Vol. 147, No. 2 · Research article

DIE ERDE
Journal of the Geographical Society of Berlin

Only a pawn in their games? environmental (?) migration in Kiribati – past, present and future

Eberhard Weber[1]

[1] *School of Geography, Earth Science and Environment, Laucala Bay Road, Suva, Fiji Islands, weber_e@usp.ac.fj*

Manuscript submitted: 14 August 2015 / Accepted for publication: 11 April 2016 / Published online: 30 June 2016

Abstract

The Pacific Island Countries and Territories (PICT) are exposed to the impacts of climate change. In extreme cases entire states may disappear. Kiribati is one of these countries. Within its own territory there are no places to where people could be safely resettled when their home islands become unsuitable for human habitation. Large-scale resettlement is nothing new to the people of Kiribati. In colonial times people from various islands were resettled. The Phoenix Island Settlement Scheme (PISS) is one of these efforts to allegedly bring people to safety. Making use of primary sources that have become available only recently the paper raises the question if there is anything to learn from PISS for present times, or if PISS has historical value only, as the United Kingdom's last colonial expansion scheme. The paper asks about conflicting intentions of colonial authorities and assesses if and possibly why strategic political considerations resulted in a situation where humanitarian motivations retreated into the background leading to a sub-optimal preparation of the scheme, which then finally led to its failure. The paper comes to the conclusion that behind reportedly noble purposes there is a layer of colonial interests which lets settlers appear as objects in a larger colonial game.

Zusammenfassung

Die Pazifischen Inselstaaten und -territorien sind den Auswirkungen des globalen Klimawandels ausgesetzt. In extremen Fällen kann dies dazu führen, dass ganze Staaten verschwinden. Kiribati ist eines dieser Länder. Innerhalb des eigenen Staatsgebietes gibt es keine Orte, wohin Menschen in Sicherheit gebracht werden könnten, sollten ihre Heimatinseln unbewohnbar werden. Große Umsiedlungsmaßnahmen sind nichts Außergewöhnliches für die Menschen in Kiribati. In der Kolonialzeit wurden Menschen von verschiedenen Inseln umgesiedelt. Das *Phoenix Island Settlement Scheme (PISS)* ist eine dieser Bemühungen, Menschen vermeintlich in Sicherheit zu bringen. Mit Hilfe von Primärquellen, die erst kürzlich der Öffentlichkeit zugänglich gemacht wurden, wirft der Betrag die Frage auf, ob man von PISS für die Gegenwart und Zukunft etwas lernen kann, oder ob die Auseinandersetzung mit dieser letzten kolonialen Expansion des britischen Weltreiches lediglich historische Neugierde befriedigt. Der Beitrag geht sich widersprechenden Absichten der Kolonialbehörden nach und versucht herauszufinden, weshalb möglicherweise strategisch-politische Erwägungen dazu führen konnten, dass humanitäre Motive in den Hintergrund traten und zu einer unzureichenden Vorbereitung des Vorhabens führten, was am Ende das Scheitern des Projektes bewirkte. Der Beitrag kommt zu dem Schluss, dass sich hinter vorgeblich noblen Absichten eine Reihe kolonialer Interessen verbarg, die die Kolonisten als Objekte in einer größeren kolonialen Partie erscheinen lassen.

Keywords Kiribati, colonial resettlement, environmental and climate change

Weber, Eberhard 2016: Only a pawn in their games? environmental (?) migration in Kiribati – past, present and future. – DIE ERDE **147** (2): 153-164

DOI: 10.12854/erde-147-11

1. Introduction

Mainstream science today is confident that the accumulation of greenhouse gases in the atmosphere causes dangerous climate change that put – among other impacts – people's lives and livelihoods at risk. Developing countries are most exposed to these impacts, but least prepared and with little capacities to face the challenges (*Barnett* and *Adger* 2003; *McDowell* et al. 2016; *Weber* 2014a).

A small but important part of climate change discourses is about mobility: bringing people to safety, or supporting them in their own efforts to reach safe grounds. Reflections about the relationship between environmental conditions and mobility did not start with climate change and its possible impacts. Already earlier agreement among social scientists existed that pollution and degradation of the (physical) environment can contribute to migration (*Afifi* 2011; *Black* et al. 2011; *Lonergan* 1998; *Morrissey* 2013; *Swain* 1996; *Wolpert* 1966). Such commonplace, however, often lacked in conceptual depth especially in the questions of how such a relationship actually looked like. The deterioration of environmental quality or natural hazards can put people's well-being, lives and livelihoods at risk to an extent that they move away from dangerous places or as *McAdam* (2015) puts it from "danger zones".

Since the notion of climate change and its possible impacts on mobility has been widely discussed also historical examples of environmentally-induced mobility in the Pacific island region have been mentioned (see e.g. *Burson* and *Bedford* 2013; *Campbell* and *Bedford* 2014; *Connell* 2016, 2015, 2012; *Donner* 2015; *Edwards* 2014; *McAdam* 2014; *McAdam* and *Ferris* 2015; *Weber* 2014b). The case study taken up for this paper is also often shortly mentioned in an increasing body of literature without going into details. The purpose of this paper is therefore to look closely at this case and assess in the process if there were only environmental reasons that brought hundreds of people from the southern Gilbert Islands to the Phoenix Islands or if it is possible to identify other layers of interests of the colonial power as well as of the settlers. To answer these questions primary material from colonial times has been used especially communication and reports of decision-makers of the colonial power. These primary sources were not available when the Phoenix Island Settlement Scheme PISS was scientifically assessed more than 40 years ago (*Bedford* 1967; *Knudson* 1965, 1977).

Such historical cases seem to connect well with contemporary discourses about environmental change and mobility, but still they raise a number of issues when looking closer. PICTs are considered to be at high risk to various impacts of climate change. Atolls in the Pacific are especially exposed (*Barnett* and *Adger* 2003). In worst case scenarios atolls disappear within the next few decades and atoll countries cease to exist. Under such assumptions *McAdam* (2014, 2015) looks at planned relocation and resettlement referring to colonial cases and intentions: to get people out of 'danger zones' and take them to 'safe' areas that e.g. have low population densities or are uninhabited, leaving ethnic, social and neighbourhood structures intact. *Lieber* (1977) collected ten cases where relocation in Pacific islands happened between 1905 and 1956. *Campbell* et al. (2005) analysed these ten cases and identified another 76 communities in the Pacific Islands region that experienced relocation between 1920 and 2004. Nearly 60 percent of these cases related to environmental conditions, at least at first sight. A closer look at prominent cases reveals, however, that often other aspects, e.g. economic and political-strategic considerations, were equally important for relocation, if not even paramount.

