Materials to be mapped | | |

| Major Data | Specific Dataset | Disaggregation | Comme | nts | Phase 1? |
|------------------|------------------|--|------------------------------------|------------|-------------|
| Group | | | SPREP (EMG) | Consultant | |
| | | Smart line | EMG to confirm and update | | \boxtimes |
| | Shoreline | High tide | | | |
| | | Coastal features | | | |
| | | Major rivers | EMG to confirm and update | | |
| | | Secondary rivers | EMG to confirm and update | | |
| | | Tertiary rivers | EMG to confirm and update | | |
| | Hydrology | Tributaries | EMG to confirm and update | | |
| | | Springs | EMG to confirm and update | | |
| | | Groundwater | | | |
| | | Coastal intrusions | | | |
| | Salinity | | | | |
| | Elevation (DEM) | 30m | EMG to confirm and update | | |
| | | 10m | EMG to confirm and update | | |
| Biophysical Data | | 3m | EMG to confirm and update | | |
| | Geology | Soils | EMG to confirm and update | | |
| sice | | Volcanoes | | | |
| hys | | Fault lines/zones | | | |
| do | | Prevalent winds | EMG to confirm and update | | |
| ä | Atmospheric data | Historic cyclone paths | EMG to confirm and update | | |
| | | Flood risk | EMG to confirm and update | | |
| | | Agricultural lands | EMG to confirm and update | | |
| | | Forestry | EMG to confirm and update | | |
| | Land Use | Housing developments | EMG to confirm and update | | \boxtimes |
| | | Mangroves | | | |
| | | Livestock | EMG to confirm and update | | |
| | | Marine Protected Areas (MPA) | | | |
| | Protected areas | Marine Protected Areas (MPA) - fishing restrictions | | | |
| | | Terrestrial Protected Areas (MPA) | EMG to confirm and update from IOE | | |
| | | Territorial seashore park | | | |

| Major Data | Specific Dataset | Disaggregation | Comments | | Phase 1? | |
|----------------------|--------------------------------------|---|-------------------------------------|------------|-----------|--|
| Group | | | SPREP (EMG) | Consultant | | |
| | | Ecological Reserve Areas | EMG to confirm and update from IOE | | | |
| | | National Wildlife refuge | EMG to confirm and update from IOE | | | |
| | | National Park | EMG to confirm and update from IOE | | | |
| | | Conservation areas | EMG to confirm and update from IOE | | | |
| | | Sacred / traditional / herit- age sites | EMG to confirm and update from IOE | | | |
| | | Community conservation areas | EMG to confirm and update from IOE | | | |
| | | Other Effective Area based Conservation Measures (OECM) | | | | |
| | Landfill | Location | EMG to confirm and update from WMPC | | | |
| | | Capacity | | | | |
| | | Materials accepted | | | | |
| | | Materials rejected | | | | |
| ure | | Location | EMG to confirm and update from WMPC | | \square | |
| rct | Dump | Capacity | | | | |
| stri | | Materials accepted | | | | |
| fra: | | Materials rejected | | | | |
| Waste Infrastructure | | Location | EMG to confirm and update from WMPC | | | |
| Vas | Compost facilities | Capacity | | | | |
| 5 | | Materials accepted | | | | |
| | | Materials rejected | | | | |
| | | Location | EMG to confirm and update from WMPC | | | |
| | Energy treatment/recovery facilities | Capacity | | | | |
| | | Materials accepted | | | | |

| Major Data | Specific Dataset | Disaggregation | Comments | | Phase 1? |
|------------|---|-------------------------|--|------------|-----------|
| Group | | | SPREP (EMG) | Consultant | |
| | | Materials rejected | | | |
| | Material Recovery facilities | Location | EMG to confirm and update from WMPC | | |
| | | Capacity | | | |
| | Transfer stations | Location | EMG to confirm and update from WMPC | | |
| | | Capacity | | | |
| | | Location | EMG to confirm and update from WMPC | | |
| | Waste storage facilities | Capacity | | | |
| | | Materials accepted | | | |
| | | Materials rejected | | | |
| | | Location | EMG to confirm and update from WMPC | | |
| | Hazardous waste storage facilities | Capacity | | | |
| | | Materials accepted | | | |
| | | Materials rejected | | | |
| | Thermal treatment facilities | Hospital incinerators | EMG to confirm and update from WMPC | | \square |
| | mermai treatment facilities | Quarantine incinerators | EMG to confirm and update from WMPC | | \square |
| | Pollution interventions | River booms | | | |
| | Foliation Interventions | Gross pollutant traps | | | |
| | Tax incentive areas (for waste manage- ment) | | | | |
| ą | National Waste Audit Data | Recovery rate | EMG to confirm from availa- ble datasets for each country portal | | |
| Waste Data | | Service coverage | EMG to confirm from availa- ble datasets for each country portal | | |
| Wa | | Waste to landfill | EMG to confirm from availa- ble datasets for each country portal | | |

