

Challenges and pitfalls of resettlement measures: experiences in the Pacific Region

Boege, Volker

Veröffentlichungsversion / Published Version
Arbeitspapier / working paper

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:
SSG Sozialwissenschaften, USB Köln

Empfohlene Zitierung / Suggested Citation:

Boege, V. (2011). *Challenges and pitfalls of resettlement measures: experiences in the Pacific Region*. (COMCAD Working Papers, 102). Bielefeld: Universität Bielefeld, Fak. für Soziologie, Centre on Migration, Citizenship and Development (COMCAD). <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-424810>

Nutzungsbedingungen:

Dieser Text wird unter einer Deposit-Lizenz (Keine Weiterverbreitung - keine Bearbeitung) zur Verfügung gestellt. Gewährt wird ein nicht exklusives, nicht übertragbares, persönliches und beschränktes Recht auf Nutzung dieses Dokuments. Dieses Dokument ist ausschließlich für den persönlichen, nicht-kommerziellen Gebrauch bestimmt. Auf sämtlichen Kopien dieses Dokuments müssen alle Urheberrechtshinweise und sonstigen Hinweise auf gesetzlichen Schutz beibehalten werden. Sie dürfen dieses Dokument nicht in irgendeiner Weise abändern, noch dürfen Sie dieses Dokument für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen.

Mit der Verwendung dieses Dokuments erkennen Sie die Nutzungsbedingungen an.

Terms of use:

This document is made available under Deposit Licence (No Redistribution - no modifications). We grant a non-exclusive, non-transferable, individual and limited right to using this document. This document is solely intended for your personal, non-commercial use. All of the copies of this documents must retain all copyright information and other information regarding legal protection. You are not allowed to alter this document in any way, to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public.

By using this particular document, you accept the above-stated conditions of use.

Volker Boege*

Challenges and Pitfalls of Resettlement Measures: Experiences in the Pacific Region

Paper presented at the ESF-UniBi-ZiF research conference on
'Environmental Change and Migration: From Vulnerabilities to Capabilities',
Bad Salzuflen, Germany, December 5-9, 2010

COMCAD Arbeitspapiere - Working Papers
No. 102, 2011

Series on Environmental Degradation and Migration
Editors: Jeanette Schade and Thomas Faist

* The Australian Centre for Peace and Conflict StudiesAuthor's institution

Editorial

The conference “Environmental Change and Migration: From Vulnerabilities to Capabilities” was the first of a new conference series on “Environmental Degradation, Conflict and Forced Migration”. It was organised by the European Science Foundation, the Bielefeld University and its Center for Interdisciplinary Research. The Center on Migration, Citizenship and Development (COMCAD), the Universities’ unit responsible for scientific content and quality of the conference, has launched a COMCAD Working Paper Series on “Environmental Degradation and Migration”. The new series intends to give conference participants the opportunity to share their research with an even broader audience.

The symposium focused on how environmental change impacts the nexus between vulnerabilities on the one hand and capabilities on the other hand, and how this relationship affects mobility patterns. Although the conference organizers chose to include all kinds of environmental change and types of migration, climate change figured prominently among the submissions to the conference. Therefore, the conference aimed to bring together the perspectives from climate change, vulnerability, and migration studies, and to draw conclusions about the political implications of the knowledge scientists currently have available. Toward that goal, the conference was structured along three pillars. The first concentrated on climate change and the vulnerability of certain regions and groups. It covered case studies as well as different approaches for making climate change projections and assessing the likelihood of vulnerability. The second pillar focused on empirical research on environmentally induced migration from a vulnerabilities perspective, but acknowledged the occasionally strong elements of capability within it. In this way, the aim was to learn about approaches and options to support existing capabilities. The third pillar was concerned with the opportunities and pitfalls of policy options in dealing with the future challenge of climate induced displacement, and with the analysis of dominant public discourses within the field.

The researchers invited represented a wide range of disciplines, including sociology, social anthropology, migration, conflict, gender and development studies, geography, political science, international law, and climate and environmental science. The conference was also well balanced in terms of geographic origin, gender, and academic status of the participants. The conference programme and full report can be found at www.esf.org/conferences/10328.

Boege, Volker: Challenges and Pitfalls of Resettlement Measures: Experiences in the Pacific Region, Bielefeld: COMCAD, 2011

(General Editor: Thomas Faist, Working Papers – Center on Migration, Citizenship and Development; 102)

The COMCAD Working Paper Series is intended to aid the rapid distribution of work in progress, research findings and special lectures by researchers and associates of COMCAD. Papers aim to stimulate discussion among the worldwide community of scholars, policymakers and practitioners. They are distributed free of charge in PDF format via the COMCAD website.

The COMCAD Working Papers is a work-in-progress online series. Each paper receives only limited review. The opinions expressed in the papers are solely those of the author/s who retain the copyright. Comments on individual Working Papers are welcomed, and should be directed to the author/s.

University of Bielefeld
Center on Migration, Citizenship and Development (COMCAD)
Postfach 100131
D-33501 Bielefeld
Homepage: <http://www.comcad-bielefeld.de>

Abstract

Today the South Pacific is the theatre of environmental and related social developments induced by climate change that are destined to affect other regions of the world sooner or later. For this reason Pacific Island Countries (PIC) are of particular interest within the discourse on climate change and its social effects. This paper gives an overview of climate change-induced migration in the Pacific, starting with a brief sketch of the environmental impact of climate change on PIC. It then presents a prominent example of resettlement, namely the case of the Carterets Islands in the Autonomous Region of Bougainville (Papua New Guinea), focussing on the islanders' capabilities and agency. The paper then goes on to address some transnational dimensions of climate change-induced migration in the Pacific, drawing on the cases of Kiribati and Tuvalu in particular. The domestic-transnational interface, the role of labour migration, remittances and diasporas are discussed. Based on empirical findings, the main challenges of resettlement are identified: the land-people connection, attitudes of recipient communities, conflict, governance, and funding. The paper closes with some more general considerations that flow from the South Pacific experiences, highlighting inter alia the need for long-term international planning. It becomes clear that communities in the South Pacific are not just helpless victims of an overwhelming fate, but are bestowed with admirable resilience, ingenuity and capabilities which they draw upon when coping with the challenges of climate change-induced migration.

Table of Contents

1. Introduction	7
2. The effects of climate change in the South Pacific.....	8
3. The Carterets Islanders case.....	9
3.1 Carterets vulnerability to environmental and social effects of climate change	10
3.2 Capabilities: ‘sailing the waves on our own’	11
3.3 The cultural-spiritual dimension of resettlement	14
3.4 External support (or the lack of it)	15
4. The transnational dimension.....	17
4.1 The domestic-transnational interface	17
4.2 Kiribati: in-country resettlement as an interim measure.....	18
4.3 Tuvalu: Torn between the desire to stay and the need to move	19
4.4 Current transnational migration patterns: labour migration, remittances and diasporas	21
5. Challenges and pitfalls of resettlement	23
5.1 The land-people connection.....	23
5.2 The relations between communities of origin and recipient communities	25
5.3 Conflict.....	26
5.4 Governance	28
5.5 Funding.....	30
6. Conclusions and generalisations	32
References.....	37

1. Introduction

In the centuries before Christ sea-faring Austronesians over time came to settle on the islands of the South Pacific. On occasions, they environmentally degraded an island to such an extent that it became uninhabitable. Then people moved on and resettled on another island. Currently more and more Pacific atolls become uninhabitable due to climate change and its effects such as sea level rise and extreme weather events. The inhabitants of these atolls are forced to leave and resettle elsewhere. This poses severe challenges - and opportunities perhaps-, not only to the directly affected people, but also to recipient communities and societies at large.

What is the difference between the two situations – two thousand years ago and today? Firstly, in the historical case the issue was locally confined - an island here, an island there - and there was a direct link between cause and effect. The people who were forced to relocate were responsible for what caused the need for resettlement. In today's cases we are confronted with a global and ubiquitous problem: man-made climate change on a global scale which in various regions of the world causes sea level rise and other problems, and we are confronted with far more complex causal chains; the Pacific islanders who are affected by sea level rise do not contribute (much) to its causes, but they are the first who have to suffer and to relocate.

A second difference lies in the fact that in the historical case most probably nobody in Bielefeld or its surrounds knew anything about what was happening in the South Pacific. In fact, we only know about it since archeological research conducted in the last century. About what is happening today in the South Pacific, however, I can discuss here in Bad Salzuflen, and there are various websites on the Internet with pretty detailed information about the effects of climate change in the Pacific, accessible from every place in the world. Film teams travel to remote Pacific islands and produce documentaries which can be watched in Germany and elsewhere, a German NGO (the 'Pazifik-Netzwerk') shows an exhibition with the title 'Land unter im Pazifik' (The Drowning Pacific) on various occasions in many German towns, and environmental activists from the Pacific travel to Europe and North America to inform the public about the plight of their people. In other words: even the most 'remote' corner of the world one can think of from a Bad Salzuflen viewpoint, is not really far away. And this is another decisive difference of today's situation compared to the historic case: not only is climate change a global phenomenon, but also the discourse about it. This of course frames the thinking and talking about climate change and migration (in the Pacific and elsewhere).

This paper gives an overview of climate change - induced migration in the Pacific, starting with a brief sketch of the effects of climate change in the region, then presenting a prominent example of resettlement induced by the effects of climate change, then addressing the trans-national dimension of the issue, and finally discussing the main challenges of resettlement. The paper closes with some more general considerations that flow from the South Pacific experiences.

