

*Disappearing States:  
Ecological Canaries in the Coal Mines of the Sea?*

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Abstract

The disappearing nation of the Maldives and its sister island states (Kiribati and Tuvalu) pose a challenge to philosophy, policy, and law. Many of those who take a holistic ecological perspective see these, much like the canaries in the coalmines, as early warnings signs of the cataclysmic effects of climate change. The current international system is based on the creation of states with fixed populations and defined territories. International law has no mechanisms for dealing with the extinction of states. Drastic problems call for drastic solutions such as recognizing states without territories. Policy makers should not treat nuclear war as gang violence. Similarly, they should not approach climate change as if it were like pollution.

Yet, a piecemeal, environmental approach does provide a solution to disappearing states. Amending the Law of the Sea Convention to freeze baselines at current levels would have an enormous impact since it would assure these states as well as those with threatened coastal communities with rights to the living and nonliving resources within their Exclusive Economic Zones (EEZ). Kiribati has nearly the same size EEZ as Japan and nearly four times the EEZ size of China, which, in turn, has about the same size EEZ as the Maldives and Tuvalu. International refugee law would not have to find a new classification for the environmentally displaced citizens of these islands. With funds from selling the rights to these resources, these citizens would have sufficient funds to relocate almost anywhere.

The canary in the coalmine does not symbolize a dire warning of ecological catastrophe but rather a potent warning of how fear conjured by over-dramatizing challenges turns us into meek canaries.

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## Introduction

Why do nations fail? The authors of *Why Nations Fail* set out to provide answers, but, first, they teasingly ask “Is it culture, the weather, geography?” Their answer: “Simply no. None of these factors is either definitive or destiny.”<sup>1</sup> Apparently, these authors never visited the Maldives and other submerging nations. The weather in the form of rising sea levels has created a fairly definitive destiny of extinction for a number of island nations.

If they had visited the Maldives on October 17, 2009, they would have witnessed an extraordinary event. Mohamed Nasheed, president of the Maldives, held an underwater meeting for one hour with his ministers, in their scuba gear.<sup>2</sup> The officials limited their discussions to hand signals, but those listening heard their message loud and clear. Climate change would claim its first victim. The Maldives, the flattest nation on earth, eventually will find itself—like its cabinet—under the sea.

I shall propose a simple solution to this difficult and dramatic problem of disappearing island-states. However, I shall deviate from providing the typical road map of what is to come to lend a air of mystery to the un-mysterious and to give the argument an unimpeded flow. Further, I shall keep the length of this essay to a minimum to clearly reveal the overall structure of the argument. Readers interested in the details of environmental philosophy and international law have plenty of sources to reference.

## Ecological Holism versus Piecemeal Environmentalism

Climate change, allegedly, does not just pose one more environmental problem among many—to be added to a long list of global woes. Apparently, climate change symbolizes a catastrophic beast about to devour the entire planet. Only superlatives such as “cataclysmic” can capture its momentous force. To downplay its importance is to loose precious moments of hope to counteract the devastation already left in its wake.

“To describe these challenges as problems of pollution is to stretch the meaning of the word beyond recognition. Global warming is as different from smog in Los Angeles as nuclear war is from gang violence. The ecological crisis we face are more global, complex, and tied to the basic functioning of the economy than were the problems of environmentalism was created to address forty years ago. Global warming threatens human civilization so fundamentally that it cannot be understood as a straightforward pollution problem but instead an existential one. Its impact will be so enormous that it is better understood as a problem of evolution, not pollution.”<sup>3</sup>

Up until the discovery or recognition of climate change, humans could afford environmentalism—a piecemeal approach, dealing with one problem at a time. Climate change, supposedly, calls for a much more drastic, radical, holistic approach—in short, an ecological perspective.

Within an ecological framework it becomes apparent that pollution is to climate change as gang violence is to nuclear war. To mistake climate change for pollution would be tantamount to treating nuclear war as gang violence. Indeed, the analogies

used to conceptualize problems proves telling. Here, as we shall see, analogies can distort and mislead—diverting efforts away from the unglamorous, nitty-gritty work that, however piecemeal, might just provide the solutions.

Perhaps, however, the case of the Maldives<sup>4</sup> and its sister island states (Kiribati, Marshall Islands, Tuvalu<sup>5</sup>) do provide the world with the water situated equivalent of the canary in the coalmine. In the early days, coal miners carried caged canaries down into the pits. These smaller and more sensitive creatures would give miners ample warning when the environment became unsafe for human habitation.

As seen from the table below, the most vulnerable island nations have many things in common.