International resettlement is more complex today than during colonial times as more actors are involved. Colonial relocations often were internal, within the boundaries of colonial possessions. Colonial authorities could easily move people around in their empires. The colonial era has ended for most Pacific islanders. This does not mean, however, that the colonial experience is irrelevant for today's challenges. Psycho-social aspects play an important role in decision-making around migration: fears about an unknown future, fears of being isolated, deprived of the protection that culture and citizenship provide, fears of becoming powerless in a world which is governed by different rules from those people grow up with and which they understand (*Fritze* et al. 2008). Such fears play an important role also among citizens of Kiribati who face uncertainty about the future of their atoll republic. Many are aware of these historical cases of mobility as members of their families migrated in the colonial past.

The importance of the PISS thus goes far beyond historical curiosity: Few people who were first resettled in 1938, then again in the 1950s, and a third time in 2007, are still alive. Still their stories, and the reality these stories pass on to more recent generations,

are powerful social constructs that influence and even shape decisions and actions. People's life paths give insights that are valuable in the conceptualization of climate change mobility as it emerges today. It helps to understand the role nature plays (or does not play) in determining human behaviour; nature in form of climatic variability and changes as well as geological events such as earthquakes and tsunamis.

Kiribati provides an excellent example to understand how historical events continue to have an important meaning for the present and the future. Two major resettlement events have shaped the country's legacy with mobility: 1) the (forced) resettlement of the people of Banaba to Rabi Island in Fiji in December 1945, and 2) the (voluntary) Phoenix Island Settlement Scheme. The relocation of Banaban population to Rabi has been well documented. PISS on the other hand is hardly documented; the major academic work was done before secret and confidential material from colonial archives became available. This paper is a first attempt to provide a sketch of an alternative perspective to what has been provided by *Bedford* (1967) and *Knudson* (1965; 1977). New primary sources make it necessary to alter the characterization as well as the evaluation of this last British colonization effort in the Pacific Islands. In particular it has to be questioned whether environmental (meaning land pressure as the result of high population density) was the major reason, why this scheme was carried out at all, and why it was carried out in an over-hasty and unprepared manner.

The idea of this paper originated during fieldwork about community resettlement on Ghizo Island in the Western Province of the Solomon Islands after a tsunami that happened in 2007. Many of the participants in interviews had come from the Phoenix Islands in the 1950s or were descendants of people who originated from the southern Gilbert Islands and were brought to the Phoenix Islands in 1938/39. In 2012, and again in 2013, the author conducted fieldwork in the communities most severely affected by the 2007 tsunami to set up a needs assessment some five years after the tsunami. The PISS was by no means in the centre of the research objectives. But issues concerning this settlement scheme came up during interviews again and again and caused a thorough literature research on the topic. This then also brought confidential documents on the scheme from the 1930s and 1940s to light, which provide most of the primary sources for this paper.

2. The Republic of Kiribati

The Republic of Kiribati is a small developing island state in the Central Pacific. It has a land area of 726 km^2 (GoK 2010a, b) widely scattered across 3.5 million km^2 of the Pacific Ocean. The country con-

