

## Associate Paper

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### **Climate Change and the Future Governance of the Micro-Island States of the Indian Ocean Region**

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#### **Key Points**

- The micro-island states of the Indian Ocean Region face an uncertain future due to climate change.
- Some of those countries do not have sufficient resources to deal with the challenges facing them, even as their ethno-linguistic heritage, biodiversity and, in a few cases, even existence are endangered.
- Of the available options, political union/free association with a larger state is most likely to secure the future of the citizens of the vulnerable micro-island states.
- A set of criteria is outlined to identify countries with which micro-island states could possibly federate or freely associate.

#### **Summary**

While the major powers quibble over the fine print of climate change agreements, small island countries and countries with extensive, low-lying coastal plains face an uncertain future. The people of these countries face serious threats to their existence because of a man-made problem to which they may not have necessarily contributed much. In a number of cases, these countries do not have the resources to deal with the problem on their own and, therefore, have no option but to wait for the rest of the world to apportion responsibility and take collective action. In light of the never-ending climate change

negotiations and difficulties in ensuring the timely implementation of potential commitments, if any, by major polluters, we should examine other solutions.

This paper first discusses the circumstances of the Indian Ocean micro-island states before examining four possible solutions to their existential problems: legal action against major polluting countries, natural depopulation, planned resettlement, and political union or free association with a larger state. Of all the available options, political union/free association with a larger state is most likely to secure the future of the citizens of these micro-island states. A set of criteria is outlined to identify potential federation or free association partners.

## Analysis

### ***Micro-Island States of the Indian Ocean***

There is a large academic literature on the classification of states according to their size. Here, a simple rule will be used to identify micro-states. Any state with an area of less than 10,000 km<sup>2</sup> and/or a population of less than one million is a micro-state for the purposes of this discussion. It thus includes five Indian Ocean countries: Bahrain, Comoros, the Maldives, Mauritius and Seychelles.

Interestingly, some of the states that qualify as micro-island states as per the definition given here have Exclusive Economic Zones (EEZs) that are among the largest in the world (the Maldives, Mauritius, and Seychelles, for instance).

In contrast to the micro-island states of the South Pacific and Caribbean, which have relatively close relations and a certain degree of common historical experiences, the micro-island states in the Indian Ocean are separated from each other by great distances. This accounts in large part for the climatic, ethnic and political differences among



them. Another feature that differentiates the Indian Ocean micro-states is linguistic homogeneity. With the exception of Madagascar, the Indian Ocean islands are remarkably homogenous in terms of language. The Indian Ocean islands are generally also more accessible to rest of the world compared to, say, the South Pacific islands.

Apart from geological and climatic differences, micro-island states also differ in terms of economic development and international relations, which, in turn, account for the differences in their capacities to deal with climate change. For instance, among the micro-island states, members of relatively vibrant regional organisations like the European Union (Cyprus and Malta) or reasonably wealthier states (Bahrain, Barbados, Cyprus, Malta and Singapore) are relatively better equipped to deal with climate change.

While the rest of this discussion will focus on the Indian Ocean, it nonetheless has wider applicability to other regions and is particularly relevant for South Pacific island countries like Kiribati, Nauru, Samoa, Tonga and Tuvalu. Moreover, while this discussion will be restricted to the island states of the Indian Ocean, it bears noting that other Indian Ocean states like Burma/Myanmar and Bangladesh that contain large river deltas and low coastal plains are also likely to be badly affected by climate change.

The territories of the Indian Ocean can be classified in a number of different ways, each relating to a particular way of dealing with climate change or to a particular aspect of vulnerability. Note that this discussion does not include the territories of Australia (Christmas Island, the Cocos Islands and Heard and McDonald Islands), India (Lakshadweep and the Andaman and Nicobar Islands), South Africa (Prince Edward Island), Tanzania (Zanzibar), the British Indian Ocean Territory, and the French overseas territories (Mayotte and La Réunion) because, in each of these cases, the residents can potentially shift to the metropole without placing significant additional pressure on it. This discussion also excludes Singapore, a micro-island state, as it lies to the east of the Strait of Malacca.