| Major Data | Specific Dataset | Disaggregation | Commen | its | Phase 1? |
|------------|------------------|---|--------------------------------------|------------|-------------|
| Group | | | SPREP (EMG) | Consultant | |
| | | Waste generation rate | EMG to confirm from availa- | | \boxtimes |
| | | (MSW) | ble datasets for each country | | |
| | | | portal | | |
| | | Waste generation – organ- | EMG to confirm from availa- | | \boxtimes |
| | | ics | ble datasets for each country | | |
| | | | portal | | |
| | | Waste generation – glass | EMG to confirm from availa- | | \boxtimes |
| | | | ble datasets for each country portal | | |
| | | Waste generation – Plastics | EMG to confirm from availa- | | |
| | | Waste generation – Flastics | ble datasets for each country | | |
| | | | portal | | |
| | | Waste generation – alumin- | EMG to confirm from availa- | | |
| | | ium | ble datasets for each country | | |
| | | | portal | | |
| | | Waste generation – Paper | EMG to confirm from availa- | | \boxtimes |
| | | & cardboard | ble datasets for each country | | |
| | | | portal | | |
| | | Waste generation – single | EMG to confirm from availa- | | \boxtimes |
| | | use plastics | ble datasets for each country | | |
| | | | portal | | |
| | | Waste generation – Tyres | | | |
| | | Waste generation – Con- | | | |
| | | struction & demolition waste | | | |
| | | Waste generation – textiles | | | |
| | | | | | |
| | | Waste generation – expired food products | | | |
| | | Waste generation – Agricul- | | | |
| | | tural waste | | | |
| | | Waste generation – end of | | | |
| | | life vehicles | | | |
| | | Waste generation – batter- | | | |
| | | ies (ULĂBs, Lithium) | | | |
| | | Waste generation – PV | | | |
| | | cells | | | |

| Major Data | Specific Dataset | Disaggregation | Commei | nts | Phase 1? |
|------------|--|---|-------------|--|----------|
| Group | | | SPREP (EMG) | Consultant | |
| | | Waste generation – Cook- ing Oil | | | |
| | | Waste generation – Tour- ism waste | | | |
| | | Waste generation – Disas- ter relief supplies | | | |
| | | Waste generation – asbes- tos containing materials | | | |
| | Plastic bottles | | | Consultant to confirm and update for each country (units, or ton- nage) | |
| | Single Use plastic bags | | | | |
| | Tyres | | | Consultant to confirm and update for each country (units, or ton- nage) | |
| | Oil (may include fuel, lubs, hydraulic oil - TBC) | | | | |
| rts | Chemicals | | | | |
| Imports | Asbestos | | | Consultant to confirm and update for each country (units, or ton- nage) | |
| | Textiles | | | | |
| | Electronic goods | | | Consultant to confirm and update for each country (units, or ton- nage) | |
| | Vehicles | Petrol cars | | Consultant to confirm and update for each country (units, or ton- nage) | |

| Major Data | Specific Dataset | Disaggregation | Co | omments | Phase 1? |
|------------|---------------------------|----------------|-------------|--|-------------|
| Group | | | SPREP (EMG) | Consultant | |
| | | Electric cars | | Consultant to confirm and update for each country (units, or ton- nage) | \boxtimes |
| | Plastics | | | Consultant to confirm and update for each country (units, or ton- nage) | |
| | Paper & cardboard | | | Consultant to confirm and update for each country (units, or ton- nage) | |
| | Aluminium | | | Consultant to confirm and update for each country (units, or ton- nage) | |
| irts | Steel | | | Consultant to confirm and update for each country (units, or ton- nage) | |
| Exports | Non-ferrous | | | Consultant to confirm and update for each country (units, or ton- nage) | |
| | batteries | | | Consultant to confirm and update for each country (units, or ton- nage) | |
| | | Waste type | | | |
| | | Start location | | | |
| | Waigani / Basel movements | Final port | | | |

