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When A People Risk Losing Their Country to the Effects of Climate Change
The Social Implication of International Climate Change Displacement for Kiribati

Author: Sara Baptiste-Brown
Supervisor: Elsa Coimbra



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Abstract

This research's foundation is the current state of affairs in Kiribati in relation to the effects of climate change and how the nation will face the future. The paper examines how different actors in Kiribati are helping the country prepare for possible climate change displacement in the future, from the viewpoint of said actors. Interview data, supplemented by observational data from time spent in the field are the primary sources of data presented. The research uncovers the importance of education, skills training, and language in the advancement of employability in a new country context. The data attests to the fact that these areas that frame social life are currently functioning well or have encouraging plans in place. Less optimistically, the data details the wanting nature of the areas of institutional coordination and public communication. The paper closes with a set of recommendations based on the gaps exposed in the findings.

Key words: climate change, displacement, preparedness, migration, Kiribati.

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Foreword

Retrospect

The process of elaborating this thesis has taught me more about myself and the world than I thought possible at the outset. As such, a few words on the challenges and surprises are in order.

Conducting research and simultaneously working in the Government of Kiribati presented a dichotomy in my role in-country. My work in the government was predicated on a desire to effect positive change in society, while as a researcher I had to step away from my emotions and judgments to let the data speak for itself. This internal conflict was an unexpected challenge that I had not previously considered.

My many assumptions about Kiribati have slowly been dispelled over the course of the past year. Arrival to the field yielded conflicting and disconcerting realizations about the reality of the tiny atoll nation. The disconnect between the reality presented in reports and research contrasted with the reality experienced. Unsurprisingly, most reports executed by international donors espouse the success of projects. On the ground, however, project planning and funding rarely seemed to materialize into long-lasting development of the country or its people.

The research process itself was an illuminating journey, from interviewing to what it means to be a researcher. Interviewing was a cumbersome endeavour given the small social network of actors in the country. One of my many unexpected discoveries was the relative ease of interviewing people unknown to me versus the difficulty of putting aside judgments (mine and my perception of theirs) of the individuals I was familiar with. My understanding of research previously only focused on data collection and the write-up. I have since understood the importance of every moment leading up to these steps as part-and-parcel to research. Additionally, the two-way street between researcher and subject was a source of mutual learning and impact in a circular relationship of growth.

Acknowledgements

Elsa Coimbra, my supervisor - I can honestly say that I learnt more about research in our conversations than I have in all the Research Methods courses I have taken in my nine years of post-secondary education. Elsa's encouragement and optimism were a light to follow in challenging circumstances throughout this research process.

MELAD, my workplace for six months - As I said in my departure speech to the staff, there were good days and bad days but the important thing is to always use the lessons from both to grow. My ability to interface with actors in the country at all levels could not have happened without the support of the ECD staff and the MELAD Admin who were always just a short walk away to answer my inquiries.

This thesis would have been impossible without these people and so many more. Thank you.



List of Abbreviations

Organizations

AusAID	The Australian Government's Overseas Aid Programme
GoK	Government of Kiribati
KIT	Kiribati Institute of Technology
MELAD	Ministry of Environment, Land, and Agricultural Development
MLHRD	Ministry of Labour and Human Resources Development
MoE	Ministry of Education
OB	Office of Te Beretitenti (English: Office of the President)
SPBEA	Secretariat of the Pacific Board for Educational Assessment (of SPC)
SPC	South Pacific Commission
TTM	Taiwan Technical Mission (in Kiribati)
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations International Children's Fund
WHO	World Health Organization

Initiatives/Programs

EACH-FOR	Environmental Change and Forced Migration Scenarios Project
KAP	Kiribati Adaptation Project
KANI	Kiribati-Australia Nurses Initiative
KEIP	Kiribati Education Improvement Programme
NAPA	National Adaptation Program of Action

Terms

a.k.a.	also known as
CCDPs	Climate Change Displaced Persons
IDP	Internally Displaced Persons
IRR	Impoverishment, Risks, and Reconstruction model
NPO	Non-Profit Organizations
SIDS	Small Island Developing States
TVET	Technical and vocational education and training

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(clockwise, from top)

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Picture 3: Traditional Kiribati dance performance

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In-text

Figure 1: Non-exhaustive schema of manifestations of climate change and its effects

Sara Baptiste-Brown. (2011)

Map 1: Kiribati in Pacific Ocean

Source: http://wikitravel.org/en/Image:Kiribati_regions_map.png

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Source: [Source: http://images.mitrasites.com/wallpaper/eita-kiribati.html](http://images.mitrasites.com/wallpaper/eita-kiribati.html)

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Sara Baptiste-Brown. (2012)



INTRODUCTION

This research stands at the intersection of the environmental and social effects of climate change and international movement in Kiribati. The first section provides a brief on what the issue is, then tunnels down into a specific focal area, followed by an elaboration of the research question:

How is climate change displacement preparedness being managed by different actors in Kiribati at the institutional level?

A background on Kiribati is given to aid the reader in developing a mental image of the setting of this research. Climate change is then explained in the context of small island developing states and a justification for why this area of study was chosen follows. A context analysis of the environmental issues faced by Kiribati due to climate change closes the section.

Various elements of the research question are then broken into smaller, yet broader areas of inquiry to provide a theoretical basis for the analysis that comes later in the paper. The theoretical framework then coalesces into a functional model of analysis that serves to evaluate the data collected. Details on the manner in which data was collected and an explanation of the process of data collection appear in the subsequent section, which also includes information on some of the challenges faced.

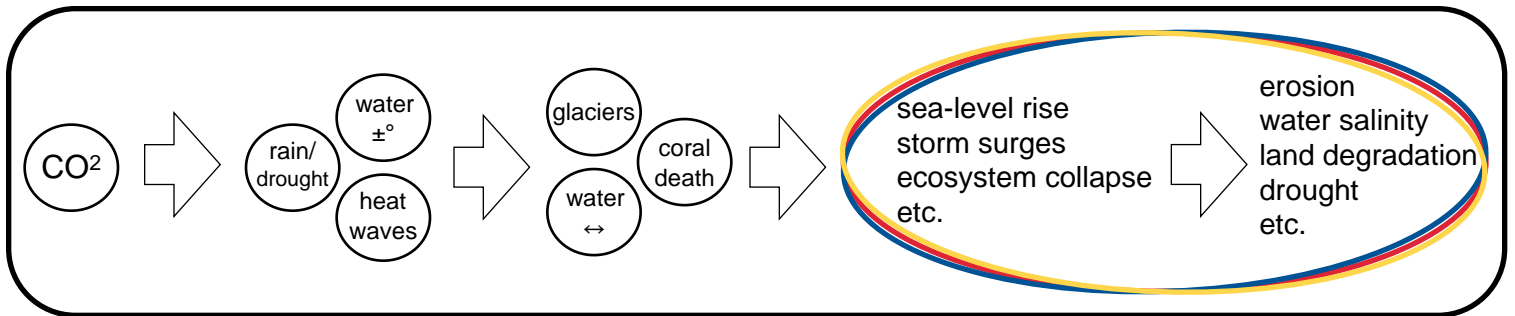
The model of analysis, adaptive development as climate change displacement preparedness, combines the social factors education, skills, language, coordination, and public communication with an attempt at avoiding unawareness, inefficiency, and time delays. The data is explored through the model and elicits interesting findings about climate change preparedness in Kiribati from the perspective of the actors in the country. Finally, some recommendations are provided regarding streamlining and enhancing education through non-formal means, emphasizing language ability among the population, promoting more frequent and fruitful working relationships between Ministries, and the involvement of the public in open forums.

AIM OF RESEARCH

This research aims to uncover linkages between the environmental and social effects of climate change and international movement.

Emphasis is on the environmental effects of climate change rather than on climate change itself. The distinction lies in the difference between droughts, flooding, storm surges, erosion, increased water salinity, coral bleaching and other such *effects* versus air and water surface temperature increases, and rainfall variability, which are *indicators* of climate change, (see Figure 1).

Figure 1 - Non-exhaustive schema of manifestations of climate change and its effects



International movement also requires a specific emphasis in this paper: permanent international migration and/or displacement triggered (to some extent) by the environmental effects of climate change. The distinction between displaced persons, migrants, and refugees is an important one, especially given the latter's ubiquitousness in mainstream discussions, which invoke the notion of *environmental refugees*. This term is problematic because the internationally recognized definition of a *refugee* pertains to an individual facing persecution and who cannot be guaranteed safety within their own country (UNHCR, 1951:16). Migrants, conversely, are perceived to make a *choice* to move for their personal betterment and/or that of their families (UNHCR, 2010). The space between these two terms, which encompasses individuals who *must* move as a matter of (immediate or future) survival, though not necessarily because of persecution, may be best labeled "displaced persons". In its current recognized form, displacement generally refers to internally displaced persons (IDPs). IDPs are "forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a



result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border” (OCHA, 2004:1). This research proposes a tweaked definition to encompass climate change displaced persons (CCDPs), with the final segment of the proposed definition coming from the IOM 94th Session, Discussion note: Migration and the Environment (2007:2):

*persons forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters **or slow-onset catastrophes**, ~~and who have not crossed an internationally recognized State border~~ and who move either within their country or abroad*

[bold and strikethrough added for clarity and emphasis].

The above definition would serve well for including CCDPs into the existing UNHCR framework, but given how contentious of an issue that prospect is, this research may be better served with a simpler definition that only targets CCDPs:

persons forced or obliged to flee or to leave their homes or places of habitual residence, as a result of or in order to avoid the effects natural or human-made disasters or slow-onset catastrophes, and who move either within their country or abroad.

For the purposes of this research, this author-crafted definition will serve to fill the nomenclature gap currently debated among scholars, lawmakers, and other concerned parties. The definition will not only apply to mentions of “displaced persons” but also to “migrants” when the latter is used to reflect the same type of movement.

In the emerging field combining climate change (and its effects) with displacement, environmental determinism is often used as a crutch for invoking the need for action. However, given the difficulties in teasing out a direct and exclusive relationship between

the two (thanks to the complexities of both human nature and environmental systems), the tendency to overstate the influence of environmental factors must be handled with caution. To tread this fine line, the underlying social reality under the influence of the effects of climate change will be taken into account. In this way, the social effects of climate change will serve as indicators for how preparation for a drastically different future for i-Kiribati¹ is being approached.

The intended audience for this paper are researchers, government actors, lawmakers, and other individuals interested in Kiribati, issues regarding migration and displacement, Small Island Developing States, Pacific Island Countries, and other related issues.