The physical size of a state affects its capacity to withstand climate change risks on its own because it potentially allows resettlement within the country. The Indian Ocean consists of a large state (Madagascar, the fourth largest island in the world), a small state (Sri Lanka), and five micro-states (Bahrain, Comoros, the Maldives, Mauritius and Seychelles). The distribution of landmass is also important because micro-island states with a total landmass that is not divided into numerous small islands are better equipped to deal with climate change. The ratio of EEZ to land area can be used to measure the aforesaid distribution and to classify these states: 0-10 (Madagascar and Sri Lanka), 11-100 (Bahrain and Comoros), 101-1000 (Mauritius), and >1001 (the Maldives and Seychelles). If this ratio is large, it means the landmass is divided between far-flung islands.

According to maximum elevation, the micro-states can be classified as follows: 0-10 metres (the Maldives), 100-200 m (Bahrain), 500-1000 m (Mauritius and Seychelles) and > 1001 m (Comoros). In the case of Comoros and Seychelles, elevation is unhelpful because their limited area is further divided among a number of islands – they consist of a few low lying islands and a few other islands with steep gradients.

We can also classify these states according to whether their location is close to a continental landmass (Bahrain, Comoros and the Maldives) or not (Mauritius and Seychelles). Yet another useful classification is based on the nature of the islands: states that consist of coral islands (the Maldives and Seychelles) are particularly vulnerable to rising sea level.

The overall size of the economy and per capita income influence the capacity to withstand climate change risks insofar as they decide the limits of what a country could spend to deal with crises. According to income, these states can be divided into three groups: >US\$10,000 (Bahrain, Mauritius, and Seychelles), US\$5,000-US\$10,000 (the Maldives), <US\$1,500 (Comoros). Comoros – like neighbouring Madagascar – is included in the UN list of Least Developed Countries.

### ***Political Instability and Fragile Economies***

The micro-island states of the Indian Ocean are alike insofar as they have faced political instability – sometimes severe – at different times and are tied down to relatively undiversified economies that are extremely vulnerable to climatic shocks.

Comoros, one of the poorest countries in the region, has seen a coup almost every two years since independence in 1975. In 1985 and 1989, the French intervened to restore normality and, in 1987, the South Africans intervened in a similar situation. Political instability remains, despite a high degree of religious, linguistic and ethnic homogeneity. Interestingly, on the one hand, Comoros has irredentist claims over French-governed Mayotte – geographically a part of the African Arab-Islamic Comoros archipelago but which has repeatedly and overwhelmingly voted to become closer to France – and, on the other hand, it has faced its own secessionist threat from the islands of Anjouan and Mohéli, which wanted to join French Mayotte. The secessionist movement failed as the French did not show any interest. Comoros has, since then, adopted a cumbersome and expensive solution to political instability and its vulnerability to secessionism, under which each island has its own government.

<b>Micro-Island States of the Indian Ocean</b>											
Country	Area (Km <sup>2</sup> )	EEZ (Km <sup>2</sup> )	Bulk of Landmass	Elevation (metres)	Population	Population Density (Per Km <sup>2</sup> )	GDP (PPP) (billion US\$)	Per Capita GDP (PPP; US\$)	Legal System	Ethno-linguistic Group(s)	Official Language
Bahrain	760	8,884	A few small islands	122	1,314,089	1,729	34.96	29,800	Common (English) §	Arabic	Arabic
Comoros	2,235	164,691	A few small islands	2,360	766,865	343	0.91	1,300+	Civil (French) §	Mixed (African, Arab)	Arabic/ French
Maldives	298	916,189	Archipelagic @	2.4	393,595	1,321	3.07	9,100	Common (English) §	Maldivian	Dhivehi †
Mauritius	2,040	1,272,787	A few small islands	828	1,331,155	653	20.95	16,100	Mixed (English/ French)	Mixed (Asian, African, European)	English
Seychelles	455	1,332,031	Archipelagic @	905	91,650	201	2.4	25,900	Mixed (English/ French)	Mixed (African, Arab, Asian, European)	English

**Notes:**  
† Indicates Least Developed Country (LDC).  
@ Indicates that the country largely consists of coral islands.  
§ Indicates use of customary law (Islamic in cases of Bahrain, Comoros and the Maldives) in the non-commercial sphere.  
‡ English de-facto national working language.

