



United States Department of the Interior  
U.S. Geological Survey  
Office of the Director  
Reston, Virginia 20192

SPREP  
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September 30, 2022

Enclosed are four signed originals of the MOA between the USGS and SPREP.

Would you please get both copies signed?

Please return one fully signed original version to me at the following address:

Rebecca Lyday  
USGS  
9422 Abingdon Ct  
Manassas, VA 20109  
703-895-0577

Could you send me an **email or call** when you send the signed originals back to me?

Contact Info: Email: [rlyday@usgs.gov](mailto:rlyday@usgs.gov).

Sincerely,

Rebecca A Lyday  
International Programs Specialist

**MEMORANDUM OF UNDERSTANDING  
BETWEEN THE  
U.S. GEOLOGICAL SURVEY  
OF THE DEPARTMENT OF THE INTERIOR  
OF THE  
UNITED STATES OF AMERICA  
AND THE  
SECRETARIAT OF THE PACIFIC REGIONAL ENVIRONMENT PROGRAMME  
FOR BIOLOGICAL AND EARTH SCIENCES**

This Memorandum of Understanding ("MOU") is by and between The Secretariat of the Pacific Regional Environment Programme (SPREP) and the U.S. Geological Survey (USGS) of the Department of the Interior of the United States of America, who are referred to in this document as the "Participants".

**WHEREAS**, SPREP has been charged by the governments and administrations of the Pacific region with the protection and sustainable development of the region's environment.

**WHEREAS**, SPREP's members are American Samoa, Australia, Commonwealth of the Northern Mariana Islands, Cook Islands, Federated States of Micronesia, Fiji, France, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, New Zealand, Niue Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, United Kingdom, United States of America, Vanuatu, and Wallis and Futuna;

**WHEREAS**, SPREP's 2017-2026 core priorities are Climate Change Resilience, Ecosystem and Biodiversity Protection, Waste Management and Pollution Control, and Environmental Governance (SPREP, 2017);

**WHEREAS**, the USGS is a bureau within the United States Department of the Interior (DOI) with a mission to monitor, analyze, and predict current and evolving dynamics of complex human and natural Earth-system interactions and to deliver actionable information at scales and timeframes relevant to decision makers (USGS, 2021);

**DESIRING**, to promote and strengthen cooperation between SPREP and USGS;

**ACKNOWLEDGING**, the importance of developing cooperative activities between the Participants, and promoting the sustainable development of the region's environment.

**WHEREAS**, the Participants have a mutual interest to strengthen environmental and ecological data collection, monitoring, and analysis and reporting of results across the Pacific Basin;

The Participants have reached the following Understanding:

### **Section 1 - Statement of Purpose, Scope and Objectives of Cooperation**

This MOU is intended to develop terms of cooperation between the Participants in order to exchange information, knowledge, initiatives, technologies, procedures, and research work, among others, based on the principles of reciprocity, equality, and mutual benefit.

Both SPREP and the USGS have a mutual interest in expanding flora, fauna, and natural resources monitoring programs across the Pacific Basin. Habitat disturbance, presence of non-native species, and the perpetual risk of additional introductions of non-native species via commercial shipping operations and various nations' military activities, climate change, natural disasters, pollution, and availability of water continue to impact interconnected human- and natural systems in Pacific Basin Islands. Limited knowledge of species diversity, biology, and demography prevents adequate assessment of conservation status or the implementation of recovery measures for threatened, endangered, and other at-risk species. Limited information also prevents the development of specific monitoring and management goals, including the design of biosecurity measures to assist in preventing the spread of invasive species, wildlife disease, and the possible extinction of rare or endemic taxa. The threats to ecosystems, water supplies, and way of life on Pacific islands from climate change, increases in human population, detrimental agricultural or fishing practices, and natural disasters cannot be understood and mitigated without continued monitoring and studies.

An overall objective of this MOU is linking applied and basic research science to develop actionable science and adaptive-management approaches relevant to conservation planning and resource management in the Pacific Basin. This ecosystem approach serves to advance USGS and DOI programmatic science goals (e.g., Understanding Ecosystems and Predicting Ecosystem Change: SPREP's 2017-2026 core priorities (SPREP, 2017)).

## **Section 2 - Cooperative Activities: Procedures to be followed and Responsibilities of the Parties**

The USGS intends to conduct studies to address six high-priority issues related to Pacific Basin Islands as identified by SPREP, including but not limited to: (1) Detecting and counteracting the detrimental effects of introduced species on native biodiversity and habitat; (2) identifying or confirming which taxa are rare or declining (and thus may be in immediate need of protection), identifying why they are declining, and working with SPREP to identify options to mitigate or stop those declines; (3) using physical and biological data to better quantify species diversity with the aim of prioritizing those in greatest need of protection or those posing the greatest threat to native ecosystems and identifying short- and long-term options to inform management policy on critical populations; (4) establishing a sampling and analytical framework to aid in the early detection and prioritization of threats to ecosystem disturbances and livelihoods of Pacific Island nations people along with development of collaborative approaches to aid resource managers with developing adaptation plans to mitigate those threats to the equal benefit of both humans and ecosystems; (5) providing information to help plan for, prioritize, and manage risks from natural disasters; and (6) providing data and information to help manage water availability and quality. All six priority issues will be considered in light of risks and challenges associated with anticipated climate-change impacts and other compounding anthropogenic stressors. It is intended that our research program will particularly focus on integrating relationships between traditional monitoring and inventory programs as well as more novel methods such as environmental DNA, DNA barcoding, and remote sensing. These studies are intended to provide baseline data to support development of priority long-term management actions to safeguard Pacific Island ecosystems in a manner that allows for continued traditional uses while sustaining healthy agroforests, wildlife, and habitats in terrestrial and marine systems, and complementary ecosystem services. In addition, these activities will provide new information about the biodiversity, ecosystems, and natural resources in the Pacific Basin and to lay a groundwork for long-term monitoring that will provide critical information needed to assess and develop sustainable solutions to future challenges and threats.

