

Seeking Safety from the Storm: The Impact of Climate Change on Inter-Island Relations and Human Migration in Micronesia

Donald RUBINSTEIN

*Micronesia Area Research Center
University of Guam, Mangilao GU 96923 USA*

Abstract

Pacific Islanders are well aware of the intimate relationship between climate change and people's life within island environments. For many Micronesian islanders, especially those living on coral atolls only one or two meters above sea level, cultural adaptations to climate changes such as droughts, typhoons, and changes in sea level have been necessary for survival from the earliest times of settlement, over a thousand years ago. One important strategy for cultural adaptation to climate change in Micronesia has involved the ability of small island communities to draw together through larger inter-island relationships of mutual assistance. Because low coral islands are especially vulnerable to these sudden or gradual changes in climate, throughout Micronesia low island communities have developed inter-island networks among themselves, and special political linkages to neighboring high volcanic islands that are less vulnerable and can provide emergency refuge and assistance after devastating storms or floods on the small coral islands.

Within Micronesia, Yap and the Outer Islands have developed the most extensive network of inter-island relations between a high island complex and a group of far-flung low coral islands. Lying along the track of the most frequent and destructive typhoons of the western Pacific, the Yap Outer Islands have always been the most vulnerable islands in Micronesia to storm damage and to the impact of climate change. Centuries ago the "Yapese Empire" developed, linking all the Outer Islands under the authority of one high-ranking group of villages on the main high island complex of Yap. Traditionally the Outer Islanders have paid tribute to their Yapese chiefs, and relied upon the Yapese for protection and assistance after storms.

In very recent years a unique new phenomenon has been occurring, as Outer Islanders, using their traditional linkages to Yapese chiefs, are establishing stable migrant settlements in various parts of Yap. Within the past five years, three major new settlements have taken shape, with Outer Islanders constructing homes and planting gardens in Yap. Many factors are contributing to this new migration movement, which is part of a globalizing and urbanizing trend throughout the Pacific. One factor is certainly islanders' concerns about the impact of climate change on their low coral atoll home islands. Although climate change is not yet well understood in the general population of Islanders, educated community leaders are aware of the longterm threat of climate change, and such leaders have played a significant role in spearheading efforts to secure land in Yap for the growing number of Outer Island migrants.

要 旨

太平洋の島々に住む人々は、気候の変化と人々の生活が密接に関係していることを良く知っている。多くのミクロネシアの人々、特に海拔1, 2mしかない環礁に住む人々は、干ばつ、台風、海面の変化といったことに数千年前の定着当初からそれらの状況に適応しようと努めてきた。また、それら気候の変化に適応するために、それぞれの小さな島々の共同体が相互に助け合うための大きな共同体を構成するという文化的な戦略もある。海拔の低い珊瑚礁の島々は、突然、あるいは次第に変化する気候には特に脆弱であり、共同体同士が助け合うというネットワークを作ってきたのである。特に、海拔の高い火山島からなる島々はそれらの危険に対して海拔の低い島々ほどには大きな影響を受けない。そこで、海拔の高い島々がその周囲の海拔の低い島々と政治的にも結びつき、台風や洪水時の避難先として、また援助の手を差し伸べるという役割を果たしてきたの

である。

ミクロネシアで見ると、ヤップとその外側の島々が、海拔の高い島とその周囲に広がる珊瑚礁の低海拔の島々とで構成される大規模なネットワークを構成している。西太平洋における台風の通り道にあるため、ヤップの低海拔の島々はミクロネシア内では台風や気候の変化に最も弱い島々である。数百年前、ヤップは、「ヤップ帝国」として、その主島の村の支配層がその周囲の島々を支配下に治めるといった形態を取っていた。周囲の島々に住む人々は、主島の酋長達に貢ぎ物を納め、台風時にはその援助を受けるという関係を保ってきたのである。