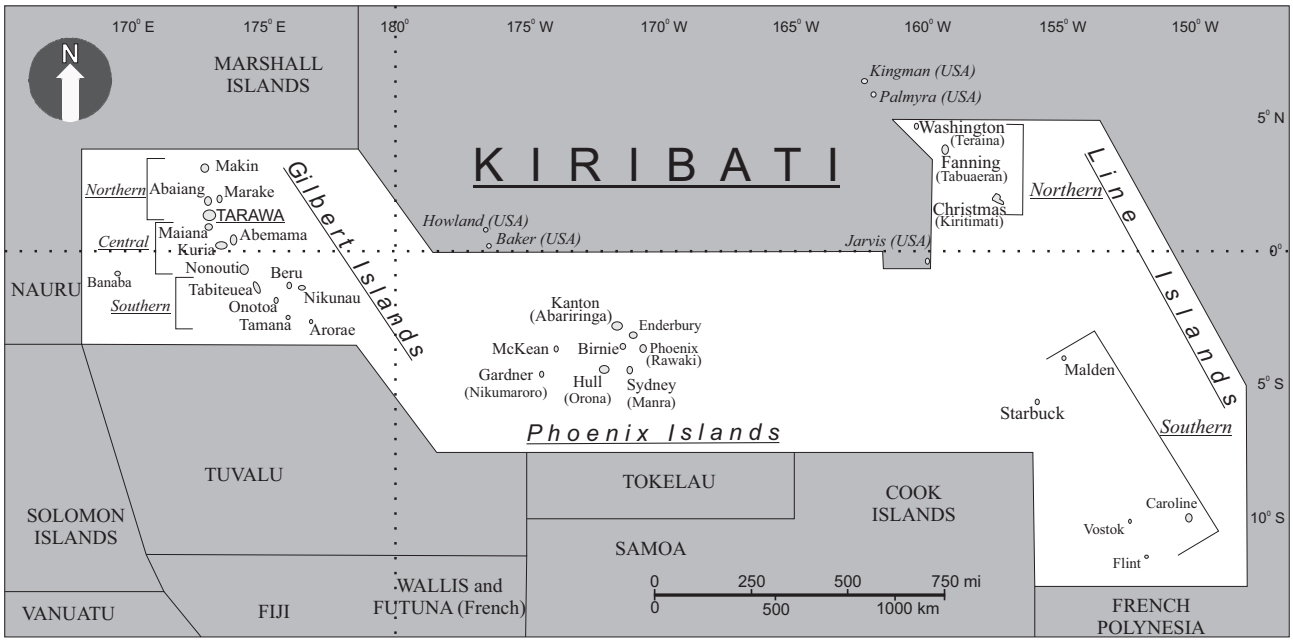

Fig 1 The Republic of Kiribati

sists of 32 islands concentrated in three island groups with a west-east extension of almost 5,000 km. In the very west there are 16 islands which form the Gilbert group; eight islands situated some 1,500 km east of the southern Gilbert Islands make up the Phoenix group, and eight islands in the very east of Kiribati form the Northern and Southern Line group (*Fig. 1*). All these islands are low-lying atolls or coral islands. Banaba, an individual island west of the Gilbert Islands, is a raised coral island with a maximum altitude of 82 m. 21 of the 33 islands are inhabited. By mid-2015 Kiribati had a population of 113,400 people (SPC 2016). The country's annual population growth is 2.2 % ranging third among the Pacific Island countries (PICs) behind the Solomon Islands (2.7 %) and Vanuatu (2.6 %) (SPC 2015). Kiribati ranks 12th of 14 PICs and 137th globally in the 2015 Human Development Index (UNDP 2015). Economic, environmental and social development indicators such as GDP per capital, child morbidity and infant mortality, access to water and sanitation are among the lowest in the Pacific (SPC 2015).

The Phoenix Islands, which play a major role in the paper, consist of eight small low-lying coral islands between 2° 46' and 4° 39' South and 170° 43' and 174° 32' West (GoK 2009). The total land area of the islands is about 29 km^2. The most northern island is Kanton Island (Abariringa in Gilbertese language). To the south there are Enderbury Island, Rawaki (Phoenix Island), Manra (Sydney Island), Birnie Island, Nikumaroro (Gardner Island) and Orona (Hull Island). All except one island (Kanton Island, 31 persons in 2010) are uninhabited (GoK 2010a). In 2006 the Government of Kiribati created the Phoenix Islands Protected Area (PIPA), with 408,250 km^2 the largest Marine Protected Area (MPA) in the Pacific Ocean (GoK 2009). In 2010 UNESCO declared PIPA a world heritage site, the largest and deepest world heritage site in the world (*Toonen* et al. 2013).

There is evidence that Manra, Orona and Nikumaroro were inhabited by Polynesians (and possibly Micronesians) in pre-European times (*Ellis-Jones* 2014), but the populations either died out or the islands were abandoned long before the discovery by Europeans at the beginning of the 19th century. Two islands north of the Phoenix group, Howland and Baker Islands, are unincorporated territories of the USA.

The Phoenix Islands are located in the Central Pacific dry zone characterized by "arid, desertlike climates along the equator in the middle of the Pacific" (*Mueller-Dombois* and *Fosberg* 1998: 632). This zone extends westwards to the southern Gilbert Islands and southwards to northern Tuvalu. As a result of their flatness the Phoenix Islands lack substantial orographic rainfall. Rainfall variability in the Phoenix Islands is extremely high. "These islands can be without any significant rain for several years in a row, while in other years they can be very wet" (*Mueller-Dombois* and *Fosberg* 1998: 317). Average rainfall in the Phoenix Islands increases from north to south. Kanton, the most northern (and driest) of the Phoenix Islands, has an average annual rainfall of 509 mm and a potential evapotranspiration (PET) of 5620 mm, making this island extremely dry. The more southern islands receive more rainfall, but also here extended droughts happen rather frequently and can extend over several years (*Mueller-Dombois* and *Fosberg* 1998: 29; *Thomas* 2009). In this part of the Pacific Ocean El Niño events cause unusually warm water temperatures, which then result in higher rainfall than during La Niña events which bring cooler water temperatures connected to drought conditions (*Obura* et al. 2016).

3. The Phoenix Island Settlement Scheme – the political construction of overpopulation?

At first sight PISS resembles schemes of the later 19th until the mid-20th century: to transfer populations "from high-density 'danger zones' to low-density areas", to use land more efficiently and avoid conflicts over limited resources (*McAdam* 2015: 95). Also *Bedford* (1967) and *Knudson* (1965) adopted such a Malthusian deterministic approach putting great emphasis on the carrying capacity of a particular area. This approach was already dominant in *Maude's* thinking when arguing in favour of the PISS: People had to be resettled to avert harm happening to them. After a census of the Gilbert, Ellice and Phoenix Islands in 1931 *Henry "Harry" Evans Maude*, who later became in charge of the settlement scheme, stressed that "migration seemed to be the obvious answer" to the challenge of overpopulation and hunger in the southern Gilbert Islands (*Maude* 1952: 66). PISS started in 1938 when the first settlers from the southern Gilbert Islands were brought to the Phoenix Islands.

The scheme was about the colonial object, the Gilbert and Ellice Islands Colony, its uses (and particularly extensions) and how to treat people living in colonial spaces. Pacific islanders' cultures looked strange, barbaric, uncivilized, and – of course – inferior to Euro-

pean civilization. *Maude*, an anthropologist by profession, wanted to bring civilization to the uncivilized, surely with humanitarian undertones, intentions and methods; to the benefit of the people. He wanted to save Pacific races from depopulation, by helping them to keep at least part of their cultural identities when converting them into Christianized colonial objects; people who did not need to regulate their population with barbaric methods such as abortion and infanticide (*Maude* 1937a). His scheme in the end turned out to become less humanitarian than intended. It finally was carried out to benefit strategic colonial interests. Asymmetric power between the settlers and the colonial administration led to the implementation of the scheme, in particular asymmetric knowledge about the physical environment of the islands where a considerable part of the population of the southern Gilbert Islands was taken to. There is much evidence that *Maude* and other colonial administrators were aware of the extreme climatic variability of the Phoenix Islands, but still the project was carried out in a haste and without safeguards to protect people from prolonged droughts. Still, as one can see further down, the settlers surely displayed quite a lot of agency; it is not possible to describe them as mere victims of colonial power plays. A more realistic assessment is that they first were not able to make informed decisions, as crucial information was hidden from them, and later, at least it seems, they tried to rectify this error.

Whether the southern Gilbert Islands were overpopulated when the scheme was born is difficult to say. As much as the concept of carrying capacity is contested from its conceptual side, it is also extremely difficult to define a correct number or density of people for a particular location that is sustainable. The southern Gilbert Islands must have experienced a decline of population during the 19th and early 20th century (*Bedford* et al. 1980). Wars between islands, diseases introduced by Europeans, droughts and labour recruitment to Fiji, Samoa, Australia, Hawaii and South and Central America had severe impacts on population numbers. The late 19th and early 20th century was also a time when concerns were expressed that Pacific societies would disappear; many publications looked into the possibility of Pacific depopulation (see e.g. *Rivers* 1922).

