The Marshall Islands Are Disappearing

Rising seas are claiming a vulnerable nation.

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Adapted by Fishtank Staff

- 1 EBEYE, Marshall Islands—Linber Anej waded out in low tide to haul concrete chunks and metal scraps to shore and rebuild the makeshift sea wall in front of his home. The temporary barrier is no match for the rising seas that regularly flood the shacks and muddy streets with saltwater and raw sewage, but every day except Sunday, Mr. Anej joins a group of men and boys to haul the flotsam back into place.
- 2 "It's insane, I know," said Mr. Anej, 30, who lives with his family of 13, including his parents, siblings and children, in a four-room house. "But it's the only option we've got."
- 3 Standing near his house at the edge of a densely packed slum of tin shacks, he said, "I feel like we're living underwater."
- Worlds away, in plush hotel conference rooms in Paris, London, New York and Washington, Tony A. deBrum, the foreign minister of the <u>Marshall Islands</u>, tells the stories of men like Mr. Anej to convey to more powerful policy makers the peril facing his island nation in the Pacific as sea levels rise—and to shape the legal and financial terms of a major <u>United Nations</u> <u>climate change</u> accord now being negotiated in Paris.
- Mr. deBrum's focus is squarely on the West's wallets—recouping "loss and damage," in negotiators' parlance, for the destruction wrought by the rich nations' industrial might on the global environment. Many other low-lying nations are just as threatened by rising seas. In Bangladesh, some 17 percent of the land could be inundated by 2050, displacing about 18 million people. But the Marshall Islands holds an important card: Under a 1986 compact, the roughly 70,000 residents of the Marshalls, because of their long military ties to Washington, are free to emigrate to the United States, a pass that will become more enticing as the water rises on the islands' shores.
- The debate over loss and damage has been intense because the final language of the Paris accord could require developed countries, first and foremost the United States, to give billions of dollars to vulnerable countries like the Marshall Islands. Senior Republicans in Congress are already preparing for a fight, they say on behalf of the American taxpayer.

- 7 "Our constituents are worried that the pledges you are committing the United States to will strengthen foreign economies at the expense of American workers," 37 Republican senators wrote last month. "They are also skeptical about sending billions of their hard-earned dollars to government officials from developing nations."
- 8 Mr. deBrum is undeterred.
- 9 "It does not make sense for us to go to Paris and come back with something that says, 'In a few years' time, your country is going to be underwater," Mr. deBrum said in an interview at his seaside home in Majuro, the capital of the Marshall Islands. "We see the damage occurring now. We're trying to beat back the sea."
- In the global fight over climate change, leaders of vulnerable low-lying island nations have long sought to draw attention to their plight. They have staged symbolic events like an underwater cabinet meeting, gone on hunger strikes and delivered anguished speeches to the United Nations. Those efforts have had little impact on the substance of the energy and economic policies that dictate governmental response to climate change.
- In the meantime, Mr. Anej and millions like him cope with the fallout while stranded on disappearing shores.
- 12 "I'm the oldest—I can't leave my parents," he said. "But I don't want my kids to drown here."
- Within the world of high-level climate negotiators, however, Mr. deBrum has made inroads. He manages to get into meetings of the Major Economies Forum, a group of 17 world powers convened by Secretary of State John Kerry to talk energy policy ahead of the Paris meeting. He is widely credited with either introducing or significantly strengthening crucial points in the draft accord set to emerge from Paris—in particular, putting a price on the destruction caused by climate change.
- He has pressed to require meetings every five years after the Paris summit meeting to ratchet up the stringency of international carbon-cutting policies. Mr. deBrum notes that the environment minister of Brazil, one of the world's largest carbon polluters, has cited the tiny Marshall Islands' plan to reduce its carbon footprint as an influence on Brazil's ambitious plan to do the same.
- For Mr. deBrum, a warming planet is not abstract. As the burning of fossil fuels increases heat-trapping gases in the atmosphere, the planet warms, and the <u>Greenland</u> and Antarctic ice sheets melt into the oceans. Sea levels are projected to rise one to four feet across the globe by the end of the century, a series of major international scientific reports have concluded.