2. The effects of climate change in the South Pacific

In the South Pacific already today climate change leads to sea level rise and an increased frequency and intensity of extreme weather events such as tropical cyclones and storm surges, but also rainfall decline and droughts. As a consequence, the South Pacific at present is the theatre of climate change – related environmental and social developments that will affect other regions of the world in the (not too distant) future. Hence the South Pacific island states have a kind of a ‘canary in the coalmine’ status (Jakobeit and Methmann 2007, 16), and this makes them particularly interesting in the context of the discourse on climate change and its social effects like migration. The latest IPCC report has identified Small Island Developing States (SIDS) as hotspots of environmental effects caused by climate change.

At the same time, the 22 Pacific island countries (PIC) are extremely low emitters of CO₂, they only contribute a tiny 0.04 per cent of the total global greenhouse gas emissions, and ranked by tonnes of CO₂ emitted per person they also are among the lowest (Foreign Affairs Committee 2010, 100). Australia, by contrast, is the greatest per capita emitter of greenhouse gases in the world, with 0.3 per cent of the world’s population, but producing about 1.4 per cent of the world’s greenhouse gases.

The particular vulnerability of many South Pacific islands is due to their extreme exposure and their rather constrained options for adaptation. Many islands are of extremely low elevation and often also of rather limited area. The highest point of the Pacific island country of Tuvalu is 1,50 metres above sea level, for Kiribati it is two metres, and the average island width of Kiribati islands is less than 1000 meters. Atoll countries are particularly vulnerable to sea level rise ‘because of their high ratio of coastline to land area, relative high population densities and low level of available resources for adaptive measures’ (Yamamoto and Esteban 2010, 2). Sea-level rise and associated submersion, storm surges, erosion and other coastal hazards will, according to the IPCC’s Fourth Assessment Report, threaten ‘vital infrastructure, settlements and facilities that support the livelihood of island communities’

(quoted from Oxfam 2009, 14). Fertile soils are scarce anyway, and soil and coastal erosion as well as sea water intrusion causes soil salinisation and contamination of freshwater lenses which provide people with water for drinking and agriculture. Most people on the islands depend on traditional subsistence agriculture (supplemented by some cash cropping), that is the produce of their gardens. This is the basis of their survival and their way of living. The yield from gardens declines constantly, as do freshwater supplies. Furthermore, climate change is 'likely to heavily impact coral reefs, fisheries and other marine-based resources' (IPCC, quoted from *ibid.*, 14). Global warming will cause an increase in sea-surface temperatures with devastating effects on coral reefs. In fact, coral reef environments are considered the most vulnerable ecosystem to each degree of global warming. Coral reefs will be unable to keep up with the pace of sea level rise. Bleaching of corals leads to a reduction of fish stocks and as a consequence declining fish catch. Rising temperatures will also increase the risk of vector-borne diseases such as malaria and dengue fever as well as diarrhoeal diseases, with significant ramifications for health sectors in PIC.

In other words: food security and water security as well as health are threatened (FAO 2008). People become more and more dependent on aid from outside.

Of course people have turned to adapting to the impacts of climate change. Adaptation efforts range from planting mangroves in order to reduce coastal erosion and building seawalls in order to contain storm surges and king tides to setting up rainwater tanks to improve fresh water supply. But given the geographical conditions, the implementation of adaptive measures can only go so far; building dykes like in the Netherlands or at the German coast for example is not feasible (and would be tremendously expensive). Adaptive capacity is generally low, and in some cases these adaptation measures have proven to be unsuccessful, and the above-mentioned vulnerabilities have led people to decide that resettlement is the most appropriate (or perhaps the only) option of long-term sustainable adaptation.

3. The Carterets Islanders case

The Carterets provides a rather straightforward and well documented case of resettlement induced by climate change and its effects in the South Pacific. The Carterets atoll comprises a handful of low-lying islands (Han, Huene, Jangain, Yesila, Yolasa, Piul), inhabited by approximately 3500 people. The islands belong to the Autonomous Region of Bougainville (ABR), which is part of the independent state of Papua New Guinea.

3.1 Carterets vulnerability to environmental and social effects of climate change

The Carterets, with a maximum elevation of 1.5 metres above sea level, are affected by sea level rise. One island has already completely disappeared; another island was cut in two by a king tide a few years ago. Since 1994, almost 50 per cent of the islands' surface was lost. The Carterets may be completely submerged in ten years time. The people have great difficulties maintaining their subsistence economy which is based on fish, bananas, taro and other vegetables, grown in food gardens. Taro, the main staple food crop, cannot grow any more due to salt water intrusion and salination of soil and water. Soils become more and more swampy, providing better breeding grounds for mosquitos; and as a consequence, malaria becomes more frequent. Freshwater wells have been contaminated by saltwater, and freshwater is getting more and more scarce. Food security is under immediate threat. People are becoming increasingly dependent on food aid shipped in from mainland Bougainville; these shipments, however, are irregular and unreliable. People have tried to adapt by building sea walls and planting mangroves, without sustainable success.¹

Given these conditions, the people on the Carterets have decided to resettle on the main island of Bougainville. Bougainville is around 80 kilometers away across the sea to the south west of the Carterets, a four hour ride by boat. Bougainville has an area of about 9000 square kilometres (approximately the size of Cyprus), with around 200,000 inhabitants. Geographically Bougainville belongs to the Solomon Islands archipelago. Politically, however, it is part of the state of Papua New Guinea (PNG), with a special status as an autonomous region.

For almost ten years (1989 to 1998) Bougainville was the theatre of a large-scale internal war, the longest and bloodiest violent conflict in the South Pacific since the end of World War Two. It was mainly a war of secession between the security forces of the central government of PNG on the one hand and the secessionist Bougainville Revolutionary Army on the other. After a ceasefire in 1998 and a Peace Agreement in 2001, Bougainville has gone through a comprehensive process of post-conflict peacebuilding over the last few years. In fact, Bougainville presents one of the rare success stories of peace-building in today's world. However, some unresolved issues remain, and the situation is still rather volatile in parts of the

¹ Other atolls in the Autonomous Region of Bougainville find themselves in a similar situation, namely Tasman, Mortlock and Nukeria, which have a total population of about 2500.

island. Land is scarce on Bougainville, conflicts over land are common. Nevertheless, the Carterets islanders intend to resettle on Bougainville. A survey found that 80 families wanted to move immediately, 50 wanted to move later on, while 30 remained undecided (Rakova 2009, 2). The Catholic Church provided some resettlement land in the relatively safe north of the island. In April 2009 the first settlers from the Carterets arrived on Bougainville, the heads of five families with around 100 family members. They were to pave the way for the others.

It soon became clear, however, that the land secured from the Catholic Church would not suffice. Financial support that was promised by the government for resettlement purposes has not been delivered yet. Carterets settlers were not really welcomed with open arms by all of the locals. Already by July 2009 three families had left the resettlement site and returned to the Carterets, arguing that they could not live in peace in the new place. Conflicts had occurred over land between settlers and locals. As things stand at the moment, it is not at all clear whether the planned resettlement of the majority of Carterets islanders before 2015 can actually be carried out.

Carterets islanders are victims of all three climate change impacts that, according to Biermann's and Boas' suggestion, qualify people as climate refugees, namely sea-level rise, extreme weather events, and drought and water scarcity (Biermann and Boas 2010, 64). In a rather clear-cut case like this it might indeed be appropriate to actually talk about resettlement enforced by climate change, and accordingly, those people who are forced to leave their home islands might be termed environmental or climate refugees. The aspect of vulnerability is obvious, but there is also a capabilities dimension even to an extreme case like this one, and I'd like to shed light on this dimension in the following section.

3.2 Capabilities: 'sailing the waves on our own'

People from the Carterets themselves took the initiative to develop a resettlement plan. After a series of community meetings which discussed the worsening situation on the atolls, the Carterets Council of Elders, the local governing body on the islands, in late 2006 decided to form an NGO to organize the resettlement. The organization was named 'Tulele Peisa', which in the local language means 'sailing the waves on our own'. This name choice reflects the elders' desire to see Carteret islanders remain strong and self-reliant' as the organization's Executive Director Ursula Rakova explains (Rakova 2009, 2). Tulele Peisa elaborated a detailed resettlement plan, the Carterets Integrated Relocation Programme (CIRP) which aims at the voluntary relocation of approximately 1700 Carteret islanders to three locations

on mainland Bougainville (Tinputz, Tearouki and Mabiri) over five to ten years.² The plan which contains a detailed 14-step process³ does not only address issues such as constructing housing and infrastructure for the settlers, but also envisages the implementation of agricultural and income generation projects (mainly around cash cropping of coconuts and cocoa) and the development of education and health facilities as well as community development training programmes which will support the settlers in adjusting to their new home environment economically and socially. One core objective of Tulele Peisa is to 'facilitate training programs to build the capacity of the Carterets people to adapt to a different lifestyle from the coral atolls to mainland Bougainville – including for small-scale income generation activities' (Tulele Peisa, no date, 8).

The plan also addresses the needs and interests of the target communities (approximately 10,000 people) so as to 'ensure that these host communities will also benefit through upgrading of basic health and education facilities and training programs for income generation' (Tulele Peisa, no date, 5). The reason for this is to avoid preferential treatment of relocated newcomers which could cause resentment, frustration and animosities from the side of host communities. Accordingly, the plan envisages 'exchange programs involving chiefs, women and youth from host communities and the Carterets (...) for establishing relationships and understanding' (Rakova 2009, 2). Several such programmes have been actually carried through.