Problematic

There is an eventual likelihood of international displacement of Kiribati nationals due to the country's vulnerability to the social and environmental effects of climate change. This vulnerability translates to a lack of resilience and as such, a declining capability of the country to support its population. Given that little research has been done to examine the impact responses to climate change adaptation would have an entire country (Eriksen and Brown, 2011:4), this paper will examine how different actors in Kiribati view the future in light of the environmental effects of climate change and how they are responding to this threat.

Focus

Kiribati is characterized by in-migration to the nation's capital, South Tarawa, which coupled with the population growth rate is projected to lead to a doubling of the 2005 South Tarawa population by 2025 (National Statistics Office, 2011). Internal migration to the capital is in part due to the scant opportunities for employment, training, and advancement elsewhere in the country. Internal migration can be seen as the first phase, while international movement constitutes a second (and last) phase of a response to the environmental effects of climate change exacerbated by socio-

¹ i-Kiribati: demonym of Kiribati nationals. Pronounced: ee-ki-ri-bass (ē-kē-rē-bas)



economic vulnerability in Kiribati. For this reason, Kiribati and its population are the focus of this research.

People and communities, although important entities on their own, are also part of larger systems (i.e. constituencies, organizations, society as a whole, etc.). Overarching institutions and structures present in a given society determine what is possible for a population to achieve through the services and opportunities that they offer. Moreover, these institutions and structures, and the people that manage them, can prompt or restrict certain behaviours and actions in a population.

With these two elements of the focus of the study elaborated, the research question is presented next.

Research Question

The question that guides this research is as follows:

How is climate change displacement preparedness being managed by different actors in Kiribati at the institutional level?

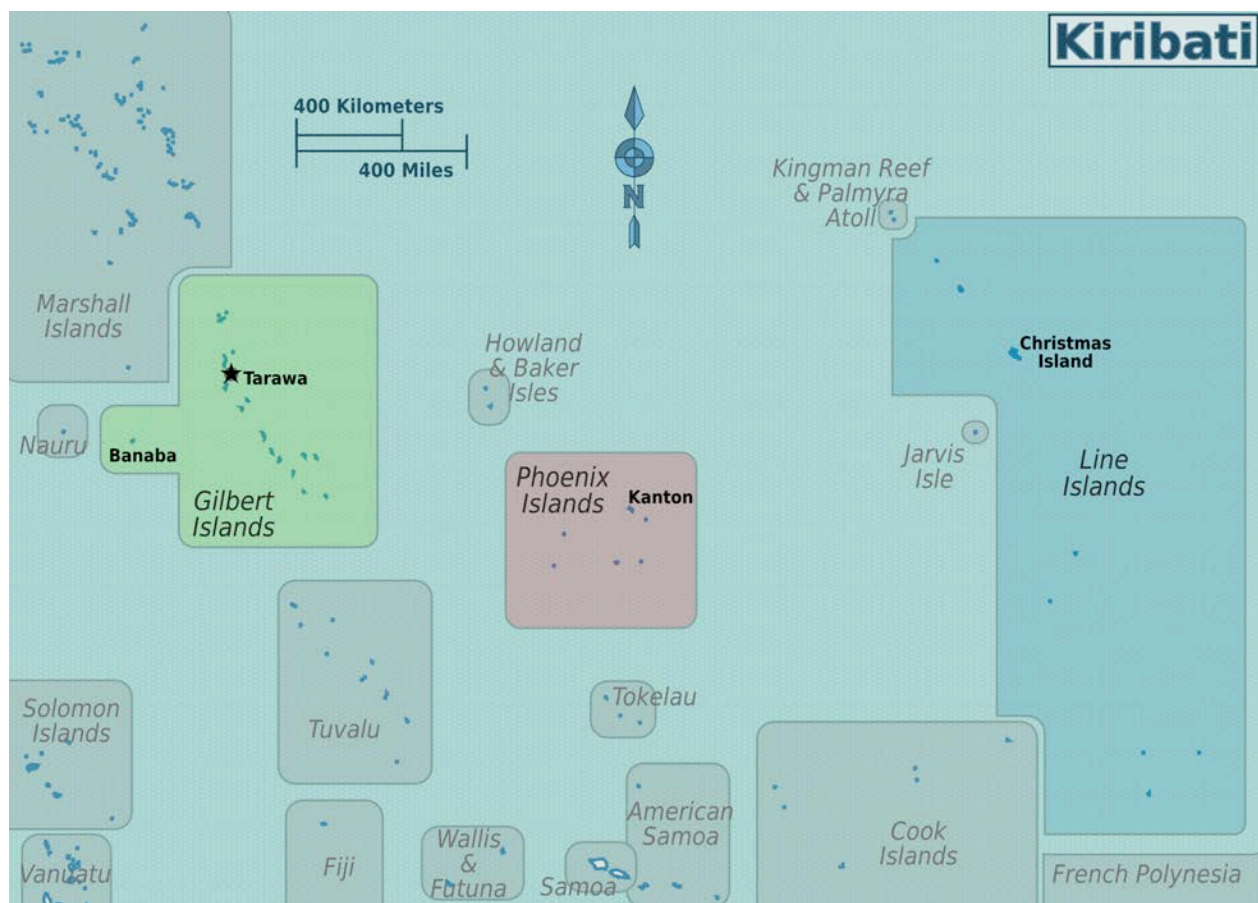
This research explores climate change displacement preparedness from the viewpoint of various actors in Kiribati. These actors include government, donors, non-profit organizations (NPOs), the Church, project representatives, active citizens and representatives from the education sector. Through their participation in institutions that shape Kiribati society, they act as gauges for what the future holds for the nation.

Before delving into the details of how this research is framed and how it was carried out, some background information about the country, climate change, and how the two intersect follow in the next section.

BACKGROUND

Kiribati

The Republic of Kiribati is a collection of 32 coral atolls² plus one island in the central tropical Pacific ocean. Kiribati's unique land to total area ratio is remarkable at 1:4375; in specific numbers the land area is 811 km² and the total area is approximately 3.6 million km² (World Bank, 2009:6). Kiribati's massive Exclusive Economic Zone gives this island nation control of approximately 1% of the world's oceans (Stone, 2010:~7:35). Kiribati is split into three groups of islands ("Line" in the East, "Phoenix" in the centre, and "Gilbert" in the West) but only 21 islands in the Line and Gilbert groups are inhabited, discounting caretakers in the Phoenix Islands Protected Area (World Bank, 2009:6; SOPAC, 2007:15; Stone, 2010:~4:51).



Source: http://wikitravel.org/en/Image:Kiribati_regions_map.png

² Atoll: A ring-shaped reef, island, or chain of islands formed of coral. (Source: New Oxford American Dictionary)



Kiribati is home to approximately 103,058 people and that number is projected to increase to approximately 150,000 by the year 2025 (National Statistics Office, 2012; World Bank, 2004:1). The population of the capital South Tarawa is 50,182, which translates to an average density of 3,184/km² but that density rises to approximately 11,253/km² in the village islet of Betio with 15,755 inhabitants on approximately 1.4km² of land (National Statistics Office, 2012). This high number of urban dwellers is explained in part by internal lifetime migration³ (National Statistics Office, 2007:28).

In most countries facing the environmental effects of climate change, the first step of displacement is internal migration inland. For Kiribati and other atoll Small Islands Developing States (SIDS), there is rarely any “inland” or even higher land as an option (McAdam, 2010a:7). In the case of South Tarawa, the island is no wider than two kilometers at any point, with an average width of 450 meters (World Bank, 2004:19). The maximum height above mean sea level is 3.5 meters (MELAD, 2007:4) with high tide regularly reaching 2.8 meters (Bureau of Meteorology, 2011).



Source: <http://images.mitrasites.com/wallpaper/eita-kiribati.html>

³ Lifetime migration: Number of residents currently residing in South Tarawa, but born elsewhere in Kiribati. (Source: National Statistics Office, 2007:28)

Climate Change

Climate change is not a new phenomenon; in fact, a changing climate is a normal cyclical mechanism of the earth system (Kelman and West, 2009:2; Hare and Meinshausen, 2006:33). What the term has come to mean is anthropogenic climate-induced environmental changes (UN, 1992:3; Rockström et al., 2009). Climate change is largely equated with increasing concentrations of CO² in the Earth's atmosphere and the associated rise in global temperature, in a bid to simplify the science (Hare and Meinshausen, 2006:32-33). The reality, however, is far more complex.

In Kiribati's case, the major effects on the environment wrought by climate change are manifest in higher tides, greater frequency of storms, salt-water intrusion, flooding, drought, reduced freshwater, bleaching of coral reefs, and coastal erosion (Office of the President, 2010; MELAD, 2009:12; MELAD, 2007:5, UNFCCC, 2005:7). High tides are manifestations of climate change because of melting glaciers and thermal expansion (Aung, Singh and Prasad, 2009:1172; Locke, 2009:175), and there is some evidence of the incidence of storms increasing as climate variability increases (UNFCCC, 2004:10). The warming of the ocean is a leading cause of coral bleaching (World Bank, 2009:15; Kelman and West, 2009:4). Storm surges lead to salt-water intrusion in the groundwater lenses, which decreases freshwater availability (World Bank, 2009:9; Kelman and West, 2009:4; MELAD, 2007:27,40). These events also erode the already scantily available land (MELAD, 2009:9; World Bank, 2009:6). Unpredictable climate variability makes flooding events and instances of droughts (and their length) more frequent and impossible to anticipate (MELAD, 2009:2 and 16, UNFCCC, 2004:5; World Bank, 2009:10).

Justification

Inhabitants of SIDS are particularly vulnerable to the effects of climate change given their limited space, small economies, and isolation (McGranahan, Balk and Anderson, 2007:17). Although climate mitigation is an important part of the puzzle, the writing is already on the wall with the existing CO² in the atmosphere and the existing technologies and attitudes in developed and emerging economies (Rockström et al.,



2009:41; Hare and Meinshausen, 2006:5 and 34). Adaptation measures encompass what ought to be done to enable the survival of the populations most at risk. The most widely understood concept of adaptation hinges on changing practices and using resources more efficiently, however a more extreme element of adaptation comes in the form of relocation. Relocation becomes an option when all other means of adaptive development not long suffice.

In 2003, Kiribati's environmental evaluation revealed that water was a prime target for concern. The primary sources of potable water on Kiribati's atolls are water lenses (MESD, 1999:11). However, with increasing high tides and storm surges they are becoming less reliable as sources for fresh water, providing instead brackish⁴ or seawater which is not ideal for consumption (MELAD, 2009:12). The thin and calcareous soil present on atolls renders agricultural production a challenge (MESD, 1999:6; World Bank, 2004:1). The physical space available to i-Kiribati, given the population surge in urban areas such as the capital, acts as a further exacerbating element of the problem (World Bank, 2006 cited in Locke, 2009:174).