STATES	Independence	Area/km <sup>2</sup>	Population	GDP/Capita
Kiribati	1979 (UK)	800	100,000	\$1,592
Maldives	1965 (UK)	300	300,000	\$5,973
Marshall Is	1975 (“US”)	200	60,000	\$2,900
Tuvalu	1978 (UK)	26	10,000	\$3,400

They recently gained independence; they have small populations that reside on small areas of land; and their people have low-income levels. Most importantly, they have beautiful beaches and stunning landscapes that are threatened to disappear because of the devastation wrought by climate change.

These island states represent the more picturesque examples of threatened areas. Coastal communities throughout the globe provide fewer picture-perfect post cards but still represent highly threatened cases that deserve equal if not greater attention. Few may have ever heard of the Sunderbans in Bangladesh and India, the Jarawas in Bay of Bengal, the Inuit in the Arctic, the Cayos Miskito in Nicaragua, or the Vezo in Madagascar.<sup>6</sup> Yet, climate change also threatens the lands of each of these communities.

Further, disappearing islands and threatened coastal communities make up only one slice of the many people threatened globally by natural disasters. 2008 saw 36m displaced, mostly climate related; that figure increased to 38.3m in 2010.<sup>7</sup> It is estimated that the rate of natural disasters will increase dramatically over the next twenty years.<sup>8</sup>

#### International Law and State Extinction

To avoid becoming overwhelmed at the outset let us concentrate on the disappearing islands and see whether we have the conceptual tools and wherewithal to deal with their plight. Let us further confine our considerations to the challenges that disappearing nations pose to the law. A consensus has emerged that international law is not up to this challenge without radical and unlikely revisions. Of course, this is just what we should expect once we realize the global impact of ecological as opposed to environmental problems.

States lie at the center of the current political and legal international system. This system began—at least, according to the story told in every political science and law textbook—with the 1648 Treaty of Westphalia. Today, the international system is a fully entrenched system of states. There’s, practically speaking, hardly any other

actors on the international stage. With a few exceptions, the United Nations admits only states. Only states can appear before the International Court of Justice.

The 1933 Montevideo Convention gave a legal blessing to what every politician has come to recognize.<sup>9</sup> States comprise the building blocks of the international system. But what is a state? Alas, Montevideo provides an answer with a fourfold criteria for creation of a state: (1) a permanent population; (2) a defined territory; (3) an effective government; and (4) international capacity. Note that to qualify as a state, neither the population nor the territory needs to be large. However, presumably, once an island has sunk, it would no longer have either a population or a territory.

We need one more legal instrument before tackling the case of the disappearing islands, namely, the United Nations Convention on the Law of the Sea (LOS). A states territory extends out into the sea: Territorial Sea (12nm), Contiguous Zone (24nm), Exclusive Economic Zone (EEZ) (200nm), and the Continental Shelf (350nm). The only one of these zones that will concern us is the EEZ, which roughly signifies how much of the seabed a state can exclusively exploit for oil, minerals, etc.

Baselines<sup>10</sup> also will prove crucial to the analysis. The extent of each zone begins from a baseline near the shore. We should note a few things about baselines. First, they are drawn from natural sites and not from artificial structures. Second, baselines become problematic if those natural formations such as seashores change radically. Third, scattered island states have distinct advantages when it comes to drawing baselines.<sup>11</sup> Baselines for these archipelagic states are drawn around the entire perimeter of the islands.

The requirement of drawing baselines from natural and not artificial structures creates an interesting puzzle. LOS defines an island as “naturally formed” except for “rocks which cannot sustain human habitation or economic life” (Article 121). Japan has spent 29.3b yen<sup>12</sup> on Okinotorishima Island to qualify it as an island under LOS when this “island” consists of two barren rocks, 1400 yards apart and less than two feet above water.<sup>13</sup> Compare this to Hulhumalé, a 465-acre artificial island built next to the Malé in the Maldives and capable of supporting over 150,000 people.<sup>14</sup> As an artificial island, this would not extend the EEZ of the Maldives.<sup>15</sup>

To further dramatize and substantiate the problems facing LOS consider that islands have already disappeared. The United States and Mexico had conflicting claims over the island of Bermeja in the Gulf of Mexico, but it disappeared in 2009.<sup>16</sup> Similarly, the disappearance of New Moore Island in the Bay of Bengal in 2010 put an end to a dispute between India and Bangladesh.<sup>17</sup> Indeed, as one journalist wrote “New Moore, No More.”

