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Protecting Cultural Rights in the South Pacific Islands: Using UNESCO and Marine Protected Areas to Plan for Climate Change

Elizabeth Thomas*

 ${}^*University\ of\ Utah\ S.J.\ Quinney\ College\ of\ Law,\ elizabethakthomas@gmail.com$

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PROTECTING CULTURAL RIGHTS IN THE SOUTH PACIFIC ISLANDS: USING UNESCO AND MARINE PROTECTED AREAS TO PLAN FOR CLIMATE CHANGE

Elizabeth Thomas*

Introduction

Imagine an island coast filled with palm trees and mangrove forests, birds chirping as you look to the clear blue oceans and coral reefs that span beyond where the eye can see. A perfect paradise, is it not? Imagine the native peoples of that island. Perhaps they believe that the souls of every departed person spanning back to the beginning of time wander this very coast at night, while the living continue the tradition of worshipping ancient gods inhabiting the coral reefs surrounding the area. Now imagine that island as scientists predict it will be thirty to fifty years from now: the people gone and the island completely submerged beneath the seas. ¹

As sea levels continue to rise because of climate change, entire nations in the Pacific Ocean risk not only complete territorial loss, but, until that point, continual flooding, disease, and salt water intrusion leading to a loss of food and fresh water, rendering the areas

^{*} Elizabeth Thomas, 2017 J.D. Recipient, specializing in International Environmental Law, University of Utah S.J. Quinney College of Law. Now practicing immigration law in New York, specializing in asylum. I would like to thank Professor Robin K. Craig for her unrelenting support throughout the creation of this article. Without her guidance, this article would not have been possible.

^{1.} Karl Mathiesen, *They Say that in 30 Years Maybe Kiribati Will Disappear*, THE GUARDIAN (Dec. 4, 2014) https://www.theguardian.com/environment/2014/dec/04/in-30-years-maybe-kiribati-will-disappear-climate-change [http://perma.cc/CQA9-GSB3]; John D. Sutter, *You're Making This Island Disappear*, CNN (June 2016), http://www.cnn.com/interactive/2015/06/opinions/sutter-two-degrees-marshall-islands/ [http://perma.cc/C7WH-ZZQC]; Rachel Nuwer, *What Happens When the Sea Swallows a Country?*, BBC (June 17, 2015), http://www.bbc.com/future/story/20150616-what-happens-when-the-sea-swallows-a-country [http://perma.cc/2E9M-5NMW].

uninhabitable.² Scientists now estimate that the approximately 1,000 Marshall Islands, at an average of less than six feet above sea level, will disappear faster than any other island nation in the Pacific.³ Scientists give the island of Tuvalu thirty to fifty years before it sinks completely under the sea.⁴ Five of the Solomon Islands have already disappeared into the sea, which does not bode well for the remaining 900 islands in the chain.⁵ On Kiribati, residents attempt to prepare for continual flooding that threatens their fresh water sources and the habitability of the island overall.⁶ In the Federated States of Micronesia (FSM), the island of Kapingamarangi lost between ninety and one hundred percent of its taro farmland as a result of saltwater intrusion in 2007, leaving the island without one of its largest food sources.⁷ Stories that detail the direct effects of climate change in the Pacific Islands appear in the news on an almost daily basis.⁸ And that is only the beginning.

2. See Cynthia Rosenzweig et al., Climate Change and Extreme Weather Events: Implications for Food Production, Plant Diseases and Pests, 2 GLOBAL CHANGE & HUMAN HEALTH 90 (2001); Erin Lipp et al., Effects of Global Climate on Infectious Disease: The Cholera Model, 15 CLINICAL MICROBIOLOGY REVIEWS 757 (2002); Priyantha Ranjan et al., Effects of Climate Change on Coastal Fresh

Groundwater Resources, 16 GLOBAL ENVTL. CHANGE 388 (2006).

^{3.} *See* Coral Davenport, *The Marshall Islands Are Disappearing*, N. Y. TIMES (Dec. 1, 2015), http://www.nytimes.com/interactive/2015/12/02/world/The-Marshall-Islands-Are-Disappearing.html [http://perma.cc/U5MK-LLDC].

^{4.} *See Tuvalu About to Disappear into the Ocean*, REUTERS (Sept. 13, 2007), http://uk.reuters.com/article/environment-tuvalu-dc-idUKSEO11194920070913 [http://perma.cc/43WE-JMMF].

^{5.} Lilit Marcus, *Five Islands Have Disappeared into the Pacific Ocean*, CONDE NAST TRAVELER (May 9, 2016), http://www.cntraveler.com/stories/2016-05-09/five-islands-have-completely-disappeared-into-the-pacific-ocean [http://perma.cc/W487-QY9B].

^{6.} See Fresh Water Supply, OFFICE OF THE PRESIDENT OF THE REPUBLIC OF KIRIBATI, http://www.climate.gov.ki/effects/fresh-water-supply/ (last visited Nov. 20, 2016).

^{7.} See Francis X. Hezel, High Water in the Low Atolls, MICSEM.ORG (Mar. 2009), http://www.micsem.org/pubs/counselor/frames/highwaterfr.htm?http&&& www.micsem.org/pubs/counselor/highwater.htm [http://perma.cc/35XW-DVP7].

^{8.} See e.g., Shayal Devi, Realities of Climate Change, THE FIJI TIMES ONLINE (Feb. 10, 2018), http://www.fijitimes.com/story.aspx?id=434028 [http://perma.cc/PL2W-GANJ]; Grant Wyeth, For Pacific Island States, Climate Change Is an Existential Threat, THE DIPLOMAT (June 5, 2017), https://thediplomat.com/2017/06/for-pacific-island-states-climate-change-is-an-existential-threat/

Not only are these disappearing island nations some of the most unique ecological spaces in the world they are also some of the most diverse cultural spaces on earth. Totaling over 25,000 individual islands, the Pacific Ocean Island nations house a population of less than 6.5 million people, yet they are home to the most diverse range of indigenous cultures on earth. Linguistically speaking, Papua New Guinea alone houses one-third of the world's languages. While groups of only a few thousand people or less speak each language, the loss of even one dialect is devastating for indigenous peoples and the world more broadly. The Pacific Islands have been well documented as some of the most at-risk areas for climate change-related losses of territory by scientists and legal scholars alike. Extensive legal and

[http://perma.cc/8FK9-P9XQ]; Janice Cantieri, See How Pacific Islanders Are Living With Climate Change, NATIONAL GEOGRAPHIC (Feb. 9, 2017), https://www.nationalgeographic.com/photography/proof/2017/02/climate-change-pacific-islands/ [http://perma.cc/RV3Y-OG3F].

^{9.} See Dieter Mueller-Dombois & Lloyd Loope, Some Unique Ecological Aspects of Oceanic Island Ecosystems, 32 MONOGRAPHS SYSTEMATIC BOTANY FROM THE MISSOURI BOTANICAL GARDEN 21, 27 (1990) (discussing the unique ecology of Hawai'i specifically); Robert Hiatt & Donald Strasburg, Ecological Relationships of Fish Fauna on Coral Reefs of the Marshall Islands, 30 ECOLOGICAL MONOGRAPHS 65 (1960) (detailing the unique underwater ecological relationships of fish in the Marshall islands).

^{10.} Oceania, Islands, Land People, CULTURAL SURVIVAL https://www.culturalsurvival.org/ourpublications/csq/article/oceania-islands-land-people (last visited Nov. 20, 2016).

^{11.} See A.V., Papua New Guinea's Incredible Linguistic Diversity, THE ECONOMIST (July 20, 2017), https://www.economist.com/blogs/economist-explains/2017/07/economist-explains-14 [http://perma.cc/6LSS-YBJ6].

^{12.} See id.

^{13.} See e.g., Jacquelynn Kittel, The Global Disappearing Act: How Island States Can Maintain Statehood in the Face of Disappearing Territory, MICH. ST. L. REV. 1207 (2014) (citing to climate change creating uninhabitable islands in the Pacific for islands such as Tuvalu); Maxine Burkett, The Nation Ex-Situ: On Climate Change, Deterritorialized Nationhood and the Post-Climate Era, 2 CLIMATE L. 345 (2011) (mentioning Tuvalu, Kiribati and the Maldives as areas that may become uninhabitable due to climate change within this century); Lilian Yamamoto & Miguel Esteban, Vanishing Island States and Sovereignty 53 OCEAN & COASTAL MGMT. 1 (2010) (stating that sea level rise will give way to the disappearance of low lying states); Simon Albert et al., Interactions Between Sea-Level Rise and Wave Exposure on Reef Island Dynamics in the Solomon Islands, 11 ENVTL. RES. LETTERS 5 (2016) (showing studies that 5 of the Solomon Islands disappeared from 1947-

scientific research of these island nations shows the devastation of not only the natural environment, but also the livelihoods and cultures of the peoples residing in these areas. ¹⁴ Pacific Island peoples are dependent upon their environments for most basic necessities such as food, water, and shelter. ¹⁵ Furthermore, these islands house particular indigenous groups whose cultural practices often depend upon the natural resources located in the coral reefs and oceans surrounding their island territories. ¹⁶ For example, historians consider the indigenous people of Chuuk to be some of the most skilled navigators in the Pacific. ¹⁷ By using canoes and "stick charts" to read wave and swell patterns of the ocean, they often prayed to the spirits they believed inhabit specific areas in the ocean for safe passage on their

2014); AUSTRALIAN GOVERNMENT, DEPARTMENT OF FOREIGN AFFAIRS AND TRADE, REPORT: CLIMATE VARIABILITY, EXTREMES AND CHANGE IN THE WESTERN TROPICAL PACIFIC (2014), http://www.pacificclimatechangescience.org/publications/reports/climate-variability-extremes-and-change-in-the-western-tropical-pacific-2014/[http://perma.cc/3CW6-WTXL].

^{14.} Much of this research has dealt with the Pacific island nation of Tuvalu, such as, Jonathan Adams, *Rising Sea Levels Threaten Small Pacific Island Nations*, N. Y. TIMES (May 2, 2007), http://www.nytimes.com/2007/05/03/world/asia/03iht-pacific.2.5548184.html [http://perma.cc/2KAU-UJU4]; Colette Mortreux & Jon Barnett, *Climate Change, Migration and Adaptation in Funafuti, Tuvalu* 19 GLOBAL ENVTL CHANGE 105 (2009); Karen McNamara & Chris Gibson, 'We Do not Want to Leave our Land': Pacific Ambassadors at the United Nations Resist the Category of 'Climate Refugees,' 40 GEOFORUM 475 (2009).

^{15.} See Nobuo Mimura, Vulnerability of Island Countries in the South Pacific to Sea Level Rise and Climate Change, 12 CLIMATE RES. 137-143 (1999) (mentioning flooding, inundation, erosion, saltwater intrusion as having direct effects on the availability of food, freshwater and shelter).

^{16.} See John L. Fischer et al., Micronesian Culture, ENCYCLOPEDIA BRITANNICA (2011), https://www.britannica.com/place/Micronesia-cultural-region-Pacific-Ocean (Micronesians traditionally depend on fishing in shallow reef waters, while certain groups in the area attach ancestral origins and practices to land or oceanic navigation between islands); see also Oceania: Islands, Land, People, CULTURAL SURVIVAL, supra note 10; John W. Bennett, Anticipation, Adaptation, and the Concept of Culture in Anthropology, SCIENCE (1976) (discussing the unique relationship between indigenous groups and natural resources and the reliance of culture on access to those resources to continue such ways of life).

^{17.} See Doug Munro et al., The People of the Sea, 43 J. PAC. HIST. 111 (2008) (reviewing PAUL D'ARCY, THE PEOPLE OF THE SEA: ENVIRONMENT, IDENTITY AND HISTORY IN OCEANIA (2006)) (discussing the unique navigation techniques of the Chuukese alongside a number of other Pacific island nations).

journeys.¹⁸ In Hawai'i, the native peoples believe that they are genealogically related to gods whose guardian spirits inhabit the sky, earth, and ocean, and to whom they make offerings at shrines located throughout the islands.¹⁹ In Papua New Guinea, many indigenous peoples believe that animals, plants, geographical features, and objects have spirits, tying their beliefs in those spirits to the natural world.²⁰

While these cultural examples are just a few of the thousands to choose from in the Pacific Oceanic region, the important point is that each of the cultures fundamentally relies on the peoples' connections to the islands and ocean where they live. Not only are the people who live on these islands primarily reliant upon the land and natural resources for basic survival, they are also culturally reliant on the surrounding ocean for the survival of their unique traditions.²¹

International law widely recognizes the connection between indigenous peoples and their environments. In fact, the international community has created legal standards for the protection of indigenous peoples' rights to their native environments. Such rights are contained within multiple international documents including the Convention on Biological Diversity, the Rio Declaration, and the Stockholm Declaration.²² However, from an international law perspective, once

^{18.} See John Fischer et al., supra note 16.

^{19.} Hawaiians – Religion and Expressive Culture, COUNTRIES AND THEIR CULTURES, http://www.everyculture.com/Oceania/Hawaiians-Religion-and-Expressive-Culture.html (last visited Nov. 20, 2016).

^{20.} See Belief Systems and Spiritual Aspects in Papua New Guinea, CULTURES OF THE COUNTRYSIDE, http://www.cultureofthecountryside.ac.uk/resources/belief-systems-and-spiritual-aspects-papua-new-guinea (last visited Dec. 7, 2016).

^{21.} See generally REEFBASE: A GLOBAL INFORMATION SYSTEM FOR CORAL REEFS, REPORTS ON FSM, http://www.reefbase.org/global_database/default.aspx? section=r1®ion=0&country=fsm. For example, The Federated States of Micronesia rely on staple foods such as reef and pelagic fish from the surrounding islands which are captured on canoes built based on traditional navigation practices.; See Andy George et. al, The State of Coral Reef Ecosystems of the Federated States of Micronesia, REEFRESILIENCE.ORG, http://www.reefresilience.org/wp-content/uploads/State-of-Coral-Reef-Ecosystems-in-the-Federated-States-of-Micronesia-2008.pdf ("Islanders have a strong dependence on coral reefs and marine resources, both economically and culturally.").

^{22.} U.N. Secretary General, The 1992 Convention on Biological Diversity, June. 5, 1992, 1760 U.N.T.S. 79 [hereinafter CBD 1992]; U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/26 (Vol. I), *see e.g.* Principle 22, (Aug. 12, 1992)

an island sinks into the ocean and the territory no longer exists, states lose their status.²³ This leaves the people of these nations without homes, citizenship,²⁴ and remediation for the loss of culture that they will suffer without access to their ancestral homelands.

While legal scholars have focused on the issue of territorial sovereignty of disappearing island nations (DINs),²⁵ few, if any, have written on the remediation of the loss of cultural rights once these islands fully disappear.²⁶ Therefore, this Article will look beyond the rights of territorial sovereignty and statehood, beyond the plight of "climate refugees," to discuss a third factor: remediation of a loss of cultural rights for indigenous Pacific Islanders.

[hereinafter *Rio Declaration*]; G.A. Res. 2994 (XXVII) (Dec. 15, 1972) [hereinafter *The Stockholm Declaration*]. Each of these texts has helped establish international legal standards to protect indigenous peoples' rights to their traditional knowledge and practices in the area of environmental management and conservation.

^{23.} James Crawford, *The Criteria for Statehood in International Law*, 48 BRIT. Y.B. INT'L L. 93 (Statehood under international law requires four things: (1) a defined territory, (2) a permanent population (3) a government and (4) a capacity to enter inter relations with other states); *see also* United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 at art. 121(3) ("Rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf." This means that islands that cannot sustain human life are therefore not provided with the rights of an economic zone or continental shelf.) [hereinafter UNCLOS].

^{24.} This particular form of statelessness has lead scholars to refer to such people as "climate refugees." See, e.g., Tiffany T.V. Duong, When Islands Drown: The Plight of Climate Change Refugees and Recourse to International Human Rights Law, 31 U. PA. J. INT'L L. 1239 (2009); Carol Farbotko, Wishful Sinking: Disappearing Islands, Climate Refugees and Cosmopolitan Experimentation, 51 ASIA PAC. VIEWPOINT 1, 47 (2010); Carol Farbotko & Heather Lazrus, The First Climate Refugees? Contesting Global Narratives of Climate Change in Tuvalu, 22 GLOBAL ENVIL. CHANGE 382 (2012).

^{25.} See, e.g., Rosenzweig et al., supra note 2; Erin Lipp et al., supra note 2; Privantha Ranian et al., supra note 2.

^{26.} While no scholars have written on the exact topic of remediation for cultural rights through the allocation of natural resources, some have discussed the loss of human rights due to climate change. See, e.g., Eric A. Posner, Climate Change and International Human Rights Litigation: A Critical Appraisal, 155 U. PA. L. REV. 1925 (2007); John H. Knox, Climate Change and Human Rights Law, 50 VA. J. INT'L L. 163 (2009); Sammy Adelman, Rethinking Human Rights: The Impact of Climate Change on the Dominant Discourse, in HUMAN RIGHTS AND CLIMATE CHANGE 159 (Stephen Humphreys ed., 2010).

What Pacific Island nations can do to protect cultural rights in the face of disappearing islands depends largely on the particular geography. If an island is situated within the 200 nautical-mile exclusive economic zone (EEZ) of the state, that state will be able to retain control of the area under international law. The same holds true if an island is situated within 200 nautical miles of another island of the state. However, if a disappearing island is more than 200 nautical miles away from a neighboring island or outside the state's EEZ, that state risks losing access to potentially critical marine resources that would then be located outside of its EEZ. Because island nations are unable to draw maritime boundaries around areas outside of their EEZ where there is no longer territory that can sustain human life, ²⁷ these areas become part of the high seas and are no longer afforded protection by statehood.

Under current international law, once an island is submerged, both the natural and cultural resources of that area are then converted from state control to the high seas. The high seas are defined as the open ocean – no single country can have jurisdiction over the area.²⁸ If a disappearing island becomes part of the high seas, the people who once inhabited it will no longer have exclusive access to the ocean where the island once existed to continue their cultural traditions. Instead, that space will be open to all nations under international law. States that expect to have portions of their territory disappear because of

^{27.} Currently, there is no international law (either environmentally or human rights-based) for dealing with the loss of territory and statehood due to climate change. However, the Human Rights Council has adopted two resolutions on Human Rights and the Environment (calling upon the Office of the United Nations High Commissioner for Human Rights (OHCHR) to deal with human rights and climate change), showing support of the international community in attempting to address human rights, climate change, and the general loss of statehood under international law. *See* Human Rights Council Resolution 7/23 of Mar. 28, 2008, "Human rights and climate change", http://ap.ohchr.org/documents/E/HRC/resolutions/A_HRC_RES_7_23.pdf; HRC Resolution 10/4 of Mar. 25, 2009, A/HRC/RES/10/4, "Human rights and climate change" http://ap.ohchr.org/documents/E/HRC/resolutions/A_HRC_RES_10_4.pdf. For further lists of HRC resolutions regarding human rights and climate change, please see http://www.ohchr.org/EN/Issues/HRAnd ClimateChange/Pages/HRCAction.aspx.

^{28.} James Crawford (Ed.), Brownlie's Principles of Public International Law 297-98 (Oxford University Press, 2012, 8th ed.) [hereinafter Brownlie's Principles].

climate change should devise pre-emptive plans to designate these areas either as Marine Protected Areas (MPAs) or list the areas under the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Convention as a cultural, natural, or mixed site.²⁹

As stated in the preamble of the FSM Constitution, "[t]o make one nation of many islands, we respect the diversity of our cultures. Our differences enrich us. The seas bring us together, they do not separate us. Our islands sustain us, our island nation enlarges us and makes us stronger[.]"³⁰ For Pacific Island nations to uphold their duties under international human rights law, they must support indigenous peoples by retaining access to the ocean where their cultures began. If DINs list cultural territories for protection under either the MPA or UNESCO frameworks (or both) before islands disappear, states can provide more adequate protection for their indigenous populations. Additionally, the protection frameworks can foster alliances between neighboring island nations to ensure ecological conservation and cultural survival. Only by retaining access to these areas of great cultural importance can nations properly protect the cultural rights of their peoples.