In the global discussion, there is a growing understanding of the dangerous nexus between population pressures, natural resource constraints, and climate change (The Wilson Center, 2011). Kiribati faces one of the most pressing needs for action to address the environmental effects of climate change in the world (Thomas, 2002:166).

Taking the precautionary principle to heart may prove to be the difference between the survival of i-Kiribati and the loss of an entire nation to the environmental effects of climate change. There is no precedent, and as such, there are no guides to what the future will look like.

⁴ Brackish: (of water) slightly salty, as is the mixture of river water and seawater in estuaries. (Source: New Oxford American Dictionary)

Context

The socio-environmental climate change context will be explored through the following five sections: the relationship between i-Kiribati and their environment, vulnerability, migration, and readiness-willingness-and-ability.

The Land, Water, Wo/man Nexus

This sub-section will examine the influence that water and land have on i-Kiribati and vice versa, to arrive at an understanding of the human-environment interactions.

As alluded to previously, water issues are a major concern in Kiribati and more specifically in South Tarawa, the urban centre of the country. Aside from the availability of water, which is dependent on climate variability, another concern is the quality. The government-set water salinity threshold does not align with international standards set by the World Health Organization (WHO). The sodium ion concentration limit imposed by the government is 600 mg per litre, compared to the WHO limit of 250 mg per litre (MELAD, 2007:16). At this already higher level of sodium, when water becomes brackish inhabitants of South Tarawa have no alternatives and contend with putting their health at risk. The traditional response, which is to simply move on to another (less saline) source, is clearly not enough (MELAD, 2007:27). The waste/water issue perpetuated by cultural norms: open defecation causing water lens pollution for wells, the lagoon, and the water galleries that pump water to most households adds to the problem (White, 2010:43; SOPAC, 2007:29; Falkland, 2005:13; UNDP, 2004:138). The central waste management system is problematic and detrimental to the ecosystem. Waste is flushed out into the ocean but remains near the coast because of human-altered water flows (SOPAC, 2007:30). The water pollution not only affects consumption, but renders the water surrounding the island unfit for sanitation and recreation. Locals of South Tarawa, however, use the lagoon and ocean for defecating, bathing and swimming. The water problem is composed of issues relating to sourcing as well as the effects of human actions.



The National Adaptation Programme of Action (NAPA) is largely concerned with information gathering and awareness spreading. One of the few concrete initiatives present in South Tarawa to highlight the need to reduce water use is the commodification of water. Other activities include the maintenance of water systems (including rainwater harvesting tanks), monitoring of water levels, and conducting community campaigns addressing quality issues and risks. Finally, monitoring drought patterns and planning for alternatives in difficult times is part of the NAPA plan, but has yet to materialize (MELAD, 2007:41). Technical upgrades for wells including concrete lining, lids, hand pumps and more were implemented with the involvement of the community (MELAD, 2007:42). These solutions are stopgap measures that will not *create* more sources of freshwater in South Tarawa and prove to be difficult to implement on the ground and maintain.

For the purposes of this section, land is understood to mean cultivatable land. The entire country has 3% of arable land (UNDP, 2004:137). No reliable figures were available for arable land in South Tarawa, possibly because there is so little of it. Despite verifiable numbers, there is very little land that has not fallen into the grasps of (illegal) settlers, which serves to further reduce the opportunity for agricultural production (Thomas, 2002:167). The most prevalent plant in the urban centre is coconut, which is harvested for copra⁵ as an export crop (Thomas, 2002:164, 166). The Government of Kiribati and the Taiwan Technical Mission (TTM) manage the most important agricultural lands in the capital. In the village of Bikenibeu on South Tarawa, there is a government-run nursery with various plants and trees. There was previously a hydroponics setup in the same village, before it was abandoned after the death of its operator (MELAD, nd:61; White, 2003:9). In the Bonriki village, TTM runs operations in aquaculture (MELAD, nd:29), raising milk fish predominately sold to restaurants. The TTM conducts training for households on the creation of compost (and soil) from organic waste and gardening.

⁵ Copra: Dried coconut kernels (the a softer, usually edible part of a nut, seed, or fruit stone contained within its hard shell), from which oil is obtained. (Source: New Oxford American Dictionary)

Vulnerability Recognition

The Government of Kiribati's *Initial Communication Under the United Nations Framework Convention on Climate Change* (MESD, 1999) outlines adaptation procedures necessary for the country to tackle the effects climate change. At the time of writing the *Communication*, the nation had insufficient resources (pecuniary, historical information, and human) to conduct the needed research and activities to evaluate the past and plan for the future (MESD:30,31,39). Fast-forward into the twenty-first century and Kiribati has elaborated its NAPA and the Kiribati Adaptation Project (KAP). The former focuses on urgent and immediate needs, while the latter on long term planning for adaptation (MELAD, 2007:8). The NAPA, which was drafted approximately a decade after the *Communication*, is less deterministic and provides plans for different aspects of the climate change issues. Relevantly, concerns about water for consumption (food and agriculture) are critically evaluated.

Although there is a great deal in Western media about traditional adaptation methods to address climate change, MELAD (2007) is quite emphatic about the limitations of dated methods, echoing Thomas (2002:172). The situation that i-Kiribati find themselves in today is new and the methods of their forefathers cannot necessarily effectively protect them. One example is the traditional belief that "green leaves, papaya and other introduced foods rich in vitamin A should be reserved as pig food or famine food, while [...] vegetables are commonly not valued as food" (Schoeffel, 1992:233-234 cited in Thomas, 2002:170). Thomas (2002:172) further cautions against reliance on traditional practices in the realm of sustainable development for this reason.

The most important underlying aspect of vulnerability, and recognition of that vulnerability, lies in the state of education. One of the most common reasons for migration to the urban centre is educational opportunity, where the percentage of students who complete high school is approximately 68.5% (UNICEF, 2010). This high rate of completion, however, masks a more fundamental issue. High school education in Kiribati is poor due to limited teacher training and facilities lacuna (MacKenzie, 2003:8-9). Even with better educational opportunities and informal sources of



knowledge in South Tarawa, residents there struggle with their understanding of climate change (Kuruppu and Liverman, 2010:664). Without proper education as a foundation, there is little hope that climate change adaptation scenarios will be beneficial to the country as a whole.

Migrating Outlook

I-Kiribati, along with other Pacific Islanders, have a long history with migration. Throughout the field immersion, discussions on migration often engendered recounting of Kiribati's history of resettlement and its effects on the people. This sub-section weaves together their oral history and documented retellings.

In the 1930s i-Kiribati from the Gilbert Islands were relocated to three islands in the Phoenix Group. Despite the new islands' rich biodiversity, the limited amount of potable groundwater made their stay a short one, and by the mid-1950s they were resettled to the Solomon Islands or back to the Gilbert Group. In 1945 the only raised island in the country, Banaba (a.k.a. Ocean Island), had most of its population relocated to Rabi⁶ Island in Fiji after destructive phosphate mining was undertaken by the British (Ferris, 2011:7). As one woman recounted, there was a discomfort in living on "other people's land" in Fiji, adding to the bitterness in collective Kiribati memory that was already present from former resettlements schemes. The 1908s saw another attempt for outmigration from the Gilbert Group. Planned resettlement on the islands of Tabuaeran and Teraina in the Line Group was plagued by shortages in "cash, goods, and medical and educational supplies" which was worsened by scant governance due their remoteness (Van Trease, 1993: 207, 209 & 337). This resettlement initiative, like many that came before, was eventually canceled (Storey and Hunter, 2010:174). Throughout the 19th century many i-Kiribati migrated to Nauru to work in the mining sector before it became defunct. Despite this long and storied relationship with population movements, what looms in the future is permanent relocation with no opportunity for return-migration, visits, or even simply the peace of mind that comes with knowing that "home"

⁶ Pronounced "Rambi"

is still there no matter how far (Firth, 2006:95). Current-day migrants are mostly seafarers, this new incarnation of migration is one of semi-permanent migration to riggers and the incumbents come back to Kiribati at predetermined intervals (ibid). Many other migrants are seasonal or cyclical in their approach, meaning they leave for months at a time or even return after decades. The cyclical nature of migration becomes clear when a common saying is uttered among returning migrants: “Nna kana tanon abau”, which means “I want to come back and eat the soil of my land”, as related by a representative from the education sector.

The context in which migration happens has seemingly shifted from government-coerced migration to skilled migration (ibid). In this new reality, families often strategically encourage certain members to seek training and education specifically for occupations that are linked to migratory ability (ibid). The family component is an important one given the social structure in Kiribati, which is highly family-and-community centered (Firth, 2006:95; SPDRP/UNDP/UNDHA, 1998:1). Decisions about migration are rarely taken in isolation, but rather reflect a family strategy in response to the need for pecuniary support (Firth, 2006:70 and 95). Indeed, up to 30% of households in South Tarawa report that remittances are the primary source of income (Firth, 2006:73).

Ultimately, i-Kiribati migration as it stands preserves some element of choice as well as the migrant’s connection to the home country (Firth, 2006:95), a fact evidenced through remittances and returning migrants (Firth, 2006:137). These important aspects of migration as it is largely understood today contrast with the lack of choice and the disappearance of the home country that come with permanent international movement due to the effects of climate change.

Ability to Migrate

There is a dichotomy in the urban population of South Tarawa, which may have already begun to surface in this paper. The majority of “urbanites” lack the necessary education and skills to compete in an international job market (McAdam, 2010a:7). Many are not even able to enter the Kiribati job market given that most jobs are with the government



and require higher education (World Bank, 2009:16 and 19; World Bank, 2004:19). Furthermore, English language skills are greatly lacking which make migration even more challenging (Government of Kiribati, 2008:8).

To understand the migration situation in Kiribati, one can draw a line through the state of education, income generation, and employment opportunity (Firth, 2006:73; McAdam, 2010a:7; World Bank, 2004:19). It is clear that the proportion of i-Kiribati able to migrate is very low. Estimates expressed during interviews ranged from 4 to just under 10%. The number of employed (for paid work) according to the most recent census data is 29.74% of the active population, which represents 19% of the total population (National Statistics Office, 2012). The percentage of emigrants is 6.5% for the country as a whole, with 23.1% of all tertiary-educated individuals emigrating (World Bank, 2011:151). This further corroborates previously presented data that highlights who in the country, and in particular in the urban centre, is *able* to migrate. The simple answer seems to be, the individuals already migrating. Climate change displacement preparedness as elaborated in this paper provides clues to how this can be changed for the future.

