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Statement of His Excellency Gerald M. Zackios,
Ambassador of the Republic of the Marshall Islands
to the U.S. House of Representatives Committee on Natural Resources
Hearing on the Discussion Draft of the "*Insular Area Climate Change Act.*"

March 4, 2021 at 12:00 p.m. (EST)

Introduction

Mr. Chairman and Distinguished Members,

Thank you, Mr. Chairman, for your leadership regarding the special threats that climate change poses to the Republic of the Marshall Islands (RMI) and other insular jurisdictions of or freely associated with the United States.

I am here to testify on behalf of my Government and people regarding the existential threat climate change poses to the RMI, and to the enduring resilience that is the objective of our response to this global threat.

I do not use the words "existential threat" lightly -- or even in the way it is in the case of most nations. As a country with its highest point less than six feet above the rising sea level – one of the four lowest lying nations in the world – our islands' very existence is challenged.

And this is a threat to the defense and economic security of the U.S. Our free association gives the U.S. the right to deny other nations access to a strategic expanse of the Pacific that is nearly 25% of the size of the 48 continental United States and the District of Columbia. The RMI's concession to the U.S. in this regard is extraordinary for a sovereign nation. And another nation covets access to our waters.

Background

Fundamentally, "resiliency" can be defined as the empowerment of individuals to make the most of their opportunities and resources so that families and communities can adapt to changing circumstances, including the environment. The Marshallese people have proven their resiliency time and again, building a strong society and a thriving culture on islands buffeted by colonialism, war, and devastating nuclear bomb testing. As we confront the impacts of climate change, my Government is drawing on, respecting, and nurturing the fundamental resilience of our people as we chart our course for the future.

“Resilience” in all its dimensions, including environmental, social, and economic resilience serves as the foundation of our 2020-2030 National Strategic Plan (NSP). It provides a development and progress roadmap for RMI. Building the resilience of our people and ecosystems is necessary for sustainable development and for protecting our natural capital and strengthening our human capital. It is essential for meeting our national development objectives as well as for ensuring the sustainability of economic growth regardless of the environmental impacts that we may face in the future.

Like so many communities placed in peril by today’s global climate emergency, the RMI’s future relies upon urgent and enhanced mitigation and adaptation action.

As a coral atoll nation, the RMI is a nation made up entirely of coastline. Our country comprises 1,156 individual islands and 29 different atolls with an average elevation of less than six feet above sea level. We have no interior or higher ground to which to retreat. We are acutely and chronically vulnerable to the dangers of rising seas and other impacts that are accelerating with climate change, constituting a real, existential risk should the global average temperature exceed 1.5 degrees Celsius above pre-industrial levels.

King tides, intrusion of salt water into freshwater resources, and the difficulties of growing food have exacerbated the challenges of the harsh atoll environment. We are also facing increased health challenges as a result of climate change. Scientists have determined that dengue fever and other mosquito-borne illnesses are increasing as climate change worsens, and our country has been experiencing this first-hand. From October to January 2020, our hospitals were overwhelmed with dengue fever patients.

While the RMI only contributes 0.00001% of global greenhouse gas (GHG) emissions, it has a proud history of prominent climate leadership, at home as well as on the world stage.

Following a global fuel price spike in 2008, the RMI declared a National Economic Emergency and has since then rapidly embraced renewable energy technologies and taken huge strides in energy efficiency. Our Electricity Roadmap provides a strategic framework to enable us to meet our climate change targets and to strengthen our role as a climate leader. This roadmap will allow us and our development partners to work together to achieve a common vision for the RMI’s electricity sector.

Over the last 15 years, progress has been made in developing renewable energy, and as a result, almost all households on the outer islands, previously without electricity, now have solar home systems, and several larger solar projects, totaling around 1 megawatt (MW), have been built on Majuro. In addition, in 2016, the RMI committed, under the Marrakech Partnership, to achieving 100% renewable energy by 2050.