As Pacific Island nations begin to face the dire effects of climate change, they must be concerned with more than just the loss of their EEZs and island territories. These nations must also be concerned with the extreme threat that climate change poses to the cultural rights of the unique indigenous groups that will have to relocate as their islands disappear. For example, one tribe on the island of Chuuk believes that their ancestors' spirits inhabit the coral reefs that surround their homes.³¹ Without continued access to these areas where their ancestral spirits are believed to reside, their culture may not survive.³²

^{29.} Convention Concerning the Protection of the World Cultural and Natural Heritage, Nov. 16, 1972, 1037 U.N.T.S. 152 [hereinafter UNESCO World Heritage Convention].

³⁰. The Constitution of the Federated States of Micronesia 1978, Preamble.

^{31.} Francis X. & S.J. Hezel, *Spirit Possession in Chuuk: Socio-Cultural interpretation*, 11 MICRONESIAN COUNSELOR (1993), http://www.micsem.org/pubs/counselor/frames/spirposfr.htm.

^{32.} See Fischer et al. supra note 16.

Currently, climate change is forcing Pacific Islander communities to relocate in one of two ways: (1) relocate within the same nation or (2) relocate the entire population to a host nation. Both options must take the protection of cultural rights into consideration. While the latter case makes the protection of these rights more difficult from a legal perspective, using either MPAs or listing the sites under the UNESCO World Heritage Convention would provide a remedy to indigenous peoples for a loss of cultural rights, so long as the indigenous people are provided with specific access to those protected areas. Although these frameworks for protection are of great importance, it is also critical to note that complete protection of cultural spaces to ensure continued, exclusive access for Pacific Island nations would require changes to international treaties. However, this issue is beyond the scope of this paper.

Given the two options for relocation, this Article proceeds in the following format: Part I will discuss the major gaps that currently exist under international law within the context of climate change. This Part describes where those gaps exist under the law of the sea, international human rights law with an emphasis on indigenous rights, and the legally recognized connections between indigenous persons, their cultures, and their environments. Part II aims to convey public international law's connections to climate change in the context of disappearing island nations with examples of how life is changing in different island nations as a result of climate change. Part III then examines the implementation of DIN responses to climate change for the remediation of cultural rights through pre-emptive state measures. This section first discusses the implementation of MPAs on the high seas, followed by the possibility of UNESCO World Heritage Sites on the high seas. Finally, this paper concludes by applying the MPA and UNESCO theories to the FSM as an example for other DINs to show that such theories are readily applicable in an even broader context. Ultimately, this paper theorizes that if island nations create MPAs and list sites under the UNESCO framework, Pacific Island states can adequately protect the cultural rights of their indigenous groups. Other nations may also apply such solutions on a global scale to any indigenous group facing territorial loss as a result of climate change.

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I. THE INTERNATIONAL LEGAL CONTEXT OF CLIMATE CHANGE: LAW OF THE SEA, HUMAN RIGHTS, INDIGENOUS RIGHTS AND ENVIRONMENTAL LAW

News reports in recent years detail the efforts of local Kiribatians using ropes to tie their homes to palm trees, attempting to keep their homes intact as the island territory continually changes with the rising tides.³³ While some scientists argue that the islands of Kiribati are shifting rather than disappearing,³⁴ the locals are still left with uncertainty as to how erosion and accretion will change the structure of their homes and the island overall.³⁵ Additionally, locals question how climate change will affect their cultural practices that rely on specific foods related to the island's history.³⁶ Most cultural celebrations on the island include banquets with taro and local fish, and many locals collect toddy (sap) from spathe flowers to use for medicinal purposes.³⁷ If climate change prevents locals from growing these foods or fishing in certain areas, it is likely that such cultural practices will disappear and the islands will soon become uninhabitable.

Kiribati consists of three small island groups spread over more than 1,350,000 square miles of ocean with the islands' land mass totaling just over 300 square miles.³⁸ In fact, Kiribati primarily consists of oceanic territory, which includes the Phoenix Islands Marine

^{33.} See, e.g., Kiribati's Climate Change Catch-22, BBC (Dec. 8, 2015), http://www.bbc.com/news/world-asia-35024046.

^{34.} See Dynamic Atolls Give Hope that Pacific Islands Can Defy Sea Rise, THE CONVERSATION (Apr. 16, 2014), https://theconversation.com/dynamic-atolls-give-hope-that-pacific-islands-can-defy-sea-rise-25436 [http://perma.cc/38PL-MQBW].

^{35.} See Climate Change, Office of the President, Republic of Kiribati, http://www.climate.gov.ki/category/effects/people/ (last visited Dec. 2, 2016).

^{36.} *Kiribati*, COUNTRIES AND THEIR CULTURES, http://www.everyculture.com/Ja-Ma/Kiribati.html (last visited Dec. 2, 2016) (Fish and marine sources are the primary food sources on the island, but local crops like taro, coconut and the spathe flower supplement this food source.).

^{37.} *Id.*; see also Yadhu N. Singh, *Ethnobotany in the Pacific*, ENCYCLOPAEDIA OF THE HISTORY OF SCIENCE, TECHNOLOGY, AND MEDICINE IN NON-WESTERN CULTURES 324 (Helaine Selin, ed. 1997).

^{38.} Government of Kiribati, *Phoenix Islands Protected Area*, http://www.phoenixislands.org/about.php (last visited Apr. 29, 2018).

Protected Area comprising around 11 percent of Kiribati's total EEZ.³⁹ The most significant industry in Kiritibati is fishing. The islands are completely dependent on the sea to support the country's GDP, which totals less than \$1,500 USD per person per year.⁴⁰ If even one small island in the Phoenix MPA were to disappear, Kiribati would lose potentially hundreds of miles of its EEZ to the high seas, thereby limiting the country's access to fish. Additionally, as saltwater intrusion gains further foothold with every rising tide, taro ponds face complete destruction in the coming years.⁴¹ Smaller island populations are immigrating in large numbers to the main island of Tarawa. But the New Zealand government suggests the main island cannot adequately support the expected population growth because of a lack of freshwater resources.⁴² Kiritbati's President has even bought land in Fiji to relocate the Kiritibati population in the next five years in response to climate change.⁴³

With the continued loss of land, food, water, and cultural practices on the island of Kiribati, Kiribati is just one of multiple disappearing island nations (DINs) looking to various areas of international law to combat the effects of climate change. As more islands become part of the high seas, a discussion of the law of the sea is necessary to determine if states may still have rights to these areas. As food and water become scarcer, international human rights law becomes important to the discussion since states must act to provide access these basic necessities. When taro fields are inundated by saltwater intrusion, environmental law becomes part of the discussion on how to mitigate further negative impacts. And finally, when contemplating the loss of fishing areas and food used for traditional medicinal practices, states must discuss the relationship of indigenous persons to the environment. The following sections will therefore discuss each of

^{39.} *Id.*; *See also* Rodney Daecker, *Island Neighbours at the Mercy of Rising Seas*, AUSTRALIAN BROADCASTING CORPORATION (Dec. 9, 2011), http://www.abc.net.au/news/2011-12-09/tuvalu-kiribati-climate-change/3720408 [http://perma.cc/DRL5-EPQY].

^{40.} Kiribati's Climate Change Catch-22, BBC, supra note 33.

^{41.} *Id*.

^{42.} *Id*.

^{43.} Alex Pashley, *Kiribati President: Climate-induced Migration is 5 Years Away*, CLIMATE HOME (Feb. 18, 2016), http://www.climatechangenews.com/2016/02/18/kiribati-president-climate-induced-migration-is-5-years-away/ [http://perma.cc/CNP3-SN3L].

these areas of international law in more detail as they relate to climate change in the context of disappearing island nations.

A. Public International Law and Sovereignty in the Seas

Public international law, or the law of nations, codifies relations among states through custom and practice. Such customs and practice have developed over centuries through the writing of legal scholars and other sources stemming from article 38(1) of the Statute of the International Court of Justice (ICJ).⁴⁴ International law defines and instructs interactions primarily among states. By gaining statehood and sovereignty over territory, a state become the subject of international law and can obtain power to act in the international sphere by making agreements with other nations. However, the inverse is also true.⁴⁵ If a state has no territory, and therefore no statehood, it loses its status under international law and can no longer engage with other states.⁴⁶ State territory consists of land, airspace, and a territorial sea. Together these create the physical and social base for the state's legal personality, otherwise known as "sovereignty" for the purposes of international law.⁴⁷

The control of the ocean adjacent to a state's territory is governed by the third conference of the United Nations Convention on the Law of the Sea (UNCLOS).⁴⁸ UNCLOS came into force in 1994 and defines the maritime zones, territorial sea, contiguous zone, exclusive economic zone, continental shelf and the high sea, as well as providing detailed provisions on the protection of the marine environment, and the exploitation of resources.⁴⁹ The purpose of UNCLOS was to establish:

a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient

^{44.} For a further, more detailed explanation of the many facets of public international law, see Brownlie's Principles, *supra* note 28, at 3, 28.

^{45.} See id. at 115-117.

^{46.} See Id. at 128-136.

^{47.} Id. at 204.

^{48.} UNCLOS, supra note 23.

^{49.} *Id*.

utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment[.]⁵⁰

An island state gains sovereign rights over the resources associated with its territorial sea, continental shelf, contiguous zone, and EEZ. Generally, coastal sovereignty extends to the seabed and the subsoil of the state's territorial sea (12 nautical miles), designating a large portion of ocean beyond the coast for a state's reasonable use.⁵¹ The continental shelf is used "for the purpose of exploring [the shelf] and exploiting its natural resources," meaning that the state may use the mineral and harvestable resources located within this space on the bottom of the ocean. 52 The contiguous zone gives states jurisdiction beyond the territorial sea (up to 24 nautical miles) for special purposes, such as enforcing customs, immigration, safety, and sanitary regulations.⁵³ Finally, the EEZ is an optional state jurisdiction, which can be up to 200 nautical miles (188 nautical miles beyond the 12 nautical miles that comprise the territorial sea of the state).⁵⁴ The EEZ provides states with the rights to exploit and manage non-living and living resources from the water column.⁵⁵ What is most important to note about these rights is that they only exist in attachment with physical territory and statehood.⁵⁶

Under UNCLOS article 121(3), "rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf[.]" Moreover, under article 60(8)

51. Geneva Convention on the Territorial Sea and Contiguous Zone, Apr. 29, 1958, 516 U.N.T.S. 205 art. 2, 24 [hereinafter GCTS]; UNCLOS, *supra* note 23, at art. 2.

^{50.} *Id.* at pmbl.

^{52.} UNCLOS, supra note 23, at art. 77.

^{53.} GCTS, supra note 51, at art. 24; UNCLOS, supra note 23, at art. 33.

^{54.} Rights to the continental shelf were recognized as customary international law in the North Sea Continental Shelf (Fed. Rep. Ger. v. Den. and Neth.), Judgment, 1969 I.C.J. 3, 19 (Feb. 20). Rights to establish economic zones and the territorial sea designation are found in UNCLOS, *supra* note 23, at art. 57, 76-77; GCTS, *supra* note 51, at arts. 3-4.

^{55.} UNCLOS, supra note 23, at art. 56.

^{56.} BROWNLIE'S PRINCIPLES, *supra* note 28, at 128 (requiring a defined "territory" to gain statehood status).

^{57.} UNCLOS, *supra* note 23, at art. 121(3).

of UNCLOS, even artificial islands do not possess the status of islands, have no territorial sea, and are excluded from creating maritime boundaries because there is nothing to prevent the continued extension of and preservation of natural formed features created artificially.⁵⁸ States draw baselines – territorial lines sketched around island and coastal lands – according to the geographical relationship between the sea and the land lying within it. This can change over time depending upon the coastal morphology (e.g. changes in sea level rise that reduce total land area or destruction of coast land because of weather-related events).⁵⁹

Currently, there are no international laws governing circumstances when a state's territory simply disappears. Under international law, islands, no matter the size or population, are defined by two criteria: (1) it must be a naturally formed area of land; and (2) it must always be above sea level.⁶⁰ After meeting these criteria, island nations must secure statehood under international law by having: (1) a population; (2) a defined territory; (3) a functioning government; (4) sovereignty; and (5) a degree of permanence.⁶¹

In the case of DINs, scholars have written a significant number of articles and books on theories to remedy state's losses of territory as a result of climate change.⁶² Some suggest calculating where states originally set maritime boundaries and allowing those states that are losing territory because of climate change to retain their original maritime boundaries. This could be achieved by amending UNCLOS.⁶³ Others posit merging states into federations with other

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^{58.} *Id.* at art. 60(8).

^{59.} See id. at art. 14 ("The coastal State may determine baselines in turn by any of the methods provided for . . . to suit different conditions.").

^{60.} See UNCLOS, supra note 23, at Part VIII, arts. 60, 121, respectively.

^{61.} See Brownlie's Principles, supra note 28, at 128-136.

^{62.} For example, see Richard SJ Tol & Roda Verheyen State Responsibility and Compensation for Climate Change Damages—A Legal and Economic Assessment, 32 ENERGY POLICY 1109 (2004); Durwood, Zaelke & James Cameron, Global Warming and Climate Change—An Overview of the International Legal Process, 5 Am. U. J. INT'L. L. & POL'Y 249 (1990).

^{63.} See UNCLOS at arts. 312-316; David Freestone & Alex G. Oude Elferink, Flexibility and Innovation in the Law of the Sea: Will the LOS Convention Amendment Procedures Ever Be Used?, in Stability and Change in the Law of the Sea: The Role of the LOS Convention 169 (Alex G. Oude Elferink ed., 2005).

host states to control the lost territories.⁶⁴ This is appropriate when the state's soon-to-be-lost territory is within that state's EEZ or the 12 nautical mile zone of an adjacent island.⁶⁵ While these theories have potentially positive and negative consequences, no state has yet to implement them. More importantly, none of these theories specifically addresses the problem of DINs from a human rights perspective, to which this Article now turns.

B. International Human Rights Law, Cultural Rights, and Protections for Indigenous Peoples

As states emerge onto the international playing field with the rights and obligations attached to statehood and sovereignty, they become eligible to sign and ratify treaties either with other nations (bilateral treaties) or multilateral treaties that form the basis of many areas of international law, such as international human rights law or international environmental law. Once states sign these agreements, they must adhere to the sets of international obligations that those treaties create. These obligations can be either positive or negative in nature, meaning that states may either need to implement and enforce the agreed upon standards (positive duties) or states may have to refrain from acting in certain ways (negative duties).⁶⁶

International human rights laws, for example, provide states with both positive obligations such as implementing individual rights to

^{64.} See Rosemary Rayfuse, Sea Level Rise and Maritime Zones: Preserving the Maritime Entitlements of 'Disappearing' States, in Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate 167, 178 (Michael B. Gerrard & Gregory E. Wannier eds., 2013).

^{65.} See generally Clive Schofield & David Freestone, Options to Protect Coastlines and Secure Maritime Jurisdictional Claims in the Face of Global Sea Level Rise, in Threatened Island Nations: Legal Implications of Rising Seas and a Changing Climate 141 (Michael B. Gerrard & Gregory E. Wannier eds., 2013); David D. Caron, When Law Makes Climate Change Worse: Rethinking the Law of Baselines in Light of a Rising Sea Level, 17 Ecology L. Q. G 621, 634 (1990); David D. Caron, Climate Change, Sea Level Rise and the Continuing Uncertainty in Oceanic Boundaries: A Proposal to Avoid Conflict, in Maritime Boundary Disputes, Settlement Processes and The Law Of the Sea 1 (S.Y. Hong & J. Van Dyke eds., 2008).

^{66.} See Dinah Shelton & Ariel Gould, *Positive and Negative Obligations*, in The Oxford Handbook of International Human Rights Law 562 (Dinah Shelton, ed. 2013).

food and water, ⁶⁷ as well as negative obligations to prevent states from interfering with individuals' rights to, for example, cultural and religious practices.⁶⁸ The treaties that broadly codify human rights laws include: the Universal Declaration of Human Rights (UDHR).⁶⁹ the International Covenant on Civil and Political Rights (ICCPR),⁷⁰ and the International Covenant for Economic. Social and Cultural Rights (ICESCR).⁷¹ These treaties obligate states to treat their nationals in a certain fashion and aid states in their implementation through regional conventions, international conventions against specific wrongs, or international conventions for the protection of particular categories of peoples.⁷² In addition, human rights treaties provide individuals with redress when states fail to respect an array of individual rights such as religion, speech, family, or cultural practices.⁷³ These conventions have led to the creation of ten individual treaty bodies that oversee the implementation and interpretation of a number of human rights treaties that each deal with more specific human rights concerns.⁷⁴ For example, when a state party to the ICCPR violates an individual's human rights guaranteed in the ICCPR, such as the right to freedom of religion, the individual may bring his or her case before the Human Rights Committee (HRC)

^{67.} See, for example, S. AFR. CONST., 1996, Ch. 2 § 27(b), which provides the state with a duty to provide all persons within its national boundaries with access to a basic amount of food and water per day stemming from the International Covenant on Economic, Social and Cultural Rights, Dec. 16, 1966, 993 U.N.T.S. 3 [hereinafter ICESCR].

^{68.} ICESCR, supra note 67, at art. 15.

^{69.} G.A. Res. 217 (III) A, Universal Declaration of Human Rights (Dec. 10, 1948) [hereinafter UDHR].

^{70.} International Covenant on Civil and Political Rights, Dec. 16, 1966, 999 U.N.T.S. 171 [hereinafter ICCPR].

^{71.} ICESCR, supra note 67.

^{72.} BrownLie's Principles, supra note 28, at 638.

^{73.} International Human Rights Law, UNITED NATIONS OFFICE OF THE HIGH COMMISSIONER FOR HUMAN RIGHTS, http://www.ohchr.org/EN/ProfessionalInterest/Pages/InternationalLaw.aspx (last visited Dec. 2, 2016).

^{74.} For further information on these treaty bodies, see *What are the Treaty Bodies?*, UNITED NATIONS OFFICE OF THE HIGH COMMISSIONER FOR HUMAN RIGHTS, http://www.ohchr.org/EN/HRBodies/Pages/TreatyBodies.aspx, (last visited Oct. 16, 2016).

to determine remedies for such harms.⁷⁵ Remediation can even be given for violations of cultural rights as protected broadly through human rights instruments.

While the number of defined internationally recognized human rights is ever increasing, the focus of this Article will be on cultural rights specifically. Each of the core international human rights treaties include language designed to protect what are known as "cultural rights." The rights act as an umbrella for the protection of minority groups and indigenous persons – their ways of life, their languages, and religions that rely upon the environments in which they live. ⁷⁶ In particular, the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), adopted by 144 countries, creates state obligations to refrain from harming the traditional lands and natural resources that are fundamental to indigenous claims of self-determination.⁷⁷ It also posits that if states do harm to these areas, indigenous claimants may go to the HRC for a remedy. 78 Specifically, UNDRIP recognizes the importance of protecting the environment in relation to indigenous populations and their cultural rights, which directly implicates international environmental law standards to protect the human rights of these vulnerable groups. ⁷⁹ In Papua New Guinea, for example, many of the tribes on the islands derive their culture from the environment, using rituals that require the use of traditional medicines derived from plants native only to these islands.⁸⁰ Without access to the plants on these islands, such practices would no longer survive.

^{75.} BROWNLIE'S PRINCIPLES, *supra* note 28, at 638-9. The developed body of case law implementing the HRC is considered a statement of the general principles of law recognized by civilized nations under international law—stemming from the Statute of the International Court of Justice article 38(1)(c)—thereby defining a source and codification of international human rights norms. *See* Statute of the International Court of Justice, Apr. 18, 1946, at art. 38(1)(c) ("the general principles of law recognized by civilized nations").

^{76.} UDHR, *supra* note 69; ICCPR, *supra* note 70; ICESCR, *supra* note 67, at art. 15.

^{77.} G.A. Res. 6/1295, UN Declaration on the Rights of Indigenous Peoples, at arts. 26-30, 32 (Sept. 13, 2007) [hereinafter UNDRIP].

^{78.} *Id.* at arts. 40-41.

^{79.} Id. at art. 29 (1)-(3).