After the turn of the century many labourers were also recruited for the phosphate mines on Banaba and Nauru (*McCreery* and *Munro* 1993; *Munro* 1992; *Munro* and *Firth* 1987; *Rennie* 1987; *Siegel* 1985). Alone from Tabiteuea about 3,000 labourers had left for Samoa, Fiji, Hawaii and New Caledonia by 1881 (*Maude* and *Maude* 1981). It seems that since the 1860s a considerable decline in population of the southern Gilbert Islands had happened. In 1931 population figures were much lower compared to earlier decades (*Bedford* et al. 1980, *Maude* 1937a) translating into an average population density of around 110 inhabitants per km^2 compared to 220-250 inhabitants per km^2 70 years earlier (calculated from *Bedford* et al. 1980 and *Maude* 1937a). For individual islands (e.g. Nonouti and Nikunau) population densities in 1931 were around a third of what had been reported for 1861.

4. Humanitarian motifs vs. colonial economic interest in the Phoenix and Line Islands

Initially interest in the scheme was overwhelming. *Maude* (1938a) suggested four of the eight Phoenix Islands to receive settlers: Hull, Sydney, Gardner and Kanton Islands. Beneficiaries of the scheme should be the poorest from the southern Gilbert Islands, especially those with no or little own land. *Knudson* (1977) remarks that some of the settlers actually had considerable land resources in the Gilbert Islands. Settlers took the opportunity offered to them. The risk was limited: each settler – no matter if male or female, adult or child – received a plot of land with at least 100 bearing coconut trees. A family of four thus was given land with 400 fructiferous trees. Infrastructure was provided as well. For a limited time food rations were sent at government's cost. Although settlers had to give up land rights in their home islands the land remained with their family (*Maude* 1937a). The opportunity was tempting for people in densely populated atolls. Migration was nothing new to people from the southern Gilbert Islands: by the 1930s thousands had migrated within the past 70 years. With becoming part of PISS people extended the base of the households' livelihood system by diversifying livelihood sources.

There is little doubt that PISS also intended to colonize uninhabited islands for economic (colonial) gain. This is stressed in *Maude's* reports to the British colonial government. In 1938, e.g., *Maude* presents a detailed budget on the estimated costs and revenue for Hull and Sydney Islands. According to his calculation the annual costs would be some £ 312 while the annual revenue would be £ 619 (*Maude* 1937a). In the secret Report on the Phoenix and Line Islands with Special Reference to the Question of British Sovereignty *Maude* (1940) elaborates in great detail about the

economic potential of 12 islands in the Phoenix and Line groups and how these islands can be secured for the British Empire. *Maude's* analyses, however, were far too optimistic. Guano resources in the equatorial islands had been grossly depleted in the second half of the 19th century and copra prices were severely affected by the Great Depression. Even before the Great Depression, however, colonial companies struggled to profitably operate small isolated islands where high transportation costs and low production volumes conflicted. With the slump in copra prices and the start of World War II the settlers on the Phoenix Islands became forgotten. Except for these two resources there was hardly anything to gain from these islands.

5. Imperial power struggle – to boldly go where no man has gone before?

Bringing Gilbertese people to the Phoenix Islands did not take them away from danger zones, but exposed their lives to even greater dangers than in their home islands. Scarcity of drinking water, frequent droughts, and difficulties to even provide the very basis for subsistence production were the reasons why the islands were uninhabited when discovered by Europeans. Also *Maude's* reconnaissance trip in 1937 did not find enough safe water for hundreds of settlers (*Maude* 1937a, 1937b); a reconnaissance trip which had to be cut short because of water scarcity. "We should have liked to have stayed longer in the Phoenix group, but supplies and water were giving out" (*Maude* 1952: 77).

Still the scheme was carried through although preparations were incomplete. To secure reliable water supply *Maude* (1937a) had suggested the construction of five cisterns. Less than a year later he revised the number to four - if possible to build them. "The cisterns are only intended to be an emergency reserve against a possible failure in the well water supply and I personally doubt if they will ever have to be used" (*Maude* 1938b: 2). The cisterns were never built and already the first batch of settlers experienced severe water challenges (*Maude* 1952).

Political considerations had become paramount when resettlement started; things at that time had to be done quickly. The Phoenix Islands started to play a strategic role for Western powers. The British saw it crucial to settle at least a few native people on these islands permanently – at any cost. In November 1936 the Acting High Commissioner for the Western Pacific had stressed that "in addition to the important consideration of the provision of an outlet for surplus native population, the effective occupation of the Phoenix Islands may become a matter of urgency to ensure their retention as British possessions" (AHC 1936: 1). The same letter provides some background why the British considered the island group so important: "With the development of air transport and the consequent increasing interest in Pacific air routes, from both commercial and defence points of view, the position of the Phoenix Islands renders their retention a matter of considerable importance, and it is necessary that preparations for action should be made as soon as possible to secure British interests in the group" (AHC 1936: 2). In November 1938 the Acting Resident Commissioner appointed *Maude* as officer-in-charge of PISS. "Owing to political considerations it is imperative that advance parties of natives should be landed at Gardner, Hull and Sydney Islands at the earliest opportunity and you should make every endeavour to expedite the equipping and dispatch of the first expedition" (ARC 1938). Less than a month later the first settlers left for the Phoenix Islands.

By that time the idea to bring settlers to Kanton Island had been given up, but not because it was realized that particularly this island was most unsuitable for colonization because of erratic water supply. The British Empire was in great and fierce competition with the United States about Kanton Island. In 1937 there even was a confrontation between the British warship HMS Wellington and the American warship USS Avocet (*Megaw* 1977). In April 1939 Great Britain and the USA agreed to jointly administer the island for fifty years, and "thereafter until such time as it may be modified or terminated by mutual consent of the two governments" (*Samuels* 2008: 740). During 1938 and 1939 Pan American Airways deepened and cleared the lagoon, developed an extensive airport and conducted flights to New Zealand using Kanton as a refuelling station.