On the international stage, the RMI spearheaded the 2013 Majuro Declaration for Climate Leadership, which sought to demonstrate the Pacific’s adoption of some of the world’s most ambitious GHG emissions reduction targets. In 2015, it played a key role in securing the Paris Agreement. It was also the first Small Island Developing State to submit its climate commitment

(i.e., nationally determined contribution) under the Agreement. The commitment was ground-breaking in that it contained the first economy wide absolute GHG emissions reduction target against a base year by a developing country.

In 2018, the RMI was also the first nation to submit its enhanced climate commitment under the Agreement. The RMI is also the founder of the High Ambition Coalition (HAC) which it continues to convene. And we are also working to achieve net zero emissions by 2050 as outlined in our Tile Til Eo 2050 Climate Strategy, the RMI's long-term low greenhouse gas emission climate-resilient development strategy under the Paris Agreement. This Strategy is our roadmap to embark on a low-carbon, blue-green economy development trajectory that emphasizes efficient use of natural resources.

As climate change continues to wreak havoc worldwide, the RMI is acutely aware of our vulnerabilities and that policies to address climate change must not only continue to support mitigation efforts, but also to continue to provide support for adaptation—especially for atoll nations, which are uniquely vulnerable. Adaptation is central to our continued ability to exercise our national right of self-determination – our ability to govern our territory, sustain our culture, and protect our people. And we recognize the importance of taking a holistic, ecosystem-based approach to adaptation and resiliency in our country to respond to the impacts of climate change.

However, as an atoll nation, the RMI does not have the luxury to pick and choose from a wide range of options and adaptation pathways to respond to the impacts of climate change and long-term sea-level rise. Nor is there an optimal solution that will create a 'safe haven'. Adaptation will be a continuous journey involving a range of inter-relating activities, the composition of which will vary from location to location, and over time along each particular pathway.

At times, the particular pathway may need to change as the magnitude of sea-level rise results in the initial path no longer providing the level of security required for the community, development, or infrastructure.

The RMI's adaptive capacities will need to move from consideration of single independent options, for example, a focus on seawalls only, to a consideration of a progressive mix of "hybrid" options that work together to respond to the longer-term sea-level rise challenges and provide more effective or longer-term pathways.

Adaptation responses could include maintaining or restoring the effectiveness of the complete natural coastal defense system; moving from slab concrete foundations to pile foundations, enabling property to be raised up or more easily relocated; and constructing "backstop" protection measures that reduce over-topping impacts on properties and development.

Our National Strategic Plan also recognizes that improved national and local capacity to undertake vulnerability and adaptation assessments and planning is critical for disaster risk management. We are focused on ensuring that all stakeholders are integrated into the planning and implementation of disaster risk and adaptation as needed.

Our goal through ambitious adaptation action is to avert, minimize, and address loss and damage from climate change. Under current global emission projections, however, we cannot rule out scenarios where adaptation measures will not be sufficient to protect our people, our land, and our livelihoods. This would result in a real threat not only to basic social and economic development, but to our integrity as a nation.

Despite our extensive efforts, the RMI recognizes that we cannot fulfill our climate adaptation plans alone. In order to protect our nation for future generations from loss and damage, and even to fully decarbonize our economy, the RMI needs financial and technical support to implement ambitious climate adaptation and mitigation projects.

On the frontlines of the climate crisis, we are also uniquely placed to share our stories and exchange best practices with others who will face similar climate impacts in the future. As a leader on both climate adaptation and mitigation practices, we are open and willing to share our firsthand understandings of climate change and how our communities are building resilience so that others can learn.

Impact of Climate Change on the RMI and U.S. Interests

That is why this hearing is so important today. We greatly appreciate that the Committee has chosen to prioritize the importance of providing for climate change planning, mitigation, adaptation, and resilience in the U.S. territories and freely associated states.