ANALYSIS FRAMEWORK

The problems faced by i-Kiribati are complex and multifaceted, as such this research endeavours to examine aspects of a central problem —preparedness for climate change displacement— by examining the plans and actions of different actors in Kiribati.

Much of the current discussion around preparedness to deal with the effects of climate change concern legal and biophysical questions on the issue. On one hand, there are international mechanisms, bilateral relationships, and the national policies of developing countries. On the other hand, there are impacts on the environment and related responses to disasters. This research takes a different approach and seeks to focus on the individual and community levels and how to use future climate change displacement as a development strategy. Although the approach is evocative of a bottom-up approach

to climate change displacement preparedness, in reality it would be impossible without top-down structures, institutions and management lead by government and other actors in the country (Bettini, Kaijser and Jerneck, 2009).

Theoretical Framework

As it currently stands, there is no climate change displacement preparedness theory (McAdam, 2010b:4). The concept of preparedness is most often linked to disaster management, which largely examines emergency warning systems, humanitarian aid, infrastructure, and financial resources (ADB, 2012:42). These topics, however, do not directly relate to the type of preparation necessary for Kiribati. The country would be best served by its people being prepared to re-establish their lives in a new context. As such, this research will lean heavily on the social aspects related to climate change displacement.

Adaptive development as climate change displacement preparedness

Displacement need not be a sentence to misery and despair, but instead can act as an impetus for adaptation (IOM, 2011:1). In this way, climate change displacement can engender a means of sustainable development for i-Kiribati that contributes to a betterment of their lives (Ferris, 2011:19). The IOM (2011:5) has called for an integrated approach that combines National Adaptation Programmes of Action, Disaster Risk Reduction, sustainable development, and Climate Change Adaptation. This paper's framework starts from a notion that climate change displacement preparedness must be managed at the national/community level and contain elements of risk reduction while avoiding the pitfalls of past development interventions. In attempting to build a climate change displacement preparedness framework, this paper will build on displacement risk reduction (Cernea, 2000) and the management of inherent difficulties in implementing development initiatives (White, Kates and Burton, 2001).

Displacement Risk Reduction

The 2009 Global Assessment Report on Disaster Risk Reduction (IOM, 2010:8) states that by addressing the underlying drivers of disaster risk it is possible to reduce poverty



and to adapt to climate change. Cernea's Impoverishment, Risks and Reconstruction (IRR) model (2000) addresses issues related to land, employment, housing, social cohesion, health, nutrition, commons and public services, and social networks. The preparedness function of the model hinges on *identifying and acting on* the risks associated with the topics enumerated (Cernea, 2000:21). The social aspects will be brought to the fore in this paper for closer examination. Although land represents an important part of life in Kiribati, it will not be addressed through displacement preparedness given that it is itself the impetus for the need to plan for displacement. Similarly, housing will not be covered in the framework utilized in this research. Housing bears closer affiliation with project displacement, rather than wholesale population permanent international displacement. Health and nutrition, while crucially important, fall outside of the purview of this research inquiry. Much like land, commons and public services represent what is being lost rather than elements of the future that need to be planned for. The remaining IRR model components —employment, social gaps, and social networks— will be explored in this theoretical framework.

In the IRR model, employment or rather risk of unemployment only tackles loss of employment. Employment preparation, however, is concerned with employability and the ability to compete on the job market of receiving countries (ADB, 2012:48). One criterion outlined in the Inter-Agency Standing Committee (IASC) Framework on Durable Solutions for establishing whether a displacement intervention can be considered a durable solution, is access to livelihoods and employment. This includes the possibility of skills training and formal education, which can help individuals to adapt to their new country-context (IASC, 2010:34; Keeley, 2009:60). Furthermore, the necessity for adequate language skills that correspond to the destination country cannot be overemphasized; education and skills need to be complemented by an ability to communicate effectively with the destination population (Keeley, 2009:100). Social gaps, as expressed by Cernea (2000:26) occur when the economic, social and/or psychological status of individuals or families worsen. This tendency may already be at work in developing countries, especially least developed countries, due existing

livelihood constraints. To then displace these individuals internationally increases the risk of a further downward spiral (Cernea, 2000:26). A crucially important risk from the IRR model is the destruction of social networks. Attachment and proximity to family and the larger community are intangible aspects of life that cannot be replaced or substituted (Cernea, 2000:30).

As a means of risk preparedness, Cernea (2000) aggregates issues and reverses them to create strategies that can be implemented by concerned parties. For employment reconstruction, a relevant suggestion is adequate education, skills, and language ability to meet conditions of the destination (ADB, 2012:58; Cernea 2000:35; EACH-FOR, 2009:35). As for the remaining two highlighted components, social gaps and social networks, Cernea (2000:41) argues that if the latter can be addressed effectively then the former may also benefit. The ADB (2012:52) highlights the need for involving the population along the way in any resettlement processes. In addition to involving the affected communities, the Environmental Change and Forced Migration Scenarios Project (EACH-FOR) (2009:55) underscores the need for “a joint effort by governments, international institutions and other organizations” to work together (Ferris, 2011:20).

This sub-section outlined some important aspects of climate change displacement preparedness that form the foundation of the theoretical framework for this research. The inquiry into employment, social gaps, and social networks revealed how these displacement risk reduction foci can be addressed by education, skills, language, coordination at the institutional level, and communication between the institutional and individual/community levels.

Managing Inherent Difficulties

The preceding presentation of risks and how they can be refashioned as means of preparedness for climate change displacement provides a hint at what actors in Kiribati *can* do. However, often times the problem isn't just knowing what can be done but also managing the inherent difficulties of implementing development initiatives (Oliver-Smith



& World Bank cited in Ferris, 2011:12; White, Kates and Burton, 2001). This section of the theoretical framework addresses that.

White, Kates and Burton advance an interesting viewpoint which is further developed by the IPCC (2012:308) on why initiatives with good intentions sometimes fail. The four broad reasons are 1) persistence of “areas of ignorance”, henceforth called unawareness 2) ineffectiveness of translating knowledge to desired action, 3) the long time-scale for results, and 4) interventions not being able to keep up with escalating issues.

For climate change displacement, this concept of “knowing better and losing even more” (White, Kates and Burton, 2001) can be viewed from the individual/community level. Unawareness, or a lack of full information, is a given when dealing with people. Knowledge and its use depends on its nurturing by institutions tasked with that mandate and the promotion of communicative relationships. Ineffectiveness comes into the picture when the action taken results in unintended outcomes. Simply having the necessary skills or knowledge maybe not be enough, if unable to express it in a manner that can be understood or well-received by others. A distinguishing feature of development is its lengthy delay between application or implementation and any indication of success (or failure). Ensuring that the intended targets truly understand and benefit from an intervention takes time and skills on the part of the implementing actors. Finally, the increasing pace of change in the world lends credence to the idea that mitigating climate change remains a far-off dream. This further deterioration of the situation represents the very reason for a need to plan for climate change displacement. As such the fourth element of the concept will not be covered in this paper.

Analytical Model

Taking the means of climate change preparation identified in the preceding section (education, skills, language, coordination, and public communication), this section will investigate how each falls into the areas of possible pitfalls (unawareness, ineffectiveness, time delay).

Education's function is to directly address the notion of unawareness. By providing the individual with a solid foundation in various topics through basic formal education, schools not only teach about issues but also about the process of gaining and parsing new information. Furthermore, the formal education system can provide information about climate change, environmental management, and future prospects for the country. A notable concern with education, however, is its time-consuming and protracted duration to provide individuals with knowledge, skills, and abilities.

Just as education prepares for tomorrow, so too does skills training. Technical and vocational training for professions such as carpentry and plumbing provide useful knowledge to individuals and employability appeal. This type of training not only allows students to complete education in a shorter delay than tertiary education, but also provides valuable skills high demand that can be used across the world.

Language skills are a vital underpinning requirement for international displacement. Without the ability to communicate effectively with non-Gilbertese⁷-speaking people, displaced persons will struggle to find employment, to build social networks and hence to address the social gaps in their lives.

A lack of coordination will undermine attempts at development interventions. For this reason coordination finds itself at the intersection of unawareness and ineffectiveness. A fractured approach to climate change displacement will lead to duplication of efforts or worse diverging intervention goals.

Public communication encompasses public awareness and participation in the process. In many ways, public awareness represents non-formal education for the masses. For individuals who have passed the point of school or training, information about what is happening around them can come in form of public communication to address their

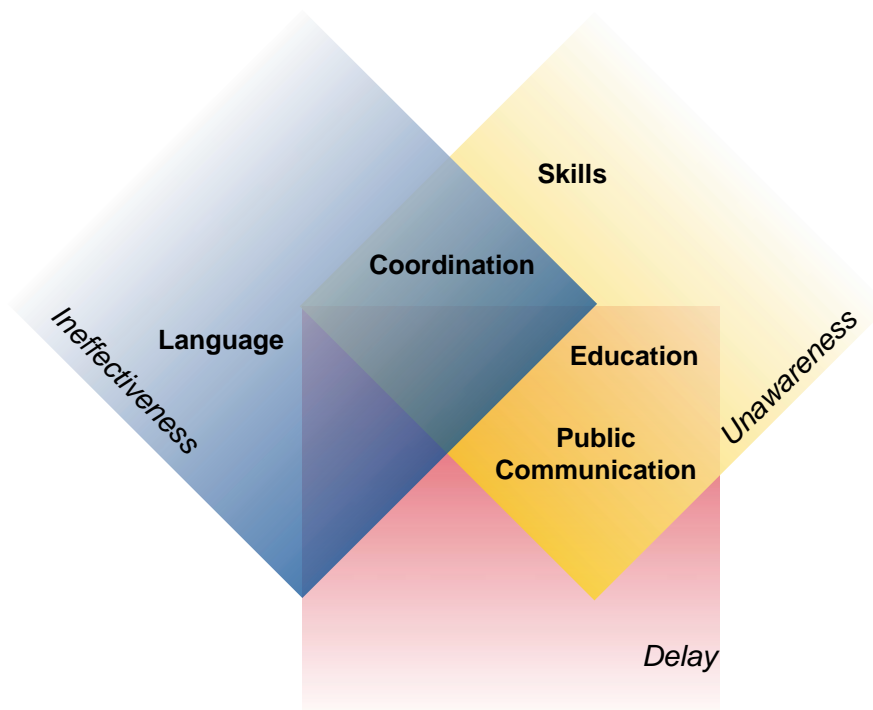
⁷ Gilbertese: Language spoken by i-Kiribati.



gaps in knowledge. Similarly to formal education the process of absorbing knowledge is a long one and in this case may butt against ingrained ideas about the world and the future. Although public communication may prove a difficult aspect of displacement preparedness to address, it is necessary to ensure the full participation of all concerned people in determining their future.