In this context, it has to be mentioned that resettlement was accompanied by custom ceremonies which farewelled people on the Carterets and welcomed them to host communities on Bougainville (including the exchange of shell money). Tulele Peisa also has sought to promote inter-marriages between Carterets islanders and members of host communities; this could create bonds and social cohesion and provide newcomers with access to much needed land. As both the Carterets islanders and the Bougainvilleans are Melanesians they share a common cultural background which makes building relationships and mutual understanding relatively easy. Things will be more difficult for people from the other atolls in the

² It is planned to resettle five families to Tinputz, 20 families to Tearouki, and 100 families to Mabiri. Implementation of the plan has started with the smallest resettlement site, Tinputz.

³ The fourteen steps are: 1) Scoping out of available land; 2) Identifying traditional land owners; 3) Negotiating with land title holders; 4) Engaging with landowners; 5) Exchange programmes; 6) Entering into land negotiations; 7) Carrying out social and resource mapping; 8) Planting gardens; 9) Identify families using objective selection criteria; 10) Prepare families for relocation; 11) Prepare host families for relocatee arrivals; 12) Building homes; 13) Moving families to the new resettlement sites; 14) Exchanging traditionally valuable items such as shell money (Displacement Solutions, no date, 19).

ABR (Mortlocks, Tasman, Nuguria) as they are Polynesians who are culturally different from and do not have kinship ties with people on mainland Bougainville.

Currently work is underway in the Tinputz resettlement site: clearing of the relocation site, establishing food gardens, planting taro, building houses, meetings between members of the Carterets Relocation Task Force Committee (RTFC) on the one hand and the elders, chiefs and church leaders of the host community on the other, negotiations with local landholders.

Securing more land for the people who are willing to resettle will be the most important and most difficult issue. As has been said before, land is already scarce on Bougainville, and traditional land tenure in the context of Bougainville societies does not easily lend itself for accommodation of newcomers. Land on Bougainville, as in the South Pacific in general, is at the heart of life of local communities. Access to land depends on membership in a specific social kin-based group (lineage, clan); the group and the land are closely interwoven, the people belong to the land as much as the land belongs to the people. Land provides not only livelihood and the most reliable security for the group, but it is also the source of its cultural and spiritual wellbeing.

The overwhelming importance of land for Bougainvilleans is well expressed in the following quote (from 1974):

‘Land is our life. Land is our physical life – food and sustenance. Land is our social life; it is marriage; it is status; it is security; it is politics; in fact, it is our only world. When you (the Administration) take our land, you cut away the very heart of our existence. We have little or no experience of social survival detached from the land. For us to be completely landless is a nightmare which no dollar in the pocket or dollar in the bank will allay’ (Dove et.al., quoted in Connell 1991).

Land belongs to the whole group (including the spirits of the dead and the unborn generations). There is no concept of individual ownership or of land as a commodity that can be bought and sold. There is a whole variety of primary, secondary and further land use rights, which complicates the notion of land ownership. Boundaries of certain areas of land are often not clearly defined. Given these uncertainties and the great importance of land it comes as no surprise that conflicts mostly revolved and still revolve today around land disputes.

The vast majority of land on Bougainville (95 per cent) is covered by this customary land tenure system. Only small portions are alienated land which at some stage in colonial times was bought or expropriated by outsiders, e.g. churches, white plantation owners or the state. It is no wonder that the settlers from the Carterets were relocated to land in the possession of the

Catholic Church. As has been said before, this land – around 80 hectares - is by far not sufficient; according to the resettlement criteria developed by Tulele Peisa, some 1,500 hectares of land will be required to accommodate all the families who intend to resettle (five ha per family). It will be much more difficult to negotiate the acquisition of customary land between Carterets islanders and communities on Bougainville and to obtain clear legal title to land. Respective negotiations with landholders in resettlement sites have started in 2007 and are continuing. Securing the funds for land purchase will be another critical issue.

Finally, it has to be mentioned that there have already been conflicts between newcomers and host communities over land issues, and this has led to the return of some of the relocated families back to the Carterets, in other words: there was conflict-induced re-relocation.

3.3 The cultural-spiritual dimension of resettlement

As land is at the heart of the entire social, cultural and spiritual order, loss or scarcity of land does not only pose economic problems, but has far-reaching effects on the social structure, the spiritual life and the psychic conditions of the affected groups and their members. For Carterets islanders to have to leave their customary land is a shocking prospect. This is why despite the desperate situation on the atolls there are still people who do not want to leave their homelands. Generational differences are at play in this regard. In the Carterets case it is particularly the elderly who do not want to move, while members of the younger generation are more willing to leave. For the latter resettlement also opens new options, and they usually have more capabilities at their disposal than the old; they also might think that it is more exciting to stay in a bigger place than in a small community on a tiny atoll. In fact, Pacific islanders have a tradition of sending their young people to other places (to raid other people's homes in the olden days, to earn cash in the modern age), but the decisive difference compared to today's situation is that the people always could come back, and they usually did come back. Resettlement due to sea level rise, storm surges, land loss and freshwater depletion, however, is permanent and irrevocable. You cannot come back to an uninhabitable or sunken island. Although members of the younger generation are more willing to move, they definitely do not want to leave their parents behind on sinking islands. Under these circumstances, tremendous mental stress and even conflict between young and old seem to be unavoidable.

Resettlement poses particular challenges to women. On the Carterets and in most parts of Bougainville communities are matrilineal, which means that land is transferred from the

mothers to their daughters. The loss of land for the Carteret women thus is a traumatic experience as the chain of land transfer will be broken. On the other hand they have to see their children going to sleep hungry because the customary land cannot sustain the families any longer. The women are torn between the desire to stay on their traditional land and the need to move if they want to secure a future for their children.

In sum, Carteret islanders are afraid of losing their cultural heritage which is closely linked to the land.

Tulele Peisa is trying to take this cultural-spiritual dimension of relocation into account as far as possible in its resettlement plan; it envisages the establishment of a regular sea transport service for freight and passengers in order to maintain links between relocated people and those clan members who will stay put, and of a Conservation and Marine Management Area around the sinking Carterets so as to maintain the area as customary fishing ground and thus keep the links to the ancestral land (even if it might have disappeared from the earth's surface) (Tulele Peisa, no date, 6).

The desire of the Carterets islanders is 'to maintain our cultural identity and live sustainably wherever we are' (Tulele Peisa Vision statement in Tulele Peisa, no date, 8: see also Rakova 2009, 1). Whether this can actually be achieved remains to be seen, but it is a strong reminder that resettlement is not only a technical issue which has to deal with mainly material problems, but also has a highly important cultural, psychological and even spiritual dimension. Tulele Peisa is taking this dimension into account by stating as one of its objectives to 'assist Carterets people to overcome fear, anxiety and trauma associated with the need to leave their homeland' (Tulele Peisa, no date, 8).

3.4 External support (or the lack of it)

The plight of the Carteret islanders has drawn considerable international attention. They were presented as being at 'the frontline of global climate change' and dubbed the world's first 'environmental refugees', and the resettlement process 'from the Carterets islands to Bougainville' was presented as 'one of the first organised resettlement movements of forced climate change migrants anywhere in the world' (Displacement Solutions 2008, 2). More than a dozen film crews, news networks and freelance media teams have visited the Carterets over the last few years and have spread the Carterets message to the outside world. In fact, so many journalists and media people have visited the islands that they have become a burden and locals are now sick and tired of having to accommodate them. The PNG postal ser-

vice has issued a series of stamps in 2010 featuring the Carterets so as to create awareness about climate change and sea level rise in PNG and overseas. Representatives of Tulele Peisa have been on speaking tours to Australia and even to Europe, including Germany. So far all this international public attention has not translated into any substantial support or benefit for the Carteret islanders. The current resettlement program which is conducted by Tulele Peisa is completely dependent on the resources and ingenuity of the Carteret islanders themselves, plus modest support from donors and international civil society. A little funding could be secured from New Zealand Aid and some non-state donors (e.g. Australian Conservation Foundation). The international NGO Displacement Solutions (DS) has been working closely with Tulele Peisa since 2008 and through its Bougainville Resettlement Initiative has been seeking funds to support its work (Displacement Solutions, no date, 19); churches and some national and international NGOs like Friends of the Earth or Oxfam are active raising funds for resettlement purposes, e.g. collecting money at fundraising functions for the purchase of tools and material to build more houses in the relocation sites.⁴ These private initiatives are an expression of international solidarity and are highly laudable, but most probably they will not suffice to solve the problems of resettlement.

Support from the side of the state of Papua New Guinea and the Autonomous Bougainville Government (ABG) so far has been very modest. State institutions acknowledge the problem and the need for action, but words so far have not been followed by deeds.⁵ The ABG has endorsed the Carterets Integrated Relocation Program, and in October 2007 the PNG government allocated 2 million Kina (800,000 USD approximately) for an official 'Carterets Relocation Program'. But somehow this money disappeared somewhere in the jungle of the PNG state bureaucracy, it has not been utilized for resettlement purposes yet. Some people from state institutions say that the money is still there, 'parked' somewhere and ready to be used later, others say it cannot be found. So one will have to wait and see, which is not very helpful for the Carteret islanders. Tulele Peisa estimates that some 14 million Kina will be re-

⁴ It only costs a mere 4,100 AUD to build one house, including labour, using traditional bush materials. Tulele Peisa is very anxious to make sure that settlers do not end up with bigger and better houses than their Bougainvillian neighbours.

⁵ The head of the PNG government, Prime Minister Somare, is sympathetic to the plight of the Carterets people for personal reasons. He says: 'In my own village we have moved for the fourth time in one generation in order to escape flooding on one side and sea-level rise on the other. We are probably amongst the first environmental refugees. Our mangrove ecosystems and, in fact, our very way of life is being destroyed' (PNG Prime Minister Sir Michael Somare, who comes from the low-lying coastal East Sepik province in PNG, quoted from Oxfam 2009, 34).

quired to resettle all of those who wish to relocate to Bougainville (Displacement Solutions 2008, 4).

