Climate Change and the intersection with Development and Security:

As evidenced by global, regional and local responses in Kiribati

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Abstract

This thesis will analyse the evolution and the impact of global, regional and local responses to climate change in Pacific Small Island Developing States. This examination will take place through the lens of the United Nations and Pacific regional powers' involvement in Kiribati and within the greater context of the security-development nexus. There are arguably three major actors in the policy realm – intergovernmental organizations /non-governmental organizations, regional powers and local governments. By analysing the United Nations (as the intergovernmental organization), New Zealand (as one of the regional powers) and Kiribati (as the local government of the affected country) we can gain a better understanding of how these three entities engage in dialogue and facilitate change on the ground.

Kiribati is an exemplar for the security-development interrelationship in the face of climate change. This status is manifest by virtue of the Kiribati high level of responsiveness to international initiatives, direct overtures to regional powers (in regards to increased aid for adaptation, mitigation and relocation measures), and implementation of numerous national policies related to issues arising from climate change. This thesis details the current policy landscape with respect to climate change and Pacific Small Island Developing States and will examine the evolution of international, regional and national policy responses in the climate change context. The objective is to provide an empirical basis for understanding policy responses with respect to climate change in Pacific Small Island Developing States.

In service of this objective, this thesis will analyse existing policy, proposed policy and hypothetical/academic policy using discourse analysis and document content analysis. An understanding of the constitution and evolution of these discursive categories (as evidenced by thematic debate, policy discourse, and media coverage) are utilised in an attempt to provide insight on the complexities of climate change governance and how actors can be best equipped to respond.

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List of Abbreviations

ADB	Asian Development Bank
ALGAS	Asia Least Cost Greenhouse Gas Abatement Strategy
ALM	Adaptation Learning Mechanism
AOSIS	Alliance of Small Island States
AusAID	Australian Agency for International Development
BPoA	Barbados Programme of Action
CCA	Climate Change Adaptation Strategy
CCST	Climate Change Study Team
CIC	Center on International Cooperation
CoP	Conferences of the Parties
CROP	Council of Regional Organisations in the Pacific
CSO	Civil Society Organization
DFID	Department for Foreign and International Development
FAO	Food and Agricultural Organization of the United Nations
GEF	Global Environment Facility
GoK	Government of Kiribati
HDR	Human Development Report
IGO	Intergovernmental Organisation
IPCC	Intergovernmental Panel on Climate Change
KANGO	Kiribati Association of NGOs
KAP	Kiribati Adaptation Programme
LA21	Local Agenda 21
LDC	Least Developed Country
MCTTD	Ministry of Communications, Transport and Tourism Development
MDGs	Millennium Development Goals
MEA	Multilateral Environmental Agreements
MELAD	Ministry of Environment Lands and Agriculture Development
MFMRD	Ministry of Fisheries and Marine Resources Development
MOP	Ministry Operational Plans
MUHEC	Massey University Human Ethics Committee
NAPA	National Adaptation Programme of Action
NASC	National Adaptation Steering Committee
NCSA	National Capacity Self-Assessment
NDS	National Development Strategies
NGO	Nongovernmental Organization
NIS	Climate Change National Implementation Strategy
NZAID	New Zealand Agency for International Development
PACC	Pacific Adaptation to Climate Change
PICCAP	Pacific Islands Climate Change Assistance Programme
PIF	Pacific Islands Forum
PIFACC	Pacific Islands Framework for Action on Climate Change
PIGGAREP	Pacific Islands Greenhouse Gas Abatement through Renewable Energy Project
PSIDS	Pacific Small Island Developing States
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SC	Security Council
SIDS	Small Island Developing States
SPC	South Pacific Commission
SPREP	South Pacific Regional Environment Programme
UDHR	Universal Declaration of Human Rights
UN	United Nations

UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNGA	United Nations General Assembly
WB	The World Bank
WMO	World Meteorological Organization

Chapter One – Introduction: Two Discourses and Three Scales

Introduction

As the world watched the United Nations Climate Change Conference in Copenhagen (7–18 December, 2009) and New Zealand's Prime Minister John Key debated whether or not to attend, representatives from Pacific Island countries were present to ensure that their voices were heard. President Anote Tong of Kiribati went to Copenhagen with an impassioned message – if even the most minimal projections of sea-level rise are accurate, within fifty years his country may be uninhabitable. President Tong noted that "history has seen nations lose their sovereignty and human rights through warfare and actions of aggressive neighbours; the effects of climate change will be just the same as if Kiribati had been attacked by a very hostile and deadly enemy"(Tong, 14 December 2009, p. 1). President Tong's message, his rhetoric, and his impassioned plea form the impetus behind this thesis.

