

# Sinking Small Island Nations: Calls for a Lifeboat

by Pratheek Maddhi Reddy

Pratheek Maddhi Reddy is a third-year student, B.B.A. LL.B, at Jindal Global Law School, O.P. Jindal Global University.

In the South Pacific, midway between Hawaii and Australia, lies the beautiful island nation of Tuvalu, home to about 10,000 people. In about 40 years, Tuvalu will be uninhabitable, and in 70 years, at best, it is likely to be underwater. Due to rising sea levels caused by global warming, other low-lying island nations such as Kiribati, Fiji, Marshall Islands, Vanuatu, Micronesia, and Nauru are bound to suffer the same fate eventually.

The low-elevation small islands, which contribute negligibly to global warming, bear the most immediate consequences. For instance, high sea levels have resulted in displacement of people in Kiribati, Marshall Islands, Solomon Islands, and the Federated States of Micronesia. A devastating cyclone in 2008 destroyed agriculture and infrastructure in Fiji and required the Fijian government to provide \$1.7 million (Fiji dollars) worth of food rations.<sup>1</sup>

This raises pressing calls for remedies for sinking small island nations, in the forms of migration, compensation, and reduction in greenhouse gas (GHG) emissions. This Comment discusses what these remedies mean to the small island nations and their exigent nature, and proposes an alternative mechanism to litigation.

## I. Remedies

### A. Migration

Environmental events such as cyclones, floods, desertification, soil erosion, and changing coastlines will create an exigency to migrate, which is the natural adaptation strategy of mankind to environmental volatility. Contrary to general perception, more people are likely to migrate due to slow-onset processes of environmental degradation than because of sudden-onset events such as storms and cyclones.<sup>2</sup>

There is no verified estimate of projected population flow due to rising sea levels, only guesstimates. Sixteen percent of the land area of small island states is coastal area with an elevation less than 10 meters, as opposed to a global average of only 2%.<sup>3</sup> Maldives is the lowest-lying country, with more than 80% of land less than one meter above sea level.<sup>4</sup>

With sea-level rise of a mere 0.5 to 2.0 meters, between 1.2 and 2.2 million people from the Caribbean and Indian and Pacific Oceans could be displaced.<sup>5</sup> The total population in the Pacific region is projected to reach nearly 18 million by mid-century, which could result in between 665,000 and 1,750,000 people migrating to other regions of the world.<sup>6</sup>

Migration could be domestic as well as cross-border. Within-country migration is quite common among islands in the Pacific and Indian Oceans. For instance, due to inundation from high water levels and storms, 2,600 Papua New Guineans migrated from low-lying Carteret Islands to Bougainville.<sup>7</sup> However, the current rate of sea-level rise makes this and other such domestic population movements in Micronesia and Vanuatu too short-term a solution.

Hence, international or cross-border migration will soon be a reality. International migration and relocation require nuanced policy development aimed at cooperation among countries. There is a need for a framework that addresses barriers such as resources, information, and other social and personal factors in obtaining entry into new countries. Simultaneously, adaptive strategies in terms of citizenship, housing, services, and work in the

1. FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, CLIMATE CHANGE AND FOOD SECURITY IN PACIFIC ISLAND COUNTRIES 6 (2008).

2. Philippe Boncour & Bruce Burson, *Climate Change and Migration in the South Pacific Region: Policy Perspectives*, 5 POL'Y Q. 13 (2009).

3. Duncan Roden, *Pacific Islanders Call for Climate Justice*, PAC. ISLANDS NEWS ASS'N, Apr. 28, 2014, <http://www.pina.com.fj/?p=pacnews&m=read&o=1136012921535dcfc8c1f6cf8029f2>.

4. Gemima Harvey, *Sinking States: Climate Change and the Pacific*, DIPLOMAT, May 22, 2014, <http://thediplomat.com/2014/05/sinking-states-climate-change-and-the-pacific/>.

5. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014—IMPACTS, ADAPTATION, AND VULNERABILITY: REGIONAL ASPECTS 1639 (Cambridge Univ. Press 2014).

6. John R. Campbell, *Climate-Change Migration in the Pacific*, 26 CONTEMP. PAC. 9 (2014).

7. FOOD AND AGRICULTURE ORGANIZATION, *supra* note 1, at 11.

destination countries have to be developed to accommodate such migration.

Currently, there is little recognition within the international community of its responsibility to enable migration to other countries. Acting on a request from Tuvalu's Prime Minister, New Zealand agreed to allow a meager 75 Tuvaluans to relocate annually to the country, a migration that would stretch over 140 years, while Tuvalu could be underwater in as little as 50 years. On the other hand, on being approached with a similar request, Australia refused to make any such offers.<sup>8</sup>

## B. Compensation

The relevance of compensation to these small island nations is magnified multifold in light of the exorbitant cost of adaptation, poor conditions on the islands, and their negligible contribution to global warming. The 52 low-lying vulnerable island nations, home to more than 62 million people, emit less than 1% of global GHGs,<sup>9</sup> yet are the first and worst recipients of climate disruption. Compensation as a remedy could substantially alleviate the pressure on these islands.

Although assessing future costs of climate change impacts in the Pacific is challenging due to uncertainty over the speed and intensity of climate change and future socioeconomic choices, the "Pacific Possible" program of the World Bank predicts the cost of adaptation to be \$18,500 per person for Marshall Islands, \$11,000 for Solomon Islands, and \$1,500 for Samoa, over a period of 30 years from 2012.<sup>10</sup>

Environmental adaptation worldwide is in itself a costly affair. The cost of adaptation to an average temperature increase of 2° Celsius (C), between 2010 and 2050, is estimated to range from \$70 billion to \$100 billion per year.<sup>11</sup> A one-half meter rise in sea levels would place \$185 billion worth of property in jeopardy by 2100.<sup>12</sup> The capital cost of sea-level rise in the Caribbean Community countries alone is estimated at \$187 billion by 2080.<sup>13</sup>

8. Rebecca Elizabeth Jacobs, *Treading Deep Waters: Substantive Law Issues in Tuvalu's Threat to Sue the United States in the International Court of Justice*, 14 PAC. RIM L. & POL'Y J. 103 (2005).

9. Press Release, United Nations Environment Programme, First of Its Kind Guide Launched to Enable True Valuation of Ecosystems in Some of the World's Smallest and Most Vulnerable Economies (Jan. 26, 2015), available at <http://www.rona.unep.org/news/2015/first-its-kind-guide-launched-enable-true-valuation-ecosystems-some-worlds-smallest-and>.

10. THE WORLD BANK, PACIFIC POSSIBLE PROGRAMME, CLIMATE AND DISASTER RESILIENCE 32.

11. SERGIO MARGULIS ET AL., WORLD BANK, ECONOMICS OF ADAPTATION TO CLIMATE CHANGE: SYNTHESIS REPORT 19 (2010).

12. WILLIAM E. EASTERLING III ET AL., COPING WITH GLOBAL CLIMATE CHANGE: THE ROLE OF ADAPTATION IN THE UNITED STATES 14 (2004), available at [http://www.pewclimate.org/global-warming-in-depth/all\\_reports/adaptation/](http://www.pewclimate.org/global-warming-in-depth/all_reports/adaptation/).