Of utmost importance, nevertheless, is the fact that people from the Carterets have not waited for the state and others to come to their assistance, but have taken their fate into their own hands and in doing so have shown tremendous capabilities and ingenuity. This demonstrates that people have agency of their own. Local agency, however, should not be used as an excuse for the passivity of state institutions in PNG and of those who are responsible for the plight of the islanders at the international level in the first place.

4. The transnational dimension

Tulele Peisa is actively involved in international civil society activities regarding climate change and resettlement. In particular, it is part of efforts to build an alliance of vulnerable Pacific communities impacted by climate change, and it is determined to document its own experiences so that other communities around the world might profit from the lessons learned in the Carterets case. It presents itself as a 'community led model for relocation of climate affected communities elsewhere' (Tulele Peisa, no year, 5), and climate affected communities can indeed be found elsewhere in the Pacific as well. Relocations are taking place in the small island countries of Vanuatu, Solomon Islands, Kiribati, Tuvalu, Marshall Islands, the Federated States of Micronesia and Palau. The empirical details of other cases cannot be presented here, instead let me draw attention to the transnational dimension of the resettlement issue.

4.1 The domestic-transnational interface

It has been said on many occasions, and it is true without doubt, that relocation induced by climate change in the vast majority of cases will take the form of internal migration, within the boundaries of any given country. The case of the Carterets islanders follows this pattern: relocation to the nearest spot possible. International 'climate refugees' will remain a minority, and even less probable are cases of organised international resettlement of larger groups of people.

Having said that, however, one has to take into account the specifics of the South Pacific situation. In the South Pacific we have a number of very small island states, and due to their

smallness there is often not much space for resettlement domestically, and movements of people become easily cross-border and thus 'international'. Once you leave your island you can find yourself already in another country. Moreover, borders of states, which were drawn in the colonial era, and the notion of the 'nation-state' do not have much meaning in the everyday life of many people in villages and on outer islands in the Pacific anyway. People do not perceive themselves as citizens or nationals of a specific 'nation state' (at least not in the first place). They define themselves instead as members of particular sub- or trans-national social entities (kin group, tribe, clan). This is particularly true where state agencies are not present on the ground and the state does not deliver much in the way of services such as education, health, infrastructure or security. Rather, it is the community that provides the nexus of order, security and basic social services. People have confidence in their community and its leaders, but they have no or only limited trust in the government and state performance. 'The state' is perceived as an alien external force, far away not only physically (in the capital city), but also psychologically; 'national identity' in the Western sense of the term is a rather alien concept. Individuals are loyal to 'their' group (whatever that may be), not the state or the nation. As members of traditional communities, people are tied into a network of social relations and a web of mutual obligations, and these can easily transcend the borders of usually very young 'nation states'. This makes transnational migration and the maintenance of connections across borders relatively easy; the major hindrances being the 'terror of distance' and the border regimes introduced and upheld by the state(s).

4.2 Kiribati: in-country resettlement as an interim measure

Some of the small PICs will be affected by the effects of climate change in their entirety so that there is no or hardly any space for in-country resettlement. Take the example of Kiribati which will be severely affected even by a marginal sea level rise. Already today Kiribati experiences bleaching of coral reefs, higher tides, more frequent and heavier tropical storms, coastal flooding and salt-water intrusion which endangers fresh water supplies. Extended periods of drought reduce the possibilities of rainwater catchment.

So far, leaving their homeland altogether and moving to another country is out of the question for many Kiribati citizens as I-Kiribati Palaneesi Alofa Pidotate explains: 'We never thought that we have to move. No, that is not an option to us. We do not want to move. Because if we move away from our islands, we have lost everything. We will lose our identity. You cannot create Kiribati or Tuvalu or Fiji in someone else's country' (quoted from ABC Radio Australia 28 July 2009: Tales of climate change already effecting Tokelau, Kiribati).

In 2005 the Kiribati government finalised an Integrated Land and Population Development Programme as part of a broader national Climate Change Adaptation Strategy. These documents envisage large scale inter-island relocation, with the main element being the resettlement of 30,000 people from smaller islands and from the severely overcrowded and critically water scarce capital island of South Tarawa to the larger island of Kiritimati.

Land in South Tarawa is less than three meters above sea level, and the island has an average width of only 450 meters. South Tarawa already today has a population density of approximately 8000 persons per square kilometre – that is similar to Hong Kong. In the 1940s only approximately 1700 people lived on South Tarawa, today the number is almost 65,000, more than half of the total population of Kiribati. Many people live in overcrowded squatter settlements. People from outer islands came to Tarawa because of economic pull factors, but also because of environmental push factors, ‘there appears to be a correlation between influxes in urban migration and increased potable water scarcity, coral reef depletion and coastal erosion on the outer islands’ (Locke, 175). Relocation to Kiritimati will be a challenge. It is the largest of all of Kiribati’s 33 coral atolls, comprising 70 per cent of Kiribati’s land mass. But is 2000 kilometres away from Tarawa, and it is very low-lying too. It can be expected that Kiritimati will be also severely affected by sea level rise in the future, and relocation to Kiritimati most probably can only be an interim measure.

Kiribati political leaders are aware of the necessity to plan for international relocation. President Anote Tong in his address to the UN General Assembly in 2008 explained: ‘The relocation of the 100,000 people of Kiribati, for example, cannot be done overnight. It requires long-term forward planning and the sooner we act, the less stressful and the less painful it would be for all concerned. This is why my government has developed a long-term merit-based relocation strategy as an option for our people. As leaders, it is our duty to the people we serve to prepare them for the worst-case scenario’ (quoted from Oxfam 2009, 36-37).

And in his 2009 statement to the UN General Assembly he said: ‘I have been advocating a combination of pragmatic adaptation strategies for my people. It is our overwhelming desire to maintain our homeland and our sovereignty. However, with the inevitable decline in the ability of our islands to support life, let alone increasing populations, due to rising sea levels, we must also provide opportunities for those of our people who wish to migrate to do so on merit and with dignity’ (quoted from Foreign Affairs Committee 2010, 105).

4.3 Tuvalu: Torn between the desire to stay and the need to move

Another critical case is Tuvalu, the fourth smallest country in the world, consisting of nine small islands with a population of 10,000 people. Currently Tuvaluans migrate, as individuals or families, from outer islands to the capital island of Funafuti, where a squatter settlement has emerged over the past few years. 'Similar to the case of Kiribati, a combination of economic and environmental factors has contributed to the influx of population from the outer islands to Funafuti. Economic opportunity, in addition to an increasingly volatile environment, has both pulled and forced people to migrate from outer islands' (Locke 2009, 176). On the outer islands freshwater sources and crops like taro are adversely impacted by sea level rise. Some Tuvaluans move on to Fiji and New Zealand, with climate change and sea level rise certainly contributing to their decision to migrate. As one migrant from Tuvalu noted: 'I don't want to wake up one morning with the island washed away. Look at what happened in the Solomon Islands! I prefer to leave now before I have no other choice' (quoted from Warner et al. 2009, 19). In fact, Tuvalu is likely to be the first country that will have to be evacuated completely due to climate change, with Kiribati or the Marshall Islands other likely candidates.

The people and political leaders of Kiribati and Tuvalu are caught in a catch-22 situation. On the one hand they have to insist on the right to stay where they are, because moving would mean loss of identity, sovereignty, culture. On the other hand they must insist on the right to move and to be accommodated by governments and people elsewhere. At times Tuvalu prime ministers (and the people in Tuvalu) demand from Australia that the population of Tuvalu be allowed to resettle in Australia due to the severe impacts of climate change on Tuvalu, and at other times they declare that Tuvaluans will not leave their homeland and demand climate change mitigation measures from the international community that will allow them to stay (Corlett 2008). Speaking to the UN General Assembly in 2008, for example, Tuvalu Prime Minister Apisai Ielemia stated: 'We strongly believe that it is the political and moral responsibility of the world, particularly those who caused the problem, to save small islands and countries like Tuvalu from climate change, and ensure that we continue to live in our home islands with long-term security, cultural identity, and fundamental human dignity. Forcing us to leave our islands due to the inaction of those responsible is immoral and cannot be used as quick-fix solutions to the problem' (quoted from Oxfam 2009, 34). At the UNFCCC conference in Poznan in December 2008 he found even stronger words: 'It is our belief that Tuvalu, as a nation, has a right to exist forever. It is our basic human right. We are not contemplating migration. We are a proud nation with a unique culture which cannot be relocated elsewhere. We want to survive as a people and as a nation. We will survive. It is our fundamental right.' (quoted from Maclellan 2009, 11).

Despite these strong statements of the Tuvaluan Prime Minister his government also thinks about the international relocation option: 'If we lose our land we risk losing our identity. We know if the worst comes to the worst, we would have to relocate. But we would be looking at taking one sovereign country to another – we would want to keep our economic exclusion zone, our United Nations seat and so on. We would want to keep our identity as Tuvalu, in another location' (Tuvalu government spokesperson Kilifi O'Brien, quoted from Oxfam 2009, 37). In fact, the Tuvalu Prime Minister 'issued a formal request to the government in Australia in 2008 to cede to Tuvalu a small piece of territory for the purposes of re-establishing Tuvalu on a minute portion of what is now Australian territory and resettling the entire population of the country there. Australia did not support this request, but in response to the Federal Government's reluctance and in an act of remarkable islander solidarity, representatives from the Torres Straits Islands in the north of Australia unofficially offered Tuvalu use of one of its islands to re-establish itself there' (Displacement Solutions, no date, 20-21). The Torres Straits Islands, however, also suffer from the effects of climate change and have to struggle with the same problems as Tuvalu, and they face the potential problem of a massive influx of people from the low-lying, swampy southern coast of mainland Papua New Guinea which is very close to the Torres Straits Islands.