^{80.} *Papua New Guinea – Medicine and Health Care*, COUNTRIES AND THEIR CULTURES, http://www.everyculture.com/No-Sa/Papua-New-Guinea.html (last visited Dec. 2, 2016).

Thus, the UNDRIP directly connects cultural human rights to environmental protection. Moreover, since the creation of UNDRIP, the Human Rights Council (HRC) has adopted two further resolutions on Human Rights and the Environment, calling upon the Office of the United Nations High Commissioner for Human Rights (OHCHR) to deal with human rights and climate change. This shows support from the international community by attempting to address human rights violations, climate change, and the remedies required for the general loss of indigenous culture.⁸¹ Furthermore, case law before the HRC regarding violations of cultural rights for indigenous persons has increased in recent years.⁸² Violations include: interference with land; restrictions on the use of traditional languages; rights to traditional activities like fishing or hunting; and deprivation of cultural life.⁸³ Legal scholars have described this increase as a push for further selfdetermination among indigenous groups and a movement of indigenous persons in international law from "objects" to "subjects" alongside a surge in claims of protection for historically indigenous territories.⁸⁴ However, legal scholars have not yet applied current international indigenous case law in relation to DINs as an avenue for redress for a loss of cultural rights as a result of climate change.⁸⁵

81. Human Rights Council Res. 28/11, Human Rights and the Environment (Apr. 6, 2015).

^{82.} For example, the Nordic indigenous Sámi have filed cases against Finland, Norway, and Sweden; Maori bring complaints against New Zealand; Bretons against France; Sudetenland Germans against the Czech Republic; Afrikaaner and Khoi against Namibia; and indigenous groups have complained against Colombia and Canada for violations of their environmental rights, especially in relation to climate change issues.

^{83.} Dinah Shelton, *The UN Human Rights Committee's Decisions Human Rights Dialogue: "Cultural Rights*," CARNEGIE COUNCIL FOR ETHICS IN INT'L AFFAIRS (Apr. 22, 2005), https://www.carnegiecouncil.org/publications/archive/dialogue/2_12/section_3/5151.html/:pf_printable/.

^{84.} See generally, S. James Anaya, Indigenous peoples in International Law (2nd ed., 2004) (describing the current state of indigenous peoples in international law and case law to that effect); Russel Lawrence Barsh, *Indigenous Peoples in the 1990s: From Object to Subject of International Law*, 7 Harv. Hum. Rts. J. 33 (1994).

^{85.} Multiple indigenous groups have or are planning to file cases of redress for climate change and subsequent loss of rights including, yet none have succeeded so far. *See, e.g.*, *Native Village of Kivalina v. ExxonMobil* 663 F. Supp. 2d 863 (N.D. Cal. 2009) (alleging that greenhouse gas emissions from 22 different oil, energy and

In furthering indigenous communities' cultural rights and providing remediation for violations of those rights, scholars frequently cite to the connection between indigenous persons and the environment.⁸⁶ Thus, a brief discussion of international environmental law in conjunction with human rights follows.

C. Connections Between International Environmental Law, the Right to Culture, Indigenous Persons, and Climate Change

1. International Environmental Law and Climate Change – A Brief History

International environmental law (IEL) is a relatively new sub-sector of international law that governs the protection of the world's resources and environment. IEL encourages a community interest and cooperation among sovereign states to protect and preserve disappearing resources while reconciling the need for environmental protection with the right to social and economic development.⁸⁷ Because of the breadth of IEL's application to international law, this Article will focus on the more limited relationship between environmental protection and human rights.

utility companies in the U.S. exacerbated global warming exposing the villages to rising sea levels and flooding); Keely Boom, *See You in Court: The Rising Tide of International Climate Litigation*, THE CONVERSATION (Sept. 27, 2011), http://theconversation.com/see-you-in-court-the-rising-tide-of-international-climate-litigation-3542 [http://perma.cc/5572-E5TB] (discussing Palau's announcement to seek an advisory opinion from the ICJ on responsibility for climate change and Tuvalu's threat to sue Australia for climate change related harms).

^{86.} See e.g., Andrew Shutkin, International Human Rights Law and the Earth: The Protection of Indigenous Peoples and the Environment, 31 VA. J. INT'L L. 479 (1990); Robert Hitchcock, International Human Rights, the Environment, and Indigenous People, 5 COLO. J. INT'L ENVTL. L & POL'Y 1 (1994); Rodolfo Stavenhagen, Report of the Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous people, in Engaging the UN Special Rapporteur on Indigenous People: Opportunities and Challenges (auth. Victoria Tauli-Corpuz & Erlyn Ruth Alcantara, 2002).

^{87.} International Environmental Law has been categorized as first emerging in the 1970s and concerns not only the environment, but also economic and social systems while attempting to reconcile the protection of the environment with other cross-cutting international legal issues. *See* BROWNLIE'S PRINCIPLES, *supra* note 28, at 352-364.

IEL is composed of a number of multilateral, regional and bilateral international treaties.⁸⁸ These treaties have established a set of principles for the protection of the environment that include: the preventive principle, the precautionary principle, and state obligations to protect and conserve the common heritage of humankind.⁸⁹ The preventive principle prohibits harmful transboundary activities and enforces compliance with nationally set environmental standards. As such, states are required to take appropriate measures to "prevent significant transboundary harm" and minimize the risk of said harms after they occur. 90 The precautionary principle is concerned with the way states apply science, technology, and economics to the environment. Specifically, the principle demands precautionary regulations "when there is no clear evidence about a particular risk scenario, when the risk itself is uncertain, or until the risk is disproved."91 In comparison to these principles, a significant number of legal scholars have focused on the concept of the common heritage of humankind, 92 describing the concept as:

represent[ing] the notion that certain global commons or elements regarded as beneficial to humanity as a whole should not be unilaterally exploited by individual states or their nationals, nor by corporations or other entities, but

88. See, e.g., U.N. Conference on Environment and Development, Agenda 21, U.N. Doc. A/CONF.151/26 (Vols. I-III), annex II (June 14, 1992); United Nations Framework Convention on Climate Change, May 9, 1992, S. Treaty Doc No. 102-38, 1771 U.N.T.S. 107 [hereinafter UNFCCC]; Human Rights Council. Res. 1995/14, Human Rights and the Environment (Feb. 24, 1995).

^{89.} Brownlie's Principles, supra note 28, at 356-360.

^{90.} Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities, ILC Rep. (2001) Document A/56/10, art. 3 (Article 3 is actually based on the fundamental principle sic utere tuo alienum non leadas, which stems from the Rio and Stockholm Declarations and Agenda 21).

^{91.} BrownLie's Principles, *supra* note 28, at 358.

^{92.} See e.g., Christopher Joyner, Legal Implications of the Concept of the Common Heritage of Mankind, 35 Int'l & Comp. L. Q. 190, 190-99 (1986); Stephen Gorove, The Concept of Common Heritage of Mankind: A Political Moral Or Legal Innovation, 9 San Diego L. Rev. 390 (1972); Kemal Baslar, The Concept of the Common Heritage of Mankind in International Law (1998); Edward Brown, Freedom of the High Seas Versus the Common Heritage of Mankind: Fundamental Principles in Conflict, 20 San Diego L. Rev. 521 (1983).

rather should be exploited under some sort of international arrangement or regime for the benefit of mankind as a whole.⁹³

Each of these principles and concepts is also developed within case law and UN General Assembly resolutions. Hand yet, each principle is relatively new on the international legal scene, thus requiring further interpretation over time. As this process continues, states duties under IEL increasingly include conservation of domestic environments and not just prevention of harm. Such state conservation obligations under IEL directly apply to the protection of the marine environment, and are therefore of great importance for the purposes of protecting said environments in the interests of indigenous peoples that reside on island nations.

Indigenous peoples often rely upon not only IEL obligations to protect their islands, but also frequently use scientific studies to support their propositions.⁹⁹ In response to the call from indigenous

^{93.} Edwin Egede, *Common Heritage of Mankind*, OXFORD BIBLIOGRAPHIES ONLINE: INTERNATIONAL LAW (Anthony Carty ed., 2014), http://orca.cf.ac.uk/62755/.

^{94.} See, for example, the preventive principle as developed through: the International Court of Justice case law in: Case Concerning the Gabčikovo-Nagymaros (Hungary v. Slovakia) Judgment, 1997 I.C.J. Rep. 7, 78 (Sept. 25); the U.N. International Law Commission, Rep. of the Int'l Law Comm'n, at 106-82, U.N. Doc. A/61/10, *Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities* (1992); and the CBD, COP Decision VI/23, https://www.cbd.int/decision/cop/?id=7197.

^{95.} BrownLie's Principles, supra note 28, at 364.

^{96.} *Id*.

^{97.} CBD 1992, supra note 22, at art. 22.

^{98.} *Id.* at pmbl. ("[R]ecognizing the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources.").

^{99.} See, e.g., Oliver Milman, Pacific Nations Beg for Help for Islanders when 'Calamity' of Climate Change Hits, THE GUARDIAN, Oct. 13, 2015, https://www.theguardian.com/environment/2015/oct/14/pacific-nations-beg-for-help-for-islanders-when-calamity-of-climate-change-hits; Oliver Milman, Pacific Islands Make Last-Ditch Plea to World Before Paris Climate Change Talks, THE GUARDIAN, Nov. 1, 2015, https://www.theguardian.com/environment/2015/nov/02/pacific-islands-make-last-ditch-plea-to-world-before-paris-climate-change-talks; Tangata Vainerere, Pacific Nations Call for Help on Climate Change, SECRETARIAT

persons to further protect their homelands and ways of life, the international legal community has created multiple conventions and general assembly resolutions highlighting the need for the international community to respond to climate change and its effects on humanity broadly. 100 While there is no coordinated international legal framework that successfully manages the effects of climate change, certain UN documents are of particular relevance because they provide states with international legal obligations in relation to climate change. For example, the United Nations Framework Convention on Climate Change (UNFCCC) recognizes that "human activities have been substantially increasing the atmospheric concentrations of greenhouse gases . . . [that] may adversely affect natural ecosystems humankind[,]" thereby recognizing humanity's role in exacerbating climate change related harms. ¹⁰¹ More specifically, the UNFCCC "recognizes . . . that low-lying and other small island countries . . . are particularly vulnerable to the effects of climate change."102 However, the convention does not mention human rights in relation to climate change. 103

Moreover, the objective of the UNFCCC is not to provide remedies for harms associated with climate change. Thus, the UNFCCC's objective is significantly different from that of human rights law. The UNFCCC's purpose is to achieve the "stabilization of greenhouse concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system[.]" In order to implement international cooperation to reduce greenhouse emissions, the states party to the UNFCCC then created the Kyoto Protocol in 1998. The parties created the Kyoto Protocol to reduce

103. Id.

OF THE PACIFIC COMMUNITY (Aug. 21, 2008), http://www.spc.int/ppapd/index.php?option=com_content&task=view&id=126.

^{100.} See e.g., U.N. GAOR, 44th Sess., 85th plen. Mtg., U.N. Doc. A/RES/44/206, Possible Adverse Effects of Sea-level Rise on Islands and Coastal Areas, Particularly Low-lying Coastal Areas (Dec. 22, 1989); Human Rights Council. Res. 10/4, Human Rights and Climate Change, (Mar. 25, 2009); UNFCCC, *supra* note 88, at pmbl.

^{101.} UNFCCC, supra note 88, at pmbl.

^{102.} Id.

^{104.} *Id.* at art. 2.

^{105.} See Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, U.N. Doc FCCC/CP/1997/7/Add.1, 37 I.L.M. 22 (1998) [hereinafter Kyoto Protocol].

greenhouse gases from 2008-2012, then renegotiated with the Doha Amendment in 2012 to include binding, mandatory targets for the reduction of emissions of the world's leading economies. This eventually led to the Conference of the Parties in December of 2015 that laid out principles adopted in the Paris Agreement later that same year. While the UNFCCC and the Kyoto Protocol are important steps in creating international legal obligations to cooperate to mitigate the harms that nations create through greenhouse gas emissions, neither document directly addresses the effects of climate change on human rights.

Beginning in 1989, the UN took note of the issues associated with sea level rise and desertification in relation to human rights. ¹⁰⁸ General Assembly Resolution 44/206 details the possible adverse effects of sea-level rise on islands and coastal areas. ¹⁰⁹ This sparked a host of other resolutions and reports throughout the 1990s and early 2000s regarding climate change, including the creation of the UNFCCC and the Kyoto Protocol. ¹¹⁰ However, it was not until 2008 that the calls from island nations suffering the impacts of climate change finally led to the 2009 Human Rights Council's adoption of the resolution on human rights and climate change. ¹¹¹ This document recognizes the connection between climate change and the individual enjoyment of human rights. ¹¹²

^{106.} History of International Negotiations, CENTER FOR CLIMATE AND ENERGY SOLUTIONS, http://www.c2es.org/international/history-international-negotiations (last visited Oct. 22, 2016); Status of the Doha Amendment, UNFCCC, http://unfccc.int/kyoto_protocol/doha_amendment/items/7362.php (last visited Oct. 22, 2016); UNFCCC, The Paris Agreement, http://unfccc.int/paris_agreement/items/9485.php (last visited Oct. 22, 2016).

^{107.} Kyoto Protocol, *supra* note 105, at art. 2; Adoption of the Paris Agreement, U.N. Doc. FCCC/CP/2015/L.9/Rev.1 (Dec. 12, 2015).

^{108.} *See, e.g.*, U.N. GAOR, 44th Sess., 85th plen. mtg, U.N. Doc. A/RES/44/206, Possible Adverse Effects of Sea-level Rise on Islands and Coastal Areas, Particularly Low-lying Coastal Areas, (Dec. 22, 1989).

^{109.} Id.

^{110.} For a full list of resolutions and further discussion, see Daniel Bodansky, *The History of the Global Climate Change Regime, in* INTERNATIONAL RELATIONS AND GLOBAL CLIMATE CHANGE (2001).

^{111.} See H.R.C. Res. 10/4, supra note 100.

^{112.} *Id*.

These resolutions are just some of the documents among a large number of UN resolutions, reports, and statements showing recognition of the range of negative impacts that climate change has on the effective enjoyment of human rights, especially for DINs. 113 The most severe climate change impacts – floods, disease, famine, and mass migration affecting large numbers of people - will be catastrophic for these island nations. 114 These incidences directly affect the human right to life, food, water, housing, and culture. 115 As such, a state's obligation to protect its people's human rights is triggered. 116 While there is no definitive list of the obligations that states have regarding the protection of human rights in relation to climate change, reports from the Office of the High Commissioner for Human Rights (OHCHR) have led some scholars to point to an emerging trend that "states have duties to protect their people from threats to human rights even when [those] states are not directly responsible for those threats."117

113. See generally, Human Rights and Climate Change, OHCHR, http://www.ohchr.org/EN/Issues/HRAndClimateChange/Pages/HRClimateChangeI ndex.aspx (last visited Oct. 22, 2016) (detailing the number of reports, resolutions, key messages, and pledges by a multitude of nations framing climate change from a human rights perspective).

^{114.} See e.g., Jon Barnett & Neil Adger, Climate Dangers and Atoll Countries, 61 CLIMATIC CHANGE 321 (2003); Jon Barnett, Adapting to Climate Change in Pacific Island Countries: The Problem of Uncertainty 29 WORLD DEV. 978 (2001).

^{115.} See e.g. Anthony McMichael et al., Climate Change and Human Health: Present and Future Risks 367 THE LANCET 859 (2006) (detailing the health risks associated with climate change); Martin Parry et al., Effects of Climate Change on Global Food Production Under SRES Emissions and Socio-economic Scenarios, 14 GLOBAL ENVTL. CHANGE 53 (2004) (laying out the negative anticipated effects of climate change on the ability of societies to grow food); Neil Adger et al., Cultural Dimensions of Climate Change Impacts and Adaptation, 3 NATURE CLIMATE CHANGE 112 (2013) (discussing the cultural effects of climate change).

^{116.} Theodor Meron, *Extraterritoriality of Human Rights Treaties*, 89 THE AM. J. OF INT'L L. 79 (1995) (States have an obligation to uphold and protect all human rights of their citizens, and this scholar argues these obligations extend extraterritorially. These obligations more generally are contained within the basic treaties such as the United Nations Declaration on Human Rights, the ICCPR and the ICESCR.).

^{117.} John H Knox, Linking Human Rights and Climate Change at the United Nations, 33 HARV. ENVTL. L. REV. 478 (2009); see also OHCHR & U.N. Secretary General, Annual Report of the United Nations High Commissioner for Human Rights and Reports of the Office of the High Commissioner and the Secretary-General, U.N.

The OHCHR's 2009 report specifically states "the human rights bodies all recognize the intrinsic link between the environment and the realization of a range of human rights[.]"118 Furthermore, the report states that the adverse effects from climate change do not "have to occur to indicate a violation [of international human rights laws and that the effects of climate change [on human rights] can be imminent" while still engaging a state's duties to its people. 119 Based on this report, whether or not climate change itself violates international human rights law, international human rights law places duties on states to prevent violations of international human rights. According to the OHCHR in 2015, "States have an obligation to respect, protect, fulfill and promote all human rights for all persons without discrimination. Failure to take affirmative measures to prevent human rights harms caused by climate change, including foreseeable longterm harms, breaches this obligation."120 Thus, a breach of a state's obligation to protect its people from climate change can become a violation of international human rights law, requiring remedy.

2. The Right to Culture, Indigenous Persons, and Climate Change under International Law

If states do not take adequate measures to redress the impacts of climate change on their people, they are in violation of multiple areas of international law, including environmental protection laws, indigenous rights, and human rights generally. Most island nations

Doc. A/HRC/10/61 (Jan. 15, 2009) (listing the relevant human rights obligations of states as, "States may have an obligation to protect individuals against foreseeable threats to human rights related to climate change," ¶ 74, and "[s]tates remain under an obligation to ensure the widest possible enjoyment of economic, social and cultural rights under any given circumstances. Importantly, States must, as a matter of priority, seek to satisfy core obligations and protect groups in society who are in a particularly vulnerable situation." ¶ 77) [hereinafter OHCHR Report].

^{118.} OHCHR Report, supra note 117, at ¶ 18.

^{119.} Id. at 23 n.104.

^{120.} Key Messages on Human Rights and Climate Change, OHCHR, http://www.ohchr.org/Documents/Issues/ClimateChange/KeyMessages_on_HR_C C.pdf (Last visited Oct. 22, 2016); see also Understanding Human Rights and Climate Change: Submission of the OHCHR to the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change, OHCHR (Nov. 26, 2015), http://www.ohchr.org/Documents/Issues/ClimateChange/COP21.pdf [hereinafter OHCHR Human Rights and Climate Change 2015].

have yet to develop adequate responses to the loss of cultural rights in the indigenous context, despite acknowledging the mass migration of their people as a result of climate change. This failure may lead to the potential loss of entire cultural groups if states fail to take action in the near future. Because DINs are the first to feel the effects of climate change, most of these states have taken the initiative to develop preemptive measures that address the impacts of climate change, yet many nations still fail to adequately consider the cultural implications of climate change.

The United Nations member states, including DINs, frequently encourage parties to the UNFCCC and the Kyoto Protocol to address climate change, climate refugees, and a loss of statehood from the perspective of human rights rather than from an international line-drawing perspective. ¹²¹ If the international community considers the damage resulting from climate change only from a state perspective, it risks the loss of entire cultures and creates the potential for major legal battles between states over the allocation of natural resources in the high seas. DINs can avoid these issues by proactively protecting portions of their territories at risk of disappearing through multiple international legal avenues.

For example, UNCLOS is especially pertinent to island nations seeking to protect their marine environments while supporting their populations through economic and social development. UNCLOS Article 192 provides states with the obligation to protect and preserve the marine environment, which is considered part of the "common heritage of mankind" under UNCLOS Article 136. These principles have generated discussion about what environmental stewardship entails with respect to the common heritage of mankind. Such discussions have revealed the tension between, on the one hand, a state's right to territorial sovereignty and right to develop natural

^{121.} OHCHR Human Rights and Climate Change 2015, *supra* note 117, at 10-12 (listing the number of Human Rights Council resolutions, joint statements and reports aimed at taking a human rights-based approach to climate change).