The schema below (Figure 2) presents the social aspects and their respective potential pitfalls in graphic form, and serves as the analytical model for this research.

Figure 2 - Climate Change Displacement Preparedness Model of Analysis



This model is ideal for the case of Kiribati as it also serves as a means to evaluate how the message of “Migration With Dignity” touted by the President of Kiribati, Anote Tong, is answered with action within the country. For Kiribati, this idea seeks to preempt forced migration and encourage countries across the world to welcome i-Kiribati as valuable members of their society. What has hitherto been unclear is how “Migration With Dignity” is being managed and prepared at home. The response to the research question herein will shed light on that concern.

METHODOLOGY

Theoretical Process

The process of developing a theoretical framework for this paper followed the steps of qualitative research. This research began as an inquiry into how “Migration With Dignity” was understood and implemented within Kiribati, which points to a deductive research approach (Mikkelsen, 2005:168-169). Through data collection and time in the field, the importance of social factors emerged. With a focus and central theme surfacing from the data, this research moved toward inductivism (Srivastava and Hopwood, 2009:77). As such the overall iterative approach was characterized by inductive and deductive movements throughout the process to further understand and probe the matter at the heart of what was being sought (Mikkelsen, 2005:169; Srivastava and Hopwood, 2009:77). The power of the iterative process of research opens the door for an interaction between defining the research, collecting data, and analyzing that data allowing for the important elements of the research to continuously be refined (Bryman, 2008:539).

The interpretivist epistemology is appropriate given the context of permanent international migration away from a slowly disappearing life, land, and culture. It is vitally important to bear in mind the importance of past, present, and future as well as the element of context as understood from the perspective of the subjects (Bryman, 2008:553). The data collected represents the views of interviewees as they are and allows for the subject’s interpretation to remain at the fore. This stance is the cornerstone of the interpretivist epistemology (Bryman, 2008:16).

Epistemological considerations have enabled elements of critical realism to appear. Through a top-down inquiry into climate change displacement preparedness, this research works on the assumption that the structures managed by the actors interviewed can influence the Kiribati reality, and furthermore that they ought to be functioning in a certain way (Mikkelsen, 2005:135). The social structures that frame formal education, skills development, language ability, coordination, and public



communication form the platform on which the collected data is examined and they provide the avenues through which the actors can effect positive change in Kiribati.

Methodological Framework

By examining the responses from actors on the ground working on issues related to preparation for climate change displacement, this research identifies how the social implications of climate change displacement are being managed. These fundamental questions are to be explored through primary qualitative and observational data.

Sample

Ultimately, the group of interest is the entire population of Kiribati, however through observation and preliminary unstructured data collection it was determined that the most appropriate interviewees were representatives working in various organizations engaged with issues related to the social aspects of life in Kiribati. Given that the research seeks to understand how preparations for a future impacted by climate change are advancing, the respondents sought out were those in positions to affect such preparations.

The interviewees are representatives from different organizations in Kiribati, including high-level government representatives, donor agencies, NPO representatives, the Church, active citizens, project representatives, and representatives from the education sector. The interviewees were selected based on their role in addressing how the underlying social issues in Kiribati can be strengthened to face an uncertain future.

The choosing these respondents was to ensure they would be able to provide information needed to answer the research question, while having knowledge and understanding of the context (Bhattacharjee, 2012:97). In this way, expert sampling was a part of the methodology. Purposive sampling was also used to ensure that the most relevant information was garnered (Bhattacharjee, 2012:96).

Data Collection Methods

The research guide (see Enclosure 1) was created during and finalized after several months in the field, after observing and learning about the different social mores at the individual, institutional and systemic levels. This also allowed the questions to triangulate observed and data gathered while at the employment of the Government of Kiribati (GoK).

The first and most broad sources of information are observational and informal unstructured interviews with people during the time in the field. The broadness of this type of data can be a pitfall if the researcher attempts to include too much of it, however that was avoided here. A second method of data collection is semi-structured interviews, using the interview guide, to ensure consistency between interviews. The guide regroups the broad areas of questioning, but did not restrict the ability to ask follow-up questions relevant to specific types of actors and individuals, as well as to gain more clarity on the reasons behind responses. The flexibility of semi-structured interviews is a strength of the methodology. Another set of data is derived from documentation on social and environment issues, which further strengthens observed and collected data to form a complete picture. Data quality is assured through paraphrasing during interviews.

Because the findings of the research rest on the responses of the interviewees, anonymity is of prime importance. This is maintained by using a code comprising the category of interviewee (government, donor, NPO, citizen, project, Church, education) and a letter for each interviewee, i.e. Donor - H. Given the small community of actors working on these issues, explicitly stating which organization or body the data comes from would allow people on the ground to deduce who the source of the information is, therefore erasing their anonymity.

Challenges

A frequently confronted challenge is simply gaining access to people and the information they hold. This is especially true for government representatives in Kiribati.



The traditional custom of guarding information in the same manner as family secrets, has spilled over into politics. Breaking this cultural barrier was difficult, but the role of researcher (and hence, not of an inter-governmental “rival”) may have aided in countering this norm. That being said, the legitimacy associated to the government contractor role had a positive bearing on establishing contact with high-ranking government appointees.

The Presidential elections that occurred simultaneous to the research data gathering phase created a further challenge in terms of availability of subjects. With new government appointments and restructuring of the Cabinet and Ministries, many representatives were busy closing loose-ends in previous positions and gaining a foothold in new ones.

A challenge that presented itself from the outset was how to isolate relevant information about the specific question and focus of the research. Qualitative research necessarily seeks to draw linkages between interconnected aspects of a large topic. Studying human behaviour and interpretations of these actions with regard to environmental issues opens the door to a myriad of factors that affect what is being studied. The sheer amount of information that could be included to analyze this issue is inexhaustible. The first step was identifying the core of the issue and restricting the information sought accordingly. Even with a concerted effort to narrow the field of information, this research allowed for flexibility and for the inevitable “surprises” that are likely to emerge during the field and analysis phases. The ensuing data was parsed after another cycle in the iterative deductive-inductive process outlined earlier. Synthesizing the data required a willingness to discard interesting finds and fascinating tangential areas of inquiry. Ultimately a balance was struck between gaining an accurate picture that takes important aspects into consideration and keeping the research narrow enough to be able to provide insights from the data.

Generalizability, Reliability, Validity

The research design tripartite of reliability, validity, and generalizability hark back to a positivist view of research (Kvale, 1996:239; Bhattacharjee, 2012:112). Considering the nature of this research as explained above, this sub-section will examine these elements as appropriate.

Given the case study nature of this research, the reliability of the data collected will be maintained insofar as it pertains to this specific circumstance. Researcher reliability was limited by avoiding leading questions in the interview process (Kvale, 1996:235). The previous sub-sections of this methodology section provide the details of how the research was carried out including the theoretical framing, which would allow another researcher using the same data and immersed in the field at the same time to come to similar conclusions. This quality of the research answers to the criterion of dependability, which is often associated with qualitative research in lieu of reliability (Bhattacharjee, 2012:112).

Validity in responding to the stated aim of this research was pursued by asking subjects a formulation of the research question and then breaking the question into smaller pieces to get at the heart of the matter (Kvale, 1996:238). Additionally, the practice of paraphrasing statements by interviewees was a tactic employed during interviewing to ensure valid recording of what was said (Kvale, 1996:237). Paraphrasing and the confirmation received from interviewees creates a closed loop where the subjects broadly agree with the inferences drawn (Bhattacharjee, 2012:112). The nature of this research allows the validity of the findings to rest on the interviewees' interpretation of the current state of affairs in Kiribati and not on an outside perception of validity (Kvale, 1996:217). Whereas truth under the concept of validity usually refers to an objective truth, this paper recognizes "specific local, personal, and community forms of truth" (Kvale, 1996:232). To aid in extrapolating the data to the Kiribati community as well as to ensure consistency, triangulation through different viewpoints allows for credibility and hence validity of the statements made by interviewees (Kvale, 1996:220; Bhattacharjee, 2012:112).



In line with the manner in which this research was carried out, the naturalistic generalization represents the coming together of tacit knowledge from time in the field and interviewee responses (Kvale, 1996:232). Kiribati represents a unique case that cannot be expected to react in the same way as other Pacific atolls or other situations of devastation due to climate change. As information will continue to change and expand about the future prospects for the country, or as politics alters national discussions, the plans for the future may also change. In this way, the generalizability of this case is only possible through a contextualized framing, which precludes it from applying to other circumstances or other points in time (Kvale, 1996:232). Fittingly, the background of this paper provides detailed information about Kiribati as well as a section on the context of environmental problems in the country to help with framing (Bhattacharjee, 2012:112).

The paper thus far has presented information about Kiribati, an explanation of the issues surrounding climate change, the environmental effects currently facing Kiribati, the theoretical foundations of this research and how they relate to the model through which the results will be analyzed, and the methods used to advance the research. The remainder of the paper answers the research question set forth at the outset: How is climate change displacement preparedness being managed by different actors in Kiribati at the institutional level?

FINDINGS

The findings uncovered through data collection will be traced back to the analytical framework presented previously. The social elements of climate change preparedness—education, skills, language, coordination, and public communication—represent avenues through which interviewees can exert a positive influence as long as they avoid the pitfalls often associated with development. This analysis will evaluate how these elements and pitfalls are being managed by different institutional actors in Kiribati as a means of climate change displacement preparedness, from the viewpoint of the actors.

Education

Formative education

Formal education in Kiribati has the potential to have a significant impact on the future of the population. Its importance becomes crucial to survival when students are likely to face a drastically different world from what their ancestors and even their parents faced. Through education and labour mobility, the GoK and other actors are endeavouring to prepare i-Kiribati in a manner that they will accept, while avoiding talking about the sensitive issue of migration (Government - F, Education - A).

The formal education system is a long process from primary to secondary school, and obviously more so with the addition of post-secondary education. The Ministry of Education (MoE) is currently in the process of developing curriculum that will directly address climate change issues and its effects at the primary and secondary levels, but gaps in the knowledge of how to do this still remain. As recently as 2011, representatives from the MoE attended a regional orientation on how to integrate climate change issues in to the educational system (Government - A). The Ministry heading this effort acknowledges that they are unqualified to identify information about future impacts of climate change for the purposes of curriculum development. As a result, they must collaborate with the Ministry of Environment, Land, and Agricultural Development (MELAD) and the Office of Te Beretitenti (OB) (Government - A). This fact further extends the time delay related to achieving the educational objectives, given that the people shaping the education system are also in a process of learning.