13. Press Release, United Nations Environment Programme, Sea-Level Rise in Small Island Nations—Up to Four Times the Global Average—to Cost US\$ Trillions in Annual Economic Loss and Impede Future Development:

On the other hand, most of the sinking island nations suffer from low gross domestic product (GDP), overpopulation, crowding, unemployment, and general lack of resources. Tuvalu, for instance, is fully dependent on foreign aid; Australia, New Zealand, and the United Kingdom, as well as Japan and South Korea, have made major contributions to the Tuvalu Trust Fund, set up in 1987 for the sole purpose of helping the country survive.<sup>14</sup>

This should imply a moral obligation on the part of the international community, especially the high GHG-emitting countries, to help island nations survive climate change through economic aid and assistance. Although international climate litigation could result in compensation, such a route would not be easy or cheap for a country with an annual GDP of only \$33 million (Tuvalu) or \$100 million (Nauru).<sup>15</sup>

Legal analysts are considering the possibility of an international compensation commission that would receive claims from countries burdened with adaptation expenses such as strengthening seawalls or replacing wetlands. The commission would determine deserving countries and schedule compensation that could come from an international fund or a new alternative payment mechanism.<sup>16</sup>

## C. Reduction in GHG Emissions

The two main reasons for sea-level rise, thermal expansion of oceanic waters and melting of land-based ice, are caused by emission of GHGs such as carbon dioxide, methane, and nitrous oxide. Even if all the policies in force today are fully implemented, the global temperature is projected to rise by around 3°C by 2100.<sup>17</sup> A decrease in GHG emissions that could save these islands from sinking is not a possibility.

But this does not mean that a reduction in GHG emissions has no remedial value. A significant decrease in GHG emissions could potentially delay the island nations from becoming uninhabitable, thereby reducing the burden of accommodating mass migration. The former Prime Minister of Tuvalu, Enele Sopoaga, urged at the Paris Climate Change Conference that a goal of limiting global

Shift to Green Policies and Investment Critical (June 5, 2014), available at <http://web.unep.org/newscentre/sea-level-rise-small-island-nations-four-times-global-average-cost-us-trillions-annual-economic-loss>.

14. Andre Vltchek, *Sinking Tuvalu and the Pacific Islands in an Age of Global Warming*, 5 ASIA-PAC. J.: JAPAN FOCUS 2 (2007), available at <http://apjff.org/-Andre-Vltchek/2511/article.html>.

15. The World Bank, *GDP Ranking*, <http://data.worldbank.org/data-catalog/GDP-ranking-table> (last visited May 2, 2017).

16. Daniel A. Farber, *Basic Compensation for Victims of Climate Change*, 155 U. PA. L. REV. 1605-56 (2007).

17. *UNEP Report: Emissions to Be Limited by 2030 But More Action Needed*, U.N. SUSTAINABLE DEVELOPMENT GOALS, Nov. 6, 2015, <http://www.un.org/sustainabledevelopment/blog/2015/11/new-report-emissions-to-be-limited-by-2030-but-more-action-needed/>.

temperature increase to below 1.5° C is critical for small island states.<sup>18</sup>

In his appeal to the world to reduce GHG emissions, Prime Minister Sopoaga seemed to be using the most important—or rather, the only—viable weapon available to small island nations in this regard: moral suasion. Even though such moral alignment alone might not create sufficient political will, as has been proven so far, the plea to reduce GHG emissions could play through the larger global endeavor to combat global warming to move countries to action.

#### D. Other Remedies

While migration, compensation, and reduction in GHG emissions are broad remedies that the sinking island nations must aspire to, they are hardly exhaustive. There could be a wide range of remedies, both short-term and long-term, some of which are currently being implemented and others that will be carried out in the near future.

Examples of such measures are mostly adaptive, such as coastal protection, population consolidation, rainwater harvesting and storage, alternative methods of growing fruits and vegetables, human resource development, and research and observation. For instance, Tuvalu is constructing a 500-meter seawall to handle cyclones and wet-weather events.<sup>19</sup> Timor Island farmers have developed varieties of staple crops adaptive to erratic rainfall and cyclones.<sup>20</sup>

Whatever the remedial adaptive mechanism, high costs are unavoidable in implementation. Effective seawalls in the Marshall Islands were predicted to cost more than \$100 million, while the annual national GDP of this island nation is only \$120 million.<sup>21</sup> Lack of adequate construction expertise and vulnerability of these infrastructures to climate change impacts could also intensify the maintenance costs. This again highlights the need for international intervention in the form of financial backing and assistance.