ごく近年になって、その関係に新しい出来事が認められるようになった。すなわち、周囲の島々の人々は、酋長達との伝統的な関係を利用して、ヤップに移り住むようになったのである。過去5年間で、3ヶ所に新しい移住地が形成された。人々はそこに住宅を建設し、庭を作っているのである。これには多くの要因が関わっていると思われるが、一つは太平洋全域に認められるグローバリゼーションや都市化といった傾向である。もちろん、彼らが元々住んでいた環礁の島々は、海拔が低く、気候の変化の影響をまろに受けるということが最大の原因であることはいうまでもない。気候の変化という問題について、太平洋の島々に住む人々すべてが理解しているとは言えないが、教育を受けている共同体のリーダー達はこれによる長期的な被害についても認識しており、周囲の島々からの移住者のために大きな努力を払っているのである。

During the past decade, Yap State Outer Islanders have been establishing permanent settlements on the main island of Yap. In one sense this is a new and unique phenomenon: Outer Islanders have never before built permanent homes and cultivated perennial gardens in Yap. Yet in another sense this movement is part of an age-old pattern of Outer Islanders in Yap -and atoll dwellers in other parts of Micronesia as well-relying on their high island neighbors for assistance in times of need.

In this talk I want to focus on this process of Outer Islanders seeking safety through inter-island relationships among themselves, and especially through social and political ties with higher and larger neighboring islands. I also want to point out that climate change and globalization are intensifying this process of islanders seeking safety through expanding their social and political relationships.

Global warming and associated sea level rise will impact Micronesian islands differently. The main difference is that the high mountainous islands such as Yap or Guam provide much greater protection and more secure resources than the low coral atolls. The high islands provide more protection from destructive winds and devastating floods. The high islands also hold much greater groundwater capacity, and they are much less likely to suffer from drought or saltwater damage to interior gardens. Throughout Micronesia, high islands offer greater sustainability than the low coral atolls that are vulnerable to typhoon destruction and flooding from high waves. This contrast is especially evident in Yap State, which lies along the main path of frequent typhoon movements in the western Pacific Ocean. Typhoons in the western Pacific typically form as low pressure areas around Pohnpei or Chuuk states. The typhoons intensify as they move west towards Yap. Yap State, the westernmost of the four FSM states, usually suffers the greatest impact of the storms. The islands of Yap State lie mainly along an east-west belt, and typhoons have been known to travel down the chain of islands, causing destruction and damage

to each island community in their path.

The Outer Islanders of Yap have learned how to survive climate changes in the past, and they have learned how to adapt to recurrent climate extremes such as droughts, typhoons, and flooding. One important strategy for cultural adaptation has involved developing and maintaining social and political connections between the more vulnerable coral atolls and the neighboring high islands. These relationships probably go back to the earliest settlement, perhaps two thousand years ago, according to archaeological studies.

In Yap and the Outer Islands, these relationships became institutionalized over time into the *sawei* system—the so-called Yapese empire. This system evidently developed over five hundred years ago. It involved formal relations of tribute and aid between Gagil, a traditional center of chiefly power in northern Yap, and all the outer islands stretching a thousand kilometers between Yap and Chuuk. Every few years a fleet of outer island canoes carrying chiefs' representatives would sail to Yap, bringing tribute and trade items to the Yapese chiefs in Gagil. In turn, the Outer Island communities could count on assistance from the Yapese in times of need. Throughout Micronesia, similar relationships developed, although less formalized than the Yapese Empire. The low coral islanders of Yap are master seafarers and navigators, and they maintained social and political ties with kinsmen, chiefs, and trade partners on neighboring and distant high islands.

During colonial times over the past two centuries, these systems of social and political ties intensified. Permanent or semi-permanent resettlement communities of coral islanders grew up in the colonial administrative centers on the main high islands. In most cases, the creation of these resettlement communities was the direct result of natural disasters such as typhoons and droughts.