The Kiribati Education Improvement Programme (KEIP) is a multi-pronged project that brings together the GoK, The Australian Government's Overseas Aid Programme (AusAID), United Nations International Children's Fund (UNICEF), United Nations Educational, Scientific and Cultural Organization (UNESCO), and the Secretariat of the Pacific Board for Educational Assessment (SPBEA) of the South Pacific Commission (SPC). The project's aim is to work towards infrastructural and curriculum-based improvements (Citizen - A). As it stands the curriculum development related to climate



change is progressing slowly, with Class One and Class Two scheduled to launch in August 2012 (Government - A). Without a solid educational foundation on the risks and effects of climate change, these youth will face considerable challenges in Kiribati and even more in a new country-context upon displacement.

The encumbrance of the long-term nature of an educational intervention is compounded by the gap between what is currently being taught and what i-Kiribati need to understand about climate change and its effects for the future. With the current knowledge presented to students being the concept of weather, the bridge that needs to be crossed is a long one (Government - A). Wind, rain, and other elements of weather are introduced in Class Five, but there is currently no curriculum in formative education that tackles the difference between weather and climate or the concept of climate change (Government - A). According to the same respondent, the effects, related problems, and management of climate change should figure in the curriculum, but as it stands these issues are not emphasized and the students don't feel that they are connected to their lives.

Post-secondary education

The availability of tertiary education to i-Kiribati allows for the creation of an active population capable of undertaking jobs that contribute to further development of society. Another important benefit is to be able to interface and collaborate with researchers, donors, foreign governments and others that conduct work in the country. However, as it currently stands this is not always the case (Project - C). The extractive attitude exhibited by outsiders is not only damaging from the perspective of i-Kiribati's attitude towards foreigners present in the country, but also opens the door to holes in the research being conducted (Project - C).

Kiribati is home to a University of the South Pacific (USP) campus, which is the only institution of higher learning in the country. While students favour courses in English, Computer Science, Education, Science, Management and Accounting at USP-Kiribati,

the parent institution USP-Fiji offers additional courses through distance and other flexible learning methods (USP, 2012). As at 2009, the Kiribati campus housed a Centre for Research and Sustainable Development in Atolls and Small Islands (CRSDASI), although most environment-related courses seem to take place remotely (gdNet.org, 2009). Foreign investments are working towards increasing the course offerings in the future (Education - A). Of particular note for international compatibility are plans for an Accounting course that will lead to students being recognized as Australian CPAs⁸ (Education - A). USP-Kiribati also recognizes its role beyond formal education as a possible vehicle of public communication by advocating for a closer working relationship with the government on climate change issues (Education - B). In the past scholarly presentations and discussion have been hosted to promote communication and informal education, however these were not taken up by the government and have since fallen through the cracks leaving fewer avenues for public communication (Education - B).

Many international governments with bilateral ties to Kiribati provide educational assistance to i-Kiribati in the form of scholarships to universities in their home countries. This addresses the time-scale short-coming of education only in that the eligible students have already completed basic education and generally only need to complete a few more years to obtain a post-secondary certificate or degree. New Zealand offers ten scholarships per year to i-Kiribati, with a focus on education, health, leadership and management, infrastructure development, youth and leadership, sustainable economic development, the public sector, and urban development (NZAid, nd(a)). Incumbents are required to return to Kiribati for at least two years after completing the program of study (NZAid, nd(b)). This is a policy that would have to be altered in the face of permanent displacement. The Taiwan Ministry of Foreign Affairs Scholarship Program offers access to undergraduate and postgraduate degrees, as well as a pre-degree Mandarin Language Enrichment Program. This last offering represents a steppingstone for language integration for potential i-Kiribati making their home in Taiwan. AusAID not only provides scholarships to universities in Australia, but to Fiji, Vanuatu, and the

⁸ CPA: Certified Practicing Accountant, as defined by the CPA Australia accountancy association.



Australian Pacific Technical College as well. The areas of study targeted include: civil and mechanical engineering, construction (carpentry and plumbing), tertiary teaching, financial management and taxation, health studies not available in the region, and public administration and management in policy making, international relations, and leadership management (AusAID, nd).

The often celebrated Kiribati Australia Nursing Initiative (KANI) is overseen by AusAID and was created with the goal of enabling i-Kiribati to attain Australian nursing qualifications. In practice very few students have been able to stay on track to complete the program (Donor - A). The same respondent goes on to explain that this shortcoming is often masked by the fact that students can decide to “graduate” at the Certificate or Diploma levels, the former not even allowing them to stay in Australia. The most grievous setback though, is the fact that KANI has been suspended until further notice, and is no longer admitting new students (Donor - A).

The importance of education and skills (the findings for which will be explored next) in the context of climate change displacement, is in their potential for merit-based employability in a new country context rather than relying on welfare or handouts (Government - E). It allows arriving i-Kiribati to be independent and to contribute to the new society instead of being burden on others (Government - D, F, and I). Although the time factor is a crucial one, the possibilities for new knowledge and greater understanding make this type of intervention invaluable.

Skills

Employable Skills

The Australian government’s involvement in Kiribati skills-training is largely through Austraining International and Australian Volunteers International. Under these banners fall three main projects present in Kiribati: Australian Youth Ambassadors for Development, Australian Volunteers for International Development, and the Technical and Vocational Education and Training Sector Strengthening Program. The first two focus on capacity development in the government, while the third targets high school

dropouts that would have little employability appeal otherwise. Throughout the field placement, discussions around capacity development (which can also be seen as unawareness remediation) invoked mention of these programs. The oft-employed notions of empowerment, positive contributions to society, mutual understanding, sharing knowledge, developing sustainable skills, and capacity building are peppered throughout documentation and conversations about these programs (Austraining International, 2009). The willingness to take on these areas of development is visible.

The Kiribati Institute of Technology (KIT) embodies skills training in the country. This quote says it all: “curriculum, out; competencies, in” (Project - A). In the country’s only technical and vocational education and training (TVET) centre, programs such as Language (English), Mathematics and Science, Management, Business and Secretarial, Computing, Accounting, Building and Carpentry, Electrical Engineering, and Mechanical Engineering are advertised (KIT, 2011). The centre was established in 1970, but has been undergoing an overhaul since 2009. With the involvement of the Pacific Technical Assistance Mechanism (PACTAM), another AusAID program, KIT is currently being managed by three Australians, while the rest of the staff is i-Kiribati. A goal for the end of 2012 is to only have Australian presence on an advisory panel supporting i-Kiribati management of the centre, thus empowering the community with local leadership. The direct focus on technical and vocational skills gives the students a faster path to possible employment, which will be evaluated after the first cohort from the new incarnation of the centre graduate in June 2012.

The New Zealand Government’s approach to unawareness gaps in applied skills is through its Short Term Training Awards for individuals currently employed in Kiribati. The focus is on human resource and development skills that can respond to the needs of the home country (NZAid, ND(c)). These short-term trainings are conducted in New Zealand, which also gives the incumbent a first-hand experience in a foreign country.

The TTM’s agricultural work is its most directly related to skills development, among its other projects. Their training on composting, soil management, and vegetable planting



was envisioned as a means to improve food supply and the breadth of food options (Teaiwa, 2010:3). But evidence shows that the majority of i-Kiribati that take-up gardening do so not for their own nourishment, but as a money-making enterprise, selling the produce (Government - B, NPO - C). A big reason for this is the fact that fruits and vegetables are not part of the natural i-Kiribati diet (NPO - B). A continued effort to raise awareness about the benefits of a diet including vegetables will help acquaint i-Kiribati with different types of food. This, in addition to the gardening skills that those who partake will develop that may be useful for employment abroad.

Traditional skills

On another note, traditional Kiribati skills have been gaining momentum after a period of decline, especially in the capital (Citizen - A, Education - C). Skills such as cutting toddy⁹, cultivating taro¹⁰, music composition, dancing, fishing - including eel traps, and orating were traditionally in the purview of the family and that sentiment still holds for many people (Education - C, Government - D and H). USP-Kiribati has advertised courses in toddy cutting, dancing, fishing, and music, but few students sign-up fearing backlash from their elders at having broken a traditional family bond and disrespecting the sanctity of familial roles (Education - C, Government - H). In light of possible migration, the youth of Kiribati have an opportunity to be stewards of the elderly and of their culture through these traditional survival skills (Citizen - A, Education - C).

Skills training, when it achieves its goals, offers a timely way of addressing gaps in the education system. In the face of climate change displacement, these skills are transferable to a new context. Furthermore practice of traditional Kiribati skills can be a means of maintaining culture.

⁹ Toddy: the sap from coconut trees. i-Kiribati have a specific manner in which they cut toddy that requires the man to attend to the tree several times a day and is ritualistic in nature.

¹⁰ Taro, more commonly referred to as “swamp taro” in English in Kiribati or “babwai” (pronounced “babai”). The traditional source of carbohydrates (before the introduction of rice), grown in freshwater lenses, traditionally on household plots.

Language

As separate from education, language can represent a bridge or a barrier to integration in a new country-context post-displacement. The institutions promoting practice and proficiency in English are the MoE through the KEIP, the KIT, and the two seafarer training organizations¹¹. These institutions work with the active population, but youth and elders rely on their English skills acquired in primary school. Anecdotal accounts convey why this is an important matter even for non-active citizens, e.g. dependent family members. Migrating dependents often don't recognize the necessity of speaking English because within their households or with family members it's not a concern, but difficulties begin to arise with simple tasks such as answering the phone in a country other than Kiribati (Citizen - A). This exemplifies many i-Kiribati's belief that they can simply transport their lives to a new location and live in the same way (Citizen - A).

From observation data, it became immediately clear upon arriving to Kiribati that although English is an official language, most people have difficulties expressing themselves in daily conversations, and more so with regard to complex topics. Given Kiribati's relatively recent independence from British rule, the decline in English skills is glaring considering the influence of the British in all aspects of life, including education. The transformation can be ascribed to a post-Independence pushback against British practices and a reaffirmation of the importance of Gilbertese (Citizen - A). With the decline of the importance of English, teaching was less strict and teacher proficiency plummeted (Citizen - A, Government - E).

In the last decade there has been a slow realization that the disinterest in English may be backfiring on much of the population; many of whom would not be able to easily communicate outside Kiribati (Citizen - A). This includes some government officials who have very poor written and spoken English skills (Citizen - A). Even KANI students, who must pass English equivalency tests to attend the program in Australia, often have difficulties passing classes that require them to read and write in English (Citizen - A).

¹¹ The Marine Training Centre (MTC) and the Fisheries Training Centre (FTC), and seafarers in general, are not discussed in this paper as seamen are taken to be a part of the Kiribati population.