^{122.} UNCLOS, *supra* note 23, at art. 192 ("States have the obligation to protect and preserve the marine environment.").

^{123.} *Id.* at art. 136 ("the Area and its resources are the common heritage of mankind.").

resources in the seas, and on the other hand, the international obligation to preserve the seas for all nations. 124

More specifically in the context of island nations, the United Nations Environment Programme (UNEP) established conventions that concern the islands in the Pacific region, including: the 1976 Convention on the Conservation of Nature in the South Pacific; the 1986 Convention for the Protection of the Natural Resources and Environment of the South Pacific Region. UNEP also created programs, such as the Secretariat of the Pacific Regional Environment Programme (SREP), to aid the Pacific islands in managing sustainable development goals under these conventions. 125 With the suspension of the 1976 Convention in 2006, the 1986 Convention - the Noumea Convention – is designed to handle pollution concerns in the Pacific and includes one article on "specially protected areas and protection of wild flora and fauna."126 But this convention makes no mention of human rights. Unfortunately, this convention is just one of many that fails to consider human rights in the context of the environment. This failure to include occurs primarily because IEL is regulatory in nature, 127 whereas human rights law focuses on the individual in the international context. 128 However, the attitude of separating the environment and human rights is no longer acceptable in the eyes of most legal experts today. 129

More than ever before, legal scholars, the general public, and the world at large recognize that environmental degradation has an adverse

^{124.} See, Bradley Karkkainen, Post-Sovereign Environmental Governance, 4 GLOBAL ENVTL. Pol. 72 (2004).

^{125.} See Pacific, UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP), https://web.archive.org/web/20160829162147/http://www.unep.org/regionalseas/programmes/nonunep/pacific/default.asp (last visited Oct. 20, 2016).

^{126.} Noumea Convention For the Protection of the Natural Resources and Environment of the South Pacific Region, Nov. 24, 1986, 1986 P.I.T.S.E. 15, at art. 14, http://www.sprep.org/attachments/Legal/Files_updated_at_2014/NoumeaConv Protocols.pdf.

^{127.} See Brownlie's Principles, supra note 28, at 364.

^{128.} *Id.* at 634.

^{129.} See e.g., AARON SACHS & JANE PETERSON, ECO-JUSTICE: LINKING HUMAN RIGHTS AND THE ENVIRONMENT (1995); Dinah Shelton, Human Rights, Environmental Rights, and the Right to Environment, 28 STAN. J. INT'L L. 103 (1991); Alan Boyle, Human Rights and the Environment, Where Next?, 23 EUR. J. OF INT'L L. 613 (2012).

impact on the full enjoyment of human rights, especially in the case of climate change. Of particular concern are the indigenous communities that are dependent on their environments for survival, both in a physical and a cultural sense. In the Pacific Island context, such groups include the Chamorros from Guam, the Moriori of the Chatham Islands, the Fijians from Fiji, and the Maohi of Tahiti. For example, the Chamorros believe that their ancestors have lived on the Mariana Islands since the dawn of time, and that all human life began in Guam, tying their historical roots to specific cultural sites on the islands. If the Chamorros cannot access their island, they risk losing access to where they believe their ancestral spirits reside, and therefore risk a loss of cultural rights.

Because indigenous persons often have extremely different ways of life and cultural practices from one group to another, defining indigenous rights requires investigation into current litigation and subsequent case law from the Inter-American Court of Human Rights (IACtHR), the African Court on Human and Peoples' Rights (ACHPR), and the European Court of Human Rights (ECtHR). Notably, each of these courts and subsequent case law supports the fundamental connection between indigenous groups and their lands. Indigenous peoples often bring claims before these courts requesting protection of their endangered cultures, languages, and lands. Indigenous peoples also frequently claim violations of their cultural rights in conjunction with other rights. This is so because a violation of cultural rights alone is difficult to establish without a concrete harm, such as a deprivation of access to land or prevention from entering a

131. Miriam Kahn et al., *Micronesian Culture*, ENCYCLOPAEDIA BRITANNICA (Sept. 9, 2011) https://www.britannica.com/place/Micronesia-cultural-region-Pacific-Ocean (detailing the relationship of these tribes to their environments).

^{130.} See e.g., OHCHR Report, supra note 117.

^{132.} *Guam*, COUNTRIES AND THEIR CULTURES, http://www.everyculture.com/Ge-It/Guam.html (last visited Dec. 2, 2016).

^{133.} For a more in-depth discussion of such case law from each of these courts, see JAMES ANAYA, INDIGENOUS PEOPLES IN INTERNATIONAL LAW (2004) (defining indigenous rights through litigation and case law throughout the world).

^{134.} See generally, Overview of the Human Rights Framework, INTERNATIONAL JUSTICE RESOURCE CENTER, http://www.ijrcenter.org/ihr-reading-room/overview-of-the-human-rights-framework/ (last visited Dec. 2, 2016).

particular place of religious worship.¹³⁵ Under Article 15 of ICESCR, individuals and indigenous community groups have a right to culture and cultural practices.¹³⁶ However, it is Article 27 of the ICCPR that allows these groups to submit claims to the Human Rights Council for determinations as to whether a violation of these rights has occurred.¹³⁷ The Human Rights Council has since interpreted the treaty to find that when a state's interference with cultural rights is so substantial as to effectively deny the person or group "the right to enjoy cultural rights in the region," there is a violation of cultural rights, and thus a violation of international human rights law.¹³⁸

The Human Rights Council has stated that international human rights law "not only protect[s] traditional means of the livelihood of minorities, but allows also for adaptation of those means to the modern way of life and ensuing technology," showing a growing trend towards protection of the livelihoods of minorities in connection with their subsistence lifestyles. This, however, is only the beginning of courts directly connecting violations of indigenous cultural rights to environmental harms. In *Mayagna (Sumo) Awas Tingni Community vs. Nicaragua*, the IACtHR affirmed that indigenous land rights include both a material property interest in staying connected to ancestral lands and a recognized spiritual connection to said lands. In *Indigenous Community Xakmok Kasek v. Paraguay*, the IACtHR stated that indigenous communities have a right to return to their ancestral lands

^{135.} What are Examples of Violations of Economic, Social and Cultural Rights?, OHCHR, http://www.ohchr.org/EN/Issues/ESCR/Pages/Whatareexamplesof violationsofESCR.aspx (last visited Dec. 2, 2016).

^{136.} ICESCR, supra note 67, at art. 15.

^{137.} ICCPR, *supra* note 70, at art. 27; Human Rights Council. Gen. Comm. No. 23, art. 27, *Rights of Minorities* (1994).

^{138.} U.N. H.R.C., Länsman and Others v. Finland, Comm. No. 511/1992, U.N. Doc. CCPR/C/52/D/511/1992, ¶ 9.5 (1994).

^{139.} U.N. H.R.C., Apirana Mahuika et al. v. New Zealand, Comm. No. 547/1993, U.N. Doc. CCPR/C/70/D/547/1993, ¶ 9.4 (2000).

^{140.} The Mayagna (Sumo) Awas Tingni Community v. Nicaragua, Judgment, Inter-Am. Ct. H.R., (Ser. C) No. 79 (Aug. 31, 2001), ¶ 149 (this was later affirmed in Yakye Axa Indigenous Community of the Enxet-Lengua People v. Paraguay, Case 12.313, Inter-Am. Comm'n. H.R., Report No. 2/02, Doc. 5 rev. 1 at 387, ¶ 216 (2002), which states that cultural rights are determined by the relationship of indigenous persons' relationships to their traditional lands).

in order to preserve their cultural identities.¹⁴¹ Furthermore, the ACHPR and the ECtHR have also affirmed the indigenous cultural right to ancestral lands in the *Endorois* and *Debelianovi v. Bugaria* cases, respectively.¹⁴² For Pacific Islanders, these cases mean that they, too, have rights to stay connected to their ancestral lands and a right to return to their ancestral lands to preserve their cultural identities. However, even if indigenous Pacific Islanders have the right to return to their lands under international law, this right does not yet include a right return to the open ocean if their islands disappear as a result of climate change.

Generally speaking, international law acknowledges that states must recognize indigenous peoples' direct dependence on renewable resources and the lands that provide those resources, including affording these groups access to those environments. This is best reflected in the Convention on Biodiversity, which protects "traditional lifestyles relevant for the conservation and sustainable use of biological diversity," providing indigenous groups with stewardship over the biological resources located within their territories. 143 Additionally, Article 26 of the UNDRIP codifies customary international law by stating that "state recognition of [indigenous rights to land must be done with respect to the customs, traditions and land tenure systems of indigenous persons," including the recognition of traditional ownership of the land and resources attached to that land. 144 In essence, Article 27 gives indigenous people a "bundle of property rights" similar to those in United States property law, allowing these groups the rights to (1) use their ancestral lands, (2) use the resources tied to that land, and (3) serve as stewards of the land for the benefit of future generations. Given the historical maltreatment of indigenous groups, it seems that they are the "canaries" for social,

^{141.} Sawhoyamaxa Indigenous Community of the Enxet People v. Paraguay, Case 0322/2001, Report No. 12/03, Inter-Am. Comm'n .H.R., OEA/Ser.L/V/II.118 Doc. 70 rev. 2 at 378, ¶ 51 (2003).

^{142.} Centre for Minority Rights Development (Kenya) and Minority Rights Group International on Behalf of Endorois Welfare Council v. Kenya, Comm. No. 276/03, Afr. Ct. H.R., ¶ 241 (2009); Debelianovi v. Bulgaria, App. No. 61951/00, Eur. Ct. H.R. (2007) (Fr.).

^{143.} CBD 1992, *supra* note 22, at art. 8(j).

^{144.} UNDRIP, *supra* note 77, at art. 26; Siegfried Wiessner, *The Cultural Rights of Indigenous Peoples: Achievement and Continuing Challenges*, 22 EUR. J. INT'L L. 121 (arguing that Article 27 of UNDRIP is customary international law).

economic and cultural injustice. These groups are often the first to feel the effects of climate change and have historically been the first groups to bring international legal claims to courts for redress involving environmental rights. 145

In the context of the international human rights regime, there is also a set of "third generation" human rights, ¹⁴⁶ such as the human right to a healthy environment. ¹⁴⁷ Underlying this third generation human right is the concept of a shared obligation of environmental stewardship that stems from the core principles of IEL. ¹⁴⁸ Such principles are designed to protect the common heritage of humankind more broadly. ¹⁴⁹ In many countries, national constitutions now recognize the human right to a healthy environment and even encourage states to look to their indigenous populations for guidance on environmental stewardship. ¹⁵⁰ For DINs, indigenous rights to land, the human right to a healthy environment, and protection of cultural rights are becoming even more pertinent as climate change threatens not only indigenous people's lands, but also their ways of life. This evokes questions about the status of remedy for violations of cultural rights under international law in the specific context of climate change.

Currently, many island nations are only beginning to protect cultural rights from the effects of climate change. If Pacific Island nations are to properly uphold the cultural rights of their indigenous peoples who

^{145.} See e.g., Case of the Saramaka Peoples v. Suriname, Preliminary Objections, Merits, Reparations, and Costs, Inter-Am. Ct. H.R. (ser. C) No. 124 (2007) (one of the first cases brought before the Inter-American Court of Human Rights on a claim of environmental destruction as being a destruction of indigenous rights.).

^{146.} See Philip Alston, A Third Generation of Solidarity Rights: Progressive Development of Obfuscation of International Human Rights Law?, 29 NETH. INT'L L. REV. 307 (1982) (detailing a new generation of human rights laws including the human right to the environment).

^{147.} Id.

^{148.} Melissa Thorme, *Establishing Environment as a Human Right,* 19 DENV. J. INT'L L. & POL'Y 301, 326 (stating that humans should take on a role of environmental stewardship to support the *res communis* principle of IEL).

^{149.} Id. at 326.

^{150.} David R. Boyd, *The Constitutional Right to a Healthy Environment*, ENVIRONMENT MAGAZINE (July-Aug. 2012), http://www.environment magazine.org/Archives/Back%20Issues/2012/July-August%202012/constitutional-rights-full.html ("As of 2012, 177 of the world's 193 UN member nations recognize this right through their constitution, environmental legislation, court decisions, or ratification of an international agreement.").

may soon lose access to the lands that tie them to their ancestors as a result of climate change, these nations must support the use of new avenues for cultural protection on the high seas.

II. CLIMATE CHANGE, INTERNATIONAL LAW, AND DISAPPEARING ISLAND NATIONS

While individuals and certain political groups continue to deny the existence of climate change,¹⁵¹ these individuals cannot ignore the evidence of climate change's effects on the Pacific Islands. As mentioned previously, a number of island nations are at risk of completely disappearing in the next fifty years as a result of sea level rise from climate change. Alongside the territorial disappearance associated with rising seas comes the disappearance of cultures. In the Pacific Island context, this disappearance could mean the loss of more

... ..

^{151.} See e.g., Warren Mass, Multiple Studies Refute Claims of Rising Seas Due to Global Warming, THE NEW AMERICAN (Sept. 15, 2016), http://www.thenew american.com/tech/environment/item/24076-multiple-studies-refute-claims-ofrising-seas-due-to-global-warming. The debate about climate change is not regarding the effects. Rather, it is about the causation of the global temperature increase and sea level rise. See Panel on Advancing the Science of Climate Change, Sea Level Rise and the Coastal Environment, in ADVANCING THE SCIENCE OF CLIMATE CHANGE 235, 239 (2010) [hereinafter ADVANCING THE SCIENCE OF CLIMATE CHANGE]. Measurements of changes in ocean heat have shown that 80-90 percent of thermal expansion stems from greenhouse gas emissions. Id. at 238-39. Natural processes are not the only source of greenhouse gases (GHG). Id. at 239. In fact, the primary causes of GHG emissions come from human activity, such as fossil fuel burning, deforestation, and the release of methane and CO2. The debate regarding the level of humanity's causation of climate change is what politicians and climate change deniers argue most about. Illissa Ocko, How are Humans Responsible for Global Warming? Deforestation and Burning Fossil Fuels are Chief Culprit, ENVTL. DEFENSE FUND, https://www.edf.org/climate/human-activity-iscausing-global-warming; Global Warming is Human Caused, NATIONAL WILDLIFE FEDERATION, https://www.nwf.org/Wildlife/Threats-to-Wildlife/Global-Warming/ Global-Warming-is-Human-Caused.aspx; Blanket Around the Earth, NASA, http://climate.nasa.gov/causes/ (last visited Oct. 21, 2016); How Do We Know that Humans Are the Cause of Global Warming?, UNION OF CONCERNED SCIENTISTS, http://www.ucsusa.org/global warming/science and impacts/science/humancontribution-to-gw-faq.html#.WAotLdyDBSs (last visited Oct. 21, 2016).

than 1,000 distinct languages and dialects,¹⁵² spoken by three quarters of the population in the Pacific Island nations, all of whom are part of distinct indigenous groups.¹⁵³According to the fifth climate change assessment report from the Intergovernmental Panel on Climate Change (IPCC), between 1901 and 2010, global mean sea level (GMSL) rose by 0.19 m, growing at a rate of 1.7 mm per year, pointing to the acceleration of this phenomenon as rising from 2.0 mm per year between 1971 and 2010, and then by 3.2 mm per year between 1993 and 2010. ¹⁵⁴ What does a rise in sea levels mean for island nations? While these numbers may seem small, their effects over time could lead to the eradication of entire cultures and significant losses of state territory into the high seas. Famine, disease, and lack of freshwater resources will affect the human populations that remain. ¹⁵⁵

There are two primary processes that cause sea level rise: (1) heating up of the world's oceans (known as thermal expansion); and (2) increase in sea water volume from the addition of land-based sources like the melting of glaciers and ice sheets. As oceans absorb more heat and land-based ice melts, the volume of water expands and sea levels begin to rise. Scientists throughout the world are virtually certain that GMSL will continue to increase over this century and into the next very likely at a faster rate than 2.0 mm per year[,] eventually leading to the plight of DINs in the Pacific and throughout the world's oceans as the scramble for new territory begins.

^{152.} Languages of Australia and the Pacific, ONE WORLD NATIONS ONLINE, http://www.nationsonline.org/oneworld/oceania_languages.htm (last visited Nov. 26, 2016).

^{153.} *Id*.

^{154.} INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2013: THE PHYSICAL SCIENCE BASIS 11 (2013), http://www.ipcc.ch/report/ar5/wg1/.

^{155.} For further information, see *Climate Change: State of the Earth*, NATIONAL GEOGRAPHIC, http://video.nationalgeographic.com/video/climate-change.

^{156.} ADVANCING THE SCIENCE OF CLIMATE CHANGE, supra note 151, at 238.

^{157.} INTERGOVERNMENTAL PANEL, CLIMATE CHANGE 2013, 1139-41; See also INT'L L. ASSOC., JOHANNESBURG CONFERENCE INTERIM REPORT (2016) (follow "International Law and Sea Level Rise" hyperlink; then click "Documents" tab; then follow "Conference Report Johannesburg 2016.pdf" link.); Nobuo Mimura, Sea-Level Rise Caused by Climate Change and Its Implications for Society, 89 PROCEEDINGS OF THE JAPAN ACADEMY, SERIES B, PHYSICAL AND BIOLOGICAL SCIENCES 281, 301 (2013), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3758961/.

As a result of sea level rise and climate change, these islands will become uninhabitable thus removing the islands from the protection of statehood. By becoming part of the high seas, an island loses all protection under international law, allowing any nation to use its resources. The high seas are part of the open ocean, or res communis, under international law. These areas belong to all nations for the purposes of fishing, navigation, and international cooperation. ¹⁵⁸ The United Nations Convention on the Law of the Sea (UNCLOS) governs the high seas, and the document itself includes over 300 articles that cover an array of legal issues. 159 The purpose of UNCLOS is to "settle in a spirit of mutual understanding and cooperation, all issues relating to the law of the sea[,]" governing the drawing of maritime boundaries in relation to allocation, and exploitation of the oceans' natural resources. 160 Importantly, Article 121(3) of UNCLOS states that "rocks which cannot sustain human habitation or economic life of their own" are part of the high seas. 161 However, this depends on whether the disappearing island remains within the EEZ of a nation or of another nearby island.

Generally speaking, there are three major strategies for coping with climate change within island nations that scientists have identified: (1) building the islands upward, (2) holding back the sea with dikes and other artificial walls to prevent further erosion and salt water intrusion, or (3) abandoning the islands altogether. This part continues with a discussion of how Pacific Island communities are responding to climate change. Indeed, a number of islands, including the Maldives, the Torres Straits (Australia), and Hawai'i (United States) have undertaken efforts, each with a different approach to protect their land most at risk from climate change. While many of these approaches look to curtail the effects of climate change and primarily focus on preventing further loss of territory, some plans do consider human rights concerns. The following four sections layout the strategies an climate change plans of (A) the Maldives, (B) the Torres Strait Islands,

^{158.} BrownLie's Principles, supra note 28, at 297-98.

^{159.} UNCLOS, supra note 23.

^{160.} *Id.* at pmbl.

^{161.} *Id.* at art. 121(3).

^{162.} James G. Titus, *Policy Implications of Sea Level rise: The Case of the Maldives*, (Nov. 14-18, 1989) http://papers.risingsea.net/Maldives/Small_Island_States_3.html.

(C) Papahānaumokuākea, and (D) the Federated States of Micronesia which evidence some of the possibilities for coping with climate change throughout different island nations.

A. The Maldives and Island Building

The Maldivian government is pursuing the first approach to climate change adaptation and has opted to build its islands upward. It is currently in the process of building artificial, floating islands that rise to three meters above sea level, reinforced by concrete to create new islands intended to replace the territory lost because of climate change. In August 2012, the Maldivian government entered into a joint venture with the Dutch Docklands International Architecture firm with a plan to build the world's largest artificial floating-island project. By using steel cables attached to the seabed, the islands will be made of concrete and polystyrene floating materials that move with the ocean tides and can even weather storms without disturbing much of the ocean floor. The hope is that this will create a more sustainable and ecologically friendly island replacement in response to climate change.