Cutting across the domains of sovereignty, vulnerability and forced migration, President Tong justifiably claims "[t]he issue of climate change is the greatest moral challenge of the 21st century" (Tong, 14 December 2009, p. 1). This thesis aims to constructively contribute to understanding climate change and the moral challenges that it presents by outlining the evolution of policy responses and analysing the guiding forces behind the responses. The I-Kiribati, who proclaim themselves to be "among the most vulnerable of the vulnerable", give shape and meaning to this academic investigation by representing the human face of climate change (Tong, 14 December 2009, p. 1). "Climate change is a deeply human issue – it is about the rights of a people to enjoy their sovereignty, their dignity, their lifestyle and their culture" (Tong, 14 December 2009, p. 1). This thesis is guided by this sentiment and the desire to protect the rights of nations and peoples threatened by climate change.

This thesis will assess the evolution of policy responses to climate change, and their implications, at the international, regional and national level. Chapter One will provide the contextual framework and background to the interrelationship between global, regional and local policy with respect to climate change in Pacific Small Island Developing States (PSIDS) with a focus on Kiribati. Additionally, this chapter will outline the intersection between security and development within the climate change domain. The chapter will rationalize the selection criteria and will provide details on the aims and objectives of the research, including a brief discussion of the methods that will be employed. The concluding section of the first chapter will provide an overview of the thesis structure and chapter outline.

Background

Increasing evidence of climate change and its related economic, social and environmental implications confronts the international community with one of its most complex and serious challenges to date. In recent years the scientific debate over the existence of climatic change has moved towards a general consensus (with the debate shifting to identifying the anthropogenic elements of the change). The crucial problem facing scientists and policy-makers today is how to translate this knowledge into adequate policy responses.

In its Fourth Assessment Report, the Intergovernmental Panel on Climate Change (IPCC), a United Nations panel of approximately 2,000 scientists from over a hundred countries, concludes that our climate system is warming as a result of human activities (Bernstein, 2007; The Intergovernmental Panel on Climate Change, 2010). The evidence that climate change is already occurring is unequivocal and is due in large part to human activity. The IPCC calculates that the world faces an average temperature rise of around 3°C this century if greenhouse gas emissions continue to rise at their current pace and are allowed to double from their pre-industrial level (Intergovernmental Panel on Climate Change, 2007, p. 15). The impacts of climate change, particularly temperature increases, are already being witnessed on natural and human systems around the world and are very likely to increase.

Rising greenhouse gas emissions not only threaten our environment, but have serious implications for global development and both economic and social well-being. The Small Island States Chapter of the Third Assessment of the IPCC implicitly concludes that climate change-induced sea-level rise, sea-surface warming, and increased frequency and intensity of extreme weather events puts at risk the long-term ability of humans to inhabit low-lying atolls (Barnett & Adger, 2003; Nurse et al., 2001). Environmental consequences for actions, such as sea-level rise, frequently occur on an extra-national scale. Unfortunately, international governance currently does not do justice to the breadth of environmental interrelationships between nations, nor to the profundity of the consequences of failure.

This thesis will attempt to analyse these interrelationships and the attendant impacts of global, regional and local responses to climate change in Kiribati – examining specifically the discourse and the security-development nexus in the approach and responses. These efforts are made in an attempt to offer a better understanding of how global, regional and local entities engage in dialogue and how they can more constructively harmonise actions to confront this staggering challenge.

Contextual Framework

The following sections will begin to establish the contextual framework of this thesis. The contextual framework will begin by outlining the two dominant discourses that will be discussed throughout the thesis: security and development. Although the intersection between security and

development is imprecise, within the climate change domain the contextual framework provided below will introduce overlaps and intersections.