In addition, wholesale relocations of a considerable number of island peoples have also already occurred. Inhabitants of Lohachara Island in the Bay of Bengal were moved to a nearby island in 2006.<sup>18</sup> Papua New Guinea has relocated residents of Duke of York Island and residents from Carteret Islands to Bougainville in 2007. Finally, the Maldives has already had to evacuate the residents of Kandholhudoo Island. These relocations represent a small sample of a massive relocation problem facing the world in the future. This century South Asia<sup>19</sup> has had 125 million migrants, with 75m of these from Bangladesh to India. 146m live less than 1 meter above sea level in South and East Asia. <sup>157</sup>

Again, it seems that international law is ill equipped to handle these looming catastrophes, especially those dislocated by them. International law does not even have an agreed upon way to classify these fleeing individuals. They do not fit the definition of a refugee as set forth in the 1951 Refugee Convention that focuses on political refugees. A number of authors have proposed new classifications: “environmental refugees”<sup>20</sup>, “climate change refugees”<sup>21</sup>, “environmental migrants”, and “environmentally displaced persons.”<sup>22</sup> However, the UNHCR has rejected these attempts.<sup>23</sup>

#### Solutions: Ecological versus Environmental

If the ecologists are correct, no amount of tampering with legal nuances will do. Dire problems call for drastic solutions. These ecological proposals range from the mild such as cession<sup>24</sup> and immigration<sup>25</sup> to the radical, including deterritorialized states<sup>26</sup>, trusteeships<sup>27</sup>, and cosmopolitanism<sup>28</sup>. At one point, the Maldives entered into negotiations with India to have it cede territory. Cession may have been plausible when, in the 1870s, Canada ceded territory to Icelanders in Manitoba<sup>29</sup>, but with the increasing scarcity of territory, cession does not provide a likely option. States are stingy with their territory and often restrictive with their immigration policies. New Zealand has agreed to admit 75 Tuvaluans per year. At that rate, it will take centuries for Tuvalu’s 11,000 people to immigrate.

The idea of a deterritorialized state challenges the core of the Montevideo criteria. Its proponents distinguish between the four criteria needed to create a state and criteria needed to extinguish a state. So, even without a territory, the Maldives and Tuvalu could still continue as states. They cite the Knights of Malta and the Papal See (1870-1929) as precedent cases of recognized states that have no territory. Yet, these examples are highly idiosyncratic. The League of Nations had a mandate system, and the United Nations, a trusteeship system set forth in Chapter XII of the Charter. Finally, some versions of cosmopolitanism attack the very idea of a nation state.

Whatever the lure of these ecological proposals, an environmental approach offers a more pragmatic solution. The Exclusive Economic zones hold the key. Compare the EEZs of the following states:

EXCLUSIVE ECONOMIC ZONE	
State	km <sup>2</sup>
United States	11,351,000
Japan	4,479,388
Kiribati	3,441,810
Marshall	1,990,530
Maldives	923,322
China	879,666
Tuvalu	749,790

A simple diagram can reveal a great deal. Note that the United States has the most extensive EEZ partly because of the islands it controls.<sup>30</sup> Japan pales in comparison to the US but has nearly five times the EEZ as China. China’s relatively paltry EEZ

may help explain its assertive claims to many disputed islands, which, if successfully resolved in China's favor, would triple its EEZ. However, most importantly for the purposes of this analysis, note the comparative large EEZs of the small disappearing island states. Kiribati has nearly the same size EEZ as Japan and nearly four times the EEZ size of China, which, in turn, has about the same size EEZ as the Maldives and Tuvalu. The economic potential of this is enormous.

An EEZ gives a state, within those boundaries, rights of exploitation over all natural resources (fish, etc.), nonliving resources (oil, gas, diamonds, etc.) as well as potential development rights of energy sources such as wind. In short, the disappearing states, despite the poverty of their people, have enormous potential sources of wealth within their EEZs. They may not have the wherewithal to exploit these resources themselves, but the EEZ gives them an incredibly powerful bargaining tool. They could sell exploitation rights to various sections of their EEZs to the highest bidders. Proceeds from these sales could then be used to relocate their peoples to, perhaps, any country of their choosing. Economic well-being would make attempts to carve out new categories of refugees an idle exercise indeed.

This solution, however, could only take place if the increasingly ambulatory baselines of the disappearing island states become frozen at their current levels.<sup>31</sup> Freezing baselines does not have the pinache of ending global warming. It represents a comparatively simple, piecemeal, that is, environmental, proposal. Yet, the consequences of amending LOS to do this would be enormous and widespread. For one thing, it would begin to address not only the plight of those living on the disappearing islands but also it could serve as a platform for strengthening those coastal communities threatened with extinction.