4.4 Current transnational migration patterns: labour migration, remittances and diasporas

In general, it is perfectly understandable that Pacific islanders do not want to abandon their homelands or be absorbed into majority cultures in countries where local indigenous people already struggle for acceptance (like Australia, New Zealand or the United States). On the other hand, they have an obligation to plan for resettlement; and, in fact, PIC governments (e.g. Kiribati, Tuvalu, Niue and Tokelau) are openly discussing issues of transnational relocation.

When people from Pacific island states go voluntarily to Australia or New Zealand these days, then it is only temporarily – in order to earn some money - with the firm determination and the option to go home after a certain period of time. The New Zealand and Australian temporary work schemes for Pacific Islanders operate exactly on this basis. New Zealand established a seasonal labour scheme (Recognized Seasonal Employer, RSE, scheme) in October 2006 which allows up to 8000 workers from six PIC (Fiji, Samoa, Tonga, Kiribati, Tuvalu and Vanuatu) each year to work within the horticulture and viticulture sectors temporarily (for seven months, picking fruit and harvesting crops). This scheme aims to solve a

labour shortage in New Zealand in those industries. It benefitted PIC mostly in the form of remittances. In August 2008 Australia followed with a similar (pilot) scheme (Pacific Seasonal Workers Program), allowing up to 2500 citizens from four PIC (Kiribati, Tonga, Vanuatu and Papua New Guinea) to come to Australia temporarily for low-skilled work in the horticulture industry in nominated locations. Again, this scheme is geared to address a chronic labour shortage in the agricultural sector in some parts of Australia. In October 2010, a new Memorandum of Understanding and Facilitation Arrangements were approved by the PNG government (similar MoUs between Australia and Kiribati, Tonga and Vanuatu were signed in 2008). These schemes provide sources of employment and income for island communities and perhaps also for education and training, but they also have a variety of serious social and other problems (e.g. housing, payment rates and deductions) (MacDermott and Opeskin 2010). In any case, they do not directly address the issues of climate-induced migration or resettlement; they have nothing to do with permanent resettlement of 'climate refugees'. This also holds true for the Pacific Access Category (PAC) which was established in 2002 by the New Zealand government in order to facilitate migration from neighbouring countries in the Pacific. PAC allows for 1,100 Samoans, 250 Tongans and Fijians each, and 75 citizens from Tuvalu and Kiribati each to come to New Zealand per year. Applications from Kiribati citizens have risen from 300 in 2002 to 3,000 in 2008. Applications from other countries have increased in a similar order. Again, however, the PAC does not make any reference to migration related to climate change. New Zealand is very cautious not to take any legal responsibility for people displaced due to climate change, and so is Australia.

These schemes can contribute, however, to the strengthening of adaptive capacities in home countries. Remittances can sustain families at home and make communities more resilient. Because of these effects, governments in the home countries of the seasonal workers call for an expansion of the schemes, and other countries which are not yet covered by them, ask to be included. As experiences from other parts of the world demonstrate, however, such measures which originally were conceptualised as being temporary can in the long run lead to permanent relocation. Given the increasing pressure on home countries due to the effects of climate change this trend might also be enhanced in the South Pacific. Already today relatively large diaspora communities from Pacific island countries can be found in New Zealand, Australia, and the United States.⁶ Their remittances (in cash or goods) play an important role

⁶ More Cook Islanders and more Tokelauans live today in New Zealand than in the Cook Islands and Tokelau. In the United States a large Tongan diaspora can be found, most notably in Hawaii, California and Utah.

for the economies of their home countries and for the improvement of household livelihoods at home. Whether the members of these diaspora communities will be seen - and present themselves - as 'economic migrants' or 'environmental refugees' is an open question. Both elements will play a role, with the 'environmental' dimension becoming more important.

It has been argued that the large diasporas of Pacific Islanders in New Zealand, Australia or the United States are proof that people are capable of dragging their culture with them overseas and sustain their cultures of origin. The existence of an intact community on the islands back home, however, seems to be indispensable for maintaining one's own identity even far from home, in the diaspora. The link to the land and to all that it comprises – culture, custom, sustenance, sacred sites, spirits of the ancestors – remains intact over great spatial distance, as long as the land and (some of) the people are still there. Diaspora communities and villages at home maintain close links, e.g. through churches, sporting groups or so-called kava clubs; and diaspora groups regularly raise funds for community development projects in their home villages and islands. It is a very common phenomenon that people living abroad or in the few cities of the Pacific regularly travel home to their island and their village over the Christmas period or on other special occasions (such as weddings or funerals) in order to renew their ties to the land and their families and thus get strength for another period of time detached from land and kin.

5. Challenges and pitfalls of resettlement

Let me now turn to some of the major challenges and pitfalls of resettlement which can be identified based on the empirical evidence given so far, particularly based on the Carterets islands case. There might be some implications and insights here that are thought-provoking and helpful in more general terms, beyond the specifics of the Pacific cases.

Five points must be highlighted in particular.

5.1 The land-people connection

The first challenge has to do with the connection between land and people. Resettlement implies moving from one area of land to another. But land is scarce, not only on Bougainville, but all over the South Pacific. Finding appropriate resettlement land is a major challenge. Land acquisition for resettlement purposes is not an easy task; it will be difficult to find land,

and it will be costly to purchase it. The problem will rise in magnitude in the future, given the rise in numbers of people who will have to relocate. Numbers in the Carterets case are small, in the future the problem will take on much bigger dimensions. If difficulties are already considerable with such small numbers, one can imagine what they will be like in the future. And as an internationally recognized principle of voluntary resettlement is that settlers must not be worse off after resettlement than in their regions of origin, it will be an enormous challenge to find solutions for this problem. Just letting people move individually to the squatter settlements, the slums and the favelas of the (mega) cities of this world definitely is no solution; it would be devastating for the people in question, and it would be devastating for the environment and the climate.

Perhaps even more importantly, resettlement does not only pose technical, legal and economic challenges, and it is not merely a technical exercise. Rather, it has a variety of political, social, cultural, and - I dare say – spiritual aspects to it. I have emphasized the importance of 'land' to the Carterets islanders, with the meaning of 'land' being very different from 'land' in the Western sense as understood by most academics and policy-makers who deal with these issues. This holistic notion of land as also comprising cultural, psychological and spiritual dimensions and the intimate relatedness of people and land is by no means unique to the Carterets islanders or the Bougainvilleans. It can be found everywhere in the South Pacific, and I assume it can be found in many of the agricultural regions of the Global South which will be hardest hit by the effects of climate change and where most of the people who will have to relocate currently live. These people will harbour sentiments regarding land similar to those expressed by the Carteret islanders. Chief Paul Mika from Han island in the Carterets explains: 'The hardest thing will be to lose our sacred places, our tambu places' (quoted from Pacific Institute of Public Policy 2009, 2). Abandoning their land and thus their ancestors is a traumatic experience for Carterets Islanders – and for Melanesian people in general. An inhabitant of Babaga island in the Solomon Islands says: 'They talk about us moving. But we are tied to this land. Will we take our cemeteries with us? For we are nothing without our land and our ancestors' (quoted from Oxfam 2009, 36). If the Carterets or the islands of Tuvalu or Kiribati or Marshall Islands will disappear in the sea, this does not only mean loss of land, but destruction of entire societies and cultures. What one researcher describes for the Marshall Islands also holds true for any other place in the South Pacific, namely that 'the entire culture revolves around vital connections to land and family, and it is difficult for outsiders to comprehend what it means from a Marshallese perspective to see the graves of your ancestors and traditional leaders succumb to the seas' (Barker 2008, 2).

Hence Tulele Peisa's efforts to maintain some ties to the home islands after resettlement (via establishment of regular transport and a marine conservation area for customary fishing activities).

An obvious pitfall of resettlement then is to conceptualize it without taking into account the 'soft' – cultural, psychological, spiritual – dimensions which are a decisive factor for the well-being and perhaps even the survival of people (at least as members of a culturally distinctive group). In other words, communities can be destroyed not only ignoring the plight of people and letting them drown on their home islands, but also by culturally insensitive resettlement.

5.2 The relations between communities of origin and recipient communities

The 'land' challenge is closely linked to a second challenge, namely the relations between settlers and host communities. Resettlement does not only affect those people who have to leave their homes, but also those who have to accommodate them in their midst. There are no empty spaces left on earth (in fact, one can doubt whether there ever were empty spaces in the course of human history). The Carterets islanders' case demonstrates how immensely difficult it is to find enough and appropriate land for the people who are willing to relocate and then to actually make them at home on the new land. Settlers in each and any case will find that people already live in the areas they are moving to. Organised voluntary resettlement therefore will have to focus on establishing and maintaining peaceful and productive relations between settlers and host communities. As has been shown, Tulele Peisa has put a lot of reflection and effort in to this aspect of resettlement, trying to establish sustainable bonds between newcomers and recipient communities (not least by means of ceremony and ritual or intermarriages) and developing inclusive programs which are of benefit for both settlers and hosts. Particular attention has to be paid to equity issues so as to avoid situations where newcomers are better (or worse) off than the members of host communities, as this can easily spark resentments and conflicts.

In the case of Bougainville, one has to deal with neighbouring communities which are socially and culturally distinct only to a relatively small degree. Nevertheless, relations were difficult and complex problems ensued. It can be assumed that the bigger the social and cultural differences between settlers and hosts the greater the problems of integration.

An obvious pitfall of resettlement is to conceptualize resettlement with an exclusive focus on the settlers. Resettlement has to take into account the needs and interests of recipient communities and the relationship between them and newly arriving settlers.