Following the contextual introduction of the two dominant discourses, the framework for examination at a regional scale is established by providing background on climate change in the wider Pacific. After the Pacific landscape is established, the contextual framework is then provided at the local scale by introducing climate change vulnerabilities, responses, and policies in Kiribati.

Climate change and the intersection with security and development.

The breadth of the environmental interrelationships between nations, and the potential consequences of failing to recognise those linkages, are highlighted by the security-development nexus in regards to the effects of climate change. Climate change, as an issue impacting human security and development, is an increasing area of study and political focus. For the United Nations General Assembly (UNGA), climate change as a threat to human security is not an entirely new concept. Based largely as a follow-up to the 2005 UN World Summit (A/RES/60/1), UNGA President Srgjan Kerim convened the General Assembly's first thematic debate on human security on 22 May 2008. President Kerim and keynote speaker Prince El-Hassan bin Talal of Jordan urged member states to consider the multifaceted nature of human security – with climate change emerging as one of the primary factors that member states regarded as affecting human security (Kerim, 2008).

Although lacking formal agreement, the debate concluded with a suggestion by Talal that regional human security centres be established to consider three "pillars" of human security, as follows: development, human rights, and security (Talal, 2008). In addition, the profound interlink among these three pillars was recognized by member states during this debate. By promoting the idea of an integrated and coordinated approach to security, proponents of human security have further underscored this interdependence.

Historically the term human security was coined to shift the focus of security from the state to the individual, to emphasize the right to freedom from fear and want. Talal suggested that the global response to climate change "depart from the familiar dichotomy between security as the *defense of states* and security as *a personal right,* and offer a different perspective, viewing this question through a wider lens, a lens which captures the full gamut of interpersonal, community-oriented and culturally-founded relationships which take place between the levels of individual and state" (Talal, 2008) [*emphasis in original*]. Talal (2008) advocated this integrated approach as the best way to implement effective and collective action toward the advancement of human security.

The explicit merging of human security issues and development on an international scale followed in the wake of multiple conflicts in the early 1990s (for example, in Kosovo, Rwanda and Somalia). The breadth, scope, and the global implications of these internal conflicts prompted the emergence of a discourse regarding the causes and consequences of these conflicts - coined the

'security-development nexus' (Duffield, 2001). The merging of these disciplines within development policy was an implicit recognition that development played an instrumental role in achieving and sustaining security (Duffield, 2001). The security-development nexus is explained most clearly by Duffield (2001) as a "circular form of reinforcement and mutuality, achieving one is now regarded as essential for securing the other" (p. 16). The foundation of this relationship rests on the understanding that development is ultimately impossible without stability and, at the same time, security is not sustainable without development (Duffield, 2001, p. 16). Climate change, as an issue impacting both human security and development, also relies on this premise.

For the purpose of this thesis, and in order to constructively analyse this relationship, the etymology and historical context of security and development will be carefully established in Chapter Two - Climate Change and the impact on Human Security and Development. The next sections within this chapter will be devoted to establishing the contextual framework for local, regional, and international responses to climate change in Kiribati. In closing this chapter will introduce the thesis structure and chapter outline.

Climate change in the Pacific.

The framework for how the regional scale will be examined is established in this section by providing background on climate change issues and responses in the Pacific. Climate change is an issue of high importance in the Pacific and for many PSIDS, climate change is threatening their very sovereignty and existence – arguably, a violation of governmental rights to sovereignty and human rights to self-determination (Barnett, 2001c). The loss of any of the PSIDS to climate change would have a constellation of serious follow-on effects for the security, development and well-being of people and the environment within and without the region. Arguably, climate events which lead to the loss of Small Island Developing States (SIDS) present an existential crisis for inter-governmental relations (Barnett & Adger, 2003).

As Barnett and Adger (2003) argue, for all states to do less than everything possible to prevent the loss of a sovereign entity is to undermine the most powerful norms of international law and politics, and compromise development, security and the protection of human rights. "Sovereignty is the right of political entities to be free from outside interference… [and] is the core value underlying national security practices" (Barnett & Adger, 2003, p. 333). Considering the influence of external nation-states in this context illustrates that the wholesale failure of international governments to decrease greenhouse gas emissions is working against the self-determination and sovereignty of another. As such, greenhouse gas emissions by sub-national actors, insofar as they impact the sovereignty of external nation-states, are political acts (Bartlett, 2002). Governments which countenance greenhouse gas emissions through a failure to regulate sub-national actors are by

extension impinging on the sovereignty of other nation-states (Barnett & Adger, 2003; Bartlett, 2002).