While this plan certainly provides local Maldivians at risk of losing their homelands with an alternative to completely abandoning the area, it does not adequately provide the state with access to the natural resources connected to the artificial islands within international law. Under UNCLOS, building artificial islands does *not* provide states with a territorial sea, an EEZ, or give states any territorial rights to the ocean surrounding those artificial islands. Although the floating islands would provide the Maldivian people with adequate space to continue living in the areas where they are accustomed, it does not provide them with the territorial rights that they currently enjoy because international law would reclassify both the artificial island and the surrounding areas as part of the high seas. This would remove any

^{163.} See Schofield & Freestone, supra note 65, at 156-57.

^{164.} Katharine Gammon, *Building Artificial Islands that Rise with the Sea*, POPULAR SCI. (Aug. 6, 2012), http://www.popsci.com/technology/article/2012-07/building-artificial-islands-rise-sea.

^{165.} *Id.*; Debra Black, *Floating Islands to the Rescue in the Maldives*, THE STAR (Aug. 23, 2012), https://www.thestar.com/news/world/2012/08/23/floating_islands_to_the_rescue_in_the_maldives.html.

^{166.} UNCLOS, *supra* note 23, at art. 121(3).

rights of indigenous Maldivian groups to the natural resources found in the area.

As far as non-legal strategies are concerned, "the efforts of the Maldives stand out internationally in advancing the recognition of the connection between human rights and climate change." As early as 1987, the Maldives became concerned with the effects of flooding, which affected nearly one third of the archipelago of islands. As a result the Maldives held a conference with twenty-six other island nations in 1989 to review the latest research on climate change and sea level rise in the South Pacific. This meeting led to the creation of the Malé Declaration in 1990, which called for the establishment of the UNFCCC. It further brought about the creation of the Alliance of Small Island States (AOSIS), which specifically addresses the ways that climate change affects the human rights of citizens of DINs. 169

Since this point, the Maldives have continued to lead the charge for DINs, paving the way for island states suffering the effects of climate change. The Maldives continues to encourage DINs to think beyond the territorial effects of sea level rise and also take into consideration the effects of climate change on the enjoyment of human rights. From a purely policy based perspective, the Maldives remain one of the most committed nations to combatting the human rights effects of climate change.

^{167.} Siobhán McInerney-Lankford, *Human Rights and Climate Change: Reflections on International Legal Issues and Potential Policy Relevance, in* Threatened Island Nations: Legal Implications of Rising Seas and A Changing Climate, 195, 201 (Michael B. Gerrard & Gregory E. Wannier eds., 2013).

^{168.} Abdulla Yameen Gayoom, *AOSIS: A History of Leadership at the UNFCCC*, AOSIS (Dec. 1, 2015), http://aosis.org/aosis-a-history-of-leadership-at-the-unfccc/. 169. *Id*.

^{170.} For example, the Maldives is the smallest member of the UN Human Rights Council, and has used its position there to further connect climate change to human rights concerns since 2010 by submitting multiple proposed resolutions to the UN High Commissioner for Human Rights regarding human rights and climate change. See The Maldives at the U.N. Human Rights Council, MINISTRY OF FOREIGN AFFAIRS, REPUBLIC OF MALDIVES, http://www.foreign.gov.mv/index.php/en/international-issues/maldives-at-unhrc (last visited Dec. 1, 2016); Submission of the Maldives to the Office of the UN High Commissioner for Human Rights, H.R.C. Res. 7/23, Human Rights and Climate Change (2008), http://www.ohchr.org/Documents/Issues/ClimateChange/Submissions/Maldives_Submission.pdf.

B. The Torres Strait Islands and Erosion Control

The second approach to climate change adaptation is well illustrated by the Torres Straight Islands. The indigenous community's make-up and cultural traditions have been of particular interest for the government of Australia when planning response to climate change on the Torres Straight Islands. The Torres Strait is made up of over one hundred islands. There are twenty communities that inhabit seventeen of the islands, while the one hundred islands overall are scattered over an area of 48,000 square kilometers. Because Torres Strait cultures depend so heavily on the resources from the islands and the seas that surround them, the Australian government has taken additional precautionary measures in response to climate change in order to ensure the adequate protection of indigenous rights.

Of particular interest is that Torres Strait Islanders believe the souls of dead islanders live in a marine afterworld located on an island to the northwest of Australia called Kibu. According to the Australian government, "the land is the core of all spirituality [for indigenous Australians] and this relationship and the spirit of 'country' is central to the issues that are important to Indigenous people today." Torres Strait Islanders' cemeteries, burial ceremonies, traditional gardens, and cultural history are completely reliant upon the sea and support not only their ways of life through subsistence fishing, but also represent the interconnectedness of their culture to the marine ecosystems that surround their islands. Torres Strait Islanders further identify themselves as part of the environments where they live, forming relationships to the land and creating sacred sites where the ancestors of each clan continue to live in a "dreaming" state that continually

^{171.} Teaching Resources: Anti-Racism Education for Australian Schools, RACISMNOWAY, https://web.archive.org/web/20161111171436/http://www.racismnoway.com.au/teaching-resources/factsheets/53.html.

^{172.} John Cordell & Judith Fitzpatrick, *Torres Strait: Cultural Identity and the Sea,* CULTURAL SURVIVAL (June 1987), https://www.culturalsurvival.org/publications/cultural-survival-quarterly/australia/torres-strait-cultural-identity-and-sea.

^{173.} AUSTRALIAN GOVERNMENT, *Australian Indigenous Cultural Heritage*, https://web.archive.org/web/20161208192813/http://www.australia.gov.au/about-australia/australian-story/austn-indigenous-cultural-heritage (last visited Dec. 1, 2016)

^{174.} Cordell & Fitzpatrick, *supra* note 172.

links the past and present to the people and the land.¹⁷⁵ It is this unique tie to the land and sea for that encouraged the Australian government to enact legislation that further protects these islands from the effects of climate change.¹⁷⁶

Nevertheless, historically speaking, Australia has not always been concerned for the future of its indigenous peoples. For many years Australia fought against the Torres Strait Islanders' claims for territorial rights over the seas. ¹⁷⁷ In 1982, Torres Strait Islanders from Murray Island filed a case in the High Court of Australia, petitioning Queensland and the commonwealth governments to recognize their territorial rights to the seas surrounding their islands. ¹⁷⁸ In 1992, after a ten-year battle, the Torres Strait Islanders became the first group to have native title to their lands and seas recognized in Australia. ¹⁷⁹ Then in 2008 Australia established the Torres Strait Regional Authority (TSRA). The TSRA represents the islanders' claims within the Australian government, while providing the islanders with their own local council to determine issues amongst the native population. ¹⁸⁰

The TSRA has become particularly important for the protection of Torres Strait Islanders' economic, social, and cultural rights, and has called the impacts of climate change a potential "human rights crisis" for the islanders. ¹⁸¹ The Australian TSRA's 2014-2018 climate change

^{175.} Australian Indigenous Cultural Heritage, supra note 173.

^{176.} See e.g., Aboriginal and Torres Strait Islander Heritage Protection Amendment Act 2006, No. 152 (2006); AUSTRALIAN GOVERNMENT, DEP'T OF THE ENV'T & ENERGY, *Indigenous Heritage Laws*, https://www.environment.gov.au/heritage/laws/indigenous (last visited Jan. 3, 2017).

^{177.} Ellen Connolly, *Torres Strait Islanders Win Ocean Rights*, THE GUARDIAN, July 5, 2010, https://www.theguardian.com/world/2010/jul/05/torres-strait-islanders-win-ocean-rights.

^{178.} Cordell & Fitzpatrick, supra note 172.

^{179.} Teaching Resources, supra note 171.

^{180.} *The TSRA*, AUSTRALIAN GOV., http://www.tsra.gov.au/the-tsra (last visited Jan. 3, 2017).

^{181.} TORRES STRAIT REGIONAL AUTHORITY (TSRA), TORRES STRAIT CLIMATE CHANGE STRATEGY 2014–2018 REPORT (2014) [hereinafter TSRA, 2014-2018 Report]. The report specifically states that "[t]he extent of vulnerability of the region and its peoples to climate change together with the human rights implications are highlighted in the 2008 Native Title Report by the Aboriginal and Torres Strait Islander Social Justice Commissioner which, along with submissions to Senate and House of Representatives inquiries by the TSRA, emphasize the need for immediate

adaptation plan specifically highlights the Torres Strait Islanders as "sea people," and states that "impacts on the marine environment pose a significant threat to both [their] livelihoods and culture," especially regarding the indirect impacts of climate change. The TSRA plan also notes that climate change will have direct impacts upon traditional hunting and cultural practices. ¹⁸²Underscoring the TSRA's plans, even the Inter-American Court of Human Rights has previously stated that the displacement of indigenous persons from their traditional lands "invariably leads to serious loss of life and health and damage to the cultural integrity of indigenous peoples," and that the close relationship between indigenous persons and the land further evidences the essential need for indigenous persons to remain on the lands where they have ties. ¹⁸³

Not only are the cultural rights of the Torres Straight Islanders at risk from climate change, but so too are the marine ecosystems. The area around the Torres Straight Islands is unique from a biodiversity perspective, leading the International Maritime Organisation to classify it as a "Particularly Sensitive Sea Area." To preserve these marine environments, the TSRA has focused on coastal erosion, adaptation, and resilience planning using indigenous peoples' knowledge. This particular strategy to climate change adaptation was adopted by the TSRA because building the islands upward is not an option, and the TSRA calls relocation for the islanders a "last resort," effectively destroying the spiritual and cultural identity of the peoples by preventing access to their ancestral homelands. In order to combat the negative impacts of climate change, the TSRA created a five-year plan designed to build coastal defenses for low-lying communities, provide information to the islanders on storm surges and

and comprehensive action to address climate change concerns in the region. *Id.* at 16

^{182.} *Id.* at 1-2.

^{183.} Fatma Zohra Ksentini (Special Rapporteur on Human Rights and the Environment) *Rep. on Human Rights and the Environment*, U.N. Doc E/CN.4/Sub.2/1994/9 (July 6, 1994) 11; Inter-American Court of Human Rights (IACtHR), *Report on the Situation of Human Rights in Ecuador*, O.A.S. Doc. No. 10, OEA/Ser.L/V/II.96, rev. 1 (Apr. 24, 1997).

^{184.} Id. at 3.

^{185.} AUSTRALIAN GOVERNMENT, *The TSRA – What We Do*, http://www.tsra.gov.au/the-tsra/what-we-do (last visited Jan. 3, 2017).

^{186.} TSRA, 2014-2018 Report, *supra* note 181, at 6.

climate change, create assessments for renewable energy options, and monitor coastal erosion and inundation. 187

One of the greatest challenges with implementing the strategy used by the TSRA is funding. Building dikes and seawalls is an expensive process, one for which the Australian government has provided only \$26 million. This funding has enabled the building of seawalls on only half of one island. While the TSRA's pre-emptive plans for mitigating the harmful effects of climate change are making great strides in relation to indigenous rights, the TSRA's plans remain difficult to implement because of economic concerns.

C. The Papahānaumokuākea Marine National Monument and Cooperative Management

The Hawaiian Island archipelago is of great biological, cultural, and economic significance to the United States and many other Pacific Ocean nations. ¹⁹⁰ The islands include specific areas once used for cultural voyages to honor Hawaiian ancestors, as well as burial and spiritual practices directly tied to the oceans and coral reefs in the area. ¹⁹¹ Additionally, the islands include an array of marine wildlife, some previously used as a source of food and others listed as

^{187.} Id. at 21.

^{188.} *Id.* at iii, "much of this effort will be lost if funding does not support continued implementation of the strategic priorities identified in this 2014-2018 Strategy."

^{189.} Saila Huusko, 'We're Sinking Here': Climate Change Laps at Front Door of Torres Strait Islands, THE GUARDIAN (Dec. 7, 2017 8:03 PM) (stating that Saibai was the only island to receive seawalls, which covered only half of the island), https://www.theguardian.com/australia-news/2015/dec/08/were-sinking-here-climate-change-laps-at-front-door-of-torres-strait-islands [http://perma.cc/YEL6-P6VJ].

^{190.} Hawai'i comprises two distinct sets of islands. First, the primarily uninhabited Northwestern Hawaiian Islands (NWHI), which include islands, atolls, and shoals. Second, the Main Hawaiian Islands (MHI) that include the most densely populated tourist destinations of the Hawaiian archipelago. John N. Kittinger et al., *Marine protected areas, multiple-agency management, and monumental surprise in the Northwestern Hawaiian Islands*, 2011 J. OF MARINE BIOLOGY 2 (2010).

^{191.} PAPAHANAUMOKUAKEA MARINE NATIONAL MONUMENT, *Native Hawaiian Cultural Heritage*, http://www.papahanaumokuakea.gov/heritage/ (last visited Apr. 27, 2018).

endangered under the Endangered Species Act (ESA).¹⁹² Native Hawaiians recognize certain islands in the northwest of the territory as being a "sacred ancestral homeland from which life arises and to which sprits return after death[.]"¹⁹³

As a result of the biological, cultural, and economic importance of these islands, United States President Gorge W. Bush created the Hawaiian Islands Ecosystem Reserve in 2000. In 2006 President Barack Obama significantly expanded this reserve as a Marine National Monument and Marine Protected Area (MPA), known today as the Papahānaumokuākea Marine National Monument. The monument spans over 362,000 square kilometers and mandates the closure of all commercial fisheries throughout Papahānaumokuākea for the protection of the natural spaces. Defined as geographical spaces designed to "achieve the long-term conservation of nature with [an] associated ecosystem . . . and cultural values," MPAs are of great importance for a number of reasons, including:

[that MPAs] have been shown to safeguard biodiversity, provide ecological benefits to neighboring ecosystems, and protect predators to help maintain ecosystem stability. Such areas can also serve as important climate reference points for scientists, and although establishing an MPA or reserve won't stop ocean acidification or warming, it can help build ecosystem resilience by eliminating other stresses. These benefits are amplified when MPAs are large, well-managed, isolated and long-lasting. MPAs are thus a critical

^{192.} For further information on fishing practices worldwide as well as lists of particular endangered species, FISHERIES AND AQUACULTURE DEPARTMENT (FAO) http://www.fao.org/fishery/publications/yearbooks/en (last visited Apr. 27, 2018).

^{193.} Kittinger et al., supra note 190, at 2.

^{194.} Cynthia Barnett, *Hawaii Is Now Home to an Ocean Reserve Twice the Size of Texas*, NAT'L GEOGRAPHIC (Aug. 26, 2016) http://news.nationalgeographic.com/2016/08/obama-creates-world-s-largest-park-off-hawaii/ [http://perma.cc/644E-9RGQ].

^{195.} *Id. See also* Kittinger et al., *supra* note 190, at 2-3.

^{196.} Pew Charitable Trusts, *Marine Protected Areas Beyond National Jurisdiction*, (Mar. 15, 2016) http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2016/03/marine-protected-areas-beyond-national-jurisdiction [http://perma.cc/3EPN-EW7B].

tool for policymakers seeking to pass a healthy marine environment on to future generations. 197

Other novel aspects of Hawaii's Papahānaumokuākea Marine National Monument are the sheer size of the protected area and the inclusion of remote, uninhabited areas. ¹⁹⁸ To give an example of scale, the Great Barrier Reef Marine Park, created in 1975 and covering only 344,000 square kilometers, was the first large-scale MPA. 199 This Australian MPA, like most others, focused on shallow-water habitats. By contrast, Papahānaumokuākea also includes offshore and open ocean areas, something previously unheard of in the creation of MPAs. 200 Furthermore, the creation of Papahānaumokuākea led to the formation of sister-agreements between the U.S. and other nations, such as Kiribati, for collaboration and sharing of information regarding the challenges of managing large-scale MPAs. This resulted in the 2010 meeting, "Big Ocean: A Network of the World's Large-Scale Marine Managed Areas."201 The agreements that emanated from this meeting created one of the most unique MPA governance structures in the world, which includes cooperation from the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, and five other federal and state agencies.²⁰²

The Hawaiian MPA structure, known as a "co-trusteeship" system, creates a Monument Management Board that governs each of the MPAs partner agencies and encourages cooperative stewardship, supports conservation of resources for future generations, and discusses the primary activities allowed within the MPA, which

^{197.} *Id*.

^{198.} NATIONAL MARINE SANCTUARIES, *Papahānamokuākea Expands, Now Largest Conservation Area on Earth* (Aug. 2016) http://sanctuaries.noaa.gov/news/aug16/president-announced-expansion-of-papahanaumokuakea-marine-national-monument.html [http://perma.cc/4DL5-WH2A].

^{199.} Robert J. Toonen et al., *One size does not fit all: the emerging frontier in large-scale marine conservation*, 77 MARINE POLLUTION BULL. 1, 8 (2013).

^{200.} UNESCO, *Papahānamokuākea*, http://whc.unesco.org/en/list/1326/ (last visited Jan. 3, 2017); UNESCO, *The Great Barrier Reef*, http://whc.unesco.org/en/list/154 (last visited Jan. 3, 2017).

^{201.} BIG OCEAN, http://bigoceanmanagers.org/about/ (last visited Nov. 4, 2016).

^{202.} PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT, *Management*, http://www.papahanaumokuakea.gov/about/management.html (last visited Jan. 3, 2017).

includes research, monitoring, restoration, species and asset management, and cultural activities.²⁰³ The co-trusteeship of Papahānaumokuākea exemplifies the movement of ocean governance trends, creating a system that encourages increased collaboration among multiple nations and taking into consideration cultural rights of indigenous peoples. When the United States designated Papahānaumokuākea as an MPA, it also created an indigenous management area that allows Native Hawaiians to exercise their cultural practices within the MPA, while supporting the use of indigenous knowledge to further conserve its biological diversity.²⁰⁴ Because the northwestern Hawaiian Islands are considered sacred by the Native Hawaiians (where life begins and spirits return after death) and are vital to certain groups' subsistence lifestyles, the MPA allows individuals into these sacred areas only in order to "support or advance the perpetuation of traditional knowledge and ancestral connections of Native Hawaiians."²⁰⁵ This is a novel recognition of indigenous rights on behalf of the United States; however, the MPA designation alone does not provide any remedial mechanism in the case of territorial loss resulting from climate change. That's where the UNESCO World Heritage Convention comes into play.

The United States listed Papahānaumokuākea as a World Heritage Natural and Cultural Heritage site in 2010 under the World Heritage Convention. The main purpose behind these listing decisions was to protect marine biodiversity, protect the area from the harmful effects of climate change, and preserve areas of important cultural heritage. Importantly, Papahānaumokuākea is the only MPA ever designated for both the purposes of ecological and cultural protection. Typically,

^{203.} Toonen, *supra* note 199, at 14.

^{204.} PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT, *Culture Research and Significance*, http://www.papahanaumokuakea.gov/heritage/ (last visited Dec. 1, 2016).

^{205.} President George W. Bush, Proclamation 8031, *Establishment of the Northwestern Hawaiian Islands Marine National Monument* (June 15, 2006) http://www.presidency.ucsb.edu/ws/?pid=139 [hereinafter Proclamation 8031].

^{206.} Toonen, supra note 199.

^{207.} UNESCO, *Papahānamokuākea*, http://whc.unesco.org/en/list/1326/ (last visited Jan. 3, 2017).

^{208.} PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT, *Culture Research and Significance*, http://www.papahanaumokuakea.gov/heritage/ (last visited Dec. 1, 2016).

the main goal of creating an MPA is to limit fishing activities to protect the biodiversity of a given area. Thus, Papahānaumokuākea's designation as an MPA for both natural and cultural reasons opens doors for other island nations to take steps using MPAs to protect the cultural rights of their indigenous peoples. Under the World Heritage Convention, any natural, cultural, or mixed heritage site that is listed by UNESCO is then afforded financial sponsors for protection of the area and state-based site preservation requirements, including management plans that create processes and facilities for the preservation of the areas. ²¹⁰

By establishing Papahānaumokuākea as a UNESCO World Heritage site, an MPA, and a National Monument, the U.S. government created a comprehensive set of protections for indigenous peoples, who are granted access to these areas for the purposes of cultural preservation. Such protections include granting permits to native individuals only if their actions are "deemed necessary by traditional standards in the Native Hawaiian culture" or if "the activity supports or advances the perpetuation of traditional knowledge and ancestral connections of Native Hawaiians."²¹¹

Papahānaumokuākea could be a harbinger of future protections for DINs. As of 2016, UNESCO has officially designated 814 cultural sites, 203 natural sites, and 35 mixed sites throughout the world. In the context of Pacific Island States, UNESCO created a Pacific World Heritage Action Plan from 2016-2020 to encourage further nominations from small, developing islands nations in the Pacific. This document specifically notes the importance of indigenous peoples' relationships with the sea, the islands, and the marine biodiversity where they reside, describing the heritage of these islands nations as depending upon the preservation of the lands and seas that

^{209.} FAO, *Marine Protected Areas in the High Seas*, http://www.fao.org/fishery/topic/16204/en (last visited Nov. 4, 2016).