The 1930s were a period of strong competition between the USA and Great Britain for several islands in the Central Pacific, including the Phoenix Islands. The Guano Islands Act of 1856 entitled US-American citizens to claim islands that had guano deposits for the USA, if these islands were uninhabited and not under the law of another country. Although most of the Phoenix Islands had been discovered by British whaling ships in the 19th century the USA put claims on a number of islands in the Central Pacific. In March 1935 the USA re-confirmed their rights concerning

Jarvis Island and in May 1936 the same was done with regard to Baker and Howland Islands. The British were worried that also islands in the Phoenix Group could get lost to the USA, if they were not under the jurisdiction of the High Commissioner of the Western Pacific. It is interesting to note that around this time the USA tried to establish a permanent presence on some of the Central Pacific atolls. They started a Baker, Howland and Jarvis Colonization Scheme which brought US-American settlers to these islands. The scheme was discontinued less than a decade later and the towns of Millersville (Jarvis Island), Itascatown (Howland Island) and Meyerton (Baker Island) given up. Today these islands are uninhabited.

Maude wanted to take 750 Gilbertese to the Phoenix Islands. His initial plan included Kanton Island, which was taken off the list (see above). *Maude* calculated that once settlement and agricultural activities had started, the Phoenix Islands could carry up to 4,300 settlers (3,100 without Kanton Island). Locals who had accompanied him on the reconnaissance trip saw a potential of up to 1,400 which – over the years – could reach almost 9,000 persons (*Table 1*).

Maude (1937a) proposed to carry out the scheme in two stages: to send small working parties to the islands and prepare them for settlement. Within five months surveying and sub-division of land properties, "constructing of cisterns, sinking of further wells, planning the village sites, and generally preparing the island for the settlers" could be completed (*Maude* 1937a: 23). The actual colonization should be carried out after the 1938-39 rainy season in March 1939 (*Maude* 1937a: 24). The British colonial administration, however, pushed heavily to start with the scheme already in late 1938.

Drought, isolation and World War II put a heavy toll on the settlers. When the war was over Britain had other concerns than to bother about a few people on the Phoenix Islands. The strategic picture had changed entirely. The USA emerged as a superpower exercising control over the Pacific, in both military and economic terms. Kanton Island had become a PANAM refuelling station already before the war and with the emergence of long-haul aircrafts became obsolete over the years. Copra production from the Phoenix Islands had never been lucrative. It turned out to be far too costly to send once or twice in a year a ship to the islands to collect copra. A long and severe drought between 1949 and 1952 put the scheme finally over the edge. The first to leave were the people of Sydney (Manra) Island. Already in 1951 many demanded to be evacuated. This then happened between 1955 and 1957 and the people were taken to the British Solomon Islands Protectorate. The population of Hull and Gardner Islands arrived there in 1963-64. Based on interviews made on Tarawa, the capital of Kiribati, *McAdam* (2014: 304) suggests that the people's concern might not have been genuine and "that the Phoenix Islanders deliberately poured seawater into their wells so that when inspectors came, they would believe that the water was not potable, and this would support the islanders' desire to move". This might have been the case, showing people's agency, showing how desperate people must have been to get away from these islands. *Donner* (2015), based on interviews on Ghizo Island, also reports of sentiments "that life was pleasant in the Phoenix Islands: 'plenty to eat' [...] 'many things in Sydney Island'". Other reports, including own interviews with Micronesians on Ghizo Islands suggest otherwise. People put pressure on colonial administrators to get away from the Phoenix Islands.

Table 1 Estimates for the Phoenix Island Resettlement Scheme, compiled from Maude (1937a, 1940); Knudson (1965, 1977); present population: GoK (2010a)

	Estimation Maude for initial settlement	Estimation Maude for total settlement	Estimation locals for initial settlement	Estimation locals for total settlement	Final number of resettled people	Present population
Hull	350	1100	500-700	1300-2000	530	0
Sydney	400	900	600-700	1400-2200	300	0
Gardner	n.a.	1100	n.a.	1500-1600	97	0
Canton	n.a.	1200	n.a.	3000	0	31
total	750	4300	1100-1400	7200-8800	927	31

6. Resettlement of Phoenix islanders to the Solomon Islands

The Western District of the Solomon Island Protectorate was selected to receive settlers from Phoenix as it was sparsely populated. Ghizo Island e.g. had locations with no traditional land tenure systems. Except for Gizo town only two Melanesian settlements were on Ghizo Island. The location for Titiana, the new Micronesian village, was identified some three kilometres west of Gizo town on the southern coast of the island (*Knudson* 1977). In September 1955 some 30 men arrived from Sydney Islands to prepare village and garden sites. Over the next few years settlers came from the Phoenix and Gilbertese Islands. In 1958 the last and with 215 settlers the biggest group settled in New Madra near Titiana when the last people of Sydney Island were evacuated. Other settlements were created on Shortland Island (west of Ghizo Island) in the early 1960s and on Wagina Island (east of Choiseul Island) in 1964 receiving people from Hull and Gardner Islands (*Bedford* 1967).

A third resettlement became reality for people of Titiana and New Madra when a submarine earthquake with a magnitude of 8.1 caused a tsunami affecting coastal villages of Ghizo, Choiseul, New Georgia and other islands on April 2, 2007. The biggest damage was along the southern coast of Ghizo Island. The death toll was 52 people. Alone on Ghizo Island 33 died in the event (*Fisher* et al. 2007); 31 were from the Micronesian community which had less than ten percent of Ghizo Island's population. 21 victims of the tsunami on Ghizo Island were children under the age of ten years (Solomon Islands 1 April Tsunami 2007).

Five years after the tsunami the wounds of the event were still visible when research was carried out in Titiana and New Madra in 2011 and 2012 to learn how people had recovered from the tsunami. Interviews were also conducted in settlements some three kilometres inland to where many of the Micronesians had evacuated themselves. Immediately after the tsunami people built permanent houses on higher ground away from the coast. Some have returned to the coast, but the majority today lives in the settlement called "Three Miles". Conditions in the settlement are harsh. Authorities did not provide any infrastructure. The rehabilitation process is incomplete. The most essential items missing are secure water supply and proper roads connecting the settlement and Gizo town. People have to walk long distances to take their daily bath in small creeks, wash their dishes and bring water in buckets to their houses. The road connecting the settlement to Gizo town is a challenge for four-wheel-drives and unusable for ordinary cars, taxis, trucks and mini-buses.