The institutional mechanisms for carrying out these negotiations already exist in the form of regional organizations. For example, the Small Island Developing States (SIDS) already has strength in numbers with some forty-member states. The South Asian Association for Regional Cooperation and the Pacific Island Forum Secretariat also could serve as representatives. Similarly, coastal communities could use the Integrated Coastal Management Law (ICZM) to form an organization.<sup>32</sup> The ecological approach, cited at the outset, relies on a highly misleading analogy. Pollution is not to climate change as gang violence is to nuclear war. Climate change problems are no more or no less amenable to solution than pollution problems are. They both require nothing less than the mobilization of the political will needed to solve them. We should resist hyperbolic analogies. The international community, greatly to its detriment, has bought into seeing terrorism as like nuclear war when a saner view would see it more as a form of gang violence. The international community should not make the same mistake with climate change that it made with terrorism.

## Conclusion

Let us return to the analogy that began this essay, namely, the canaries in the coalmine, and end on an improbably academic note, namely, with a song.

### Canary In A Coalmine

-----*Sting & Police*

First to fall over when the atmosphere is less than perfect

Your sensibilities are shaken by the slightest defect

You live your life like a canary in a coalmine

You get so dizzy even walking in a straight line

You say you want to spend the winter in Firenze

You're so afraid to catch a dose of influenza

You live your life like a canary in a coalmine

You get so dizzy even walking in a straight line

Canary in a coalmine

Canary in a coalmine

Canary in a coalmine

Now if I tell you that you suffer from delusions

You pay your analyst to reach the same conclusions

You live your life like a canary in a coalmine

You get so dizzy even walking in a straight line

Canary in a coalmine

Canary in a coalmine

Canary in a coalmine

First to fall over when the atmosphere is less than perfect

Your sensibilities are shaken by the slightest defect

You live your life like a canary in a coalmine

You get so dizzy even walking in a straight line

Canary in a coalmine

Canary in a coalmine

Canary in a coalmine

Canary in a coalmine

Canary in a coalmine

Canary in a coalmine<sup>33</sup>

The canary does not serve as an early warning signal of impending catastrophe. Rather, it serves as a warning sign about us. Too often we react meekly to hyperbolic fear when our “sensibilities are shaken by the slightest defect.” The canaries should help us realize that caring for our selves and our habitats is not a glamorous but an arduous task. We are the canaries---not a fragile and delicate canary—but resilient and resourceful canaries.

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<sup>1</sup> Daron Acemoglu and James Robinson, *Why Nations Fail: The Origins of Power, Prosperity, and Power* (New York: Crown, 2012). The authors are an MIT economist and a Harvard political scientist, respectively. Ironically, the book has been nominated for the 2012 Goldman Sachs Business Book of the Year Award.

<sup>2</sup> “From Underwater, Maldives Sends Warning on Climate Change,” CNNWorld (Oct. 17, 2009).

<sup>3</sup> Ted Nordhaus and Michael Shellenberger, “From the Death of Environmentalism to the Politics of Possibility,” 8 *Breakthrough Journal* (2007).

<sup>4</sup> Michael Gagain, “Climate Change, Sea Level Rise, and Artificial Islands: Saving the Maldives’ Statehood and Maritime Claims Through the ‘Constitution of the Oceans,’” 23 *Colo. J. Int’l Envtl L & Policy* 77 (2012).

<sup>5</sup> Rosemary Rayfuse, “W(h)ither Tuvalu? International Law and Disappearing States,” (Univ. of N.S.W. Faculty of Law Research Series, Working Paper No. 9, 2009).

<sup>6</sup> Tony George Puthucherril, “Change, Sea Level Rise and Protecting Displace Coastal Communities: Possible Solutions,” <http://ssrn.com/abstract=2255225> at 2.

<sup>7</sup> Monitoring Disaster Displacement in the Context of Climate Change: Findings of a Study by the United Nations Office for the Coordination of Humanitarian Affairs and Internal Displacement Monitoring Centre (Switzerland, United Nations Office for Coordination of Humanitarian Affairs, 2009).

<sup>8</sup> Vikram Kolmannskog, “Climate of Displacement, Climate for Protection?” Norwegian Refugee Council, DIIS Brief (10 Dec 2008).

<sup>9</sup> Montevideo Convention on the Rights and Duties of States, Article 1, Dec. 26, 1933, 165 L.N.T.S. 19 [hereinafter Montevideo Convention].

<sup>10</sup> D. Caron, “When the Law Makes Climate Change Worse: Rethinking the Law of Baselines in Light of a Rising Sea Level,” 17 *Ecology Law Quarterly* (1990): 621; Rosemary Rayfuse, “International Law and Disappearing States: Utilising Maritime Entitlements to Overcome the Statehood Dilemma,” in University of New South Wales Faculty of Law Research Series (Univ. of New South Wales, Paper No. 52, 2010) at 6; Maxine Burkett, *The Nation Ex-situ: On Climate Change, Deterritorialized Nationhood and the Post-Climate Era*, 2 *Climate Law* (2011): 345-74 at 362.