We enthusiastically support the draft bill. In this regard, we also have some suggestions to strengthen it that we respectfully request you consider.

The U.S. is our closest partner. We have a joint history that includes the U.S. intentionally helping shape our modern society to bind us to you. We share values, norms, and personal ties. Our long-standing alliance is reflected in the Compact of Free Association and related agreements and laws.

When these were first adopted in 1986, few understood the far-reaching consequences of climate change. Today, the situation is very different. The science and our own lived experience are clear: we face a climate crisis, intersecting with the RMI's geography and its legacies of colonialism and nuclear testing.

As the bill under discussion outlines, insular areas are experiencing sea level rise, coastal erosion, and increasing storm impacts that threaten lives, critical infrastructure, eco-systems, and livelihood security. And moreover, temperature increases are likely to create and intensify the length of droughts, reduce water supply, impact public health, and increase demand of freshwater in these areas.

In the RMI specifically, other impacts include higher demand on energy and damage to energy infrastructure causing more power outages. In addition, changes in ocean temperature and acidification will increase the risk of coral bleaching and reduce yellowfin and skipjack tuna

catch by up to 31% in 2100 in the RMI EEZ, with consequences for subsistence fishing and food security and decreasing the revenue from the selling of fishing licenses.

Indeed, the Marshall Islands considers climate change our most significant security threat. There is a potential for cascading fragility and instability risks tied to issues such as displacement and forced migration to U.S. areas, increased social tensions linked to access to land and fisheries resources, reduced coping capacity in the face of more frequent natural disasters, and the impact of sea level rise on national maritime zones and boundaries, among others. When a wider regional security lens is considered, including regional fragility and geopolitical influence efforts from the People's Republic of China among other entities, it is beyond question that climate impacts couple with other factors to sharply intensify an already difficult regional landscape on security issues.

These climate impacts have direct consequences for U.S. economic and security interests. The most extensive for the U.S. is that the access of other nations to the expanse of the Pacific the U.S. controls through our free association can be reduced or totally eliminated due to sea level rise in the RMI.

Further, a study for the U.S. military found that the Ronald Reagan Ballistic Missile Test Site on our Kwajalein Atoll – which the U.S. Joint Chiefs of Staff have called "the world's premiere range for anti-ballistic missile testing and space operations support" – will be underwater in three decades, unless this is prevented. If it is not countered, the U.S. will lose an essential and virtually irreplaceable facility. In addition, it could allow hazardous chemicals and toxins to flow into the Pacific.

A 2014 USGS, NOAA, Deltares, and University of Hawaii study[1] to understand the impact of climate change and sea-level rise on Roi-Namur Island of Kwajalein Atoll found that the impact of sea-level rise combined with annual wave-driven flooding could overwhelm much of the isthmus that connects the island's Roi and Namur portions on an annual basis, negatively impacting the facilities on both.

Further, without active management measures, the annual amount of seawater flooding onto the island during storms will be of sufficient volume to make the groundwater non-potable year-round. Management practices such as post-flood short-term intensive withdrawal and artificial recharge will allow for 3-4 months of potable groundwater during the rainy season at higher sea levels. The sustainability of such operations over the long term with increasing frequency and intensity of wave-driven flooding and island over-wash is, however, not clear.

And many of the adjacent islands on Kwajalein Atoll that are inhabited by and/or have U.S. Department of Defense facilities (Ebeye, Ennylabegan, Ebadon, Ennubirr, Gagan, Gellinam, Gugeegue, Illeginni, Legan, Meck, Omelek) will face a similar fate. This includes the homes of much of the facility's workforce.

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[1] https://climateandsecurity.files.wordpress.com/2018/03/serdp-slr-and-pacific-military-installations_2017_08.pdf

Given these risks, climate change must be integrated as a central component of all development, financial and infrastructure-wise in the RMI. Any development investments in our islands that fail to account for the effects of climate change are not viable. It is for this reason that the RMI adopted a whole-of-government approach to addressing climate change some years ago, working to apply a climate lens across all sectors and in all policies.