With the KEIP, there has been a renewed sense of importance in teaching English (Government - A). And most prominently, the KIT has a no-Gilbertese-on-campus rule that the students quickly learn to abide by (Donor - A, Project - A).

The past ineffectiveness of English language teaching has caught-up to Kiribati today and the understanding of the need to converse with people from outside is making itself known. Given the prospect of international climate change displacement, i-Kiribati's level of English proficiency will have an important effect on their comfort and success in a new setting.

Coordination

By working in the government for six months, data was garnered through participation and observation that provide hints of ineffective coordination and knowledge management gaps.

Anecdotal data revealed that employee attrition is frequently triggered by a move to another government body in search of higher salaries or reshuffling at the President-appointed level which precipitates changes throughout the government system. As experienced first-hand, departing staff members often take knowledge and skills acquired in their positions or through trainings with them because of a lack of knowledge sharing among employees. This creates unexpected unawareness within Ministries that calls for remedial training.

When coordination between government Ministries is necessary to address issues, it can result in severe delays in achieving stated goals (Citizen - B, Government - D). For instance, the National Climate Change Framework in the hands of the OB has been in draft form since at least 2010 with few signs of movement (Government - I). The OB houses the Strategy Policy Unit which is mandated to work on climate change issues. This Unit is a booming advocate for addressing climate change issues on the global level, however the technical expertise for making a difference within the country is housed in the MELAD (Government - D). Furthermore the OB Unit reflects a duplication

of effort with the prior existence of the Climate Change Study Team (CCST) which works on the implementation of the UNFCCC (ECD, 2011). First-hand experience in many planning meetings exposed persisting disagreement about how to split the mandate, causing stagnation on action. The prominence of climate change issues partly accounts for the relatively recent prioritization by the OB of the issue, however the decision to divide responsibilities rather than build on an existing group points to governmental cleavages.

One gets the sense that Ministries sometimes see others as competitors rather than collaborators. The contest of who gets to attend international workshops and training is at times a source of indignation (Government - A). The development of KIT and the broader TVET agenda is currently hampered by disagreement on whether the KIT should sit in the MoE or the Ministry of Labour and Human Resources Development (MLHRD) (Donor - A). Furthermore, there is a general unwillingness of government staff to attend meetings outside their Ministries without guaranteeing allowances (Education - A). For this reason meetings are frequently held around lunchtime and lunch is ordered for all parties; observational and participatory evidence from the field shows that those meeting are the most likely to have full attendance by the invited parties. This practice is engrained in the apparatus of government and its ubiquitousness represents a barrier to communication and willing coordination.

The disinclination to share information between Ministries when one requires inputs from other sectors impedes work (Government - D, Project - C). Communication is also an issue between different levels of government within Ministries, which can lead to high level officials being poorly versed in the issues and how they are tackled on the ground (Government - D). Although there is a willingness by most high level appointees to advocate on the behalf of their sector, their willingness must be supported by a thorough understanding of the issues.

In addition to an intra-governmental need for coordination, collaboration between the various groups of actors is not currently fully utilized with the dearth of communication



between them (Citizen - B, Education - B). Coordination within Kiribati must go further than simply coming together to work on issues as they arise. From some there is a longing for a joint plan and the necessary coordination to carry it out (Project - C, Government - D). This is not to discount the effort and work that is being done, however it is important to underscore the inefficiencies that contribute to unawareness.

Public Communication

Awareness

The government struggles to educate a large proportion of the population on the future impacts of climate change (Government - F). There is a concern that many people develop ideas based on what they think they know without a full grasp on the issues, which is not uncommon (Government - E). For most i-Kiribati, God's promise that there would never be another Great Flood¹² as in the time of Noah is enough reassurance that climate change will never cause enough damage to render life in Kiribati impossible (Government - D, F, and H; Project - B). One respondent revealed their impression that the Church undermines development initiatives in Kiribati (NPO - B). While another expressed the belief that the message on the effects of climate change is diluted by the Church (Education - A).

Faith in God's promise is strong given the central place that the Church plays in the lives of i-Kiribati (Project - B). As the informal leaders of the community, the Church's stance on climate change and the risks for the future associated with it is crucial (Government - D and F). As it currently stands, representatives from the Church in Kiribati have not received any instructions to discuss migration as a response to the effects of climate change from the Bishop (Church - A, Project - B). This gap in the communication chain creates an area of unawareness and represents a missed opportunity for discussion. An additional barrier to widespread communication from the Church is the limited funds available. In a country made of sparse islands, traveling to

¹² The Bible tells the story of God cleansing the Earth of evil by sending a Great Flood. To save humanity, God instructs Noah to build an ark to shelter two of each animal (male and female). Afterwards, God promises that he will never again send a flood of a magnitude capable of destroying humanity.

outer islands to create public awareness is an expensive endeavour which few outside the government can afford to do (Government - F, Project - B). The GoK is attempting to get the support of the Church and other NGOs to help communicate the risks related to climate change (Government - F).

The mandate of disseminating information on environmental issues falls to the MELAD. Informing other government offices and the public about the effects of climate change is of significant importance to counter unawareness. As it currently stands, there is a grave difficulty in stressing the importance of issues surrounding climate change in the long-term. Although i-Kiribati see environmental changes occurring around them in the form of droughts, unpredictable rain patterns, and increased water salinity, most people believe they will continue to be able to survive whatever comes in the future (Citizen - B, Government - J). There is a general impression among some respondents that there is not enough communication on climate change and its effects to the public (Project - B and C). For some, government work is perceived as out of reach and disengaged from the community (NPO - C, Donor - B). Citizens interviewed confirmed that these are not issues that they hear about and that they rarely think about the future effects of climate change (Citizen - C and D). One interviewee openly said, “What I think about it is that I don’t want to think about it” (Education - B). Government representatives, on the other hand, highlight the delicateness of the issue of climate change displacement and the qualms of alienating the public (Government - F and I).

In an attempt at a softer approach, some Ministries see seasonal employment opportunities with New Zealand and Australia¹³ as a means of sparking a desire in labour migrants to migrate permanently (Government - F). This reliance on the hope that temporary migration will evolve into permanent migration is, however, not shared by the MLHRD who vehemently oppose the overstaying of workers after the end of their

¹³ Seasonal employment officially began with New Zealand in 2008 and with Australia in 2009. The incumbents generally take on fruit-picking (and related) jobs for a period of months each year. Companies prefer to have the same employees return year after year instead of training new arrivals. In interviews with seasonal workers, they talked about wanting to “experience foreign life” but that they also “tried not to be sad” and were happy to return to Kiribati. (Interviewees: Citizen - C & D)



contracts and do not address permanent relocation (Government - G). This difference in opinion about the upshot of international seasonal employment is another example of the discord between government ministries. This is an example of how a single action can have incompatible objectives and impacts; the unawareness between actors that causes this type of situation detracts from efficient climate change displacement preparedness.

The one-day-at-a-time mentality pervasive in the community leaves little room for concern about the future (Citizen - B, NPO - A). Although i-Kiribati recognize the environmental changes occurring in their lives, there is little forethought of the future and how things might worsen (Education - B). The potential danger looming in the future is not seen by most people yet (NPO - A, Government - I). By informally educating the people, government can stress the fact that the future is unknown and that forward thinking can help to respond to a worsening situation (Project - C, NPO - A). What is needed is a joint message on the issues and their management to reduce confusion among citizens (Education - A, Government - D).

Outside of government and Church entities, NGOs and non-profit organizations represent another type of institution attempting to bring awareness regarding the environment. There is recognition in the community that these organizations provide action on the ground that respond to the present situation facing i-Kiribati, though this is less focused on preparing for the future (Citizen - A). Unawareness can be rectified with various actors working towards a common goal backed by a combined public awareness message. The bottom-up understanding of the need for climate change displacement preparedness will be strengthened by a shared line about the future.

Participation

A separate, but equally important aspect of public communication is the ability for various segments of society to participate. Kiribati's NAPA highlights the importance of involving the community in the process, and hence educating them so that they can

participate fully in the conversation (MELAD, 2007). Partly instructed by the traditional cultural reliance on community elders, and further strengthened by the knowledge that adaptation in this way is more effective, this is a common thread in development initiatives (SPDRP/UNDP/UNDHA, 1998:1). As one interviewee said, “Government has a role to play but the people also have a role to play” (Government - I). To achieve a platform for discussion and decision-making, the first step is to ensure that everyone can understand the issues. The same language, terminology, and meanings must be used uniformly. Gilbertese has a lot of catching up to do to accommodate many of the words in common parlance in English on climate change and environmental issues (Hogan, 2011:43). In 2008 work started on an English-Kiribati bilingual glossary on terms related to climate change (Hogan, 2008), however anecdotal evidence suggests that its use is infrequent and confusion still abounds.

National consultations were undertaken by the OB to support the drafting of the Kiribati Development Plan 2012-2016 which brought some of the environmental issues facing the country to the fore, however some saw this as a political campaigning tactic in an election year (Government - D and F, Education - B, Donor - A, Project - B). Moreover, interviewees expressed frustration with the fact that many consultations and discussions happen but little action ensues (Project - B, Citizen - B, Education - B, Government - H and I). A possible reason given for why action falters is that the funds set aside for initiatives or projects is drained during the consultation process, leaving little behind for actions to follow (Project - B).

Interviewees provide some clues for how to ensure that everyone involved in the communication process understands what is being discussed. Instead of taking definitions of climate change from outside and trying to adapt them to meet the level of understanding of most i-Kiribati, one can start from what people are experiencing and seeing around them to explain what is meant by the concept of climate change (NPO - B, Citizen - B). Another strategy employed by some NPOs is the use of short dramas that act out familiar scenes that can help to explain the issues (Project - B). With regard to elucidating the future possibility of the atolls of the country being uninhabitable, a



respondent suggests using Kiribati's often employed method of handling difficult situations: humour (NPO - B).

Insofar as public communication represents a form of informal knowledge spreading, a difficulty associated with formal education also surfaces here: time. It's one thing to create awareness campaigns and discuss issues and risks to i-Kiribati but such a delicate message is one that takes time to sink in. That being said, the goal of bridging unawareness is an important one.

DISCUSSION

The preceding section uncovered important findings related to education, skills, language, coordination, and public communication. The theoretical framing of this paper called for the reduction of relevant risks associated with displacement and highlighted the areas that could be addressed with the five pillars of this research while guarding against the often-encountered stumbling blocks of development interventions. This section will bring the major findings together to respond to the question of how climate change displacement preparedness is being managed by different actors in Kiribati at the institutional level.