The challenge for the international policy process, centred on the United Nations Framework Convention on Climate Change (UNFCCC, 1992), is to recognize the particular vulnerability of atoll countries by operationalising international norms of justice, sovereignty, and human and national security in PSIDS (Barnett & Adger, 2003). Within the Pacific Islands context, there are multiple countries that could be considered highly vulnerable to the effects of climatic change, but for the purpose of this thesis and for the reasons outlined in the following sections, Kiribati will serve as the exemplar for illustrating the local responses to climate change.

Climate change in Kiribati.

While Kiribati is geographically isolated, the political, environmental, and human consequences of its destruction through climate change would be observable on a global level (in terms of undermining basic norms of international law and politics), on a regional level (with migration) and obviously on a local level (as food and water security, human security and human rights are compromised).

Kiribati is currently an independent republic – a member of the Commonwealth since their independence in 1979 and a member of the United Nations (UN) since 1999. Kiribati is an atoll island nation consisting of only one high-lying island and 32 low-lying atolls (with a total land area of 811 square kilometres) in the Pacific Ocean (Loughry & McAdam, 2008). Roughly equidistant from Australia and Hawaii, it is one of only five countries worldwide comprised predominantly of low-lying atolls. The majority of the land of Kiribati is less than three metres above sea level, with the average atoll width of a few hundred metres. Sea-level rise is conservatively predicted to rise 20-43cm over the next century, and, recognizing the physical limitations of the country, it is easy to understand how profound the impact of climate change would be for Kiribati (United Nations, 2007a, p. 9).

In the Otin Taai Declaration that emerged in 2004 from Tarawa, the capital of Kiribati, the Declaration acknowledges that human-induced climate change will have an extensive range of negative impacts for the people of Kiribati (known as I-Kiribati) and on peoples of neighbouring Pacific Island Countries. These effects include: loss of coastal land and infrastructure due to erosion, inundation and storm surges; increase in frequency and severity of cyclones with risks to human life, health, homes and communities; loss of coral reefs with implications for the sea ecosystems on which the livelihood of many islanders depends; changes in rainfall patterns with increased droughts in some areas and more rainfall with flooding in other areas; threats to drinking water supplies due to changes in rainfall, sea-level rise and inundation; loss of sugarcane, yams, taro and cassava due to extreme temperatures and rainfall changes; and human health impacts with an increase in the

incidence of dengue fever and diarrhoea (Loughry & McAdam, 2008; World Council of Churches, 2004).

Today Kiribati has a population of 110,000, with forty percent of the population under the age of fourteen (World Bank, 2008). The capital and urban centre in South Tarawa is densely populated (over half of the population currently live on this single atoll) and there is increasing concern about the impact of overcrowding and unsustainable development (NZAID, 2004). Kiribati's per capita GDP is low by Pacific standards. There is, however, little extreme or absolute poverty in Kiribati as most household incomes are supplemented by traditional subsistence living (gardening, fishing, etc.). Together with the traditional kin-based redistribution of wealth, a materially poor but adequate lifestyle is achieved by most I-Kiribati. The subsistence lifestyle is largely dependent on wild stocks of fish coconuts, giant taro, breadfruit and bananas.

For Kiribati, even when environmental effects were only a nascent concern and long before the implications of climate change were recognized, it was noted that few nations have ever had such limited prospects for development, have gained so little from their limited natural resource extraction, or had such disproportional burdens loaded on their fragile environment (Roy & Connell, 1991). Ecologically, atolls typically have little land or fresh water and are vulnerable to coastal erosion, tidal variations and rises in sea level making Kiribati's atolls among the planet's harshest environments. With the effects of climate change, I-Kiribati fear that inundating seawater and erosion will compromise their limited arable land; in addition there is the real possibility that heavy storms and storm surges will contaminate their limited groundwater lenses. As one of the main sources of drinking water, groundwater lenses are critical for survival, but can easily become contaminated with runoff during heavy storms and storm surges (AusAID, 2007).