Our 2020-2030 National Strategic Plan (NSP) underscores the importance of taking a holistic approach to addressing climate change, requiring strengthened coordination and decision making across all stakeholders including government, private sector, NGOs, and civil society. A holistic approach also includes mainstreaming climate-related risks into planning and budgeting at all levels and in all relevant sectors. It also requires ensuring that relevant organizations are adequately resourced and that avenues for sustainable financing are secured.

Compact-driven assistance (including Sector Grants and Trust Fund disbursements), like other external assistance, including donor nation construction projects, is now required by RMI law to be 'climate-proofed' to the extent practicable, pursuant to Section 615(4) of the Ministry of Environment Act, which was enacted in 2019. There are similar provisions governing public and private undertakings.

Compact-driven assistance accounts for a large portion - by some accounts about half - of our national budget. So, utilization of existing and future Compact-driven projects to address climate and environmental resilience represents a tremendous opportunity to help safeguard and protect our mutual public investments in RMI's future.

But even with these legal provisions, Compact funds and projects are being implemented now, as they have been for decades, without accounting for projected future risks, in particular sea-level rise.

The bill under consideration represents an ideal opportunity for the United States Government to take into account commitments in RMI law to achieve climate-proofing or environmental resilience of both Compact and general assistance activities. Also to reflect those commitments, including through dedicated technical assistance and directives to decision-making concerning the Freely Associated States, including the Department of Interior's Insular Affairs Office, or, the bill's interagency insular task force.

It will also be important to consider means to address both existing interagency efforts under the Compact, related reporting obligations, and the insular climate task force. The absence of such a directive and mandate will likely mean that existing U.S. assistance to and engagement with Freely Associated States will continue as it is now, without consideration of climate change, and, in particular, sea-level rise.

The U.S. commitment to the Freely Associated States, including the RMI, should not only include technical and grant assistance, but also a clear and specific commitment to ensure that U.S. investment in the Freely Associated States will be climate and environmentally-resilient, including in regard to sea-level rise. In providing support to RMI, the U.S. must consider how climate change impacts everything in free association extension negotiations from research for

environmentally-sound plans for sea walls to other means of infrastructure protection from climate impacts.

And while climate change adaptation issues have been integrated into base-wide environmental standards as agreed and revised by both RMI and the U.S. since 2016, a wider and informal discussion can provide a platform for joint collaborative efforts and information exchange on climate and environmental resilience efforts in the Marshall Islands. However, from one example, prior U.S. administrative mandates and guidance regarding agency decision-making on adaptation, including Executive Order 13653 of 2013, did not fully translate down to Compact-level outcomes. As such, accountability to ensure climate change is considered in all decision-making is critical.

We, therefore, look to the U.S. to be a partner for the challenges ahead that will undoubtedly be created and exacerbated by climate change.

Runit Dome and Enewtak Atoll

One challenge in particular that merits urgent action is the Runit Dome and its surrounding area and lagoon at Enewetak Atoll. For us, this is an everyday reminder of the intersection of the two major challenges facing the RMI, our nuclear legacy and sea level rise. But for the world, there may be no more dramatic example of the dangers of climate change. And the Runit problem now threatens not only the health of the residents of Enewetak and but areas beyond. It has generated concern from Hawaii and from the Secretary General of the U.N. while in Fiji.

Our nuclear legacy includes the U.S. detonating 67 bombs over 12 of the years in which U.S. administered our islands as trustee for the United Nations. The explosions had a force and radiation equal to 1.6 Hiroshima bombs being detonated every day for 12 years.

The Dome, built in the late 1970s, contains more than 3.1 million cubic feet of radioactively contaminated soil and debris that were dumped into a nuclear bomb test crater, the Cactus Crater, on the north end of Runit Island and covered by a concrete dome. A fatal error was to not, as originally planned, cover the underlying sand with concrete.