## II. Proposal: An International Single-Purpose Forum

So far, litigation has been widely considered an immediate course to attain the remedies discussed above. However, reality proves that litigation is not a panacea. While climate litigation could have benefits, such as international recognition of the situation and disincentives to use fossil fuels and emit GHGs, it is too expensive for the island

nations to bear and chances of successful claims are bleak in the international courts and tribunals where consent to jurisdiction is a prerequisite.

A better route than attempting to force damages is reinvigorating political pressure and negotiating to create a forum through an agreement among global countries to help the sinking island states. Although the international community is not particularly favorable to a new treaty, because there are already so many and with little coordination, this agreement could merely be a small claim on the already existing environmental legal framework.

Such a framework includes a range of treaties and agreements such as the Stockholm Declaration (1972), the United Nations Framework Convention on Climate Change (UNFCCC) (1992), and the United Nations Convention on the Law of the Sea (1982). These instruments put a responsibility on States to reduce GHG emissions and a mandate to cause no environmental harm to other States; although the question of migration due to climate change currently has little consensus.

The agreement to create the forum must be based on the principles set out in such instruments, to ensure adequate and appropriate remedies to the sinking small island nations. Apart from arriving at negotiated conclusions regarding the legal status of migrants, the forum must formulate adaptive measures in the destination country to avoid loss of dignity and cultural identity of the displaced persons.

By extending the UNFCCC's stipulated obligation on countries to provide funds to combat global warming,<sup>22</sup> the forum could ensure compensation to the island nations in the form of contributions from Party countries. It has been estimated that between \$290 million and \$530 million is required just to undertake the most urgent adaptation actions in the Pacific.<sup>23</sup> The forum should create a fund in this regard and apply political pressure for countries to contribute.

Lastly, the forum could further establish a subordinate tribunal to assess the case presented by each island nation and to determine whether the nation deserves help from the international community. The tribunal could then invoke multilateral negotiations between origin governments and possible destination governments; or, in the alternative, give directions to such governments to facilitate migration, compensation, or other remedies to the sinking island nations.

## III. Conclusion

It is long overdue that we put the plight of sinking island nations at the heart of the debate around climate change and derive workable solutions. The time that is lost does

18. Prime Minister of Tuvalu Enele S. Sopoaga, Keynote Statement at the Leaders Events for Heads of State and Government at the Opening of the COP21 (Nov. 30, 2015), [http://unfccc.int/files/meetings/paris\\_nov\\_2015/application/pdf/cop21cmp11\\_leaders\\_event\\_tuvalu.pdf](http://unfccc.int/files/meetings/paris_nov_2015/application/pdf/cop21cmp11_leaders_event_tuvalu.pdf).

19. THE WORLD BANK, *supra* note 10, at 5.

20. Ryan Jarvis, *Sinking Nations and Climate Change Adaptation Strategies*, 9 SEATTLE J. SOC. JUST. 461 (2010).

21. 2 CLIMATE CHANGE IN THE SOUTH PACIFIC: IMPACTS AND RESPONSES IN AUSTRALIA, NEW ZEALAND, AND SMALL ISLAND STATES 236 (Alexander Gillespie & William C. Burns eds., 2006).

22. United Nations Framework Convention on Climate Change, June 4, 1992, art. 4.3.

23. Marianne Elliott & David Fagan, *From Community to Copenhagen: Civil Society Action on Climate Change in the Pacific*, in CLIMATE CHANGE AND MIGRATION: SOUTH PACIFIC PERSPECTIVES 61, 79 (Bruce Burson ed., 2010).

not allow us the privilege of dwelling on questions of justice and who should be liable to whom and for what. The Tuvaluan Prime Minister has said, “If we save Tuvalu, we save the world.”<sup>24</sup> But saving the territories of these islands

is impossible already. It is now incumbent on the international community to act collectively and save the people of these sinking islands.

---

24. Sopoaga, *supra* note 18.