| Major Data | Specific Dataset | Disaggregation | Commen | ts | Phase 1? |
|------------|--|--|-------------|------------|----------|
| Group | | | SPREP (EMG) | Consultant | |
| _ | Waigani Convention | | | | |
| tior | Noumea Convention | | | | |
| Legislat | Noumea Protocol on Dumping (relevant if there are discharges or dumping of wastes into the marine environment) | | | | |
| Ĕ | Basel Convention | | | | |
| Governmei | Environmental legislation | Attribute layer including de- tails of environment/waste | | | |
| | (TBC but may include relevant multilat- eral environment agreements eg. IMO, CP2025, Minamata, BRS etc) | governing legislation (avail- able from PWP legislative assessments) | | | |

ii. ANALYSIS

Utilising the above datasets, a series of analysis is possible. Initial analysis that will add value includes

| Task | Datasets to be utilised | Outcome description | | | | |
|---|--|--|--|--|--|--|
| General Analysis to develop additional Layers to assist with analysis | | | | | | |
| | DEM levels | Slope Analysis | | | | |
| | (TBC but may include ecosystem sensitive areas, EBSA (ecological, | Determine ideal locations for waste facilities by assessing the slope of the land. Flat ar- eas with large open spaces are preferred, especially for large infrastructure projects. | | | | |
| Generate 'slope layers' | biological sensitive area), cultural). | Locate waste facilities and plan trucking routes, considering vehicle types and load ca- pacities | | | | |
| | | Slope layers can provide valuable information related to waste facility location, and inter- nal trucking routes based on likely vehicle types, etc. | | | | |
| | | SPREP may well not utilise the data for its full value, but the private industry will find this useful as they determine possible sites for the development of infrastructure. | | | | |
| | Slope | Site Suitability Analysis | | | | |
| | height above Sea Level Major Rivers Secondary Rivers Tertiary rivers Coastline Previous cyclone paths flooding | Combines multiple datasets, such as slope, distance from water bodies, proximity to roads, and population centers, to identify suitable sites for waste facilities. | | | | |
| | | While continuing from the Slope layers, this analysis combines all the layers listed based on the Location criteria: | | | | |
| Disaster prone lands | | I. Between certain slope categories, (Flat to gentle slope) not too steep. II. Certain distance from the main waterways. III. Far from the coastline. IV. Not a flood prone area | | | | |
| | | Disaster Prone Area Assessment | | | | |
| | | Identifies areas historically affected by natural disasters (e.g., cyclones, floods) to guide the placement of infrastructure, especially for disaster waste management. | | | | |
| | | Understanding the areas that have historically been subject to disasters (access to his torical data) can assist with planning for a response, quantifying possible disaster was generation, assisting with the location of major infrastructure, and temporary waste st age facilities in case access to landfills is inhibited, etc. | | | | |

| Task | Datasets to be utilised | Outcome description | | | | |
|---|--|--|--|--|--|--|
| Analysis to guide possible waste facility locations | | | | | | |
| Possible facility location | Slope Disaster-prone lands Residential zones Agricultural zones Protected areas Groundwater Proximity to population Population density Ports Major roads Minor roads | Waste Facility Location Analysis Assessment of the interaction of the various biophysical attributes to determine possible/likely/appropriate lands for the location of a waste facility. Considerations of proximity to population can then be done (cannot be too close due to nuisance issues, cannot be too far, due to cost and transport issues). Ability to consider road infrastructure to determine likely routes for truck movement, Impacts on communities are also necessary, and Consideration of proximity to ports for the export of waste commodities is also an important analysis. | | | | |
| Waste Infrastructure im- provement/investment decisions | Waste Facility Population Population density Population growth Waste generation (rates and all types | Population Density Analysis Utilise the available datasets to determine the lifespan of the waste facility against the population data analysis through the key activities: Analysing the waste facilities for the current waste-to-landfill rate, against the population data, and determining average annual throughput will assist with determining the likely lifespan of the facility. The utilising the population forecast it is possible to identify the likely year the facility will be at capacity. Waste Facility Lifespan Analysis The intent is to identify the year, at least 5 years before full capacity is reached, to then enable countries to: Commence consideration of alternative sites Undertake an assessment of the likely generation of each waste type, and determine if additional separation, and processing may alleviate the issue – and propose opportunities for private industry to invest in diversion and recovery projects, etc. | | | | |