American legal scholars caution that this standard for storing nuclear waste in the RMI would not be sufficient to store household garbage in the United States. There is a glaring discrepancy between standards of safety implemented by DOE in the RMI vs. in the United States.

The Runit Dome is located less than 14 miles from Enewetak Island, the population center for the atoll. The Dome is unsecured by any fencing or barriers to protect the nearby local population from exposure to the many toxins that remain at Runit Island.

Radioactive material is already leaking out through the sand base under the dome. It threatens the population area and the Pacific, affecting fish stocks and our coral reefs.

Concerned, the Congress by law directed the U.S. Department of Energy to submit a report on the situation and danger.

The report delivered by the last U.S. Administration in June 2020, however, did not adequately respond to the Congress' concerns. It asserted that the Dome was not in any immediate danger of collapse or failure and concluded that the contents within the Dome are not expected to have any adverse effect on the environment at present or in 5, 10, or 20 years.

It also, however, somewhat contradictorily, acknowledged that there is a need for additional groundwater study. This study, though, was mandated by Congress in 2012 and still remains in its initial stages.

An absence of data to show harm does not mean that there is no harm. Moreover, an analysis that only monitors the groundwater inside the dome and its immediate surroundings cannot accurately assess safety impacts on the local Enewetak community.

Further, the DOE report was deficient in that it did not include information on the many radionuclides that are still present in or around the Runit Dome that were either buried in "crypts" or dumped in the lagoon and ocean.

Likewise, the report makes no mention of the presence of hazardous materials resulting from biological and chemical weapons tests.

DOE used an international radiation safety standard of 100 mrem annual dose limit. The RMI continues to demand that the U.S. Government clean its radioactive mess in the RMI to the same standard it would use in the U.S. since the bombing occurred when the RMI was administered in trust by the U.S. Equity with the U.S. was the basis for the Nuclear Claims Tribunal's adoption of adopted a 15 mrem radiation safety standard based on that used by the U.S. EPA for similar waste sites in the U.S.

The report is also not peer-reviewed, evidenced by the report's extensive citation of studies carried out by DOE's principal contractor and report author.

Additionally, however, A DOE employee told us that an astounding 99% of the plutonium is not under the Dome but is in the lagoon! This was confirmed by a 2013 study conducted by the Lawrence Livermore National Laboratory for the DOE.

The U.S. Government acknowledges that there were three dumping sites for radioactive material in Enewetak's lagoon, and we have been informed by people who participated in the radiological cleanup of Enewetak Atoll that, contrary to what the U.S. Government had reported, highly radioactive waste was dumped into the lagoon. Cleanup participants have also informed us that after the Dome was sealed, additional radioactive waste was buried in crypts that we were never informed about.

The community that was removed from Enewetak for the bombing but has since been resettled there has raised concerns about desalinization from the lagoon for drinking water and how, during storms, the radioactive materials normally on the bottom of the lagoon are resuspended in the water.

Former U.S. personnel have also recently disclosed that hundreds of pounds of highly toxic beryllium were spilled over Enjebi Island in Enewetak Atoll in a failed rocket test. This, too, is outside the scope of what DOE addressed.

We have, additionally, been made aware that Enewetak Atoll was used as a base for testing chemical and biological warfare agents. The details and environmental impacts of these tests have never been disclosed to us, and this also has been excluded from the DoE report.

We were, further, recently shocked to learn that were also radionuclides brought into Enewetak from Nevada, which were not released from the nuclear weapons tests, but used to cover an accident during a weapons test. The imported radiation from Nevada is different from the forms of radiation released by the detonations in the RMI. Yet again, this is not included in current DOE or U.S. Government accounting to the RMI about environmental health risks on Enewetak.