5.3 Conflict

If settler-recipient relations are not managed properly, a third challenge of resettlement will gain prominence: conflict due to environmentally induced migration. As has been mentioned above, disputes over land between settlers and members of host communities have led to the re-relocation of Carterets islanders back home to their islands from mainland Bougainville. Conflicts over land, water and other natural resources can easily escalate under conditions of scarcity and (perceptions of) inequity.

A community leader from Tuvalu describes the problem as follows: „Right now we have land issues for people living at the edges of the island. As the land on the coast is eaten away, people want to relocate saying „We’re losing our land: we need to move a bit in.“ Other families reply „This is our land, this is where it stops“. So this is creating disputes amongst the communities in Tuvalu. Land in Tuvalu is communal land, so it’s not one person arguing with another, it becomes a wider dispute with family versus family’ (Annie Homasi, quoted from Oxfam 2009, 33).

Similar stories of conflicts between people moving from the coast to higher ground and the landowners there can be heard from Palau, Vanuatu or Solomon Islands. In Kiribati water scarcity has led to conflicts over water between neighbouring communities which felt forced to encroach on each other’s land (Foreign Affairs Committee 2010, 102). Of particular concern is the situation in the Solomon Islands which similar to Bougainville experienced an internal violent conflict not long ago. The island and province of Malaita was a conflict hotspot. Currently some outer islands of Malaita are becoming uninhabitable due to sea-level rise, and people have to be relocated to mainland Malaita, which is already overpopulated and where land is extremely scarce. Relocation planning is in its early stages, and conflicts can be predicted.

So far there are only small conflicts at a low level of intensity, affecting only small groups of people. When talking about environmentally induced conflicts, or conflicts induced by climate change, one has to be aware that it is primarily this type of localised conflict which is the problem, and not conflict at a larger international scale. For the people who are directly affected, however, these small conflicts can have devastating consequences, and conflict es-

calation cannot be ruled out, particularly in a fragile post-conflict environment such as in Bougainville or Solomon Islands, or in situations that are already conflict-prone anyway. In those situations environmentally induced migration can trigger conflict escalation in the areas of resettlement, particularly between newcomers and locals (over scarce natural resources, employment opportunities, because of ethno-religious and cultural differences etc.).⁷ Furthermore, one has to take into account that in the future ever more and bigger groups of people will be affected, and this will lead to increased potential for conflict and conflict escalation. Hence it is for good reason that the German Advisory Council on Global Change includes environmentally induced migration in the spectre of 'conflict constellations' caused by climate change (WBGU 2007, 3) and that International Alert identifies migration as a key conflict-relevant risk of climate change (International Alert 2007, 21-22). In fact, migration is 'one of the most plausible links from climate change to conflict' (Gleditsch, Nordas and Salehyan 2007, 4).

Having said that environmentally induced migration primarily will lead to local conflicts at the sub-national level does not mean to neglect the international security dimension altogether. Not only can internal conflicts - once they have reached a certain level of violence - make the intervention of external actors necessary (for peacekeeping and peacebuilding), environmentally induced transnational migration can also become a more direct security issue for the developed countries in the region. Accordingly, the 2009 Australian Defence White Paper addresses climate change and environmentally induced relocation in a security perspective. It states: 'Many countries in our immediate neighbourhood will be especially vulnerable (...). Countries in the Pacific may find themselves threatened by severe climatic events such as more intense cyclonic and extreme weather events. Some South Pacific nations will be placed under significant stress as a consequence of the impacts of climate change. They may require external assistance to manage the consequences of climate change, and to respond to natural or man-made humanitarian crises or disasters', and in case mitigation and adaptation strategies should 'fail to mitigate the strains resulting from climate change (...) the Government would possibly have to use the ADF as an instrument to deal with any threats inimical to our interests' (Australian Government Department of Defence 2009, 40). Australian security agencies see 'the potential for mass movement of environmental refugees around

⁷ The causal chain in this case is: climate change leads to environmental degradation (such as sea-level rise and/or water scarcity) leads to migration leads to conflict in the in-migration area (migration as a cause of conflict). Another causal chain involving conflict and migration would be: climate change leads to environmental degradation (such as sea-level rise and/or water scarcity) leads to conflict (over water and/or land) leads to migration (conflict as a cause of migration) (Reuveny 2007, 660).

the region' as a source of tensions, conflict and border security issues (Foreign Affairs Committee 2010, 104).

As these quotes demonstrate, the Australian security community is framing climate change and its effects still very much as an issue of national security⁸; but in other political contexts it increasingly is also framed as a matter of human security, a concept which transcends the state-centric approach of conventional security thinking as it does not focus on the security of states, but on the security of people and individuals. As early as 1994 the UNDP report which laid the basis for the human security approach mentioned the environment as one of seven dimensions of human security (UNDP 1994). PIC pursue this human security approach, and they are particularly active in raising awareness about the links between climate change and security. In this regard they achieved a major success in June 2009 when the United Nations General Assembly adopted a resolution on 'Climate change and its possible security implications'. This resolution had been introduced by the group of Pacific Small Island Developing States (PSIDS) and was supported by 101 states. Based on the resolution, the UN Secretary General presented a comprehensive report on the topic (United Nations General Assembly 11 September 2009).

Another pitfall of resettlement measures is to ignore the conflict dimension. Conflict impact assessments have to be an integral element of any resettlement programmes.

5.4 Governance

The fact that environmentally induced migration is prone to conflict and even violent conflict escalation has to do with the political and institutional setting in which migration takes place. In other words, a fourth challenge of resettlement is good (enough) governance, or the lack thereof. Whether conflicts escalate violently or not depends on the stability and the quality of the state and societal framework and the capacities and legitimacy of governance institutions.

In the case of the Carterets the most obvious evidence of the importance of this governance aspect is the issue of the disappearance of the relocation fund. Where have the two million

⁸ An example of this line of thought in the Australian context is Soderblom 2008.

Kina gone that had been allocated to the resettlement of the Carterets islanders by the PNG government? The fact that this money has not (yet?) been put to its designated use is a clear indication of deficient governance. Bad governance or fragility of state institutions lead to a lack of adaptive capacity, and lack of adaptive capacity can lead to increased conflict potential. conditions that constrain the adaptive capacity of communities may also increase the risk of conflict (...) A lack of adaptive capacity can contribute to conflict, which can go on to undermine adaptive capacity further' (Brown et al. 2007, 1150). Fragile states with limited institutional capacities have much more difficulties to deal with climate change and its social effects than states with stable institutions. Lack of capacities and ensuing lack of effectiveness in dealing with those effects diminishes the legitimacy and trustworthiness of state institutions in the eyes of the people on the ground, and lack of legitimacy on the other hand makes it more difficult for state institutions to effectively implement adaptive measures – and this again increases the potential for conflict. In other words: various vicious circles ensue.

In this situation non-state actors can play and do play important roles, as the example of Tulele Peisa demonstrates. The interesting thing about Tulele Peisa is that it is not just an NGO or civil society organisation in the Western understanding of the term, but is closely linked to non-state actors who do not neatly fit into the Western 'civil society' category. Tulele Peisa was set up at the request of the local Council of Elders, that is, traditional authorities from the customary sphere of societal life. Such traditional authorities – chiefs and elders, tribal leaders, religious authorities, healers, wise men and women etc. – are of major importance for the organisation of everyday life in the weak states of the South Pacific and in so-called fragile states in the Global South in general. They are in charge of the governance of communities, natural resources and the environment; they often follow customary law (and not the written law of the state), they regulate resource use and solve disputes according to local custom. These types of non-state customary actors have to be taken into account when it comes to the management of the effects of climate change, including resettlement measures. Resilience of communities and capabilities to cope with the effects of climate change very much rest with these customary actors and institutions. Efforts geared at building adaptive capacity therefore should not only focus on state institutions, but also on local customary non-state (as well as more formal civil society) institutions. Their potential must not be left untapped. Engaging their capabilities, however, requires respect for their ways of operating and their worldviews, and this means acknowledging the cultural and spiritual dimension of climate change and resettlement and the significance of local knowledge. If this is neglected, capacity building is bound to fail. International Alert is right when it points to the dangers of cultural insensitivity: 'To ordinary people it will feel like outside experts coming and telling them how things are, how they should live and what they should do. The likelihood is that

they will ignore this advice or, if necessary, fight it. A different way of working is possible, grounded in a peacebuilding approach. This emphasises the importance of local knowledge and seeks the active participation of local communities in working out how best to adapt to climate change' (International Alert 2007: 29). Accordingly there is the need 'to bring hard science and local knowledge together' (ibid.), acknowledging 'that local knowledge is not enough, because climate change throws up unprecedented problems, but nor is the best hard science enough by itself, because adaptation needs to be locally grounded and culturally appropriate' (International Alert 2007: 32).

What is needed is the collaborative effort of non-state customary and civil society institutions and state institutions. Good management of migration induced by climate change will depend on such collaboration. In the case of the Carterets, the actors from the customary sphere and from civil society are willing and able to play their part, while state institutions are lagging behind. It can be assumed that the Carterets case is no exception in this regard. It would be a mistake, however, to relieve the state from its responsibilities. As the Carterets case demonstrates, civil society and customary actors cannot carry the burden alone. Today there is much talk about R2P, the responsibility to protect, of states and the international community. First and foremost states have the responsibility to protect their citizens from drowning and starving.

To summarize this point: pitfalls with regard to the governance issue are a) to leave resettlement merely to the initiative of the affected people and their capacities for self-organisation, thus unburdening the state from its responsibilities or, in the other extreme, b) to call on the institutions of the state and wait for the state to fix the problem. State institutions and affected communities, including civil society organisations and social networks from the sphere of communal customary life, will have to join forces and work together, and international donors will have to lend meaningful support for state and non-state civil society and customary institutions and their collaboration.