<sup>11</sup> The Maldives has over twenty atolls and 1,190 islands. U.N. Office for Ocean Affairs & The Law of the Sea, *The Law of the Sea: Baselines*, at 50, U.N. Sales No. E.88. V. 5(1989). “Introduction,” Permanent Mission of the Republic of the Maldives to the United Nations Office at Geneva. Maldives: An Overview, S. Asia Reg’l Initiative for Energy.

<sup>12</sup> Yoshikawa, Y. “The US-Japan-China Mistrust Spiral and Okinotorishima,” *The Asian Pacific Journal* (2007).

<sup>13</sup> Jonathan Charney, “Rocks that Cannot Sustain Human Habitation,” 93:4 *The American Journal of International Law* (1999) 863-878.

<sup>14</sup> Koji Fujima, et al, Preliminary Report on the Survey Results of 26/12/2004 Indian Ocean Tsunami in the Maldives 82 (2005).

<sup>15</sup> See Gagain, footnote 4, (proposing a new rule of LOSC “to give effect to artificial island statehood” at 82).

<sup>16</sup> Cleo Paskal, “Strange Case of Disappearing Island,” *The New Zealand Herald* (April 3, 2010).

<sup>17</sup> Shiv Sahay Singh, “New Moore, No More: Rising Sea Claims Island in Bay of Bengal,” *The Times of India* (March 25, 2010).



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- <sup>18</sup> G. Lean, "Disappearing World: Global Warming Claims Tropical Island," *The Independent* (December 24, 2006).
- <sup>19</sup> Tony George Puthucherril, "Adapting to Climate Change and Accelerated Sea-Level Rise through Integrated Coastal Zone Management Laws: A Study of the South Asian Experience" in Aldo Chirop et al eds., *26 Ocean Yearbook* (Leiden: The Netherlands, 2012).
- <sup>20</sup> Silke Marie Christiansen, *Environmental Refugees: A Legal Perspective* (Nijmegen: Wolf Legal Publishers, 2010).
- <sup>21</sup> Tiffany TV Duong, "When Islands Drown: The Plight of 'Climate Change Refugees' and Recourse to International Human Rights Law," *31 U Pa J Int'l L* (2010): 1239 at 1250.
- <sup>22</sup> The Nansen Conference: Climate Change and Displacement in the 21<sup>st</sup> Century, Oslo, Norway, June 5-7, 2011 (Norwegian Refugee Council, 2011) at 19.
- <sup>23</sup> UNHCR Climate Change, Natural Disasters and Human Displacement: A UNHCR Perspective, [nd] at 8-9.
- <sup>24</sup> Alfred H. A. Soons, "The Effect of a Rising Sea Level on Maritime Limits and Boundaries," *37:2 Netherlands International Law Review* (1990): 207-32 at 230.
- <sup>25</sup> Ministry of Pacific Islands Affairs, *New Immigration Category for Pacific Migrants* (2002).
- <sup>26</sup> Ruth Wedgewood, "Cyber-Nations," *88 Kentucky Law Journal* 957-965 (1999-2000).
- <sup>27</sup> Henry H. Perritt, Jr., "Structures and Standards for Political Trusteeship," *8 UCLA J. Int'l L. & For. Aff.* (2003): 385.
- <sup>28</sup> Michele A. McKinley, "Conviviality, Cosmopolitan Citizenship, and Hospitality," *5 Unbound* 55 (2009). Carol Farbkoto, "Wishful Sinking: Disappearing Islands, Climate Refugees, and Cosmopolitan Experimentation," *51:1 Asia Pacific Viewpoint* (2010): 47-60.
- <sup>29</sup> W. Kristijansson, *The Icelandic People in Manitoba* (Winnipeg, 1965).
- <sup>30</sup> The east and west coasts of the US only make up less than one-third of the total with the addition of Alaska raising that to nearly one-half of the total. This means that over one-half of the total comes from island possessions.
- <sup>31</sup> 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.* 621 (1991). Caron was the first to propose freezing baselines.
- <sup>32</sup> Cormac Cullian, *Integrated Coastal Management Law: Establishing and Strengthening National Legal Frameworks for Integrated Coastal Management*, FAO Legislative Study, No. 93 (Rome: FAO of the United Nations, 2006).
- <sup>33</sup> Source: <http://www.sing365.com>.