Residents of the new settlement assume that the neglect of their settlement is because the provincial government wants them to move back to the coast. They are squatting on government land. Providing infrastructure would encourage them to stay where they live right now. In the coastal villages agriculture is restricted because of sandy soils, but now they can grow sufficient food for their families. Some even started commercial agriculture, selling their produce at the vegetable market at Gizo town. Very few remember the time on the Gilbert Islands before resettlement to the Phoenix Islands, but many experienced the difficult time on the Phoenix Islands and consider their new settlement as the best they ever had. Unanimously they agree that it had been the right decision to move here after the tsunami and they wish to stay. They managed to diversify the sources of their livelihoods. Many frequently walk down to the coast for fishing, but with their new land they have taken up agriculture as a complementary livelihood option. The difficult road conditions constrain these new opportunities. Yet for many the situation has improved to such an extent that some see the tsunami that brought them to "their" new land a 'blessing in disguise'. They only hope that they will not be forced back to the coast.

7. Conclusion

Mobility has social and cultural aspects to consider – the social, economic and cultural structures of societies, which often connect the presence to a colonial past and an imaginative future. This is also true for people's perception and awareness of mobility. Positive as well as negative experiences shape expectations and fears. Both have consequences for people's decision making. The Republic of Kiribati is an excellent example to show how historical events continue to have important meaning for the presence and future. People of the southern Gilbert Islands were not taken away from dangerous places, but put directly in such places to satisfy economic and political interests of their colonial masters. This contradicts a conceptualization of mobility and environmental change, where natural and human systems are coupled producing a particular human agency: to move away from dangerous places voluntarily or being taken away, resettled, relocated. This stands in gross contrast

with the experience of people being "trapped" where they are, meaning the reduction or even elimination of agency, or – at the other extreme – people moving into dangerous places acting contrary to approaches that see people responding to environmental threats, risks and stress. For all these actions reasons other than being driven by environmental factor play a decisive role. It appears that environmental aspects play least of a role and are insufficient to explain people's action – surely not in the sense that people are driven by environmental conditions and changes.

People of the southern Gilbert Islands were resettled to the Phoenix Islands for no valid environmental reason. The places they lived before were environmentally more suitable than the places they were taken to. Still they did not bother as they received an opportunity to diversify their livelihoods. It took a couple of years before they were given permission to leave the 'dangerous places' in the Phoenix Islands. After the tsunami on Ghizo Island they moved to the best place they experienced in the past 77 years or so. Well protected against the dangers of tsunamis, endowed with fertile land they can grow a big variety of crops for their own use and for the market. Still plans exist to take them back to the 'danger zone' of the coastal area.

Colonial (re)settlement schemes shaped the perception of I-Kiribati about mobility. Their colonial past is less than 40 years ago. The removal of the Banaba people by British authorities is just 70 years ago. Even the settlement of the Phoenix Islands falls within a person's life span. In 2004, when the author had the opportunity to talk to *Anote Tong*, President of Kiribati, he became aware of the fact that events like colonial resettlement shape the perception and the awareness of I-Kiribati in the present discourse about environmental mobility. Having taught many students from Kiribati over the years this was confirmed: Today's perception is closely linked to the experiences of relatives and neighbours. In academic discourses such historical events cannot be ignored or downplayed: For people's decisions they are as important as the degree of environmental change. Other important aspects are Australia's ill-treatment of asylum seekers on Manus Island and Nauru (*Weber* 2015b). Keeping such historical as well recent narratives in mind it becomes clear that nobody possibly wants to attain a status of environmental refugee.

The paper looked into what started as PISS in 1938 and became an example of community displacement after a tsunami in 2007. Few people who have been interviewed have taken part in the entire odyssey: brought as small children from the Gilbert Islands to the Phoenix Islands, then to the Solomon Islands some 3,000 kms away to finally squatter in the hinterland of Ghizo Island when their houses were washed away by tsunami waves. Climatic and ecological features have played important roles in the lives of Micronesian people interviewed on Ghizo Island, their final station for the time being. To ignore these challenges (and at times opportunities) the natural environment provides to people would be inappropriate. However, people's mobility was never determined by natural forces, not even in cases of extreme environmental and climatic stress and pressure. People always made use of their agency, were willing to respond to opportunities and were slowed down and hindered by constraints; still trying, still not powerless victims, but agents that always tried to influence their destinies.

To give too much importance to colonial settlement schemes might appear unjustified as during colonial times it was much easier to move people around like on a chess board. This situation has considerably changed. However, what remains is asymmetric power relations. No matter, if environmental and climate change issues are included as valid reasons in refugee conventions and other relevant legislation, this asymmetric power suggests that the legislation is often not even worth the paper it is written on. What is needed therefore is not legislative change, but change in political will and awareness. Otherwise it will inevitably happen that making people climate change refugees will compromise their right to live in dignity. This asymmetric power also becomes visible in recent trade negotiations where Pacific Island countries demand that labour mobility should become part of agreements with Australia and New Zealand (PACER-Plus) as well as the European Union (Economic Partnership Agreement). In both instances the PICs have so far not been not able to achieve this goal (*Weber* 2015a).

Right now we do not even know the number of (additional) migrants as a result of climate change. It seems plausible that those who are able to move – those with money, social networks and alternative livelihoods – will migrate independently. The vulnerable poor, those with little capacity to move when environments deteriorate, are possibly left behind or forced to resettle later. They are those who might become climate-change refugees: with few capacities and skills, little wanted by those countries they try to get to, dependent on support and benevolence, and endangered to

become a pawn in political in-fighting. There is even the possibility of people being left behind in inhumane environments. "Evacuating sinking islands" (*Kelman* 2008) in the Pacific will most likely not happen. "It is more likely that the last plane and ship leaves Kiribati (or Tuvalu) and people are still there, not forgotten, but never intended to be brought to safety, neither socially nor environmentally" (*Weber* 2015a: 19).