One natural defence that Kiribati has against the deleterious effects of storm surges (and the possibility of groundwater contamination) can be found in the coral that forms a barrier around Kiribati's reefs and atolls. However, this delicate balance is compromised because coral growth in recent years has not been proportional to sea-level rise. In addition, warmer temperatures have led to the bleaching and degradation of the coral reefs - coral does not tolerate changes in water surface temperature or rising ocean CO_2 levels (UNFCCC, 1999; United Nations, 2007a).

With an estimated 80 percent of households sustaining their livelihoods through fishing, the I-Kiribati are heavily dependent on the health of their nation's immediate surroundings (New Zealand Ministry of Foreign Affairs and Trade, 2008, p. 8). The disintegration of coral is therefore problematic not only in terms of protection against groundwater contamination and coastal erosion, but also with regard to preserving food security, sustainable livelihoods, and economic resources.

Beginning in the 1990s, when faced with climate change risks that touch all aspects of their social, economic and ecological life, the government in Kiribati developed an integrated response linking national and regional planning - working to produce climate change risk assessments and to

implement adaptation measures accordingly (Watkins, 2007). Kiribati has also been a State Party to numerous international treaties and other international agreements in an effort to encourage the establishment of an effective regime of environmental protection. Kiribati is a party to various international environmental agreements: Biodiversity, Climate Change, Climate Change-Kyoto Protocol (1997), Desertification, Hazardous Wastes, Law of the Sea, Marine Dumping, Ozone Layer Protection, Whaling (Central Intelligence Agency, 2008, p. 7). The Kiribati government has continued to actively participate in further international initiatives in this area (Olowu, 2007) making it a particularly relevant country to elucidate the interrelationship between global, regional and local policy with respect to climate change in PSIDS.

In 2002 Kiribati was ranked 11th of 14 Pacific island countries and 129th in the world according to the United Nations Development Programme's (UNDP) Human Development Index (United Nations, 2002a, p. vi). In terms of infant and child mortality, per capita GDP, and access to water and sanitation, Kiribati ranks among the lowest in the Pacific region (United Nations, 2002a, p. vi). The incidence of HIV/AIDS has risen alarmingly; and women's participation in decision-making is improving but remains relatively low (United Nations, 2002c, p. 33). Additionally, Kiribati is characterised by the UNDP as a Least Developed Country (LDC) with the implication being that the population of Kiribati is in a highly vulnerable position when faced with the prospect of future climatic variability and relative sea-level rise (United Nations Development Programme, 2009). Kiribati exemplifies to an extreme degree the severe development challenges facing a small, geographically fragmented and resource-poor island state during a period of rapid global change (environmentally and economically). However, the I-Kiribati have the advantages of a strong and resilient culture, a highly egalitarian society (excluding gender related issues), strong democratic principles, extensive marine resources, remittances from I-Kiribati working abroad, and a record of prudent fiscal management (Pretes & Gibson, 2008; United Nations, 2002c).

Climate Change in Kiribati.

The fact that Kiribati has exhibited a high level of responsiveness to international initiatives, has made direct overtures to regional powers, and has implemented numerous national policies related to issues arising from climate change, makes it an exemplar for examining this relationship. Building on the contextual framework, a general overview of the responses to climate change will be provided, with particular attention to the local, regional and international entities that have been chosen for this thesis: the UN (as the IGO), New Zealand (as one of the regional powers) and Kiribati (as the local government of the affected country). By presenting the responses to climate change within the nested domains of local, regional, and international entities, the parameters of the inquiry frame the issue and provide a logical point of first consideration.

One of the most articulate and clear responses is a recent UN General Assembly Resolution, "Security and climate change". The PSIDS initiated work and tabled a resolution before the General Assembly recognising climate change as an international human security issue. On September 2, 2008, Kiribati (among 15 other PSIDS) announced their intention to table a draft resolution in the UN General Assembly, requesting the UN Security Council to consider and address, as appropriate, the threat posed by climate change to international peace and security. The PSIDS are: "[d]eeply concerned that the adverse impacts of climate change, including sea-level rise, may trigger population relocation and threaten the territorial integrity and sovereignty of some states, thus endangering international peace and security" (Pacific Small Island Developing States Permanent Mission to the United Nations, 2008, p. 2).