^{210.} See generally, UNESCO World Heritage Convention, supra note 29.

^{211.} Proclamation 8031, *supra* note 205, at § 2(b) & (d).

^{212.} UNESCO, *World Heritage List*, http://whc.unesco.org/en/list/ (last visited Nov. 4, 2016).

^{213.} UNESCO, *Pacific World Heritage Action Plan 2016-2020*, Pacific States Parties and Territories at the Pacific World Heritage Action Plan Meeting, Fiji, Dec. 1-4, 2015.

surround their homes.²¹⁴ However, even with multiple protections, Papahānaumokuākea does not adequately address the potential future effects of climate change on cultural rights. Specifically, despite the systems put in place to preserve both natural and cultural heritage in Hawai'i, UNESCO still does not allow the designation of World Heritage sites on the high seas. If Hawai'i one day suffers the same fate as its Pacific island cousins as a result of climate change, will these listings provide enough protection for cultural rights as they relate to the heritage sites when there is no land left?

Because the Operational Guidelines for listing under UNESCO do not allow "immovable property which are likely to become moveable" to be considered for listing, the plight of DINs in the Pacific still remains unclear under both the MPA and UNESCO regimes. However, with the introduction of a new report from UNESCO called "World Heritage in the High Seas: An Idea Whose Time Has Come," it appears that cultural protection of indigenous heritage may be available in the not-so-distant future even if climate change does claim these island territories. ²¹⁶

D. The Federates States of Micronesia (FSM) and Biosphere Reserves

Of the 607 islands that make up the Federated States of Micronesia (FSM), each island supports a culturally separate population, evidenced by eight major indigenous spoken languages that include hundreds of dialects.²¹⁷ Despite these differences, each island remains economically and culturally dependent upon the land, coral reefs, and surrounding marine environments for subsistence.²¹⁸ The FSM is part

^{214.} *Id*.

^{215.} UNESCO, Intergovernmental Comm. for the Protection of the World Cultural and Natural Heritage, Operational Guidelines for the Implementation of the World Heritage Convention, U.N. Doc WHC 12/01 ¶ 26 (July 2012).

^{216.} See UNESCO, WORLD HERITAGE IN THE HIGH SEAS: AN IDEA WHOSE TIME HAS COME, WORLD HERITAGE REPS. 44, July 2016 [hereinafter UNESCO, WORLD HERITAGE IN THE HIGH SEAS].

^{217.} FEDERATED STATES OF MICRONESIA VISITORS BOARD, http://www.visit-micronesia.fm/about/index.html (last visited Oct. 14, 2016).

^{218.} See Clive Wilkinson & Robert W. Buddemeier, Report of the UN EP-IOC-ASPEI-UCN GLOBAL TASK TEAM ON THE IMPLICATIONS OF CLIMATE CHANGE ON CORAL REEFS, GLOBAL CLIMATE CHANGE AND CORAL REEFS: IMPLICATIONS FOR

of the Freely Associated States, which includes the Republic of the Marshall Islands and the Republic of Palau. ²¹⁹ In the FSM, there are four main islands that could act as hosts for the populations of the smaller neighboring islands that are disappearing as a result of climate change.²²⁰ Each of the four larger FSM island states includes its own territory plus outlying smaller islands. For example, "Yap State is made up of 4 large islands, 7 small islands and 134 atolls, with a total land area of 45.6 square miles," whereas "Chuuk State has a total land area of 49.2 square miles and includes seven major island groups."²²¹ While the marine area within the FSM's Exclusive Economic Zone (EEZ) totals over one million square miles, the land area constituting the FSM's 607 islands totals only 271 square miles.²²² On these islands, the FSM has a total population of about 104,000 people, all of whom survive primarily on subsistence fishing and farming crops like taro, banana, and yam. ²²³ Thus, climate change threatens not only the islands' food and water sources because of salinization, but also the cultural heritage associated with the land. 224

While the four larger islands are in less significant danger of disappearing, one small FSM island in particular raises urgent concerns: Kapingamarangi. Called Kapinga by native peoples, Kapingamarangi includes 500 inhabitants and is located 300 kilometers south of the nearest island. In 2007, saltwater intrusion

PEOPLE AND REEFS VIII (1994) ("Human dependence on reefs for food, materials, and income (tourism or exports) is high and growing.").

^{219.} VISIT MICRONESIA, *About the Federated States of Micronesia*, http://www.visit-micronesia.fm/about/index.html (last visited Dec. 2, 2016). 220. *Id*.

^{221.} SOUTH PACIFIC SPECIALIST, *Nature and Geography-Federated States of Micronesia*, http://southpacificspecialist.org/nature-and-geography-federated-states-of-micronesia/.

^{222.} FSM NATIONAL GOVERNMENT, CLIMATE CHANGE PROGRAM, 1997 Climate Change National Communication, 6, http://unfccc.int/resource/docs/natc/micncl.pdf.

^{223.} Catherine Wilson, *Micronesia Law Seeks to Inspire Global Action*, INTER PRESS SERVICE (May 29, 2014) http://www.ipsnews.net/2014/05/micronesia-climate-law-seeks-inspire-global-action/ [http://perma.cc/CF2X-DCNP].

^{224.} Dennis K. Yamase, *The Domestic Application of Human Rights in the Federated States of Micronesia*, Presented at the Pacific Regional Consultation for Judges and Magistrates on Human Rights Conventions and Standards, New Zealand, Dec. 13-15, 2010, http://www.fsmlaw.org/fsm/rules/Paper4PresentSPCDomestic AppHumanRtsinFSM11-24-10.pdf.

destroyed ninety to one percent of the taro farms on the island. This was particularly devastating because taro is a crop upon which the entire island relies for sustenance.²²⁵ In 2008, wave surges on the island destroyed "the equivalent of four-fifths of [the island's] total local food resources."²²⁶ If the story of Kapinga becomes the future of the 602 other smaller islands in the country, the FSM should begin developing plans now to support the individual cultural rights of indigenous populations on each of its islands.

Culturally speaking, Kapinga remained largely isolated from other FSM islands until European settlers arrived in 1877. The people of Kapinga therefore developed a unique language and set of religious beliefs that connect the people to spirits of the dead that are believed to inhabit the outer lagoon of the island. The "line of ghosts" that are said to dwell in this lagoon include the souls of every person who has lived on the island. Certain people, including women who die in childbirth, return to the goddess Roua in the deep sea, and high priests may return in the form of beached whales to the island. Additionally, the Kapinga people create traditional dugout canoes for fishing in the deep sea, which is the primary mode of subsistence for the islanders. These unique beliefs and practices rely on access to the island and seas where the indigenous groups reside. Without a connection to the territory where they live, such beliefs, practices, and language will quickly disappear. 229

In the FSM, the government has created a comprehensive climate change adaptation plan, through which it intends to avoid abandoning the islands by educating islanders about climate change and building

^{225.} Francis X. Hezel, *High Water in the Low Atolls*, MICSEM.ORG (Mar. 2009) http://www.micsem.org/pubs/counselor/frames/highwaterfr.htm?http&&&www.micsem.org/pubs/counselor/highwater.htm [http://perma.cc/D5VW-VHQ6].

^{226.} Id.

^{227.} COUNTRIES AND THEIR CULTURES, *Kapingamarangi – Religion and Expressive Culture*, http://www.everyculture.com/Oceania/Kapingamarangi-Religion-and-Expressive-Culture.html (last visited Apr. 27, 2018). 228. *Id*.

^{229.} See, e.g., James Anaya & Robert Williams Jr., Protection of Indigenous Peoples' Rights over Lands and Natural Resources under the Inter-American Human Rights System, 14 HARV. HUM. RTS. J. 33, 36 (2001) (stating that indigenous groups have a right to their lands under the Inter-American human rights system because their traditional practices rely on their connections to their lands).

seawalls and cement foundations.²³⁰ However, most of the strategies are simply "buying time" until the islands become uninhabitable as FSM has neither built the islands up nor built new islands.²³¹ For example, the island of Kosrae is experiencing chronic, large-scale erosion along the coast. The island of Pohnpei typically deals with yearly tropical storms, leading to mudslides, significant damage to coastal infrastructure in low-lying areas, and other natural hazards.²³² The island of Chuuk has had more than 30 slides since 2002 that have killed 47 people and injured dozens of others as a result of torrential rains.²³³ The island of Yap continues to wrestle with a lack of potable water and is constantly rebuilding walls and revetments, which requires further funding from the government.²³⁴ These are just some of the negative environmental impacts the FSM is trying to combat, and yet there is no mention in the government's adaptive strategies of human rights or cultural protections.

In 1997, the FSM submitted its first communication to the United Nations detailing the effects of climate change on the island nation.²³⁵ While the submission includes no mention of human rights or of indigenous persons, it does state that:

[t]he marine environment is of enormous importance to the people of the Federated States of Micronesia. For Chuuk, the marine environment is considered the basis for Chuukese culture, being the principle source of subsistence, recreation and commerce. The nation's marine resources are extensive

232. Id. at 21-22.

^{230.} CHARLES H. FLETCHER & BRUCE M. RICHMOND, CLIMATE CHANGE IN THE FEDERATED STATES OF MICRONESIA: FOOD, AND WATER SECURITY, CLIMATE RISK MANAGEMENT, AND ADAPTIVE STRATEGIES, REPORT OF FINDINGS, 19 (2010).

^{231.} *Id*.

^{233.} Dionesis Tamondong, *Death Toll Climbs in Chuuk Landslides*, PACIFIC DAILY NEWS (July 5, 2002) http://www.fsmgov.org/press/nw070502.htm [http://perma.cc/Y4UF-76LV]; Dionesis Tamondong, *Death Toll in Chuuk Landslides Increases*, PACIFIC DAILY NEWS (July 8, 2002) http://www.fsmgov.org/press/nw070802.htm [http://perma.cc/7CY9-QC9X].

^{234.} FLETCHER & RICHMOND, supra note 230, at 22-23.

^{235.} FSM National Government, Climate Change Program, 1997 Climate Change National Communication 6, http://unfccc.int/resource/docs/natc/micnc1.pdf.

and in many ways central to the future social, cultural, and economic prospects of the FSM.²³⁶

Despite not being party to some of the core human rights documents such as the ICCPR and the ICESCR, the FSM's strategy for climate change still shows some support for cultural rights in particular.²³⁷ In 2015, the FSM submitted its second National Communication to the UNFCCC, which included a new pilot study on Moch Island, Chuuk, to establish the impact of climate change on cultural heritage in the coral atoll islands of the FSM.²³⁸ This study was the first of its kind to include cultural heritage in the FSM. According to the study. "[r]esearch participants expressed concern that their way of life, history and place-based knowledge of Moch would be lost in the event of evacuation and requested that the research team record and preserve oral history, narratives, genealogies and other aspects of cultural heritage for future generations[.]"239 Such information from the report led to a recommendation that the plan take cultural heritage values into account when documenting the impacts of climate change, additionally requesting that the FSM develop more adaptive cultural practices.²⁴⁰ In 2016, the president of the FSM. Peter Christian. "pledged to conserve 30 percent of its near shore marine areas," which

^{236.} Id. at 12.

^{237.} UNIVERSITY OF MINNESOTA HUMAN RIGHTS LIBRARY, Ratification of International Human Rights **Treaties** Micronesia, http://hrlibrary.umn.edu/research/ratification-micronesia.html (last visited Dec. 2, 2016). The FSM has also been an avid advocate for the phase out of hydroflorocarbons (HFCs) by first phasing them out entirely on its own islands and lobbying the UN for an amendment to the Montreal Protocol to require a complete phase out of HFCs to adapt the islands' response to climate change; See, e.g., 18th Congress of the Federated States of Micronesia, Congressional Bill No. 18-72, C.D. 1, 2, & 3, http://www.cfsm.fm/ifile/18th%20Congress/Public%20Laws/PUBLIC %20LAW%2018-72.pdf; Peter M. Christian, Following Micronesia's Lead on Climate Change, THE DIPLOMAT (Oct. 10, 2016) http://thediplomat.com/2016/10/ following-micronesias-lead-on-climate-change/ [http://perma.cc/K5Kw-PRUM].

^{238.} See Federated States of Micronesia, SECOND NATIONAL COMMUNICATION TO THE UNITED NATIONS FRAMEWORK ON CLIMATE CHANGE (2015) [hereinafter FSM UNFCCC Communication 2015].

^{239.} Id. at 96-98.

^{240.} Id.

would "enable FSM['s] sustainable use of its oceanic fisheries."²⁴¹ However, the FSM has yet to actually address the issue of human rights, and cultural rights more specifically, despite the country's general support for protection of cultural rights.

While the climate change plan continues to focus on access to fresh water, food, and the building of seawalls to prevent further losses, ²⁴² the plan fails to consider any future wherein the island territories no longer exist. This trajectory is slowly changing. As the international community's understanding of the importance of indigenous rights as tied to the environment has changed, so too have the plans for combatting climate change in Pacific island nations. As of July 2016, the FSM officially listed the Nan Madol area of Pohnpei as a UNESCO mixed World Heritage Site. ²⁴³ This is the first and only UNESCO listing for the FSM. Prior to 2016, the FSM established eleven MPAs by state law as part of the FSM's National Biodiversity Strategy Action Plan in an attempt to establish a collaborative MPA management network throughout the FSM.²⁴⁴ In 2007, six years after the establishment of these MPAs, the FSM successfully listed the And Atoll Biosphere Reserve under the UNESCO Men and Biosphere program. This created three core zones that regulate fishing activities, diving, and snorkeling while managing fish stocks in a more ecologically friendly manner. 245 One of the main purposes of

241. FSM Information Services, *FSM President Addresses UN General Assembly*, MARIANAS VARIETY (Oct. 4, 2016) http://www.mvariety.com/regional-news/89663-fsm-president-addresses-un-general-assembly [http://perma.cc/W6GQ-6LR7].

^{242.} FSM UNFCCC Communication 2015, supra note 238, at 100-115.

^{243.} Bill Jaynes, *After Years of Discussion and Planning, Nan Madol is a UNESCO World Heritage Site,* THE KASELEHLIE PRESS (Aug. 6, 2016), http://www.kpress.info/index.php?option=com_content&view=article&id=345:after-years-of-discussion-and-planning-nan-madol-is-a-unesco-world-heritage-id-8-c-t-id-8-8-Levid-102-El-

site&catid=8&Itemid=103 [http://perma.cc/DT9J-E2A9]; Sally Round, FSM: Ancient Capital of Pohnpei Given UNESCO World Heritage Status, Hope That Listing Will Bring Millions in Conservation Funding, PAC. ISLANDS REP. (Aug. 4, 2016) http://www.pireport.org/articles/2016/08/04/fsm-ancient-capital-pohnpeigiven-unesco-world-heritage-status-hope-listing-will [http://perma.cc/KED3-4YYN].

^{244.} REEF RESILIENCE, *Micronesia – MPA Design*, http://www.reefresilience.org/case-studies/micronesia-mpa-design/ (last visited Nov. 4, 2016).

^{245.} CONSERVATION SOCIETY OF POHNPEI, AND ATOLL BIOSPHERE RESERVE, http://www.serehd.org/and-atoll-biosphere-reserve/ (last visited Nov. 4, 2016). Biosphere Reserves are "the living laboratories for sustainable development" that

Biosphere Reserves is to integrate cultural and biological diversity into areas where there were once humans inhabitants, but who have since deserted the islands as a result of the effects of climate change.²⁴⁶ The program encourages the use of traditional indigenous knowledge to manage the ecosystems that UNESCO lists under the Biosphere program.²⁴⁷ In the FSM, the And Atoll Biosphere Reserve is only the second of its kind in the world that uses traditional indigenous knowledge and eco-tourism, placing indigenous "caretakers" in the area for the protection of the island's marine resources.²⁴⁸

Creating Biosphere Reserves is one of the only DIN strategies that supports the state duty under international law to protect the cultural rights of indigenous persons. This strategy alone, however, is not enough. The Biosphere Reserve program's purpose is to re-establish a very small part-time population of caretakers on certain islands, thereby allowing villages to re-introduce human activity with indigenous knowledge and carefully limiting the harvesting of marine

place indigenous groups on previously inhabited islands to determine the best ways to reassess the relationship between people and the environment in a sustainable manner. UNESCO Office in APIA, *Biosphere Reserves*, http://www.unesco.org/new/en/apia/natural-sciences/biosphere-reserves/ (last visited Nov. 4, 2016). The Biosphere listing process attempts to understand how humans and nature interact with one another in areas where climate change continually changes the islands. UNESCO, *Changing Minds NOT the Climate*, http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/climate-change/ (last visited Dec. 2, 2016).

^{246.} UNESCO, *Main Characteristics of Biosphere Reserves*, http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/main-characteristics/ (last visited Dec. 2, 2016).

^{247.} UNESCO Ecological Sciences for Sustainable Development, *Biosphere Reserves – Learning Sites for Sustainable Development*, http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/ (last visited Dec. 2, 2016).

^{248.} UNESCO, *The MAB Program – Fed. States of Micronesia and Atoll*, http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?code=MIC+02&mode = all (last visited Jan. 3, 2017).

^{249.} UNESCO Office in APIA, *And Atoll: Federated States of Micronesia*, http://www.unesco.org/new/en/apia/natural-sciences/biosphere-reserves/current-pacific-biosphere-reserves/and-atoll-federated-states-of-micronesia/ (last visited Nov. 4, 2016).

species from the islands.²⁵⁰ The local authorities on the islands then provide social and economic monitoring of the effects on the indigenous communities and the Reserve. Nevertheless, this reintroduction of humans to the islands still fails to plan for the eventual territorial loss of the islands altogether. Although extremely novel in its implementation of Biosphere Reserves and the continued creation of MPAs, the FSM still has yet to consider the future implications of disappearing territories as a result of climate change and the effects of such losses on its indigenous populations.

III. MARINE PROTECTED AREAS AND THE UNESCO WORLD HERITAGE CONVENTION: AVENUES FOR PROTECTING CULTURAL RIGHTS ON THE HIGH SEAS

Although not a Pacific island tribe, the Maasai people of Tanzania are some of the most iconic indigenous peoples in the world. 251 Known as one of the last great warrior cultures, the Maasai tribes have an almost sacred relationship with cattle and the lands where their animals feed.²⁵² Many of their traditional ceremonies rely upon the milk and blood of their cattle, ²⁵³ which led the nomadic tribes to collect large areas of land as they travelled across multiple countries in search of pastures for their animals.²⁵⁴ Their traditional territory spanned from the Kenyan grasslands to the Northern Tanzanian Serengeti. All of that changed when the government created categories of protected areas across their homelands, displacing more than 100,000 Maasai outside the boundaries of the Maasai Mara National Reserve in Kenya, the Serengeti National Park, and the Ngorongoro Crater Conservation Area in Tanzania.²⁵⁵ When the government created the reserve,

254. Id.

^{250.} UNESCO, Biosphere Reserves – Learning sites for Sustainable Development, http://www.unesco.org/new/en/natural-sciences/environment/ ecological-sciences/biosphere-reserves/ (Last visited Feb. 13, 2018).

^{251.} MAASAI ASSOCIATION, Maasai Ceremonies and Rituals, http://www.maasaiassociation.org/ceremonies.html (last visited Dec. 2, 2016).

^{252.} KENYA INFORMATION GUIDE, The Maasai Tribe, http://www.kenyainformation-guide.com/maasai-tribe.html (last visited Dec. 2, 2016).

^{253.} Maasai Ceremonies and Rituals, supra note 251.