Bibliography

Acting High Commissioner (AHC) for the Western Pacific 1936: Telegram [secret] to the Resident Commissioner, Gilbert and Ellice Islands Colony, November 26th, 1936. – Accessed online: https://digital.library. adelaide.edu.au/dspace/handle/2440/79867, 25/02/2015

Acting Residential Commissioner (ARC) for the Western Pacific 1938: Letter to H.E. Maude, November 25th, 1938. – Accessed online: https://digital.library.adelaide.edu.au/dspace/handle/2440/79903, 25/02/2015

Afifi, T. 2011: Economic or environmental migration? The push factors in Niger. – International Migration **49**, Supplement 1: e95-e124

Barnett, J. and *W.N. Adger* 2003: Climate dangers and atoll countries. – Climatic Change **61** (3): 321-337

Bedford, R.D. 1967: Resettlement: solution to economic and social problems in the Gilbert and Ellice Islands Colony. – M.A. thesis in Geography, University of Auckland

Bedford, R., B. Macdonald and *D. Munro* 1980: Population estimates for Kiribati and Tuvalu, 1850-1900: review and speculation. – The Journal of the Polynesian Society **89** (2): 199-246

Black, R., W.N. Adger, N.W. Arnell, S. Dercon, A. Geddes and *D. Thomas* 2011: The effect of environmental change on human migration. – Global Environmental Change **21**, Supplement 1: 3-11

Burson, B. and *R. Bedford* 2013: Clusters and hubs: toward a regional architecture for voluntary adaptive migration in the Pacific. – The Nansen Initiative, Technical Paper. – Geneva

Campbell, J. and *R. Bedford* 2014: Migration and climate change in Oceania. – In: *Piguet, E.* and *F. Laczko* (eds.): People on the move in a changing climate: the regional impact of environmental change on migration. – Global Migration Issues **2**. – Dordrecht et al.: 177-204

Campbell, J.R., M. Goldsmith and *K. Koshy* 2005: Community relocation as an option for adaptation to the effects of climate change and climate variability in Pacific island countries (PICs). – Asia-Pacific Network for Global Change Research. – Tokyo

Connell, J. 2012: Population resettlement in the Pacific: lessons from a hazardous history? – Australian Geographer **43** (2): 127-142

Connell, J. 2015: Vulnerable islands: climate change, tectonic change, and changing livelihoods in the Western Pacific. – The Contemporary Pacific **27** (1): 1-36

Connell, J. 2016: Last days in the Carteret Islands? Climate change, livelihoods and migration on coral atolls. – Asia Pacific Viewpoint **57** (1): 3-15

Donner, S.D. 2015: The legacy of migration in response to climate stress: learning from the Gilbertese resettlement in the Solomon Islands. – Natural Resources Forum **39** (3-4): 191-201

Edwards, J.B. 2014: Phosphate mining and the relocation of the Banabans to northern Fiji in 1945: lessons for climate change-forced displacement. – Journal de la Société des Océanistes **138-139**: 121-136

Ellis-Jones, I. 2014: The Phoenix Islands – An annotated chronology. – 4th edition. – Turramurra. – Accessed online: http://de.slideshare.net/ianellis-jones/the-phoenix-islands-an-annotated-chronology, 12/05/2016

Fisher, M.A., E.L. Geist, R. Sliter, F.L. Wong, C. Reiss and *D.M. Mann* 2007: Preliminary analysis of the earthquake (MW 8.1) and tsunami of April 1, 2007, in the Solomon Islands, southwestern Pacific Ocean. – Science of Tsunami Hazards **26** (1): 3-20

Fritze, J.G., G.A. Blashki, S. Burke and *J. Wiseman* 2008: Hope, despair and transformation: climate change and the promotion of mental health and wellbeing. – International Journal of Mental Health Systems **2** (1): 13

Government of Kiribati (GoK) 2009: Phoenix Island Protected Area – nomination for a world heritage site. – Bikenibeu, Tarawa, Kiribati

Government of Kiribati (GoK) 2010a: 2010 census of population and housing. Vol 1: Basic Information and Tables. – National Statistics Office. Ministry of Finance and Economic Planning. – Bairiki, Tarawa

Government of Kiribati (GoK) 2010b: 2010 Census. Vol. **2**: Analytical Report. National Statistics Office and the SPC Statistics for Development Programme. – Noumea, New Caledonia

Kelman, I. 2008: Island evacuation. – Forced Migration Review **31**: 20-21

Knudson, K.E. 1965: Titiana, a Gilbertese community in the Solomon Islands. – Master thesis, University of Oregon, Department of Anthropology. – Eugene

Knudson, K.E. 1977: Sydney Island, Titiana and Kamaleai: southern Gilbertese in the Phoenix and Solomon Islands. – In: *Lieber, M.D.* (ed.) 1977: Exiles and migrants in Oceania. – ASAO monographs **5**. – Honolulu: 195-241

Lieber, M.D. (ed.) 1977: Exiles and migrants in Oceania. – ASAO monographs **5**. – Honolulu

Lonergan, S. 1998: The role of environmental degradation in population displacement. – Environmental Change and Security Project Report **4**: 5-15

Maude, H.E. 1937a: Report on the colonization of the Phoenix Islands by the surplus population of the Gilbert and Ellice Islands. [Confidential]. – Suva. – Available: University of Adelaide, H.E. Maude Digital Archive. – Accessed online: http://hdl.handle.net/2440/79970, 25/02/2015

Maude, H.E. 1937b: Report of Phoenix Islands ... visited in H.M.S. Leith. 28 May 1937. – Accessed online: https://digital.library.adelaide.edu.au/dspace/bitstream/2440/79869/1/Report%20of%20Pheonix%20Islands...%20visited%20in%20H.M.S.%20Leith.%2028%20May%201937.pdf, 25/02/2015

Maude, H.E. 1938a: Gilbert and Ellice Islands Colony. Report on the proposal to alleviate over-population and "land-hunger" in the colony. [Confidential]. – Ocean Island. – Available: University of Adelaide, H.E. Maude Digital Archive. – Accessed online: http://hdl.handle.net/2440/79906, 25/02/2015

Maude, H.E. 1938b: Memorandum. Local steps to be taken if and when approval of the Phoenix Islands Settlement Scheme is received. [Confidential]. – Ocean Island. – Available: University of Adelaide, H.E. Maude Digital Archive. – Accessed online: http://hdl.handle.net/2440/79918, 25/02/2015