The Resolution seeks to establish a direct link between the adverse effects of climate change (such as rising sea-levels) and issues of international peace and security (such as population movement and territorial integrity). The PSIDS' draft resolution follows two key General Assembly debates on climate change: "Addressing Climate Change: The UN and the World at Work", (11-12 February 2008) and Human Security (22 May 2008). The key point of the PSIDS draft Resolution is to suggest that the adverse effects of climate change are irrevocably linked to issues of human security and development.

The PSIDS' draft resolution notes that the General Assembly is tasked with bringing "situations which are likely to endanger international peace and security" to the attention of the Security Council (under Article 11 of the UN Charter). Recognising the goals established under the 1992 UNFCCC, the draft Resolution seeks to establish climate change as an international peace and security issue of immediate concern, leading to three concrete actions:

1. To bring the issue of climate change before the Security Council;
2. To have the Security Council develop a set of core recommendations with regard to climate change and international peace and security; and
3. To have the Secretary-General prepare a report on the Security Council's progress of work and actions taken on the international peace and security implications of climate change during the 63rd Session

(Pacific Small Island Developing States Permanent Mission to the United Nations, 2008, p. 1). The PSIDS draft Resolution, however, represents only one action of many in a complex context of resolutions, goals, initiatives and regulations decided in local, national, regional or global assemblies, this resolution will be discussed in greater length in Chapter Three: Climate Change Policies and the United Nations, New Zealand, and Kiribati.

Responses

Regional responses to climate change in Kiribati.

Especially within an expanse as scattered as the Pacific, regional responses form a significant component of responding to the effects of climate change. Regional responses are not merely an adjunct to local responses, as climate change impacts are not constrained by national boundaries, and regional cooperation is often the only means of appropriately addressing impacts and decreasing vulnerability. Encouraging regional cooperation to address climate problems is particularly relevant in a Pacific Island context due to the geographic isolation and financial constraints. In addition, regional organizations are able to access and share information, resources and unify actions. Regional organizations are able to view adaptation to climate change within a broader context, mobilize resources, and help ensure that projects are as efficient and as effective as possible. Commensurate with the impacts, the response should likewise cross boundaries and sectors through regional cooperation, drawing together disparate groups and sharing information that bridges multiple sectors and government agencies.

For Kiribati, an important regional organization responding to climate change is the South Pacific Regional Environment Programme (SPREP) which was established in the 1980s by the governments and administrations of the Pacific region to deal with environmental concerns. In the 1980s Pacific island governments identified the need for SPREP to serve as the conduit for concerted environmental action at the regional level (South Pacific Regional Environment Programme, 2009). The establishment of SPREP also signifies a clear signal to the global community of the deep commitment of the Pacific island governments and administrations towards sustainable development. Based in Apia, Samoa, SPREP is one of the Pacific region's major intergovernmental organizations and since its inception as a small programme attached to the South Pacific Commission (SPC) in the 1980s, SPREP has grown in numbers currently including over 70 staff (South Pacific Regional Environment Programme, 2009).

Regional cooperation is also evidenced by aid from major bilateral donors which include the United Kingdom, New Zealand, Australia and Japan. Significant governmental actors such as AusAID and NZAID (the Australian and New Zealand governments' overseas aid programmes), and the European Union have invested in adaptation projects working to increase awareness in Kiribati of the effects of climate change and developing infrastructure such as building higher and stronger sea walls (Asian Development Bank, 2004; New Zealand Agency for International Development, 2007; Republic of Kiribati, 2007).