The framework presented unemployment as a displacement risk, in Kiribati this is being confronted through education and skills development. With the introduction of the KEIP there is a focus on improving educational infrastructure and curriculum that responds to the current needs of Kiribati but that also has a forward-thinking element in presenting information on climate change issues and hazards for the country. USP-Kiribati is an example of a successful institution in the country with its continued growth and inception of climate change focused programs. There are increasing international educational opportunities offered by bilateral partners, both by those in the country and those with an accent on giving i-Kiribati opportunities to go abroad. The continuous capacity development of the current workforce through support from external partners as well as possibilities of training elsewhere guarantee that those that are past the point of formal

education are not left behind. To answer to another group often forsaken, the KIT and its recent revamping give i-Kiribati another means of preparing for a future where they can remain independent and proactive members of society through self-sufficiency. The emphasis on English language skills as a priority espoused by KIT is another way that this institution creates a winning environment for climate change displacement preparedness for greater ease in employment, but also in establishing social networks in a new country, which represents another core element in the reduction of displacement risks.

The risk of breaking social bonds in displacement is a valid one especially given the question of nationality and identity that might arise post-displacement. An appropriate way to manage this is to have a strong sense of community prior to displacement and to have ways in which to recall culturally important customs. In terms of the preparedness initiatives highlighted in the findings, institutional actors are achieving the latter through a resurgence of traditional skills practice. The courses offered by USP-Kiribati provide one way of obtaining this type of expertise, but the reaction of community elders and traditionalists points to a deeper connection to the past and its importance. In some ways the adverse response may eventuate stronger family push for skills to be passed down from generation to generation, as it once was. As for securing people's sense of belonging in a greater whole, Kiribati society has a solid foundation in that regard with the ties of the Church and respect for elders. Another way in which this can be reinforced is through the population's involvement in the climate change displacement process. This aspect of what is being done in Kiribati is currently overlooked and worse, at times ignored. By omitting the topic of displacement in public communication and instead hoping that people will migrate on their own after getting a glimpse of life outside of Kiribati, actors in Kiribati are falling short in their preparation of the country's people for the future.

The final core element of the displacement risk reduction strategy that applies to Kiribati is the possibility of a downward spiral of economic and social gaps. This element is adeptly responded to by the same elements that satisfy the unemployment and defunct



social networks risks. Economic gaps can be avoided through employability aided by educational, skills, and language ability. While social gaps are sidestepped by Kiribati kinship ties and religious affiliations. As a final note, the theoretical framework also called for collaboration between government and other actors in a given context. Here again is a case of an aspect that needs more work in Kiribati. Starting with the government, there is a need for greater knowledge management to safeguard against repeating trainings upon the departure of staff. Also relating to duplication of effort is the call for sharing of information across Ministries and active cooperation to create a joint message and plan for the future. With regard to cross-institutional coordination, there seems to be more willingness and coming together, which is encouraging.

The educational objectives set out are laudable however a serious lacuna is the shying away from discussing climate change displacement within the country at all levels of society. This practice allows i-Kiribati to perpetuate misinformation and dangerous beliefs about what the future might hold. A common message from government is needed to dispel rumours and to strengthen the understanding of the population. This, however, is not possible without a cooperative attitude among different government bodies and mindset that the sum is greater than its parts. This too applies to collaboration between government and the other actors on the ground, which can only benefit from open and action-oriented dialogue on how to prepare i-Kiribati for future climate change displacement. To ensure a capable workforce, curriculum, trade skills, and language development must be able to support Kiribati society and contribute to the betterment of one's nation, no matter where that happens to be. Active participation of all members of society, whether young or old, i-Kiribati or i-Matang, employed or unemployed will be a telling element that will shape the response of all citizens. Although education and skills training alone could give displaced i-Kiribati a strong foothold in a new setting, the attitudes and reactions along the way will determine whether Kiribati can maintain its nationhood outside its borders. By ensuring that i-Kiribati take an active part in learning and crafting the survival skills of yore, they can be the custodians of an entire nation.

Three quotes from different interviews sum up the potential for Kiribati to achieve climate change displacement preparedness. The first underscores the very need for climate change preparedness in Kiribati: “If [the country] becomes [un]livable, we need to be ready” (Project - B). Although there is an element of doubt in the respondents view with the use of the word “if”, they recognize the importance of preparing for the unknown. The second is an indirect advocacy of education and skills development: “You can be lowly and [...] climb up” (Education - B). This is a belief in the innate ability of individuals to change their fate and to open possibilities for themselves. Although more readily ascribable to education and skills, this also applies to language ability. Finally, the last quote is a call for work inside the country to progress past awareness, meetings, consultations and the like: “We need action, not actors” (Citizen - B).

RECOMMENDATIONS

Although the actors interviewed provided a mostly promising view of climate change displacement preparedness for Kiribati, a few recommendations are provided to further strengthen the response.

To improve current formal education practices, student climate change discussion groups can be an interesting supplement to what is currently happening. Although streamlining the knowledge into the formal education system is important, students currently lacking that information can begin to have informal conversation to become comfortable with the concepts and their reality. This could be facilitated by USP-Kiribati students that are taking courses in environmental studies as a part of their program, given the importance of being able to communicate information as well as study it.

A more pronounced focus on English throughout the country, as well as communicating complex environmental topics in Gilbertese, is necessary for a smooth process of international climate change displacement of i-Kiribati.



A greater emphasis on knowledge management in the Government to ensure that the training, skills, and information acquired throughout an employee's tenure in a position remains within the unit, whether the person remains or not. Knowledge management can take different forms, for instance weekly meetings to communicate the work each member of a team is doing, which can be transcribed and sent to the rest of the office. Another example is computerized knowledge management systems that can function offline or online (though the former would be preferable given slow and unpredictable internet connections in the country).

A community of government employees who understand the leveraging power of coordination can be formed. This will demonstrate the benefits of working in this manner to those that are apprehensive about open communication and collaboration. A small cross-Ministerial group could get the ball rolling.

A more active role for the Church in communicating the importance of education, skills training, language practice, coordination and public communication as virtuous approaches to life.

Finally, the reintroduction of the OB broadcast that in the past offered a weekly program for the public on various topics of interest to people's lives. This show could cover issues related to current impacts of climate change as well as present information about preparations for climate change displacement from the perspectives of different actors in Kiribati.

These are but a few examples of remedial actions that can be taken-up immediately by institutional actors in Kiribati that can have a positive preparatory effect.

CONCLUSION

The stated aim of the research was to uncover linkages between the environmental and social effects of climate change and international movement. To do this, Kiribati's unique circumstances were first presented and then the context of climate change issues was examined. The strong likelihood of international climate change displacement allowed the following research question to emerge after several iterations:

How is climate change displacement preparedness being managed by different actors in Kiribati at the institutional level?

To answer the question preparedness for climate change displacement was evaluated through the combination of two existing frameworks of analysis: Impoverishment, Risks and Reconstruction and "knowing better and losing even more". The resulting model of analysis took the form of adaptive development as climate change displacement preparedness. The social elements of education, skills, language, coordination, and public communication overlapped with the areas of common pitfalls in development of unawareness, inefficiency, and time delays to create a model tailored for the case at hand. The subjects interviewed came from a variety of walks of life: government, donors, projects, active citizens, educators, NPOs, and the Church.

The findings and subsequent analysis revealed that although formal education still presents many areas of unawareness through poor and slow integration of climate knowledge into the curriculum and that the time factor, the plan in place is heartening. Skills training presented some interesting avenues for hastening the pace of employability and increasing knowledge of a specialized kind. The overarching need for better English could not be a more important foundation on which to build activities for an effective approach to the future, as such the renewed focus on it is telling. Another all-encompassing element is the ability for government to be effective in its work through close collaboration with its own Ministries and others, which will require further work to achieve. The significance of proving knowledge in Gilbertese to ensure total population understanding and hence participation in the process of determining the



future in an efficient manner, as well as ensuring public awareness of the issues and their possible consequences as quickly as possible is crucial. As it stands, this final major finding is also lacking.

The answer to the research question can be summed in the following manner: climate change displacement preparedness is being managed by different actors in Kiribati at the institutional level as good as one might expect, but not good enough for what the future holds. Kiribati is still a relatively young country with a large segment of the population alive experiencing Independence first-hand. Many of the problems highlighted might be due to the growing pains that come with being a new country. The plight of i-Kiribati in the face of the effects of climate change represent a completely new type of challenge. Indeed, it is a new kind of challenge for the world to address. Although it is impossible to have all the answers and all the information, there are solutions that governments, donors, NPOs, citizens, project representatives, education representatives, and the Church can implement to help alleviate risks for the future.

Avenues for future research abound with a topic and context such as what was explored in this research. One of particular interest is the reasons behind an apparent paucity of action towards adaptation or preparation for the effects of climate change by the majority of the population despite familiarity with worsening environmental problems. Among the population, as observed in the field, a common method of dealing with difficult situations (death, climate change, job-loss, etc.) is to joke about the matter. This type of response and the reasons behind it provide interesting avenues for further research about the psychological effects of climate change and other major life tragedies in Kiribati. A second fascinating area of inquiry is in the conception of identity of seafarers as quasi-migrants in their perpetual comings and goings and how that may interact with international climate change displacement.

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Enclosures

Enclosure 1 - Semi-Structured Interview Guide

Given the slow, but existing, push towards Migration With Dignity, how is permanent international displacement / migration due to the environmental effects of climate change being addressed?

1. What is your role?
2. What does “dignity” mean to i-Kiribati?
3. Are i-Kiribati aware of this concept and the idea behind it?
4. What characterizes people seeking opportunities that may improve migration prospects?
5. Is there understanding about how the effects of climate change impact the natural environment? As well as what these impacts might mean for the future?
6. What is the attitude towards migration as a form of adaptation?
7. What proportion of urban i-Kiribati are able to migrate (language, education, skills)?
8. How do you think the level of English affects i-Kiribati prospects?
9. What is driving people to take up opportunities for training / migration?
 - Is it different from previous generations?
10. Are i-Kiribati preparing for a different future (either in Kiribati or after migration)?
11. What is the relationship between the different actors, how is it managed?
12. What do you think about how the issues are being addressed?
13. What do you think is missing from what is currently happening to prepare for a different future?

The interview guide represents the broad questions set out for interviewing. As one would expect, many follow-up questions were also posed during the interviews - these have not been included. Furthermore, given that not all questions were relevant to all interviewees some were not asked of all subjects.

Enclosure 2 - List of Interviewees
(Presented in alphabetical order)

Church
A

Citizen
A
B
C
D

Donor
A
B

Education
A
B
C

Government
A
B
C
D
E
F
G
H
I
J

Non-Profit
A
B
C

Project
A
B
C