Maude, H.E. 1940: Report on the Phoenix and Line Islands with Special Reference to the Question of British Sovereignty. [Secret] – Suva. – Available: University of Adelaide, H.E. Maude Digital Archive. – Accessed online: http://hdl.handle.net/2440/88870, 25/02/2015

Maude, H.E. 1942: Memorandum. The inception of the scheme for colonizing the Central Pacific Islands. February 12th, 1942. – Available: University of Adelaide, H.E. Maude Digital Archive. – Accessed online: http://hdl.handle.net/2440/79870, 25/02/2015

Maude, H.E. 1952: The colonization of the Phoenix Islands. – Journal of the Polynesian Society **61** (1 & 2): 62-89

Maude, H.E. and *H.C. Maude* 1981: Tioba and the Tabiteuean religious wars. – The Journal of the Polynesian Society **90** (3): 307-336

McAdam, J. 2014: Historical cross-border relocations in the Pacific: lessons for planned relocations in the context of climate change. – The Journal of Pacific History **49** (3): 301-327

McAdam, J. 2015: Relocation and resettlement from colonisation to climate change: the perennial solution to 'danger zones'. – London Review of International Law **3** (1): 93-130

McAdam, J. and *E. Ferris* 2015: Planned relocations in the context of climate change: unpacking the legal and conceptual issues. – Cambridge Journal of International and Comparative Law **4** (1): 137-166

McCreery, D. and *D. Munro* 1993: The cargo of the Montserrat: Gilbertese labor in Guatemalan coffee, 1890-1908. – The Americas **49** (3): 271-295

McDowell, G., J. Ford and *J. Jones* 2016: Community-level climate change vulnerability research: trends, progress, and future directions. – Environmental Research Letters **11** (3): 033001

Megaw, M.R. 1977: The scramble for the Pacific: anglo-united states rivalry in the 1930s. – Historical Studies **17** (69): 458-473

Morrissey, J.W. 2013: Understanding the relationship between environmental change and migration: the development of an effects framework based on the case of northern Ethiopia. – Global Environmental Change **23** (6): 1501-1510

Mueller-Dombois, D. and *F.R. Fosberg* 1998: Vegetation of the tropical Pacific islands. – Ecological studies. Analysis and synthesis **132**. – New York et al.

Munro, D. 1992: Gilbert and Ellice islanders on Queensland canefields, 1894-1899. – Journal of the Royal Historical Society of Queensland **14** (11): 449-465

Munro, D. and *S. Firth* 1987: From company rule to consular control: Gilbert island labourers on German plantations in Samoa, 1867-96. – The Journal of Imperial and Commonwealth History **16** (1): 24-44

Obura, D., S. Donner, S. Walsh, S. Mangubhai and *R. Rotjan* 2016: Phoenix Islands Protected Area climate change vulnerability assessment and management. Report to the New England Aquarium, Boston. – Updated. – Accessed online: http://www.phoenixislands.org/pdf/PIPA-CC-scoping-study-Jan-18-2016.pdf, 14/05/2016

Rennie, S. 1987: Contract labor under a protector: the Gilbertese laborers and Hiram Bingham, Jr., in Hawaii, 1878-1903. – Pacific Studies **11** (1): 81-106

Rivers, W.H.R. (ed.) 1922: Essays on the depopulation of Melanesia. – Cambridge

Samuels, J.H. 2008: Condominium arrangements in international practice: reviving an abandoned concept of boundary dispute resolution. – Michigan Journal of International Law **29** (4): 727-776

Secretariat of the Pacific Community (SPC) 2016: Statistics for Development Division (SDD) website. 2015 Pocket Statistical Summary of Pacific Island countries and territories. – Accessed online: http://sdd.spc.int/images/documents/Pocket_Summary/2015_Pocket-Statistical-Summary.pdf , 07/06/2016

Secretariat of the Pacific Community (SPC) 2015: National Minimum Development Indicator Database. – Accessed online: http://www.spc.int/nmdi/, 07/06/2016

Siegel, J. 1985: Origins of Pacific Islands labourers in Fiji. – The Journal of Pacific History **20** (1): 42-54

Swain, A. 1996: Environmental migration and conflict dynamics: focus on developing regions. – Third World Quarterly **17** (5): 959-973

Thomas, F.R. 2009: Historical ecology in Kiribati: linking past with present. – Pacific Science **63** (4): 567-600

Toonen, R.J., T.A. Wilhelm, S.M. Maxwell, D. Wagner, B.W. Bowen, C.R.C. Sheppard, S.M. Taei, T. Teroroko, R. Moffitt, C.F. Gaymer, L. Morgan, N. Lewis, A.L.S. Sheppard, J. Parks and *A.M. Friedlander* 2013: One size does not fit all: the emerging frontier in large-scale marine conservation. – Marine Pollution Bulletin **77** (1): 7-10

Solomon Islands 1 April Tsunami 2007. – Tsunami Newsletter 39 (2). April-June 2007: 1. – Accessed online: http://www.pacificdisaster.net/pdnadmin/data/original/ITIC_2007_Apr_Jun.pdf, 07/07/2015

United Nations Development Programme (UNDP) 2015: Human development report 2015: work for human development. – New York

Weber, E. 2014a: Environmental change and (im)mobility in the South. – In: *Anich, R., J. Crush, S. Melde* and *J.O. Oucho* (eds.): A new perspective on human mobility in the South. – Global Migration Issues **3**. – Dordrecht et al.: 119-148

Weber, E. 2014b: Of tsunamis and climate change: the need to resettle. – In: *Andrianos, L., J.-W. Sneep, G. Kerber* and R. Attfield (eds.): Sustainable alternatives for poverty reduction and eco-justice, Vol. 1. – 2nd edition. – Newcastle upon Tyne: 192-208

Weber, E. 2015a: Envisioning South-South relations in the fields of environmental change and migration in the Pacific Islands – past, present and futures. – Bandung: Journal of the Global South **2** (1): 6

Weber, E. 2015b: The Pacific solution – a catastrophe for the Pacific!? – Environment and Ecology Research **3** (4): 96-107

Wolpert, J. 1966: Migration as an adjustment to environmental stress. – Journal of Social Issues **22** (4): 92-102