For example, two hundred years ago a devastating typhoon struck the Yap Outer Islands. Afterwards a small group of survivors from Lamotrek and Satawal sailed all the way to Guam, following traditional sailing routes. They asked the Spanish governor of Guam for permission to settle in Saipan. This is the origin of the current Carolinian population on Saipan. A similar example is found on Pohnpei. One hundred years ago, a few dozen islanders from Kapingamarangi, a low coral atoll 800 kilometers south of Pohnpei, fled a deadly drought on their home island, and settled in the port town of Kolonia on the high island of Pohnpei, which was then under German colonial rule.

During the same period, there were other similar examples on Pohnpei of islanders from low coral atolls in the Mortlock Islands in Chuuk, or from the small atolls of Pingelap and Mokil east of Pohnpei, who formed resettlement communities in Pohnpei after destructive storms or droughts in their home islands. During the German period in Palau, a similar settlement developed after a group of coral islanders from Tobi and Sonsorol, small coral atolls southwest of Palau, left their home islands after a destructive typhoon and came to the high island of Palau. They sought assistance from chiefs in Palau and they were given permission to live along the mudflats on Arakabesang Island near the main town and political center of Koror.

In all these cases, Outer Islanders seeking assistance on the high islands of Guam, Pohnpei, or Palau had to rely on political ties to local chiefs or to colonial rulers, in order to gain rights to land where they could resettle. Throughout Micronesia, islanders who live on the high mountainous islands have held greater political status and have presumed a sort of cultural superiority over their low island neighbors. This is especially true in Yap, where a traditional caste-like system put Outer Islanders at a particular disadvantage on Yap. Traditionally, Outer

Islanders were not allowed to own land on Yap, and when visiting Yap they were expected to behave with extreme deference towards the Yapese, almost like a servant class paying respect to a landlord class. Because of this cultural subordination, Outer Islanders had especial difficulty gaining permission to live in Yap. It was not until early in the American administration, during the 1950s, that Outer Islanders acquired a place to live in Yap. The Catholic Church purchased a small piece of muddy land beside the water, close to the main town of Colonia. This place was known as "Madrich" and it was designed to give Outer Islanders a temporary place to stay when they came to Yap to use the hospital or other government services. Over the years the population of Madrich outgrew the size of the land, and the area had to be expanded by extending landfill into the water. The reclaimed land belonged to Yapese who had traditional rights to the shoreline, and when these landowners demanded payment, the Yap State Legislature got involved and assumed the annual expense of leasing the land for the use of the Outer Islanders.

Since the mid-1970s, the process of economic globalization has led to growing numbers of Outer Islanders settling in Yap. The main force has been education: as the first generation of college-educated Outer Islanders returned home, many found jobs in government offices or private companies in Colonia, the main town of Yap. In the 1970s and 1980s, the Outer Islanders in Yap lived mostly in the crowded and muddy Madrich settlement. A few Outer Islander families occupied government houses in and around Colonia.

The threat of global climate change and sea level rise has prompted new efforts at strengthening and securing Outer Islander connections to neighboring high islands in Micronesia. These efforts have been spearheaded by the Outer Islander leaders, who are much more aware and concerned, than is the general population, about the potential for global climate change and sea level rise to render the Outer Islands unsafe or even uninhabitable. In Yap, Outer Islanders have pursued at least five separate efforts with increasing urgency in recent years. The goal of the Outer Islanders has been to either purchase land outright in the Yap main islands, or to acquire land through traditional means. Let me briefly describe these various efforts. Each effort has a complex history, but they all demonstrate the dependence of the Outer Islanders on political connections to the high islands, and the important role that the Outer Islander leaders have played in securing safe settlement areas in Yap.

The first effort began in the late 1980s. Outer Islanders acquired a piece of land called Dabwech in central Yap, in Tomil municipality. This land was leased from its original Yapese landowners, with the Yap State Legislature paying the cost of the lease, and the Outer Island Council of traditional Chiefs giving customary valuables like woven cloth lavalava and coconut fiber rope to the Yapese local chiefs and landowners. The Outer Island Council of Chiefs also assumed authority over the land. Today there are about a hundred Outer Islanders living at Dabwech, mostly from Woleai and Eauripik atolls. They are living in concrete homes reinforced for typhoon protection, and they are planting coconuts, bananas, taro and other food crops on their land.