So, we are concerned that rising sea levels and violent storms at Enewetak Atoll could cause significant environmental damage not only because of Runit Dome, but also because of the nuclear waste that was dumped into the lagoon or buried in undisclosed crypts, and also because of radionuclides and other toxins that may have been left on the land and water as a result of various U.S. military activities. Among many other aspects of the issue, we are extremely concerned about the safety of the groundwater that the people of Enewetak depend upon as their water source.

We also recognize that risks of nuclear exposure, compounded by the risks of climate change, are likely to increase Marshallese migration to Guam, the Northern Mariana Islands, and Hawaii and other U.S. States. Within the RMI there are already substantial migration flows between islands, particularly from outer islands to the capital, Majuro, and to Ebeye, near the U.S. Kwajalein base. The number of Marshallese residing in the U.S. has rapidly risen over the past two decades, from 7,000 in the year 2000 to 22,000 in 2010, to an estimated 30,000 today.

These environmental hazards at Enewetak Atoll are the legacy of activities that the U.S. conducted during a period when it was acting as the trustee for the RMI. We did not request these activities and have indeed paid a steep price for them – including loss of life, severe birth defects, and loss of safe access to our lands, waters, and homes.

Environmental and climate justice would require, at a minimum, that the U.S. assist us in evaluating and mitigating these risks created by U.S. Government actions.

Amendments

With all this in mind, we are pleased to identify additional ways that U.S. support can help the RMI achieve its climate-related goals and plans through the draft bill.

First, concerning the existing text, we respectfully suggest that the Findings be amended to recognize that sea level rise from climate change is an indisputable existential threat to the RMI

because of its low elevation and that this would substantially undermine the economic and defense security of the U.S.

Second, we respectfully request that all provisions of the bill that provide means of addressing climate change challenges apply to the freely associated states as well as to the U.S. territories. Most already do but there are some which, due to language, do not.

Third, we request that the bill be amended to direct the preparation of a report on the impacts of climate change on the Runit Dome and on other environmental hazards in its vicinity, prepared by independent experts agreed to by both of our governments. Legislative language for such a study – which would cover the major gaps in the June 2020 DOE report – is attached to my statement.

It is imperative that this study include concerns about safety identified by the resettled community and includes their knowledge about the interactions of the Dome and the surrounding ecosystem. The study needs to go beyond the DOE's June 2020 study and be inclusive of local knowledge and account for all the ways in which the Runit Dome and toxins outside the Dome are interacting and impacting the local environment, including the potential risks posed to the nearby population.

Most importantly, the study should propose options for how the various environmental hazards left on Enewetak Atoll can be remediated and how threats from possible climate-induced events can be mitigated.

Finally, we would like to discuss with the Committee staff how some specific projects to address the existential threat of climate change to the RMI and U.S. interests in the RMI can be funded.

One requires $14.6 million to fund PV solar systems for the islands of Wotje, Jaluit, Rongrong, and Santo and an additional $9.5 million to fully transition Ebeye in Kwajalein Atoll to renewable energy.

To achieve our ambitious mitigation targets to fully decarbonize by 2050, the RMI's energy sector must quickly transition to over 50% renewable energy by 2030. We have in place an Electricity Roadmap with costed, technically sound renewable energy pathways for our electricity sector to make this transition. While work under the Electricity Roadmap under its three key components - Human Resources, Renewable Energy (RE) Technologies, and Investment - is progressing, significant financing gaps remain. The $25.1 million total for the projects I outlined is needed to achieve the 2030 target.

While planning is underway in the RMI to address adaptation options, information is currently lacking on accurate surveyed data to make informed decisions on adaptation, development, and disaster risk plans. Therefore, the RMI has planned two specific projects to improve our quality of survey data.

First, accurate data to measure land levels relative to the sea is essential. These relative levels will define the actual risk of sea level rise for each community and the absence of accurate land level data will hinder development of effective adaptation measures.