| Task | Datasets to be utilised | Outcome description | | | | |
|---|---|--|--|--|--|--|
| Waste generation of each waste type Ports Shipping routes | | National and Sub-Regional Scale Analysis Examines waste generation rates, shipping routes, and ports to identify potential accu- mulation sites for materials, optimizing waste management on a larger scale. Consideration of possible accumulation sites where easy shipping of materials and accu- mulation can occur to determine, if possible, to increase the economy of scale of prod- ucts. | | | | |
| Analysis to guide possible waste generation models | | | | | | |
| Waste Generation Mod- els for each Country | PopulationWaste dataFacility capacity | National Waste Generation Models The intent of these models would be to build the baselines and forecast waste genera- tion expectations, so any investment opportunity that is commenced can be mapped against the expected model to determine actual impact of the investment over time. | | | | |

4. SCOPE OF WORK

The expected delivery of this consultancy will be developed in stages and is described in the following table:

Table 1: Scope of Work

| Phase | Description | EMG staff and hours | Consultant | Output |
|-----------|--|---------------------|------------|---|
| Inception | Lead an inception meeting with the PacWastePlus team to discuss the delivery of the project, addressing all issues likely to cause delays (risk management), and ensure a common understanding of the action, and required outputs. | PACWASTE | | Inception meeting |
| | | | | Minutes of the inception meeting with confirmation of activities, and scope of work to be developed and agreed by meeting participants prior to commencement of any activities. |
| | The Inception Meeting minutes shall: | | | |
| | Confirm activities agreed upon Confirm scope to be developed as agreed by meeting participants prior to commencement of any activities. The Contractor shall create and submit to SPREP a Work Plan that shall upon execution ensure effective delivery of services under this contract. | | | Draft Work Plan |
| | | | | |
| | | | | The Draft Work Plan shall be delivered for consideration and comment. |
| | | | | Final Work Plan |
| | | | | Final work plan incorporating revisions and addressing all comments by review- ers |
| | The Draft Work Plan shall contain at a minimum a | | | |
| | Proposed time schedule and sequence of events that the Consultant shall use to meet the contract deliverables. | | | |
| | General description of the methods which the Consultant proposes to adopt for executing the contract. | | | |
| | Comprehensive risk plan to ensure effective delivery of services. | | | |
| | Any further details and information as SPREP may reasonably require. | | | |

| Phase | Description | EMG staff and hours | Consultant | Output |
|---------------------------------------|---|--|---|--|
| Sourcing of datasets | Identify, source, and collate relevant datasets from SPREP Geoserver and data portals required for spatial analysis, in- cluding but not limited to the following major data groups: | To be com- pleted by SPREP EMG (160hrs) | To manage all Phase 1 datasets not addressed by EMG (as per above tables) | Dataset Inventory with a detailed list of all relevant datasets for spatial analysis, sourced from the SPREP Geoserver and external portals. |
| | Demographics Built Environment Biophysical Data Waste Infrastructure Waste Data | | | Verification Report, validates the accuracy, completeness, and relevance of the identified datasets, including metadata validation and data source verification. |
| | This phase ensures that all necessary data is gathered and validated for use in further analysis. Verifying the datasets identified and compiling a detailed list. Reviewing internal databases, cross-referencing data records, and compiling a thorough list of datasets. Validate metadata and data source for these datasets. Identify other datasets that are not available with SPREP. Provide a list of these datasets for the consultant. Include a list of potential sources (country, CROP) for the above datasets. | | | Dataset List of all cross-referenced lists that compare internal SPREP datasets with external sources, ensuring all necessary datasets are accounted for. |
| | | | | List of missing datasets identifying datasets not currently available within SPREP but necessary for spatial analysis, highlighting data gaps for future acquisition. |
| | | | | Potential external dataset sources with a list of external sources (e.g., country- specific, regional organizations such as CROP agencies) that could provide the missing datasets for the analysis. |
| | | | | Comprehensive documentation of all validated datasets, including metadata validation, descriptions, and data sources, prepared for use in subsequent analysis phases. |
| Development of attribute layers | Identify methodology and activities to be implemented. Create and develop attribute layers required for spatial analysis based on the sourced datasets. This involves the | No responsibili- ties | | A detailed methodology outlining the steps and activities required for creating and developing the GIS attribute layers. This will include a clear roadmap for how |