A second effort began in the mid 1990s by a few key leaders from Fais Island. The Fais people acquired a large parcel of land called Ruu' in northern Yap, in high-ranking Gagil municipality. This effort is the most interesting from a traditional political perspective, because it's the only Outer Islander settlement in the chiefly municipality of Gagil. All the negotiations were done through traditional channels of communication with chiefs. Up now there has been no formal transfer of title or ownership, nothing is in writing, and no money has changed hands.

According to Yapese legend, Ruu' was the site of a very bloody war centuries ago, and afterwards the site was abandoned and allowed to remain unused. Today about 75 Fais Islanders are living in Ruu', mostly in wood and tin-roofed houses, and they have planted extensive gardens of sweet potato and taro and other food crops.

A third effort is quite recent. Beginning only about four years ago, Outer Islanders began settling in a place called Gargey, which like Dabwech is in Tomil municipality in central Yap, although Gargey is not as far from Colonia town as Dabwech. Gargey was originally envisioned as a place where all the Outer Islanders on Yap could settle. One island leader from Woleai was the main proponent for this effort. He was an educated man and a former high official in the Yap State government, and he was aware of the growing threat that climate change and sea level rise held for the Outer Islands. The general community, however, resisted the idea and preferred to remain in their familiar settlement in Madrich. After Typhoon Sudal hit Yap in 2003 and destroyed most of the homes in Madrich, many families began moving up to Gargey. There has been a number of land disputes over the Gargey land, illustrating how difficult it is for Outer Islanders to acquire land in Yap. When discussions about Outer Islanders settling in Gargey first began, several Outer Island communities tried to put together the purchase price, over \$200,000. When they failed to collect enough money, they appealed to the Yap State Legislature and the FSM national government. The FSM government passed an unprecedented bill authorizing purchase of the land as a grant to Yap State, for exclusive use by the Yap State Outer Islanders.

The last two efforts involve recent purchases within the past year or two by the Satawal Island community and the Faraulep Island community to buy land in Rull municipality in central Yap, close to Colonia. These settlements are still under construction.

All these five efforts in Yap illustrate the escalating demands from Outer Islander communities coping with concern over climate change and increasing pressure of economic globalization. These efforts in Yap State also have national implications in the Federated States of Micronesia. Now that the Congress of Micronesia has acted on behalf of the Yap Outer Islanders by appropriating money for a land grant for them in Yap main island, other resettled coral islander communities in the FSM are voicing demands for similar land grants. The Mortlockese and the Kapingans, who have occupied resettlement sites on the high island of Pohnpei since the early 1900s, also have sought national congress support to secure more land for themselves in their high island state center.

At higher levels of political relations, the Micronesian governments nationally have been pursuing a continuing association with the United States that will allow free emigration of Micronesian citizens to the United States and its territories. The immigration privilege was built into the 1986 Compact of Free Association between Micronesia and the US. Micronesian political leaders envisioned emigration to the United States as a sort of "safety valve" to relieve the pressure of population growth within the small islands, and to enable their citizens to get education and training in the U.S. Today, with increasing concern over global warming and sea level change, the open emigration privilege carries increased importance for many Micronesians moving out to Guam, Hawaii, or the US mainland.

Internationally also, Micronesia has taken steps to make its concerns known. The Federated States of Micronesia participated in the first international Earth Summit in 1992 in Rio, and the Micronesian delegation was the one to introduce at that conference the concept of "environmental refugees." The Micronesian island nations continue to take an active role in regional and international organizations like the Association of Small Island States and the

South Pacific Regional Environmental Program that look at these issues of climate changes and environmental damage. Thus concerns over climate change are evident at many levels in the Pacific Islands, from local island political relations, to national policy, to international diplomacy. The recent efforts of Yap Outer Islanders to secure land in Yap are one piece of a much larger pattern. As Pacific Islanders' awareness and concerns over global climate change grows, there will be increasing efforts to seek safety on higher ground, and to strengthen political connections with outside sources of assistance.