SPREP intends to support the USGS in its mission and may provide logistic or monetary support for travel expenses, field supplies, and/or salary for scientists and other USGS personnel working on the objectives outlined above.

The Participants intend to engage in the following forms of

cooperation:

1. Periodic information and experience exchanges;
2. Organizing bilateral events and visits of delegations;
3. Participating as observers in activities related to their respective authorities;
4. Conducting joint studies and research;
5. Training staff, and;
6. Any forms of cooperation the Participants may hereafter decide.

Additional principal areas of cooperation under this MOU may include, but are not limited to, such areas of mutual interest as:

- A. Ecosystems;
- B. Climate variability and land-use changes;
- C. Energy and mineral resources;
- D. Environmental health;
- E. Natural hazards, risk, and resilience assessments;
- F. Water resources; and
- G. Informatics and data integration

### **Section 3 - Source of Funding**

The extent of cooperation and exchanges under this MOU is subject to the availability of funds and staff and the applicable laws, regulations, and procedures of each of the Participants. Both Participants intend to cover their respective direct and indirect costs except in cases where one Participant has provided funding for selected activities of the other Participant; in such areas, terms of funding should be decided by the Participants before the commencement of the activities.

Nothing in this Memorandum is intended to constitute a commitment to allocate, now or in the future, funds for cooperative activities under this Memorandum or annexes hereto.

### **Section 4 - Scope and Relationships**

The Participants intend to engage in the forms of cooperation referred to in Section 2, within the scope of their applicable laws, regulations, and procedures. Either Participant may make available scientific and technical information derived from cooperative activities under this MOU through customary channels and in accordance with their applicable laws, regulations, and procedures.

### **Section 5 - Intellectual Property**

Activities carried out under this MOU are not expected to involve intellectual property. The Participants should notify one another if they become aware of circumstances in which intellectual property rights issues may arise. In such cases, the work should be halted or modified to the mutual satisfaction of both Participants.

### **Section 6 - Review and Coordination of Activities/Projects**

The Participants intend to include mutually acceptable specific plans on scientific cooperation and exchanges in annexes to this MOU. Annexes should be consistent with the terms of this MOU.

Any activity carried out under this MOU should be determined jointly by the Participants in writing before being conducted. Such written determination should specify which particular science and technology agreement applies to each such activity. Whenever more than the exchange of scientific and technical information or exchange visits of individuals is planned to take place, such mutually arranged activity should be described in a project proposal which is to set forth, as appropriate to the activity, a work plan, staffing requirements, cost estimates,

funding source, and other undertakings, or conditions not included in this MOU.

### **Section 7 - Duration, Modification, and Termination**

The Participants intend for work under this Memorandum to begin on the date of signature by both Participants and to continue for five (5) years at the end of which time, the MOU will renew automatically until either Participant provides written notice requesting modification or termination.

This Memorandum may be modified when both Parties agree to such modification in writing. Where applicable, modifications should specify the date on which they will become operative.

If either Participant wishes to end involvement under this Memorandum, it may do so at any time. However, the Participant should provide written notice to the other Participant six (6) months in advance.

### **Section 8 - Disclaimers**

Scientific and technical information transmitted by one Participant to the other under this MOU is understood to be accurate and reliable to the best knowledge and belief of the transmitting Participant, but the transmitting Participant does not intend to warrant the suitability of scientific and technical information transmitted for any specific use or application by the receiving Participant or by any third-party. Neither Participant should be held responsible for any consequences of the use of or reliance upon such information.

Nothing in this MOU or its Annexes imposes, or is intended to impose, any legal commitments on the Participants.

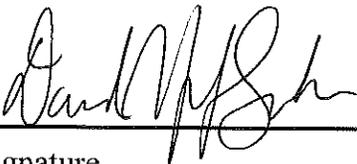
### **Section 9 – Citations**

Secretariat of the Pacific Regional Environment Programme, 2017, Strategic Plan 2017–2026, 28 p., [https://www.sprep.org/attachments/Publications/Corporate\\_Documents/strategic-plan-2017-2026.pdf](https://www.sprep.org/attachments/Publications/Corporate_Documents/strategic-plan-2017-2026.pdf)

U.S. Geological Survey, 2021, U.S. Geological Survey 21st-Century Science Strategy 2020–2030: U.S. Geological Survey Circular 1476, 20 p., <https://doi.org/10.3133/cir1476>.

Signed at Reston, Virginia, and Apia, Samoa, in duplicate, in the English language.

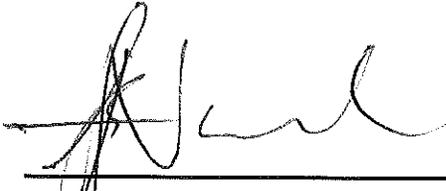
FOR THE U.S. GEOLOGICAL  
SURVEY OF THE DEPARTMENT OF  
THE INTERIOR OF THE UNITED  
STATES OF AMERICA:

  
\_\_\_\_\_  
Signature

David Applegate  
Director

10 - 20 - 22  
\_\_\_\_\_  
Date

FOR THE SECRETARIAT OF THE  
PACIFIC REGIONAL ENVIRONMENT  
PROGRAMME OF THE PACIFIC  
REGION:

  
\_\_\_\_\_  
Signature

Sefanaia Nawadra  
Director General

12 - 01 - 22  
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Date