Aircraft-based remote sensing using LIDAR (Light Detection and Ranging) is one of the most promising land survey technologies. It uses light in the form of a pulsed laser to measure ranges to the Earth. These light pulses—combined with other data recorded by the airborne system — generate precise, three-dimensional information about the shape of the Earth and its surface characteristics. A LIDAR instrument principally consists of a laser, a scanner, and a specialized GPS receiver. Airplanes and helicopters are the most commonly used platforms for acquiring LIDAR data over broad areas. There are topographic LIDARs, which typically use a near-infrared laser to map the land, and bathymetric LIDARs, which uses water-penetrating green light to measure seafloor and riverbed elevations.

Aircraft-based LIDAR surveys were undertaken in 2019 on Ebeye and Majuro, the two most populated areas of RMI. These found significant differences from previous assumptions, providing valuable information for the design of sea level adaptation measures. It is very important to conduct similar surveys on the 10 other most populous atolls in RMI. Based on the cost of the previous surveys, the budget for LIDAR surveys of the 10 other atolls would be $5.55 million.

To break this down: $250,000 would be needed for mobilization to and from the RMI, $300,000 for re-mobilization from Majuro to the 10 different atolls, and the total for acquisition and processing, at $50,000 per flight for 10 flights per atoll would be $5 million. This would assume each flight would consist of a survey speed of 140 knots, at an altitude of 1400 feet, with spot spacing at 2.8 x 2.8 meters.

Second, enhanced land and survey data to develop digital elevation maps and flood risk models will be another critical element to help implement our National Adaptation Plan, disaster response plans, and other development goals. Our technical experts have identified the Trimbler 10, sold by Frontier Precision, as the best equipment available to fulfill this task. The Rover has the capacity to reach some of the more inaccessible outer atolls.

Funding to survey and produce the relevant maps necessary for planning and disaster response for all of the islands in the RMI would be critical. Estimated costs for this project have already been produced and amount to $103,999.12. This would include funding for the Trimber 10, a rechargeable battery, pole mount, keypad, transport case, GPS tripod, rover road, and online training to use the equipment, among other costs.

In addition, while the development of a National Adaptation Plan is ongoing to address the full range of adaptation needs across all sectors, the RMI has frameworks and implementation plans already in place to advance coastal and marine resiliency. Thus, the RMI's National Oceans Symposium Plan along with the Reimaanlok Process, guides ongoing work that depends on science-driven, nature-based, and integrated planning solutions.

$6.3 million is needed to cover outstanding costs in several categories of work. These include legal and regulatory, human resource/capacity development, data collection, management, and information sharing, public awareness and education, networking, and partnerships, and, finally, new projects in conservation, management, and livelihoods.

The RMI also needs U.S. agency technical support. This includes help from the Interior Department's Fish & Wildlife Service Honolulu field office and the Department of Commerce's NOAA National Marine Fisheries Service Honolulu office. It would be in keeping with their existing roles within conservation efforts and scientific inventories for U.S. islands and monuments in the Pacific, as well as at Kwajalein Atoll.

It would also be important to clarify that existing technical grant references include these entities as relates to their mandate to provide technical support to the Freely Associated States regarding climate and conservation work.

It would be beneficial to enhance the insular interagency task force by requesting U.S. Defense Department participation as well as a mandatory follow-up on implementation from the bill's insular task force.

This follow-up should consider existing annual reporting. It should also provide Congress and the RMI with accountability as well as any U.S. efforts to work with the Freely Associated States to coordinate U.S. activities. It should, further, report on relevant bilateral and multilateral sources of assistance from other partners, and the extent to which the RMI and the FAS have engaged or benefitted from such sources.

Research and education to ensure that the RMI has the most current data available to make science-based policy decisions related to climate change is, essential, of course. An Atoll Research Center of Excellence housed at the College of the Marshall Islands would be a good way to consolidate research related to the long-term viability of atolls, not only in RMI, but in all insular areas.