5.5 Funding

The issue of the responsibilities of international donors for building adaptive capacity leads to the fifth challenge which is the most obvious one: money, or the lack of it. Adaptation costs are high in PIC and large sums are needed to boost their adaptive capacities. Given the magnitude of the issues involved and the activities required to be undertaken, the financial

resources of the PIC alone are not sufficient. So far donor commitment has been lagging far behind the needs. Australia, for example, has allocated 150 million AUD for adaptation measures in PIC, and none of this money is explicitly designated for resettlement programs. The international financial assistance Tulele Peisa has received so far is merely symbolic. Tulele Peisa's Executive Director Ursula Rakova demanded in September 2010 that 'Australia should really direct adaptation funds to communities who already have plans for adaptation programs' (Ursula Rakova, on Radio Australia September 16, 2010). More generally, what is urgently needed is a funding mechanism tailored to 'supporting governments, local communities, and support agencies to protect people within their own territory. The governance challenge of protecting and resettling climate refugees is thus essentially about international assistance and funding for the domestic support and resettlement programs of affected countries that have requested such support' (Biermann and Boas 2010, 76). Although resettlement will mostly take place within countries, international assistance will be needed for this in-country resettlement. PIC cannot carry the burden alone. It is not enough to deal with the issue as a humanitarian problem requiring crisis responses if and when disasters occur. Instead, one has to understand the issue of climate-induced migration as a 'development issue that requires large-scale, long-term planned resettlement programs for groups of affected people, mostly within their country' (Biermann and Boas 2008, 11). We are still very far away from that.⁹

An obvious pitfall of resettlement measures is lack of funding.

Summarizing the overview of challenges and pitfalls of resettlement measures the following has to be stressed: in order to address the challenges and to avoid the pitfalls, any resettlement endeavour has to be conceptualised holistically, addressing not only the technical, legal or economic aspects of resettlement, but also the cultural and spiritual, not only focussing on the communities which have to resettle, but also the recipient communities, not only drawing on the capabilities of state institutions, but also including non-state civil society and non-state local customary actors and institutions. Furthermore resettlement has to be carried out in a conflict-sensitive and a culturally sensitive manner. It has to be – and it can be - based on the resilience and capabilities of the people on the ground, but these people need exter-

⁹ While in opposition, the Australian Labour Party suggested assistance 'with intra-country evacuations when citizens have to be moved from low-lying areas to higher ground' (Sercombe and Albanese, no date, 4). While in government, Labour has not pursued this further.

nal support, not least in the form of financial assistance. And it is the obligation of those who bear the brunt of the responsibility for man-made climate change – that is: the developed nations of the OECD world – to provide this support and assistance. The people in the South Pacific hardly contribute anything to global climate change (have I mentioned already that there are no cars and there is no electricity on the Carterets?), but they are left with all the problems, including losing their entire homelands. That is just not fair.

6. Conclusions and generalisations

As the cases of the Carterets islanders, the I-Kiribati and Tuvaluans demonstrate, for many people in the South Pacific region migration might be the only workable adaptation strategy in the future. They are confronted with such severe and even irreversible forms of climate change –induced environmental degradation that permanent resettlement for them becomes unavoidable. Environmental degradation, however, will be mostly gradual (although the frequency of extreme weather events and disasters might also increase). This, on the negative side, means that it will be difficult for them to argue that they are ‘forced’ to migrate because of climate change. On the positive side, it makes relatively long-term planning possible.

The Carterets islanders case illustrates that it is difficult to make a clear distinction between ‘forced’ and ‘voluntary’ instances of migration related to climate change and its effects. Tulele Peisa stresses the point that it organises ‘voluntary’ resettlement. On the other hand, people feel ‘forced’ off their homeland. They would not leave if the atolls were not to become uninhabitable. The distinction between ‘forced’ and ‘voluntary’ migration might leave people like the Carterets islanders trapped in a legally uncertain conundrum: ‘Particularly for those considered to have moved due to gradual environmental degradation, there may be operational and normative protection gaps, internally and internationally, because they risk being considered economic or voluntary migrants’ (Kolmannskog 2008, 39; see also Warner et al. 2009, v). Currently, there is ‘a lack of criteria to determine where to draw the line between voluntary movement and forced displacement’ (Representative of the Secretary-General 2008, 4), and it can be questioned whether it would be analytically helpful and morally adequate to draw such a line (Biermann and Boas 2010, 65).¹⁰ Instead of bickering about the relation between

¹⁰ The Representative himself tries to develop such criteria based on the terms permissibility, possibility and reasonableness (Representative of the Secretary General 2008, 7).

and the mix of (economically induced) voluntary migration on the one hand and (environmentally induced) forced migration on the other, the chances for long-term planned resettlement should be taken now so that people have the opportunity to relocate voluntarily in a well organised manner sooner rather than being forced into a hasty, disorganised move later. To make this option a reality is exactly what Tulele Peisa and the Kiribati government are trying to do.

Long-term planning is a must – and it is possible. ‘When it comes to sea-level rise in particular, there is no need to wait for extreme weather events to strike and islands and coastal regions to be flooded. All areas that cannot be protected through increased coastal defences for practical or economic reasons need to be included early in long-term resettlement and reintegration programs that make the process acceptable for the affected people’ (Biermann and Boas 2010, 83).

In order to make processes ‘acceptable for the affected people’, community participation in the planning process has to be secured, providing for ‘the use and integration of traditional knowledge and the communication of science in ways that can be understood and used by Pacific Island policy-makers and their people’ (Sem 2006, 181). Of particular importance is that actors from the spheres of the state and civil society as well as international donors work closely together with customary local networks and traditional authorities in planning, decision-making and implementation of resettlement programs.

Resettlement will be mostly an internal affair within countries affected by the effects of climate change. National adaptation plans will have to include resettlement programmes. Planning in particular will have to address the problems of land acquisition for resettlement purposes. ‘States should begin now to review public land holdings and to select possible long-term resettlement sites that will be removed from the land market through land set-aside programmes’ (Displacement Solutions, no year, 27). For climate change-induced migration will not be of a temporary nature, but will require permanent resettlement.

Although the main focus has to be on resettlement within countries, also international relocation has to be taken into account. Many PIC for example are so small that resettlement in-country is not feasible because there is not enough space. Moreover, in extreme cases, whole island countries will become uninhabitable and even completely submerged. In these extreme cases of total submersion, the relocation of (the population of) whole nation states will be necessary. Thus for ‘citizens of sinking island states permanent solutions on the territory of other states must be found’ (Representative of the Secretary-General 2008, 7). Apart from resettlement issues this raises a host of complicated political and legal questions: can

these countries maintain their sovereignty and statehood, given that one key qualification of statehood under international law is a defined territory? Can they retain something like a ‘de-territorialised’ statehood with some form of a ‘government-in-exile’? Can they continue to claim an Exclusive Economic Zone (EEZ) even after their islands have been totally submerged? Will other states be willing – or obliged – to recognize such ‘deterritorialised’ states (Rayfuse 2009) and their governments and accommodate their populations and government institutions? Will the people of those submerged island states maintain their original citizenship or will they become stateless persons? Answers to these questions will have immediate repercussions on the forms of resettlement.¹¹

The developed countries in the region, that is Australia and New Zealand, have to start now working with PIC to plan for displacement that is taking place already or that is likely to be caused by climate change in the near future.¹² A meaningful increase in adaptation and relocation funding for PIC, in addition to already existing aid commitments, should be particularly allocated to basic resilience programs at the community level, including in-country resettlement programs such as Tulele Peisa’s. Furthermore, migrant workers schemes as the ones New Zealand and Australia have already in place should be expanded and explicitly include members of communities particularly vulnerable to climate change. For an interim period such temporary and circular migration schemes can be of use for the home communities and support their resilience and adaptive capacities, particularly when combined with ‘measures to facilitate and strengthen the benefits of migrant remittances’ (Warner et al. 2009, v).

In the long run, however, permanent immigration from PIC affected by climate change has to be faced and dealt with as ‘climate refugees must be seen and treated as permanent immigrants to the regions or countries that accept them’ (Biermann and Boas 2008, 12; also Biermann and Boas 2010, 75). That means that immigration policies have to be developed which support Pacific island communities that are forced to relocate due to the effects of climate change. As the case of the Carterets islanders (and also the cases of Tuvalu and Kiribati) amply demonstrate, the problem cannot be dealt with at the level of individuals, but policies will have to address the needs ‘of entire groups of people, such as populations of villages, cities, provinces, or even entire nations, as in the case of small island states’ (Biermann and Boas 2008, 12; also Biermann and Boas 2010, 76).

¹¹ Some of these issues are discussed by Yamamoto and Esteban 2010 and Rayfuse 2009.

¹² Conservative estimates reckon with up to 100,000 climate-displaced people from the South Pacific between today and 2030 who will seek to immigrate to Australia (Bhathal 2008, 5).