^{255.} Peter Veit & Catherine Benson, When Parks and People Collide, Human Rights Dialogue: "Environmental Rights," (Apr. 23, 2004) CARNEGIE COUNCIL FOR

national park, and conservation areas between 1940 and 1959, there was no concept of indigenous rights.²⁵⁶

Today, however, the Ngorongoro Conservation Area and Serengeti National Park are listed as UNESCO World Heritage sites. More importantly, the Maasai now inhabit these parks, living alongside wildlife and acting as the stewards of the wildlife in the parks and conservation areas.²⁵⁷ The evolution of these protected areas evidences a change in the character of protected areas more broadly.²⁵⁸ Most countries viewed National Parks from a protectionist perspective at this time, requesting local community support (community based conservation, or "CBC") so long as it met the development needs of the country overall.²⁵⁹ Such plans forced the indigenous groups that once inhabited these areas to find alternate homes and ways of life as the parks prepared for tourism without taking local life into consideration ²⁶⁰

Although there have been no such instances of mass indigenous displacement in the context of MPAs to date, MPAs in the Pacific were created many years after most of the protected areas such as Maasai Mara and other areas throughout the world.²⁶¹ Therefore, MPAs are of great interest for indigenous groups in the Pacific because they are now being used at a time when indigenous rights can be incorporated into conservation management plans. The only question is whether or not

ETHICS IN INTERNATIONAL AFFAIRS https://www.carnegiecouncil.org/publications/archive/dialogue/2 11/section 2/4449.html/ [http://perma.cc/4L2U-37HZ].

^{256.} MARA EXPLORERS, *Maasai Mara National Reserve*, http://maraexplorers.com/maasai-mara-national-reserve-information/ (last visited Apr. 27, 2018) (established in 1948); NGORONGORO CONSERVATION AREA AUTHORITY, http://www.ngorongorocrater.org/craters.html (last visited Apr. 27, 2018) (established in 1959); BASECAMP TANZANIA, *Serengeti National Park*, http://basecamptanzania.com/serengeti/ (last visited Apr. 27, 2018) (established in 1951).

^{257.} UNESCO, *Ngorongoro Conservation Area*, http://whc.unesco.org/en/list/39/ (last visited Dec. 2, 2016); UNESCO, *Serengeti National Park*, http://whc.unesco.org/en/list/156 (last visited Dec. 2, 2016). 258. *Id*.

^{259.} See, Fred Nelson et al., Community-Based Conservation and Maasai Livelihoods in Tanzania, in STAYING MAASAI? (Springer, pub. 2009).

^{260.} See Veit & Benson, supra note 255.

^{261.} National Research Council et al., *Historical Background and Evaluation of Marine Protected Areas in the United States*, *in* Marine Protected Areas: Tools For Sustaining Ocean Ecosystem (2001) at 146.

these MPAs adequately include indigenous groups within their conservation plans. In addition to the protection that MPAs may afford indigenous groups, the UNESCO World Heritage Convention has expanded its protection of cultural sites to include indigenous management plans that allow these groups to access their ancestral lands, even if located within the protected area. However, under both MPAs and UNESCO, indigenous groups are not always adequately considered as part of the management plan. Another key issue with designating MPAs and UNESCO World Heritage Sites in the context of DINs is that both designations must be attached to a state's sovereign territory. If an island disappears outside the 200 nautical-mile zone of the nearest island or outside the EEZ of the nation and becomes part of the high seas, the state can no longer protect the area through either an MPA or a UNESCO listing.

To combat this issue, this article recommends that DINs look to the indigenous management system put in place from CBC models such as those in Kenya and Tanzania. These CBC models could easily translate to the protection of DIN's culture through an MPA that allows states to designate particular islands and the oceans surrounding them as restricted use areas for reasons of natural or cultural conservation, so long as they are within the EEZ of the island nation. However, this restriction on territorial MPAs is changing. Today, scholars and scientists alike call for further protection with the creation of high seas MPAs. Under international law, the high seas are part of *res communis*, which means that states cannot claim these areas as part of their sovereign territory and that all states are free to fish and navigate the area in a reasonable and equitable fashion. However,

^{262.} See UNESCO, UNESCO's Man and Biosphere Programme, http://www.unesco.org/new/index.php?id=118180 (last visited Dec. 3, 2016).

^{263.} NAT'L OCEANIC AND ATMOSPHERIC ADMIN. (NOAA), *What is a Marine Protected Area?* http://oceanservice.noaa.gov/facts/mpa.html (last visited Nov. 26, 2016).

^{264.} See e.g., Tullio Scovazzi, Marine Protected Areas on the High Seas: Some Legal and Policy Considerations, 19 Int'l J. Marine & Coastal L. 1, 10 (2004); Eric L. Gilman, Community Based and Multiple Purpose Protected Areas: A Model to Select and Manage Protected Areas with Lessons from the Pacific Islands 25 Coastal Mgmt. 1, 59 (1997); Food and Agriculture Organization of the United Nations (FAO), Marine Protected Areas in the High Seas, http://www.fao.org/fishery/topic/16204/en (last visited Nov. 26, 2016).

^{265.} BROWNLIE'S PRINCIPLES supra note 28, at 297-98.

conservation of the high seas is of great importance to all nations, and the international community is beginning to recognize the importance of designating high seas MPAs in order to replenish fish stocks throughout the world. Rot only can high seas MPAs create reserves that limit fishing practices for ecological conservation purposes, they can also allow allied states to name indigenous groups as stewards of the MPA to monitor the ecological and cultural rehabilitation of the area. Thus, high seas MPAs, if established and supported by international law, would aid DINs in protecting cultural rights.

Today, new CBC models are taking indigenous knowledge into account when determining how best to conserve such areas.²⁶⁷ Just as protected areas in Kenya and Tanzania changed to include the Maasai as part of the conservation plans, so the international scheme of conservation has evolved to include the concept of indigenous management within protected areas both under both marine protected areas (MPAs) and the UNESCO World Heritage Convention.²⁶⁸ For example, protection under the UNESCO World Heritage Convention provides another set of natural and cultural protections for DINs in danger from climate change. States party to the 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage List (the UNESCO World Heritage Convention) create lists of areas

^{266.} See, IUCN, Guidelines for Applying the IUCN Protected Area Management Categories to Marine Protected Areas (Sept. 25, 2012) https://www.iucn.org/content/guidelines-applying-iucn-protected-area-management-categories-marine-protected-areas-0 [http://perma.cc/QV7V-74Z8]; IUCN, Advisor on World Heritage, https://www.iucn.org/theme/world-heritage/our-work/advisor-world-heritage (last visited Apr. 27, 2018); IUCN, MARINE PROTECTED AREAS AND CLIMATE CHANGE REPORT (Nov. 2016) https://www.iucn.org/news/marine-protected-areas-and-climate-change-report. The IUCN avidly supports the use of MPAs, and their research is frequently cited by UNESCO, the UN, and other international civil society organizations interested in protecting the oceans.

^{267.} Fred Nelson et al., *supra* note 259, at 300-01; Mara Goldman, *Partitioned Nature, Privileged Knowledge: Community-based Conservation in Tanzania*, 34 DEV. & CHANGE 5, 833 (2003).

^{268.} See e.g., MPA News, MPAs and Indigenous Peoples: Co-Management as a Means of Respecting Traditional Culture and Strengthening Conservation, (Vol. 12, No. 2, 2010) https://mpanews.openchannels.org/sites/default/files/mpanews/archive/MPA116.pdf; INTERNATIONAL WORK GROUP FOR INDIGENOUS AFFAIRS (IWGIA), World Heritage Sites and indigenous peoples, http://www.iwgia.org/culture-and-identity/world-heritage-sites-and-indigenous-peoples (last visited Jan. 3, 2017).

located within their sovereign territory that are of "outstanding universal value" to both the state and the world. ²⁶⁹ Once the UNESCO Committee votes to list the state's requested area, the state works alongside an alliance of nations to create a protection strategy for the area that includes funds for renovation and protection of the sites.²⁷⁰ For example, in August 2016 the FSM successfully listed the ancient capital of Pohnpei as a cultural heritage site and is considering additional marine-based listings in the near future.²⁷¹ While UNESCO does not yet list areas on the high seas for protection, a report by UNESCO in July 2016 shows promise for a future category of high seas UNESCO natural and cultural heritage sites.²⁷² Such a change from UNESCO is not unprecedented. For example, in 1994 UNESCO's objectives changed regarding cultural heritage when the committee of experts realized that the definition of cultural heritage was too narrow and prevented the listing of many sites of extreme importance to indigenous groups.²⁷³ If DINs continue to add particular areas at risk to their UNESCO lists, they can further protect indigenous Pacific Islander's cultural rights.

Nevertheless, the current international conservation framework for the high seas and support for the incorporation of indigenous groups into the management of MPAs and UNESCO World Heritage sites may soon change in favor of protecting disappearing island nations and their peoples. Therefore, the next section will explore these emerging frameworks as means of protecting the cultural rights of groups who inhabit DINs.

269. UNESCO World Heritage Convention supra note 29.

^{270.} UNESCO, *State of Conservation Information System (SOC)*, http://whc.unesco.org/en/soc/ (last visited Dec. 2, 2016).

^{271.} Sally Round, FSM: Ancient Capital Of Pohnpei Given UNESCO World Heritage Status, Hope That Listing Will Bring Millions In Conservation Funding, PAC. ISLANDS REP. (Aug. 4, 2016 1:17 PM) http://www.pireport.org/articles/2016/08/04/fsm-ancient-capital-pohnpei-given-unesco-world-heritage-status-hopelisting-will [http://perma.cc/L7VN-SANT].

^{272.} UNESCO, WORLD HERITAGE IN THE HIGH SEAS, supra note 216.

^{273.} UNESCO, *Global Strategy*, http://whc.unesco.org/en/globalstrategy/ (last visited Nov. 26, 2016).

A. Marine Protected Areas

The International Union for the Conservation of Nature (IUCN) defines an MPA as "[a] clearly defined geographical space, recognised [sic], dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values."274 This definition and use of the term "cultural value" evidences a movement away from an exclusionary model of conservation focused solely on biological diversity, and toward an era where conservationists use traditional knowledge from indigenous persons to protect both cultural and natural resources. The IUCN held its first conference on MPAs in Tokyo in 1975 to discuss the importance of both natural and cultural biodiversity to the protection marine areas.²⁷⁵ Since 1975, the World Conservation Congress (the primary body of the IUCN) has adopted seven resolutions on indigenous peoples, highlighting the rights of indigenous persons to their lands and the right to manage their natural resources in protected areas. ²⁷⁶ The IUCN's efforts, moreover, are just a small part of the greater international movement for the protection of cultural rights.

International conventions and agreements such as the Convention on Biological Diversity (CBD),²⁷⁷ the resolutions of the UN General Assembly,²⁷⁸ and the Fish and Aquaculture Department (FAO) International Guidelines for the Management of Deep-Sea Fisheries in the High Seas²⁷⁹ clearly define state responsibilities to cooperate for

^{274.} IUCN, *Protected Areas- About*, https://www.iucn.org/theme/protected-areas/about (last visited Nov. 4, 2016).

^{275.} National Research Council et al., *supra* note 261.

^{276.} CULTURAL SURVIVAL, Conservation Policy and Indigenous Peoples, https://www.culturalsurvival.org/publications/cultural-survival-quarterly/none/conservation-policy-and-indigenous-peoples (last visited Dec. 2, 2016); IUCN, Advocacy Tools for Indigenous Rights in Protected Areas, (Aug, 4, 2016) http://www.iucnworldconservationcongress.org/news/20160804/advocacy-tools-indigenous-rights-protected-areas [http://perma.cc/HWB8-6ZSJ].

^{277.} CBD 1992, supra note 22.

^{278.} Press Releases, General Assembly, General Assembly Adopts Two Wide-Ranging Resolutions Aimed at Strengthening World's Legal Regime for Oceans; Protecting Fisheries, Marine Ecosystems, GA/10899 (Dec. 4, 2009).

^{279.} See FOOD AND AQUACULTURE DEP'T (FAO), The FAO International Guidelines for the Management of Deep-sea Fisheries in the High Seas, http://www.fao.org/fishery/topic/166308/en (last visited June 23, 2017).

the protection of marine environment.²⁸⁰ Under customary international law as laid out under Article 192 of UNCLOS, all states are under a general obligation to protect and preserve the marine environment. This applies to all areas of the sea, including the high seas.²⁸¹ Each of these documents evidence that states have an international legal obligation to conserve their natural environments, but they nevertheless often fail to mention that states must also respect and protect the indigenous rights to these areas.²⁸² As a result, most states have taken an ecosystem-based approach to MPAs by implementing fishing restrictions aimed at protecting the marine environment, forgetting to also view the protection area from a human rights perspective.²⁸³ States see the protection of the environment alone as fulfilling their responsibilities under international law; however, states must also consider the protection of human rights in the human rights context.

1. MPAs and Indigenous Peoples within the EEZ

Recently, the United Nations put political pressure on its 193 member states to commit to conserve "at least 10 percent of coastal and marine areas by 2020" through MPAs.²⁸⁴ MPAs are established within a state's EEZ and currently can only exist in areas where states have exclusive jurisdiction.²⁸⁵ As a result, absent an independent

282. OHCHR, *International Human Rights Law*, http://www.ohchr.org/EN/ProfessionalInterest/Pages/InternationalLaw.aspx (last visited Dec. 3, 2016) ("By becoming parties to international treaties, States assume obligations and duties under international law to respect, to protect and to fulfil human rights. The obligation to respect means that States must refrain from interfering with or curtailing the enjoyment of human rights [including indigenous rights].").

^{280.} For a list of these documents, *see* FAO, *Marine Protected Areas in the High Seas*, http://www.fao.org/fishery/topic/16204/en (last visited Nov. 4, 2016).

^{281.} UNCLOS, *supra* note 23, at art. 192.

^{283.} For example, the FAO sees MPAs as an approach to fisheries management, and does not speak to any issues associated with the rights of indigenous groups within the scope of MPAs because it focuses on the protection of the fish rather than the people who rely on them. See FAO, MPAs, Fisheries Management and the Ecosystem Approach, http://www.fao.org/fishery/topic/16200/en (last visited Dec. 3, 2016).

^{284.} Pew Charitable Trusts, supra, note 196.

^{285.} IUCN, *International Ocean Governance*, https://www.iucn.org/theme/marine-and-polar/our-work/international-ocean-governance (Last visited Dec. 3,

multilateral treaty (for example, as has occurred for the Southern Ocean around Antarctica), ²⁸⁶ MPAs cannot be established on the high seas. ²⁸⁷ Therefore, if an existing island with an MPA disappears into the sea, the relevant state can lose the right to protect those areas under the existing regime. Because the high seas are preserved under UNCLOS for all of mankind, no one state can have control (even for protection purposes) of an area on the high seas. ²⁸⁸ Moreover, while states create more MPAs with each passing year, ²⁸⁹ many of these MPAs fail to adequately consider climate change, DINs, or the human rights of indigenous groups in relation to the protection of biodiversity. ²⁹⁰

Indigenous knowledge of the resources that MPAs protect can aid scientists in gaining a greater understanding of how climate change affects the species that live in the ocean as well as how humans are responding to such changes.²⁹¹ The establishment of MPAs should thus require the use of indigenous knowledge in order to adequately protect the natural area while simultaneously supporting the cultural connection of the natives to their homes. In some cases, MPAs include clauses inviting indigenous persons to act as stewards of the MPAs. This provides them with explicit fishing, hunting, and traditional rights to access the areas with the expectation that they will collect

^{2016) (}stating that areas beyond national jurisdiction (ABNJs) have "few laws to promote their protection" as they are part of the high seas and cannot be controlled by any one state.).

^{286.} The Antarctic Treaty, Dec. 1, 1959, 12 U.S.T. 794, 402 U.N.T.S. 71, http://www.ats.aq/index e.htm.

^{287.} UNCLOS, supra note 23, at art. 89.

^{288.} Id. at art. 136.

^{289.} There are more than 5000 MPAs as of 2016 according to PROTECT PLANET OCEAN, *Global Facts About MPAs and Marine Reserves*, http://www.protectplanetocean.org/collections/introduction/introbox/globalmpas/introduction-item.html (last visited Dec. 3, 2016).

^{290.} Anthony Charles & Lisette Wilson, *Human Dimensions of Marine Protected Areas*, 66 ICES J. MARINE SCI. 1, 6 (2009) (detailing how MPAs can actually displace indigenous groups, causing tension between marine conservation and cultural conservation).

^{291.} See Shankar Aswani & Richard Hamilton, Integrating Indigenous Ecological Knowledge and Customary Sea Tenure with Marine and Social Science for Conservation of Bumphead Parrotfish (Bolbometopon Muricatum) in the Roviana Lagoon, Solomon Islands, 31 ENVTL. CONSERVATION 1, 69–83 (2004).

information on climate change in the area. ²⁹² For example, in the FSM on the island of Pohnpei in the Nahtik MPA, the villagers of Woahun Kepin Soamwoai relied upon fishing for the majority of their sustenance for most of the village's history. ²⁹³ Originally, the villagers were extremely upset when the MPA established a no-take area around their fishing habitats.²⁹⁴ However, after the Conservation Society of Pohnpei (CSP) stepped in to allow the community to monitor their own fishing habits and survey for poachers, the community began to accept the MPA.²⁹⁵ By teaching the community how to monitor the endangered fish, the FSM used the community's knowledge about fish species, as well as their navigation expertise, to better support the protection of the resources in the MPA.²⁹⁶ Generally, by integrating traditional indigenous knowledge into MPAs' conservation regimes and allowing indigenous groups to have continued access to certain areas to protect their cultural heritage, MPAs can successfully protect both the natural and cultural heritage of marine areas.

Nevertheless, DINs are still limited regarding the creation of globally recognized MPAs because those MPAs must be located within the 200 nautical mile zone of another island or within the 200 nautical mile zone of the nation to which they belong. As a result, once a DIN has lost its territory to the high seas, it loses its legal ability to protect associated cultural rights – unless MPAs can be extended into the high seas.

^{292.} MPA News Staff, *MPAs as 'Eco-cultural Systems': Indigenous People and the Intersection of Culture and Conservation*, MPA NEWS (July 30, 2016), https://mpanews.openchannels.org/news/mpa-news/mpas-%E2%80%9Ceco-cultural-systems%E2%80%9D-indigenous-people-and-intersection-culture-and [http://perma.cc/KM6J-KT6Z].

^{293.} LMMA NETWORK, *Pohnpei (Federated States of Micronesia): Nahtik Marine Protected Area*, http://lmmanetwork.org/pohnpei-federated-states-of-micronesia-nahtik-marine-protected-area/ (last visited Dec. 3, 2016).

^{294.} Id.

^{295.} Id.

^{296.} THE KASELEHLIE PRESS, CSP Holds Successful 13th Annual Marine Protected Area Cross-Site Visit at Ant Atoll, (Dec. 21, 2016), http://www.kpress.info/index.php?option=com_content&view=article&id=478:csp-holds-successful-13th-annual-marine-protected-area-cross-site-visit-at-ant-atoll&catid=8&Itemid=103 [http://perma.cc/72PA-LF58].

2. MPAs on the High Seas

Although states cannot currently establish MPAs on the high seas, many authors argue for the creation of such a regime.²⁹⁷ The major obstacle that these authors cite is that creating such a regime would require an amendment to UNCLOS.²⁹⁸ Amending a treaty can take years,²⁹⁹ and many DINs do not have time to wait for such an amendment before their islands disappear. Nevertheless, an amendment to UNCLOS allowing nations that have lost island territory as a result of climate change to regain that territory as high sea creates a solution for DINs. It is therefore important that DINs establish MPAs in these areas now before the islands disappear in hopes that such an amendment will pass. In the meantime, DINs can look to UNCLOS and other cooperative state and non-governmental organizations' (NGO) efforts that support the creation of high seas MPAs in the near future.