Bahrain is deeply polarised between the minority Sunni (the faith of the royal family) and majority Shia. In fact, ever since attainment of complete independence from Britain, Bahrain has faced Shia unrest and depends on British, American and Saudi support. In 2011, Saudi Arabia intervened to contain Shia unrest. Bahrain also had a boundary dispute with Qatar, while Iran has in the past shown interest in Bahraini territory on historical grounds. At present, Bahrain hosts the Fifth Fleet of the US Navy, which indirectly guarantees its independent existence.

Even Maldives, which is one of the most homogenous countries in the world in terms of religion, ethnicity and language, has seen political instability due to weak institutions. India had to intervene in 1988, when the Maldivian Government asked for help against Tamil mercenaries who had invaded the archipelago state. More recently, the Maldives has possibly seen infiltration by religious extremists. Consisting of numerous small, very low elevation coral islands and atolls, the Maldives is particularly vulnerable to rises in sea levels and sea temperatures due to climate change. In fact, four-fifths of its area is less than one metre above sea level. Natural disasters simultaneously affect a number of key sources of income. For instance, extreme weather events can simultaneously derail the tourism and fishing sectors. Former President Mohamed Nasheed highlighted the existential crisis facing the country by conducting the world's first underwater Cabinet meeting. The problems facing the Maldives are compounded by the extraordinarily high population density and persistent political instability. The Maldivian capital, Malé, is perhaps one of the most densely populated cities in the world. The Maldives might have to relocate parts or the whole of its populations due to rising sea levels.

Even though Mauritius and Seychelles have emerged as the only stable democracies in the region, they have faced instability in the past. In 1968, the British intervened when ethnic riots broke out in Mauritius on the eve of independence. Tanzania intervened in Seychelles in 1977, 1978 and 1982 to support the government in the face of coups, mutinies and unrest. On the last occasion, the Tanzanians were assisted by the French.

Furthermore, most of these islands are poor in terms of mineral and energy resources, although Bahrain, with its longstanding oil industry and gas reserves, is an exception. The economies of most of these islands are heavily dependent on tourism, which indirectly exposes them to global economic shocks that affect the inflow of tourists from major economies. The tourism industry is also vulnerable to domestic political instability, which is one of the reasons why Comoros has not developed as a tourist destination.

Tourism accounts for more than one-quarter of the GDP of the Maldives and is the source of more than two-thirds of its foreign exchange. Fishing is the next most important sector of the economy. Climate change will simultaneously affect both tourism and fishing. Political instability has affected both tourism and the country's ability to face the challenges posed by climate change. It has also affected the modernisation of the Malé international airport that is vital for the country's tourism industry.

In the Seychelles, tourism and fishing dominate the economy, with the former accounting for about one-third of employment and as much as three-quarters of foreign exchange earnings.

Some of these islands depend on agricultural exports, the prices of which can fluctuate severely. Comoros depends almost entirely on a few crops like vanilla, ylang-ylang and cloves for foreign exchange earnings. Even Mauritius, which has a reasonably diversified economy, depends on sugarcane for about one-sixth of its export earnings. Sugarcane, in fact, occupies most of the cultivable land of Mauritius. Until the growth of the tourism sector, Seychelles was also heavily dependent on agriculture.

### ***The Way Forward?***

The rest of this discussion will examine four possible options available to the micro-island states of the Indian Ocean: legal action against polluters; natural depopulation; planned resettlement; political merger/free association.

**Legal Action against Polluters:** This is not a reliable option. First, international legal process is extremely time-consuming and non-binding. Second, micro-states have neither the financial resources, nor the skilled manpower to pursue this option. Third, major polluting countries are unwilling to acknowledge their contribution to climate change, which is a prerequisite for apportioning liability. Fourth, even if timely compensation can be obtained through legal action, the funds might not be sufficient to secure the micro-states against climate change. Fifth, it leaves unaddressed the problem of dealing with catastrophic events while litigation is in progress or even when the implementation of the final verdict is being worked out. Sixth, the division of the compensation among the micro-states will be a challenge because some of them might require total resettlement while others may need in situ support. In any case, the problem of countries requiring total resettlement will remain unresolved because of lack of access to a suitable site for resettlement.