As one of the major regional powers that will be discussed in this thesis, New Zealand participates actively in international meetings and discussions on climate change. New Zealand's participation includes the Conferences of the Parties (CoP) to the UNFCCC, meetings of the Parties to the Kyoto Protocol and its two Subsidiary Bodies on Implementation and Scientific and Technical Advice (New Zealand Ministry of Foreign Affairs and Trade, 2008). New Zealand is committed to

the objective of a global climate change regime with participation by all major emitters and gives noted consideration to the effects on PSIDS: "New Zealand has a particular interest in advocating on behalf of vulnerable Pacific Island nations in this regard" (Ministry for the Environment, 2005, p. 19). Bilateral cooperation with other countries allows New Zealand to maintain a dialogue on international developments, while learning from and contributing to a range of climate change responses (Ministry for the Environment, 2005, p. 20). New Zealand has established climate change partnerships with Australia and the United States to enhance dialogue and practical cooperation on climate change issues. The partnerships predominantly involve collaboration at an implementation level. A key area of cooperation with Australia includes working with Pacific Island countries to address regional challenges posed by climate change (Ministry for the Environment, 2005).

International responses to climate change in Kiribati.

At the international-national nexus, UNDP and other in-country UN bodies play a key role in facilitating collective action for managing climate change and sustainable development. UNDP supports national Governments, including the Government of Kiribati (GoK), and works to engage other national stakeholders (non-governmental organizations, community-based organizations, universities, research institutions and the private sector) (United Nations General Assembly, 2008).

According to the UN Development Assistance Framework for Kiribati (2002), the UN role is defined as "more suitably and significantly being [used] to catalyse the involvement of the Government or members of the donor community in a range of initiatives" (United Nations, 2002c). In addition, UNDP, in coordination with the Global Environment Facility (GEF), is working within Kiribati to improve the capacity to understand climate change issues and work to integrate the national climate change strategy into national development planning and policy framework (United Nations, 2002c). However, there are a number of strong intergovernmental organizations, such as the Alliance of Small Island States (AOSIS) with many Pacific Island States participating, the Pacific Islands Forum (PIF) and the Council of Regional Organisations in the Pacific (CROP) that play key roles in facilitating collective action for managing climate change and promoting and implementing strong policies.

The interaction between the UN and Kiribati, the adoption of the national strategy by the GoK, and the integration of Kiribati's national report into local development (prepared and submitted as required under the UN Climate Change Convention) will be analyzed in Chapter Four. Concentrating on the period 1996-2009, these interactions, as evidenced by regional and local initiatives, development assistance, and policy responses in Kiribati, will inform the bulk of Chapter Four. Further details on both the regional and international responses will be provided in Chapter Three - Climate Change Policies and the United Nations, New Zealand, and Kiribati.

Research Approach

Aims.

There are two broad aims of this thesis: to assess the evolution of policy responses to climate change in Kiribati and to analyse the implications of those policy responses. The first aim is to outline the evolution at the international, regional and national levels, with specific focus on the United Nations, New Zealand and Kiribati. The second aim is to provide an empirical basis for understanding policy responses with respect to climate change in Kiribati

Objectives.

The aims will be addressed through three main objectives:

- To assess the three different scales of policy making: global, regional and local as they relate to climate change and Kiribati;
- To discern what type of role the discourse from the United Nations, New Zealand (among other regional organisations) and Kiribati has played in shaping policy and the development of climate change responses in the Pacific; and
- To identify commonalities and differences in responses across international/regional/local policies regarding climate change and PSIDS.

Introduction to methods applied within thesis.

Building on the aims and objectives – namely, to assess the evolution of policy responses to climate change at the international, regional and national level and their implications, three research methods were chosen. The three prongs include: 1) document content analysis (using proximity keyword searching within key policy documents); 2) semi-structured interviews; and 3) a close textual reading of key climate change documents.

Few studies have systematically examined the relationship between intergovernmental organisations (IGOs), regional powers and local governments' policy responses to climate change. Each of the methods employed are designed to enable the influence of climate change policies in Kiribati, and the intersection with security, and development to be determined. Working to address the stated objectives, document content analysis will identify keywords within policy documents in order to identify commonalities and differences in responses. Semi-structured interviews and close textual readings of key climate change documents form the basis of exploration of the three different scales of policy making. More details will be provided in Chapter Four – Methods.

Introduction to discourse analysis.