| Phase | Description | EMG staff and hours | Consultant | Output |
|--------------------------------|---|--------------------------|------------|---|
| | creation of GIS layers for factors such as slope, flood zones, residential zones, agricultural zones, proximity to | | | spatial analysis will be conducted using the sourced datasets. |
| | major infrastructure, and other relevant attributes. These layers will be customized for the project's site suitability and disaster risk analyses. | | | Attribute Layer Dataset providing fully developed GIS layers (e.g., slope, population, disaster-prone areas, protected zones) ready for spatial analysis, in a format compatible with GIS systems. |
| | Assessment of biophysical attributes to identify potential waste facility locations, considering proximity to population, road infrastructure, and ports for waste export. | | | |
| | | | | Report and overview on the methodology of the development of attribute layers, metadata, and spatial analysis to be undertaken. |
| Completion of initial anal- | Identify and conduct analysis considering proximity to popu- lation, distance from waterways, and risk mitigation factors. | No responsibili- ties | | Determine ideal locations for waste facilities by assessing the slope of the land. |
| ysis layers | General spatial analysis to develop additional layers to as- sist with overall prospectus analysis. | | | Slope layers provide valuable information for planning infrastructure locations and trucking routes. |
| | This includes combining attribute layers to create GIS Maps and Visualisations that highlight potential waste facility loca- tions, areas at risk of disaster, and other relevant environ- mental assessments. | | | |
| | | | | Combines multiple datasets to identify suitable sites for waste facilities, ensuring disaster resilience and avoiding flood-prone areas. |
| | | | | Assessment of biophysical attributes to identify potential waste facility locations, considering proximity to population, road infrastructure, and ports for waste export. |
| | | | | Determine the lifespan of waste facilities against population data, identifying the year a facility reaches capacity to plan alternative sites and waste processing strategies. |

| Phase | Description | EMG staff and hours | Consultant | Output |
|-------|-------------|---------------------|------------|---|
| | | | | Identifies potential accumulation sites for waste materials, optimizing waste management at national and sub- regional levels to improve economies of scale. |
| | | | | Analysis Maps and Report delivering preliminary spatial analysis, identifying potential waste facility sites, and disaster-prone zones, and highlighting key insights from the data to inform decision-making. |



5. SCHEDULE OF WORK

The activities are to be completed no later than 30 March 2025

6. BUDGET

Quotes are required to itemise all financial elements of their proposal in <u>USD</u>, including, but not limited to the following:

- Salary costs (hourly rate)
- All applicable taxes

<u>Quotes above \$75,000 USD will not be considered.</u> It is imperative tenderers detail what elements of the work they can provide within time and budget. If tenderers would like to include optional extra's, or next phase options that exceed the current funding available, these should be expressly details as "EXTRAS" and SPREP may choose to source additional funding to undertake that work when available.

SPREP reserves the right to withdraw this activity at any time, reserves the right to accept or reject any or all quotes and to waive any formal defects or irregularities in the quotes, when deemed to be in the interest of SPREP.

7. Other Information

The successful consultant will be provided with any relevant project documentation.

The successful consultant must supply the services to the extent applicable, in compliance with SPREP's Values and Code of Conduct, including SPREP's policy on Child Protection, Environmental Social Safeguards, Fraud prevention & Whistle-blower Protection and Gender and Social Inclusion Policy.

https://www.sprep.org/attachments/Publications/Corporate_Documents/sprep-organisational-valuescode-of-conduct.pdf