**Natural Depopulation:** One of the easiest options is to allow gradual depopulation through usual economic emigration and to hope that no one is left on ground before the doomsday predictions come true. This is problematic, as it leaves the people of these countries at the mercy of other states' willingness to absorb economic migrants over which they have no control. There are a number of other issues that need attention.

First, even if it is assumed that timely depopulation will be achieved, this approach will lead to later conflicts over the nearly-abandoned territories. Until the question of ownership of abandoned territories is settled, the policing of these islands and their enormous EEZs against poachers will suffer due to collective action problems among major powers in the region. In fact, after depopulation, these countries could serve as sanctuaries to pirates and international terrorist organisations. Comoros, Seychelles, and the Maldives have faced mercenary attacks in the past, when other countries have had to intervene to restore order.

Second, the roadmap from economic migration to citizenship of another country will remain uncertain in the absence of major changes in international and domestic refugee laws. Legal reform in this area will remain stuck as long as climate change negotiations are not concluded. Island states have no means of influencing the pace or outcome of the evolution of international law or the domestic legislation of other countries. In any case, cosmetic changes in refugee law will not bind countries to accept climate change refugees.

Third, the problem of dealing with catastrophic events will remain unaddressed because even a reformed refugee law will call for absorbing migrants without stating what needs to be done to deal with the immediate fallout of catastrophic events that might trigger an exodus in the first place.

Fourth, since some of the languages of the region are spoken by very small communities, individual economic migration could well tear asunder communities, leading to loss of culture and language.

**Planned Resettlement:** We have seen above that voluntary, unorganised migration by individuals is not a solution. But planned resettlement of whole communities elsewhere on purchased land is not a workable solution either. As migrants and foreign citizens, the settlers will have no voting rights in the destination country while, in the aftermath of a major catastrophe, the home state will practically cease to function. So, the resettled population will remain citizens of a dysfunctional or non-existent state for an indefinite period. In addition, it is unclear who would fund the resettlement and which country would accept settlers planning to form a de facto state. Former president Nasheed of the Maldives showed interest in creating a sovereign wealth fund and purchasing land elsewhere to deal with the impending crisis, but little has been heard of this since his ouster.

Before discussing the next option, note that a combination of legal action and natural depopulation or planned resettlement is also not a viable solution.

**Political Merger/Free Association:** There is another possible solution that avoids the shortcomings of solutions examined so far, namely, a political merger/free association with larger states. This will benefit the people of the micro-states by eliminating domestic political and economic instability and obviating their dependence as settlers on governments that are not democratically responsible to them. It will also relieve them of the burden of maintaining the paraphernalia of sovereignty – such as currency, army and embassies – and allow them to freely access disaster management and a much larger and diversified labour market. In fact, merger/free association could remove the need for desperate rescue operations by allowing phased, preventive relocation of vulnerable communities to safer locations within the federation.

A few micro-states in the South Pacific like the Marshall Islands, Micronesia and Palau, which joined the United States in the 1980s and 1990s, and dependencies like the Cook Islands and Niue, which joined New Zealand in the 1960s and 1970s, under free association arrangements are effectively automatically assured of the support needed to deal with climate change exigencies. The Compact of Free Association between the United States and the above South Pacific states provides the latter with assured economic assistance and access to disaster management programmes. The compacts also support trust funds to smooth the stream of income in the foreseeable future. It may now be time to see if similar arrangements could be worked out in the Indian Ocean. Interestingly, all the Indian Ocean micro-island states had the option of joining a larger state at the time of independence.

African Arab-Muslim Comoros (formerly a French colony) had the option of joining Tanzania (African multi-religious, formerly British colony), Mozambique (African multi-religious,



formerly Portuguese colony), or Madagascar (Malayo-Polynesian, African indigenous religion-Christian, formerly French colony). Similarly, Creole-multi-religious Mauritius and Creole-Christian Seychelles could have joined Madagascar. In none of these cases, however, did the states choose to merge with their neighbours. Quite apart from joining others, some of these states managed to stay united only because of outside help. The French, for instance, did not show interest in splinters of Comoros, while the British intervened to avoid the partition of Mauritius demanded by some of its French citizens. But note that Muslim-majority Zanzibar joined Tanganyika to form Tanzania.

