

REPUBLIC OF THE MARSHALL ISLANDS NATIONAL NUCLEAR COMMISSION

PO BOX 2 MAJURO, MARSHALL ISLANDS 96960

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) is made and entered into as of <u>August 19</u>, <u>2019</u>, by and between the Republic of the Marshall Islands National Nuclear Commission (NNC) with an address at PO Box 2, Majuro, Marshall Islands and the Marshall Islands Marine Resources Authority (MIMRA) with an address of PO Box 860, Majuro, Marshall Islands. This MOU sets forth the understanding of the parties related to collaboration in research and data collection and sharing relating to RMI's nuclear weapons testing history and legacy.

WHEREAS, in connection with the establishment of a partnership between the parties whereby information resources would be shared, and oversight of contractors and research activities would be shared, the parties wish to set forth their current understanding and certain agreements made to date with respect to such partnership.

BACKGROUND

The NNC was established by the Republic of the Marshall Islands (RMI) on February 28, 2017. Its creation was a result of a desire to better coordinate the government's efforts to address ongoing, unresolved issues and challenges arising from the U.S. nuclear weapons testing program that took place in RMI from July 1946 to July 1958. The core mandate of the NNC is to develop a strategy to address nuclear justice. The NNC is also responsible for exercising general oversight over Government ministries, offices and agencies having responsibility for addressing consequences of the US nuclear weapons testing program or monitoring, assessing, documenting, or otherwise dealing with the effects of the program. The NNC is required to ensure coordination and integration in performing this role.

MIMRA has the authority to conserve and manage the living and non-living marine resources within the RMI Exclusive Economic Zone. This includes the responsibility to conduct research and develop management plans in support of its mandate. MIMRA is working on developing a comprehensive profile of marine species in the RMI. In addition to identifying fish species, MIMRA can provide detailed information on characteristics of particular fish species through further analysis. Some of these characteristics can include safety of food fishes where toxin levels, including radiation, can be measured and further studied. Through MIMRA's scientific partners and networks, it can conduct lab analyses of fish in former nuclear test sites and help in determining radiation levels of food fishes in these sites.

At present, there is a gap in information on the status of the marine environment in the RMI in terms of how or whether fish species have been impacted by radiation and are safe for harvesting by local atoll communities. To address this gap, the NNC is developing a long term, comprehensive research plan to conduct studies in certain atolls to respond to concerns expressed by those atoll leaders and community members. MIMRA's knowledge of coastal fisheries throughout the RMI and their growing technical capacity in measuring radioactivity in fish species makes them a key local partner in conducting the required research.

The NNC and MIMRA have shared goals and objectives with respect to ensuring that RMI's fishery resources are safe for human consumption and sustainable development. Understanding the status of food fish and marine species throughout the RMI as a result of nuclear testing is critical to ensuring healthy communities and in turn, addressing nuclear justice.

PURPOSE

The purpose of this MOU is to enable collaboration between the parties on marine research. The US nuclear weapons testing program had devastating effects on the RMI environment, both marine and terrestrial. NNC has the responsibility to manage and preserve information relating to the testing program, including collection of data. There is a large body of environmental research on radiation impacts to the environments of Bikini, Enewetak, Utrik, and Rongelap atolls. More research is required on these atolls and data is also needed for other atolls that were impacted by radioactive fallout from the nuclear tests and where there has been minimal research.

Before and during the testing period 1946-1958, the US Atomic Energy Commission collected thousands of fish samples and these are now stored at the University of Washington's Burke Museum. These samples represent a critical set of baseline data that could be used to conduct comparative analyses of the current state of the marine environment throughout the RMI. Through technical assistance provided by the International Atomic Energy Agency (IAEA), MIMRA is currently developing in-house technical capacity to collect and analyze fish and other marine samples to measure for presence of radionuclides. NNC supports local involvement and capacity development in its work and considers MIMRA's role in marine research to be a requirement.

Research Ethics

The RMI Cabinet adopted a Research Protocol to guide interested individuals and parties in their research into RMI's nuclear legacy. A critical component of scientific research on radiation impacts in the Marshall Islands is ensuring that communities can guide, participate in, and interpret outcomes of that research. In addition, it is imperative that research is respectful and adheres to custom and tradition so as not to perpetuate historically abusive research practices in the RMI where data is collected without permission or respect for local ownership and cultural sensitivities. Collaboration with external scientists and experts will be necessary in many cases but with strong local involvement in research activities, we can ensure that scientific knowledge contributes to improving lives of those communities most impacted by the nuclear testing program.

Through this MOU, the NNC will partner with MIMRA in designing marine research programs that engage the local communities and ensure that outcomes are communicated back to communities in responsible ways.

Research Design

The NNC may establish a Scientific Advisory Panel to guide its scientific research program into radiation effects on human health and the environment. Where any research is involving the ocean environment, including biota, NNC will work closely with MIMRA in the design of research projects. MIMRA may also be requested to participate in discussions of the Scientific Advisory Panel.

RESPONSIBILITIES 3.

National Nuclear Commission

The NNC will work closely with MIMRA in the development of research projects on the marine environment in the RMI. In all cases, strengthening of MIMRA's human resource capacity will be a priority in the designing of radiation-related research in the marine environment.

The NNC will be responsible for sourcing funding for radiation-related research in the marine environment and such funding requests will include resources to support additional work required by MIMRA staff. The required time and corresponding compensation for MIMRA staff will be determined through agreement by the NNC Chair and MIMRA Director.

Marshall Islands Marine Resources Authority

MIMRA will make every effort to ensure that relevant MIMRA staff are available to support NNC-commissioned radiation-related marine research projects. MIMRA will also work with NNC on the interpretation and communication of scientific results to relevant atoll communities and national government leadership.

IN WITNESS WHEREOF, by their signatures below, the parties have caused this Memorandum of Understanding to be executed and effective as of the Effective Date.

RMI NATIONAL NUCLEAR COMMISSION

Rhea Moss-Christian, Chair

8/19/19 DATE

MARSHALL ISLANDS MARINE RESOURCES AUTHORITY

Glen Joseph, Director, MIMPA

DATE

Hon. Dennis Momotaro. Chairman. MIMRA

08/15/15 DATE