Under UNCLOS, states must cooperate in the protection and preservation of the marine environment on the high seas.³⁰⁰ Under customary international law, measures to protect and preserve the marine environment "shall include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life," no

^{297.} See e.g., Scovazzi, supra note 264, at 1-7; Bethan O'Leary et al., The First Network of Marine Protected Areas (MPAs) in the High Seas: the Process, the Challenges and Where Next, 36 MARINE POL'Y 3, 598-605 (2012); Kristina M. Gjerde & Anna Rulska-Domino, Marine Protected Areas Beyond National Jurisdiction: Some Practical Perspectives for Moving Ahead, 27 INT'L J. OF MARINE & COASTAL L. 2, 351-73 (2012).

^{298.} See Gjerde & Domino, supra note 297, at 353; Karen N. Scott, Conservation on the High Seas: Developing the Concept of the High Seas Marine Protected Areas, 27 INT'L J. OF MARINE & COASTAL L. 849, 856-57 (2012); Lora Reeve et al., Ocean Governance for Marine Conservation, 26 OCEAN Y.B. 268 (2012).

^{299.} See Raul Pedrozo, Is it Time for the United States to Join the Law of the Sea Convention, 41 J. MARITIME L. & COMMERCE 2, 164 (2010) ("The only other way to amend the Convention is through the convening of a diplomatic conference under Article 312. As we saw with Third United Nations Conference on the Law of the Sea (UNCLOS III), getting consensus on sensitive maritime issues took nine long years and difficult negotiations to complete. Any proposed amendments to the Convention would probably face similar scrutiny by the State Parties at the conference.").

^{300.} UNCLOS, *supra* note 23, at art. 192.

matter where they are located in the oceans.³⁰¹ This cooperation requirement for the protection, conservation, and management of the marine environment under articles 197, 117 and 118 of UNCLOS requires that states do not undermine each other's efforts to preserve the environment.³⁰² Given this evidence of support for marine protection under UNCLOS, it appears that UNCLOS would readily support the implementation of MPAs on the high seas.

Furthermore, multiple states and NGOs are organizing to support the creation of a high seas MPA regime. 303 The Pew Charitable Trusts released a brief on high seas MPAs in March 2016, detailing the critical features of a high seas MPA regime and laving out a model process for creating MPAs in areas beyond national jurisdiction.³⁰⁴ The United States' National Marine Protected Areas Center further supports this endeavor and even goes so far as to say that "[t]he United States supports working toward an ecosystem-based approach to management of marine areas, including the high seas."305 The Deep Sea Conservation Coalition reported that the IUCN World Conservation Congress and multiple UN member states met in Barcelona in 2008 to discuss their "strong support" for high seas MPAs. 306 On the international level, the United Nations Environment Programme (UNEP) began speaking about the potential for high seas MPAs in 2010 and has since continued its support through additional reports and even created a website for high seas MPAs.³⁰⁷

^{301.} Id. at art. 194.

^{302.} Id. at arts. 197, 117-18.

^{303.} See, e.g., IUCN, supra note 274; Pew Charitable Trusts, supra note 196; National Marine Protected Areas Center, MARINE PROTECTED AREAS, https://marineprotectedareas.noaa.gov/ (last visited Apr. 27, 2018); The United Nations Environment Programme (UNEP), About UN Environment, http://web.unep.org/about/ (last visted Apr. 27, 2018).

^{304.} Pew Charitable Trusts, supra, note 196.

^{305.} National Marine Protected Areas Center (NOAA), *NOAA and MPA Center Involvement in Marine Protected Areas Beyond National Jurisdiction (High Seas)*, http://marineprotectedareas.noaa.gov/nationalsystem/international/highseas/ (last visited Dec. 3, 2016).

^{306.} Deep Sea Conservation Coalition, States and NGOs Support Strong High Seas Measures, DSCC NEWS (Oct. 16, 2008) http://www.savethehighseas.org/2008/10/16/2522/#more-2522.

^{307.} See UNEP, High Seas MPAs: Regional Approaches and Experiences, UNEP Doc. No. (DEPI)/RS.12 /INF.6.RS (Sept. 2010); UNEP & WCMC, NATIONAL AND REGIONAL NETWORKS OF MARINE PROTECTED AREAS: A REVIEW OF PROGRESS

These examples of support for high seas MPAs evidence the international legal community's strong desire to create a high seas MPA regime in the near future. If the Pacific Island nations also put their voices behind this movement, they can have a say in how high seas MPAs could be best used in the context of climate change to protect the rights of their indigenous peoples and the natural heritage of their disappearing islands.

B. UNESCO World Heritage Designation

MPAs are not the only manner in which Pacific Island nations can protect their islands, people, and culture. When states sign onto the UNESCO World Heritage Convention, they agree to "identify and nominate properties on their national territory to be considered for inscription on the World Heritage List."³⁰⁸ The purpose of the World Heritage Convention is to gather member states in a coalition to protect and manage sites of international importance that are threatened with destruction in order to protect the heritage of these areas for all mankind and for future generations.³⁰⁹ States party to the convention must list areas within their jurisdiction for protection. The World Heritage Committee will then determine whether the site is "of outstanding universal value" based on ten selection criteria. 310 Once the Committee determines that an area meets at least one of these criteria, it will then be listed on the World Heritage List, obligating the state to submit reports monitoring the conservation of the area on a yearly basis.³¹¹ In return, states with listings under the World Heritage Convention are able to ask for funding to support the conservation of

^{(2012);} UNEP & WCMC, *Marine Protected Areas*, http://old.unep-wcmc.org/marine-protected-areas_470.html (last visited Dec. 3, 2016) ("UNEP-WCMC is working to establish marine protected areas within the high seas.").

^{308.} UNESCO, *States Parties Ratification Status*, http://whc.unesco.org/en/statesparties/ (last visited Dec. 3, 2016).

^{309.} UNESCO World Heritage Convention, *supra* note 29.

^{310.} UNESCO, *The Criteria for Selection*, http://whc.unesco.org/en/criteria/ (last visited Dec. 3, 2016).

^{311.} UNESCO, *Reporting and Monitoring*, http://whc.unesco.org/en/118/ (last visited Dec. 3, 2016).

the site and international assistance from other states for protection of the site.³¹²

There are currently 814 cultural sites designated under this convention, many of which are listed because of their importance to indigenous peoples' cultures. However, the FSM is the only Pacific Island nation to successfully list a cultural site. If more Pacific Island nations wish to protect their cultural heritage, listing these areas for protection under UNESCO is an important first step.

1. UNESCO Marine World Heritage Sites within EEZs

In 2001, the UN General Assembly adopted the UNESCO Convention on Protection of Underwater Cultural Heritage (CPUCH), which entered into force in 2009.³¹⁵ The CPUCH was the first document of its kind to recognize the existence of cultural heritage beneath the ocean in the form of shipwrecks, cities, prehistoric artwork, and sacrificial burial sites, among others.³¹⁶ Nevertheless, the limitation that the property must have been underwater for at least one hundred years before UNESCO will consider it for protection prevents many nations from becoming signatories to the convention.³¹⁷ For example, in the case of the FSM, the primary cultural heritage that should logically meet the requirements under UNESCO are the downed warships and planes from WWII that attract an incredible

^{312.} UNESCO, *World Heritage Fund*, http://whc.unesco.org/en/funding/ (last visited Dec. 3, 2016).

^{313.} UNESCO, *World Heritage List*, http://whc.unesco.org/en/list/?&type =cultural (last visited Dec. 3, 2016).

^{314.} *Id.* The FSM listed the Nan Madol Ceremonial Centre for its cultural significance to the historical indigenous groups of Pohnpei in 2011.

^{315.} UNESCO, *Convention on Protection of Underwater Cultural Heritage* (Nov. 2, 2001) http://unesdoc.unesco.org/images/0012/001260/126065e.pdf [hereinafter CPUCH].

^{316.} For a list of underwater cultural heritage sites, *see* UNESCO, *Underwater Cultural Heritage*, http://www.unesco.org/new/en/culture/themes/underwater-cultural-heritage/underwater-cultural-heritage/ (last visited Apr. 27, 2018), which includes: ruins, caves, submerged landscapes, World War I sites and shipwrecks located throughout the world.

^{317.} CPUCH, *supra* note 315, at art. 1(a).

number of international diving tourists each year.³¹⁸ However, because these objects have not yet been underwater for one hundred years, they do not qualify under CPUCH as "cultural heritage." Thus, the FSM has not signed the convention because its warships and planes do not yet qualify for protection.³¹⁹

Even so, other avenues exist for protecting marine cultural heritage. During the CPUCH adoption process in 2005, UNESCO's World Heritage Committee established the UNESCO World Heritage Marine Programme to ensure the protection of all marine sites, including all major marine types. Since this point, UNESCO has named fortynine Marine World Heritage Sites throughout the world, including Papahānaumokuākea and the Phoenix Island Protected Area in Kiribati, both of which are also MPAs. Course, in conformity with current international law, these protected areas are not located on the high seas; rather, they are within the 200-nautical-mile zone of the island nations' continental shelf and EEZs.

However, the international community is quickly breaking down these territorial limitations. On June 19 2015, the UN General Assembly adopted a resolution for the creation of an intergovernmental conference to negotiate an internationally binding instrument under UNCLOS for the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction.³²³

^{318.} See BLUE LAGOON RESORT, Truk Lagoon Wrecks, http://www.bluelagoondiveresort.com/truk-lagoon-wrecks.html (last visited Dec. 2, 2016).

^{319.} See Bill Jeffery, World War II Underwater Cultural Heritage Sites in Truk Lagoon: Considering a Case for World Heritage Listing, 33 INT'L J. NAUTICAL ARCHAEOLOGY 1, 106-21 (2004).

^{320.} UNESCO, *World Heritage Marine Programme*, http://whc.unesco.org/en/marine-programme/ (last visited Nov. 5, 2016).

^{321.} *Id*.

^{322.} UNESCO, *Phoenix Islands Protected Area – Maps, http://whc.unesco.org/en/list/1325/multiple=1&unique_number=1683* (last visited Jan. 3, 2017); UNESCO, *Papahānaumokuākea – Maps*, http://whc.unesco.org/en/list/1326/multiple=1&unique number=1672 (last visited Jan. 3, 2017).

^{323.} Catherine Benson, *UNGA Adopts Resolution to Develop Legally-Binding Instrument on the Conservation of Marine Biological Diversity in ABNJ*, IISD (June 23, 2015), http://sdg.iisd.org/news/unga-adopts-resolution-to-develop-legally-binding-instrument-on-the-conservation-of-marine-biological-diversity-in-abnj/?rdr=nr.iisd.org [http://perma.cc/W28Y-7REG].

As of April 2016, the first session for the working group included questions regarding not only issues of marine biodiversity, but also about the plight of DINs and indigenous persons.³²⁴ As the discussions of the binding treaty go forward, the intergovernmental working group should consider the application of cultural rights in the context of indigenous persons, especially with respect to DINs.

Most importantly, under UNESCO the international community is beginning to consider indigenous rights and cultural rights in relation to climate change. As such, when island nations plan for the eventual negative effects of climate change, they should take into account ways to remediate a loss of cultural rights by allowing indigenous communities access to territories that may one day become part of the high seas. If DINs list areas of cultural importance under UNESCO now, they may facilitate the transition of these areas to high seas UNESCO cultural sites in the future.

2. Expanding UNESCO World Heritage Designations on the High Seas

In July 2016, UNESCO released its "World Heritage Report 44" (the Report), calling for World Heritage sites to be established in areas beyond national jurisdiction (ANBJs) and in the high seas. 325 Given that UNESCO created the World Heritage Convention of 1972 to protect and preserve the natural and cultural heritage of mankind as a whole, 326 the Report calls for the broadening of the Convention to include ANBJs in order for states to uphold their international legal obligations stemming from UNCLOS's principle of the "global commons" and the CBD's principle of "common heritage of mankind."327

The Report defines ANBJs as including the seabed and water columns beyond the 200 nautical mile zone of the EEZs and

^{324.} See G.A. Res. No. 69/292 (June 19, 2015), http://www.un.org/depts/los/biodiversity/prepcom_files/IWGs_Indictive_Issues_and_Questions.pdf (indicative suggestions of clusters of issues and questions, "How might an international instrument give special consideration to indigenous communities?").

^{325.} UNESCO, WORLD HERITAGE IN THE HIGH SEAS, supra note 216.

^{326.} UNESCO World Heritage Convention, *supra* note 29, at pmbl.

^{327.} UNCLOS, supra note 23, at pmbl; CBD 1992, supra note 22, at pmbl.

continental shelf.³²⁸ Given that 70% of the earth is ocean, two-thirds of which lies beyond the national jurisdiction of states, the high seas will continue to grow due to loss of territory resulting from climate change. This creates more areas in need of protection under the UNESCO World Heritage Convention. 329 The Report is the first to provide strong scientific evidence that supports the protection of sites on the high seas under the UNESCO regime, even listing examples of potential high seas areas for protection and providing legal avenues for the creation of high seas sites.³³⁰ The Report offers three primary solutions under the UNESCO Convention to include high seas areas: (1) a bolder, broader interpretation of the UNESCO Convention through policy changes, (2) an amendment to the UNESCO Convention (similar to the 1994 Part XI Amendment to UNCLOS), or (3) the creation of an optional protocol to the UNESCO Convention developed through international negotiation of the states party to the Convention.³³¹

However, the Report focuses primarily on the protection of ANBJs as part of UNESCO natural heritage protection, leaving out the designation of high seas UNESCO sites for cultural reasons.³³² For example, the Report states that the "high seas undoubtedly include areas that would be regarded as meeting the natural world heritage criteria."³³³ Even so, the Report also states that this research limitation does not "prevent the identification of cultural sites in the high seas at a later stage."³³⁴ Although the Report does not focus on the protection of cultural rights through UNESCO high seas designations, it still provides an opening for DINs to support and prepare proposals in favor of UNESCO cultural sites on the high seas as means to protect their heritage when their territory faces total disappearance as a result of climate change.

^{328.} UNESCO, WORLD HERITAGE IN THE HIGH SEAS, *supra* note 216, at Foreword.

^{329.} Id.

^{330.} *Id.* at 11.

^{331.} *Id*.

^{332.} Id. at 17 & 24.

^{333.} Id. at 17.

^{334.} UNESCO, WORLD HERITAGE IN THE HIGH SEAS, *supra* note 216, at 17 & 24, respectively.

CONCLUSION: PROTECTING CULTURAL RIGHTS IN THE FACE OF CLIMATE CHANGE –FUTURE APPLICATIONS FOR DISAPPEARING ISLAND NATIONS

When island nations risk losing significant amounts of territory because of climate change, they also risk the loss of entire cultures whose traditional practices depend upon access to marine homelands. If the international community begins supporting the creation of MPAs on the high seas and the creation of UNESCO World Heritage Sites on the high seas, DINs could not only uphold their obligations to protect the environment, but also uphold their international legal obligations under international human rights law to protect the cultural rights of their indigenous peoples.

This article discusses how the Maldives, The Torres Strait Islands, the Papahānaumokuākea national monument, and the FSM are each supporting the protection of both their island environments and the human rights of their inhabitants in the face of climate change. To further support each state's mandates under international law, this article recommended that the international community undertake the creation of high seas MPAs and high seas UNESCO World Heritage sites. Thus, instead of applying these frameworks to each of the examples in this article, this article will conclude by using the FSM as just one example within the broader context of DINs that would greatly benefit from the creation of high seas MPAs and high seas UNESCO World Heritage sites.

The FSM is one of many DINs whose legal systems aspires to protect both indigenous cultures and their island environments, making it an excellent example of an island nation which would heavily benefit from the creation of High Seas MPAs and high seas UNESCO World Heritage sites. However, like many DINs, the FSM still suffers from a legal disconnect between the protection of indigenous persons and the environment in the face of climate change. While the FSM's Constitution does not explicitly mention the rights of indigenous peoples, it does recognize that, "to make one nation of many island nations, we respect the diversity of our cultures" and that "[w]e, who remain, wish no other home than this [and because our history] began in the days when man explored the seas in rafts and canoes . . . our world itself is an island . . . [and we are] the proud

guardians of our own islands, now and forever."³³⁵ Furthermore, the Constitution recognizes that because the FSM is a federation of states, each state may have traditional leaders and, as such, the government must respect and recognize the traditional leaders in their governmental structure. Although not using the term "indigenous persons" in its Constitution, the FSM shows support for indigenous peoples' protection by becoming a signatory to the Convention on Biological Diversity. Additionally, the FSM is a party to UNDRIP, and also abides by the UDHR simply by being a member of the UN. However, the FSM has yet to sign or ratify some of the core human rights documents, including the ICCPR and the ICESCR.

While extremely focused on climate change and leading the charge to prevent further harms from greenhouse gases,³⁴¹ the FSM has not yet fully considered human rights in conjunction with climate change, especially on the international legal front. The island of Kapingamarangi is one of the most vulnerable areas to climate change in the FSM, and potentially one of the most vulnerable island nations in the world. In the case of the FSM, once Kapingamarangi sinks, it will fall outside the 200 nautical mile zone of the FSM's remaining islands and become part of the high seas. Like many DINS, in order to

^{335.} Constitution of The Federated States of Micronesia, pmbl. (1978).

^{336.} Id. at art. V, §§ 1-3.

^{337.} CBD 1992, *supra* note 22, at Preamble, "*Recognizing* the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components."

^{338.} UNDRIP, *supra* note 77, at arts. 26-30, 32.

^{339.} UNITED NATIONS, *Member Nations*, http://www.un.org/en/member-states/ (last visited Dec. 2, 2016).

^{340.} OHCHR, *Status of Ratification Interactive Dashboard*, http://indicators.ohchr.org/ (last visited Dec. 2, 2016).

^{341.} SECRETARIAT OF THE PACIFIC REGIONAL ENVIRONMENT PROGRAMME (SPREP), FSM Fighting to Lower Greenhouse Gas Emissions under Montreal Protocol (Nov. 20, 2013), http://www.sprep.org/climate-change/fsm-fighting-to-lower-greenhouse-gas-emissions-under-montreal-protocol [http://perma.cc/L2FP-YVGW]; Leos Rousek, Micronesia Wants Czechs to Scrap Coal-Fired Plant Renewal, WALL St. J. (Jan. 15, 2010), http://blogs.wsj.com/emergingeurope/2010/01/15/micronesia-wants-czechs-scrap-coal-fired-plant-czechs-may-want-more-warmth/tab/article/ [http://perma.cc/5JSS-MDRD].

fully protect the cultural rights of the indigenous groups on its islands, the FSM should formulate a plan to allow continued access for its indigenous persons for subsistence fishing and cultural activities even after the island disappears. Such a plan would require the use of an MPA and the designation of a UNESCO World Heritage site while the islands are still inhabited and above the ocean.

Just as the FSM and all nations party to UNCLOS are obliged to protect their marine environments under international law, so are they obliged under the UDHR and their country's constitution to adequately respect and protect the cultural and traditional rights of its peoples. In order to accomplish this task, island nations in the Pacific should begin establishing MPAs and listing the areas as UNESCO World Heritage sites before the islands disappear. In order to further support their obligations to uphold the cultural rights of their unique indigenous tribes, these island nations must act now to protect these islands by listing them under the UNESCO framework or as MPAs in the hopes that these listings will eventually be converted into options for the protection of the high seas. Although these options do not yet exist, by taking these first steps for protection, the FSM can lead the charge for other Pacific Island nations to support better protection for their indigenous peoples in light of climate change.

As the opportunity to protect natural and cultural heritage sites on the high seas emerges, the FSM and other DINs should consider ways to become part of this discussion, including preparing scientific data on climate change, monitoring regimes for social, economic and cultural rights, and presenting proposals to allow cultural stewardship in areas of the high seas that were once home to indigenous groups. As this Article has suggested, ways in which island nations are responding to climate change through adaptation and remediation are not enough. With the possibility of losing entire islands to the high seas due to climate change, these nations must look beyond the mere loss of territory, and also look to the loss of cultural rights and heritage associated with those areas.

There are a number of ways that DINs can combat a dystopian future. These include creating MPAs and designating cultural heritage sites through UNESCO, both of which may one day be applied to the high seas. Should nations fail to heed this warning, they risk the loss of something far more precious than territory and sovereignty; they risk the loss of entire cultures. Only once the international community,

and Pacific Island nations specifically, fully recognizes that natural spaces are also cultural spaces can they adequately protect the cultural rights of their peoples.