When Maldives attained independence, it did not ask for merger with India, which included the Lakshadweep Islands that are part of the greater Lakshadweep-Maldives-Chagos archipelago (but nor could India have pressed for merger, given Islamic Pakistan's sensitivity to losing a Muslim territory in the region to India). Moreover, the British were interested in an independent Maldives and maintained an airbase there until 1976. Interestingly, the physical and ethnic distance between the Andaman and Nicobar Islands and the nearest Indian mainland territory is far greater than that between the Maldives and the nearest Indian territories, particularly the southern part of the Lakshadweep, with which it shares ethnic and linguistic ties.

When the British decided to pull out of Persian Gulf in the late-1960s, Bahrain (Shiite majority under a Sunni monarchy), Qatar (Sunni majority under a Sunni monarchy), and seven Trucial Arab states (Sunni majority under a Sunni monarchy) attempted union. It was fashioned as the Federation of Arab Emirates. The initiative turned out to be stillborn as Bahrain and Qatar walked out in 1971 in a dispute over the distribution of power within the federation and proclaimed their independence. The Trucial States closed ranks and formed the United Arab Emirates in the same year. While all were former British protectorates, only those that had experience of working together during the British period succeeded in uniting.

Given their history of independence, it is difficult to predict if any of Indian Ocean micro-island states would agree to join a larger state under the pressure of climate change. In any case, it is useful to identify the conditions that have to be satisfied for there to be a successful federation/free association between a larger state and one or more micro-states of the Indian Ocean. While it is equally unclear which larger states might wish to enter into such an arrangement, any prospective partner should fulfil the following set of criteria:

1. *Distance*: A prospective partner should not be located far away from the micro-state.
2. *Geo-climatic*: A prospective partner should not be located in a geo-climatic region that is substantially different to that of the micro-state.
3. *Risk*: A prospective partner should not be exposed to correlated risks (both the micro-state and the larger state being exposed to the same risk simultaneously), even though it is located in the same geo-climatic region. Even if it is exposed to a correlated risk, it should not be vulnerable in that respect.



4. *Size*: A prospective partner should not be small in terms of area and economy.
5. *Income*: A prospective partner should not be economically backward.
6. *Experience*: A prospective partner should have prior experience in managing territories in the Indian Ocean.
7. *Democracy*: A prospective partner should be a stable multi-party democracy.
8. *Institutional*: A prospective partner should have a compatible legal system and official language.
9. *Ethnicity*: A prospective partner should be a multi-ethnic/religious country.
10. *Constitution*: A prospective partner should have a constitution that is identity-neutral and that contains provisions for the protection of the cultural, linguistic and land rights of minorities, as well as provisions for their political representation.

If the above conditions are fulfilled, the merger negotiations should not be particularly cumbersome because the people of the micro-states need full citizenship rights and the right to relocate en masse as communities, if required in the worst case. The rest will be taken care of by the constitution of the larger federating unit, which will not allow discrimination and which will also afford reasonable protection to the customary rights, cultural and linguistic heritage, and local autonomy of the people of the micro-states. The constitution of the larger federating unit will also ensure that there is no influx from the mainland and that the islanders are not dispossessed of their land. The larger federating state will no doubt have to accept some population movement from the micro-island state. But, even in the worst case scenario, the larger partner will not be overwhelmed if the entire population of the most vulnerable islands has to be relocated.

But, why should a country that fulfils the above criteria agree to the proposed merger/free association with a neighbouring micro-island state?

Even without “merger”, the larger neighbour has little choice but to intervene at its own expense — the potential political unrest and humanitarian catastrophe that would ferment on its doorstep, if it did nothing, necessitates this. After merger/free association, the larger partner can jointly manage the marine resources of the micro-state which could be used to partly offset the costs of relocation and protection of the micro-state’s population.

### **Conclusion**

After examining a variety of solutions to the existential problems facing the micro-island states of the Indian Ocean, political union/free association with a larger state is found to be the most suitable from the perspective of the citizens of the micro-island states. Such a solution would resolve the micro-states’ existential crisis without causing any serious economic, demographic or legal adjustment problems. Further, given that climate change negotiations are gridlocked, and that reliable long-term commitments from the international community to aid the micro-states remain absent, the international community has a moral duty to support any such proposed mergers.

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