A range of research areas may be considered that are relevant to all atoll nations, including aquaculture, habitat rehabilitation, and Blue Economy related innovations and partnership modalities that embrace environmental assessment and management. The Center could create formal links with U.S. universities, including the University of Hawaii, to help share world-class expertise and innovation to help address challenges like food security that are confronting marginal environments.

Support is needed to not only develop a strategic plan for the Center, but also to determine its operation and financial sustainability over time. Initial U.S. seed funding of $200,000 would help to get this project off the ground. Additional sums would be needed later for implementation.

Mr. Chairman and Members, thank you for your attention and, again, for your leadership. I would be pleased to answer any questions and I ook forward to working with the Committee and its staff on this legislation.

The RMI is fortunate that the Leadership, Members, and staff of this Committee remember that the RMI is a member of the U.S.' extended political family, inextricably, but voluntarily linked for an unlimited future.

Attachment:

SEC. __. REPORT ON RUNIT DOME AND RELATED HAZARDS

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Secretary of the Interior shall submit to the Committees on Natural Resources and Energy and Commerce of the House of Representatives, and to the Committee on Energy and Natural Resources of the Senate, a report, prepared by independent experts not employed by the U.S. government, on the impacts of climate change on the "Runit Dome" nuclear waste disposal site in Enewetak Atoll, Marshall Islands, and on other environmental hazards in the vicinity thereof. The report shall include:

(1) A detailed scientific analysis of any threats to the environment, and to the health and safety of Enewetak Atoll residents, posed by each of the following:

(A) the "Runit Dome" nuclear waste disposal site;

(B) crypts used to contain nuclear waste and other toxins on Enewetak Atoll;

(C) radionuclides and other toxins present in the lagoon of Enewetak Atoll, including areas in the lagoon where nuclear waste was dumped;

(D) radionuclides and other toxins, including beryllium, which may be present on the islands of Enewetak Atoll as a result of nuclear tests and other activities of the U.S. government, including tests of chemical and biological warfare agents, rocket tests, contaminated aircraft landing on Enewetak Island, and nuclear cleanup activities;

(E) radionuclides and other toxins that may be present in the drinking water on Enewetak Island or in the water source for the desalination plant; and

(F) radionuclides and other toxins that may be present in the groundwater under and in the vicinity of the nuclear waste disposal facility on Runit Island.

(2) A detailed scientific analysis of the extent to which rising sea levels, severe weather events and other effects of climate change might exacerbate any of the threats identified above.

(3) A detailed plan, including costs, to relocate all of the nuclear waste and other toxic waste contained in (A) the "Runit Dome" nuclear waste disposal site, (B) all of the crypts on Enewetak Atoll containing such waste and (C) the three dumping areas in Enewetak's lagoon to a safe, secure facility to be constructed in an uninhabited, unincorporated territory of the United States.

(b) MARSHALLESE PARTICIPATION.—The Secretary of the Interior shall allow scientists or other experts selected by the Republic of the Marshall Islands to participate in all aspects of the preparation of the report required by subsection (a), including, without limitation, developing the work plan, identifying questions, conducting research, and collecting and interpreting data.

(c) PUBLICATION.—The report required in subsection (a) shall be published in the Federal Register for public comment for a period of not fewer than 60 days.

(d) PUBLIC AVAILABILITY.—The Secretary of the Interior shall publish the study required under subsection (a) and results submitted under subsection (b) on a public website.

(e) AUTHORIZATION OF APPROPRIATION FOR REPORT.—It is hereby authorized to be appropriated to the Department of the Interior, Office of Insular Affairs for fiscal year 2022 such sums as may be necessary to produce the report required in subsection (a).

(f) INDEFINITE AUTHORIZATION OF APPROPRIATION FOR RUNIT DOME MONITORING ACTIVITIES.—It is hereby authorized to be appropriated to the Department of Energy such sums as may be necessary to comply with the requirements of 48 USC 1921b(f)(1)(B).