With regard to Australia one can think of unilateral changes to Australia's Migration Act to allow an additional category for 'climate refugees' (or whatever term might be accepted in the end). This was attempted by the Australian Greens in 2007 with the 'Migration (Climate Refugees) Amendment Bill' which sought to create a new visa class to formally recognise climate refugees (Bhathal 2008, 10). This was not successful, and given the overall political climate in Australia it is highly unlikely that such unilateral initiatives will succeed in the foreseeable future. Another option would be to have bilateral agreements between Australia and PIC that provide 'early opportunity for planned relocation and resettlement and permanent resettlement rather than temporary asylum' (Bhathal 2008, 11). Finally, it might be worthwhile to think about a regional or even global institutional framework which provides support to all PIC/SIDS confronted with the problem of climate change induced displacement.¹³ This might necessitate a 'Protocol on the Recognition, Protection, and Resettlement of Climate Refugees' to the United Nations Framework Convention on Climate Change, as proposed by Biermann and Boas, which would provide for 'a planned and voluntary resettlement and reintegration of affected populations' over longer periods of time (Biermann and Boas 2008, 12, also Biermann and Boas 2010, 75) and which would be supported by a separate funding mechanism which Biermann and Boas call the 'Climate Refugee Protection and Resettlement Fund' (Biermann and Boas 2008, 15; also Biermann and Boas 2010, 81).¹⁴ Such an approach could overcome the short-termism of mere emergency responses and disaster relief in favour of long-term relocation programmes. This is what the Carterets islanders and other Pacific islanders really need. They are willing and prepared to play their own part.

As the example of the Carterets islanders and Tulele Peisa demonstrates, communities in PIC are bestowed with admirable resilience, ingenuity and capabilities. They have a long history of resilience and over generations have proofed their ability to adapt to challenges coming from the outside world. Carteret islanders are not only extremely vulnerable, but they are also highly capable (as members of closely knit social networks). It is interesting to draw attention to what Tulele Peisa calls its 'guiding philosophy', namely 'to encourage self-sufficiency and independence through all steps of the relocation process so that Carterets

¹³ While in opposition, the Australian Labor Party put forward the suggestion to establish 'an international coalition to accept climate change refugees when a country becomes uninhabitable because of rising sea levels' (Sercombe and Albanese, n.d., 4). Furthermore, it was suggested that Australia should work at the UN 'to ensure appropriate recognition of climate refugees in existing conventions, or through the establishment of a new convention on climate change refugees' (ibid., 10). Since in government, Labor has not pursued these suggestions further.

¹⁴ The German Advisory Council on Global Change (WBGU) suggested the establishment of an environmental migration fund (WBGU 2007, 12-13).

people and host communities do not develop a dependency or cargo mentality but take initiative and action to improve the quality of their personal and community life' (Tulele Peisa, no date, 8). In other words: local agency is at the heart of Tulele Peisa's approach. 'Climate refugees' such as the Carterets people are not just helpless victims of an overwhelming fate, and they are not doomed to become the objects of policies and plans and strategies and measures of others, but they have the capabilities – and the will - to take things into their own hands.

References

Australian Government Department of Defence 2009. *Defending Australia in the Asia Pacific Century: Force 2030*. Defence White Paper 2009. Canberra: Department of Defence.

Barker, Holly M. 2008. *Vulnerable Island Nations at Mercy of World's Polluters*, in: *Pacific Islands Report*, 11 November 2008. Hawaii: University of Hawaii.

Bhathal, Alexandra 2008. *The campaign for recognition of climate refugees in the Asia-Pacific – challenges and opportunities presented by Australia*. Paper presented at the Environment, Forced Migration and Social Vulnerability International Conference 9 – 11 October Bonn, Germany.

Biermann, Frank and Ingrid Boas 2008. *Protecting Climate Refugees. The Case for a Global Protocol*. *Environment Magazine* November – December 2008, pp. 9-16.

Biermann, Frank and Ingrid Boas 2010. *Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees*, in: *Global Environmental Politics*, Vol. 10, No. 1, pp. 60-88.

Brown, Oli 2008. *Migration and Climate Change*. IOM Migration Research Series No. 31. Geneva: IOM.

Brown, Oli and Alec Crawford 2009. *Rising Temperatures, rising tensions. Climate change and the risk of violent conflict in the Middle East*. Winnipeg: International Institute for Sustainable Development (IISD).

Brown, Oli, Anne Hammill and Robert McLeman 2007. *Climate Change as the 'new' security threat: implications for Africa*, in: *International Affairs*, Vol. 83, No. 6, S. 1141-1154.

Connell, John 1991. *Compensation and Conflict: The Bougainville Copper Mine, Papua New Guinea*, in: Connell, John and Richard Howitt (eds.): *Mining and Indigenous Peoples in Australasia*. Sydney: Sydney University Press, pp. 55-77.

Corlett, David 2008. *Stormy weather: The Challenge of Climate Change and Displacement*. Sydney: University of New South Wales Press.

Displacement Solutions no date. Climate Change, displaced persons and housing, land and property rights. Preliminary strategies for rights-based planning and programming to resolve climate-induced displacement. Geneva: Displacement Solutions.

Displacement Solutions 2008. The Bougainville Resettlement Initiative. Meeting Report. Canberra: Displacement Solutions.

Evans, Alex 2010. Resource Scarcity, Climate Change and the Risk of Violent Conflict. World Development Report 2011 Background Paper. New York: Center on International Cooperation New York University.

FAO 2008. Climate Change and Food Security in Pacific Island Countries. Rome: FAO.

Foreign Affairs, Defence and Trade References Committee. Security challenges facing Papua New Guinea and the island states of the southwest Pacific. Volume II. Canberra: Commonwealth of Australia, The Senate.

Gleditsch, Nils Petter, Ragnhild Nordas and Idean Salehyan 2007. Climate Change and Conflict: The Migration Link. Coping with Crisis Working Paper Series. International Peace Academy.

Gleditsch, Nils Petter and Ragnhild Nordas 2007. Climate change and conflict, in: Political Geography, Vol. 26, pp. 627-638.

Jakobeit, Cord and Chris Methmann 2007. Klimafluechtlinge. Die verleugnete Katastrophe. Hamburg: Greenpeace.

Kolmannskog, Vikram Odedra 2008. Future floods of refugees. A comment on climate change, conflict and forced migration. Oslo: Norwegian Refugee Council.

Locke, Justin T. 2009. Climate change-induced migration in the Pacific Region: sudden crisis and long-term developments, in: The Geographic Journal, Vol. 175, No 3, pp. 171-180.

Luetz, Johannes 2008. Planet Prepare. Preparing Coastal Communities in Asia for Future Catastrophes. Bangkok: World Vision.

MacDermott, Therese and Brian Opeskin 2010. Regulating Pacific Seasonal Labour in Australia, in: Pacific Affairs, Vol. 83, No. 2, pp. 283-305.

MacLellan, Nic 2009. Rising Tides – Responding to Climate Change in the Pacific, in: Social Alternatives, Vol. 28, No. 4, pp. 8-13.

Oxfam 2009. The future is here: climate change in the Pacific. Oxfam Briefing Paper 2009. Carlton, Vic: Oxfam.

Pacific Institute of Public Policy 2009. Climate Countdown: time to address the Pacific's development challenges. Port Vila: Pacific Institute of Public Policy (Briefing 12).

Piguet, Etienne 2010. Linking Climate Change, environmental degradation, and migration: a methodological overview, in: wires.wiley.com/climatechange Vol. 1, pp. 517-524.

Rakova, Ursula 2009. How-to guide for environmental refugees.

<http://ourworld.unu.edu/en/how-to-guide-for-environmental-refugess/> (accessed 12 October 2010).

Representative of the Secretary-General on the Human Rights of Internally Displaced Persons 2008. Displacement Caused by the Effects of Climate Change: Who will be affected and what are the gaps in the normative frameworks for their protection? Background paper.

Rayfuse, Rosemary 2009. W(h)ither Tuvalu? International Law and Disappearing States. University of New South Wales Faculty of Law Research Series Paper No. 9. Sydney: UNSW.

Reuveny, Rafael 2007. Climate change – induced migration and violent conflict, in: *Political Geography*, Vol. 26, pp. 656-673.

Sem, Graham 2006. Climate Change and Development in Pacific Island Countries, in: Powles, Michael (ed.): *Pacific Futures*. Canberra: Pandanus Books, pp. 164-181.

Sercombe, Bob and Anthony Albanese, no year. Our drowning neighbours. Labor's Policy Discussion Paper on Climate Change in the Pacific. Canberra: Australian Labor Party.

Soederblom, Jason D. 2008. Climate Change: National and Regional Security Threat Multiplier for Australia, in: *Security Solutions*, No. 52, pp. 58-68.

Tulele Peisa Inc, no date. Carterets Integrated Relocation Program. Bougainville, Papua New Guinea. Project Proposal. Buka: Tulele Peisa.

UNDP 1994. United Nations Development Programme. Human Development Report 1994. New York: Oxford University Press.

UNDP 2006. United Nations Development Programme. Human Development Report 2006. Beyond scarcity: Power, poverty and the global water crisis. New York: Palgrave Macmillan.

UNDP 2007. United Nations Development Programme. Human Development Report 2007/2008. Fighting climate change: human solidarity in a divided world. New York: Palgrave Macmillan.

United Nations General Assembly 11 September 2009. A/64/350. Climate change and its possible security implications. Report of the Secretary-General. New York: United Nations.

Warnecke, Andrea, Dennis Taenzler and Ruth Vollmer 2010. Climate Change, Migration and Conflict: Receiving Communities under Pressure? Washington, DC: The German Marshall Fund of the United States. Study Team on Climate-Induced Migration.

Warner, Koko et al. 2009. In Search of Shelter. Mapping the Effects of Climate Change on Human Migration and Displacement. UNHCR et al.

WBGU 2007. World in Transition. Climate Change as a Security Risk. Summary for Policy-Makers. Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveraenderungen. Berlin: WBGU.

WBGU 2008. Welt im Wandel: Sicherheitsrisiko Klimawandel. Berlin – Heidelberg – New York: Springer.

Yamamoto, Lilian and Miguel Esteban 2010. Vanishing Island States and sovereignty, in: Ocean & Coastal Management 53 (2010), pp. 1- 9.