- Most of the 1,000 or so Marshall Islands, spread out over 29 narrow coral atolls in the South Pacific, are less than six feet above sea level—and few are more than a mile wide. For the Marshallese, the destructive power of the rising seas is already an inescapable part of daily life. Changing global trade winds have raised sea levels in the South Pacific about a foot over the past 30 years, faster than elsewhere. Scientists are studying whether those changing trade winds have anything to do with climate change.
- 17 But add to this problem a future sea-level rise wrought by climate change, and islanders who today experience deluges of tidal flooding once every month or two could see their homes unfit for human habitation within the coming decades.
- In neighborhoods like Mr. Anej's, after the sewage-filled tides wash into homes, fever and dysentery soon follow. On other islands, the wash of saltwater has penetrated and salinated underground freshwater supply. On Majuro, flooding tides damaged hundreds of homes in 2013. The elementary school closed for nearly two weeks to shelter families. That same year, the airport temporarily closed after tides flooded the runway.
- 19 Such travails, voiced by Mr. deBrum, have meaning in Washington because what happens on the Marshall Islands affects the United States—on immigration policy, national security and taxpayer dollars. The two countries have a complicated history. During the Cold War, the United States military detonated 67 nuclear bombs on or close to the nearby Bikini Atoll and Enewetak Atoll—after first relocating the Bikini Islanders to different locations around the Marshalls.
- 20 At age 9, Mr. deBrum was fishing with his grandfather when he saw the flash of one of the tests on the horizon. "Within seconds, the entire sky had turned red, like a fishbowl had been put over my head, and blood poured over it," he recalled.
- 21 The deal offered: an open door to the Marshallese and Bikini Islanders. That bargain has already fostered communities of thousands of Marshall Islanders in Springdale, Ark., and Salem, Ore., fleeing a deluged future. That 1986 compact also established a United States government fund to support Bikini Islanders—as long as they continued to live in the Marshall Islands. Now the Bikini Islanders want to use that fund to move to the United States.
- 22 In the first decades of his career as a public official, Mr. deBrum, 70, worked as a diplomatic envoy to help his country recover from the impact of the nuclear testing. Now his focus has shifted to recouping the costs of climate change.
- 23 "Tony's clearly been a very big player on the issue of loss and damage," said Todd Stern, the United States' top climate change negotiator. "He has a lot of credibility in these negotiations."

- As Mr. Obama seeks a legacy on climate policy, officials in his administration have quietly encouraged Mr. deBrum to put the Marshall Islands forward as a symbol of the perils of climate change. The Obama administration may have boosted some of Mr. deBrum's efforts, but it has stopped short of backing language that would hold rich countries legally liable for loss and damage.
- In March, Mr. deBrum hosted Esther Kia'aina, the Obama administration official who oversees the government's relationship with the islanders, showing her the impact of sea-level rise on his home country. And last month in Washington, he met with members of Congress, urging them to support the Bikini Islanders' request.
- The efforts are showing some results. On Oct. 20, Ms. Kia'aina sent a letter to Congress, asking lawmakers to pass a bill that would allow the Bikini Islanders to restructure the terms of their fund to move to the United States.
- On defense matters, the Marshall Islands' strategic value to the United States no longer rests on the Pacific nuclear testing grounds but on Kwajalein, the largest of the Marshall atolls, which is home to the Ronald Reagan Ballistic Missile Defense Test Site. The 1,200 Americans who live on the base launch missiles, operate space weapons programs and track NASA research, supported by an annual budget of \$182 million. About 900 Marshallese workers take a ferry to the base every day to support them.
- The Pentagon, which has a lease on Kwajalein until 2066, has commissioned scientific studies on the impact that rising sea levels will have on the base's mission. In 2008, a tidal wash flooded the base and destroyed all the freshwater supplies on the island. The military responded with expensive <u>desalination</u> machines and heavy-duty sea walls made of riprap, a fortified granite used in hydraulic engineering.
- That is the kind of adaptation Mr. deBrum wants to see on the islands where his people live, and it would not be cheap. Among the most contentious terms to be negotiated in Paris will be a pledge, put forth during the 2009 climate change summit meeting in Copenhagen by Hillary Clinton, the secretary of state at the time, that rich countries would mobilize \$100 billion annually by 2020 to help poor countries control their greenhouse gas emissions and adapt to the punishing impacts of climate change. Countries have already established a "Green Climate Fund" to receive contributions. Mr. Obama has pledged an initial United States donation of \$3 billion.
- 30 "We'll be among the first 15 countries in line," Mr. deBrum said.
- 31 He envisions elevating Marshallese cities as much as six feet and building resilient new drainage systems. "That could buy us at least 20 years," he said.

- For now, on Majuro, the Marshall Islands' capital, the adaptation to sea-level rise is lower tech. In the neighborhood of Jenrok, a seaside cemetery has been eroded by the rising waves—about 10 rows of coffins and headstones have washed out to sea. To adapt, the Marshallese encase their dead in aboveground concrete tombs, but the rising waves have started to lap at those, too.
- 33 At the western tip of Majuro, in the lush, verdant community of Laura, farmers like Kakiana Ebot grow breadfruit to sell in the island's central market. But Ms. Ebot's breadfruit tree recently rotted away and died, she said, the victim of saltwater soaking into the soil and seawater spray on the leaves, she believes. With the loss of the tree, she said, comes the loss of about \$30 a day from selling its fruit.
- At a government-run farm, Steve Lipton, a crop production official for the Marshall Islands'
 Ministry of Agriculture, is experimenting with salt-resistant hybrids of crops such as taro and
 cassava. "We make the soil saltier and see what will survive, since we know it's getting worse,"
 he said.
- At international gatherings, from the Major Economies Forum to the United Nations General Assembly, Mr. deBrum frequently speaks of his island's dying breadfruit crop, to convey the surprising but concrete ways that rising sea levels are affecting lives and economic growth.
- 36 But for all his diplomatic acumen, Mr. deBrum's advocacy for a small island nation being swallowed by a vast ocean does not always rise above the roar of the surf. At a recent conference convened to draft the Paris accord, Environment Minister Prakash Javadekar of India listened to his pleas, then responded brusquely, "So what?"