For this research, and to serve the objectives of the methods most appropriately, discourse analysis seemed to provide the most useful structure for exploring the different scales of policy making in the climate change domain. 'Discourse analysis' is a term which has come to have different interpretations for scholars working in different disciplines. At least since the 1970s, a critical body of thought has shadowed the mainstream policy analysis literature, offering an alternative way to think about policy analysis that places much more emphasis on discourse, narrative, and participatory democracy (Healey et al., 2002). The principle concern for discourse analysis is to offer insight on how language, whether spoken or written, can be used to communicate for a purpose within a given context (Brown & Yule, 1983). For the purposes of this research, discourse analysis will be used to discern what type of role the discourse from the United Nations and New Zealand has played in shaping policy and the development of climate change responses and to identify the commonalities and differences in the responses. Therefore, using discourse analysis as a methodological framework, this thesis will analyse the rhetoric of climate change policies at the local, regional and national level focussing specifically on the intersection between security and development discourses. The data used in this thesis will consist of key policy documents – United Nation's resolutions and draft resolutions, thematic debates on climate change, and relevant minutes of the Security Council's deliberations. This thesis aims to show how 'security' and 'development' must be understood not just as arenas where political struggles play out, but as discursively constructed concepts that consciously and unconsciously are used as a means of power in political processes. A more thorough introduction to discourse analysis will be provided in Chapter Four – Methods.

Thesis structure and chapter outline.

The following section will briefly describe the structure of the thesis and outline the current and subsequent chapters. Chapter One serves as the introduction to this thesis and establishes the contextual framework and the aims and objectives of the thesis.

Chapter Two will expand on this introduction by providing a review of the existing literature and establishing the philosophical framework for this research. The philosophical level (specifically as it affects and influences policies developed), and the nexus between security, development and human rights, will also be examined in this chapter.

Drawing on the framework provided in Chapter Two, Chapter Three will give a comprehensive overview of the evolution of climate change policies at the three different scales (United Nations, New Zealand, Kiribati) and provide context for the multi-scalar interactions in this environment. Chapter Three will analyse how the effects of climate change are impacting PSIDS

from a policy perspective by examining the effects on policy, while highlighting the interplay between human security and development.

Chapter Four describes the research process and research methods employed in the thesis, detailing how the research methods were employed. Utilising discourse analysis as the cornerstone of the research, a triangulation of methods was used (interviews, critical reading, and document content analysis) and these will be described in Chapter Four.

Chapter Five is the analysis and results section. This chapter is devoted to identifying which discourses exist at each level and scale. Two dominant discourses are identified working within the three different scales. A discussion of the discourses and scales within this chapter attempts to quantify a broad thematic understanding of how climate change responses are evolving and developing. The chapter works to analyse precisely how the climate change debate is shifting within the Pacific using document content analysis, semi-structured interviews and critical reading with discourse analysis as the foundation.

Chapter Six utilises the research findings described in Chapter Five to examine the practical and philosophical implications of how the climate change debate is shifting within the Pacific. Chapter Six outlines the research conclusions and revisits the aims and objectives that are outlined in this chapter.

Chapter Summary

Beginning with a discussion of climate change and the intersection with security and development, this chapter introduced the two discourses (security and development) and the three different scales (local, regional and international) that form the basis of this thesis.

The Pacific is a fascinating region to study. With unparalleled biological and cultural diversity, the countries in the South Pacific Ocean can serve as exemplars of the effects of climate change. The effects of climate change in this century differ based on various projections, but in every scenario, sea level rise and the intensity and frequency of extreme weather events will increase. In the Pacific these effects are particularly dramatic. The IPCC explicitly recognises that PSIDS do not contribute to climate change, but are particularly vulnerable to it (Intergovernmental Panel on Climate Change, 2007, p. 15).

However, although Pacific Island countries are amongst the most vulnerable to the impacts of climate change, they are also simultaneously at the forefront of international efforts in addressing the causes and consequences of this global phenomenon. Kiribati's presence and involvement in the international discourse (as is the case with other Pacific Island countries as well) is disproportionate to their size and geographical fragmentation, but proportional to the gravity of the situation they are facing. With an increased understanding it is hoped that meaningful and effective action on climate

change can take place within the Pacific. As we move forward our actions should be rooted in a firm understanding of the issues and marked by meaningful collaboration on different scales.

Chapter Two - Literature Review and Philosophical Context

Introduction

Chapter Two will begin with a literature review that examines the existing enquiries on the interrelationship between global, regional and local policies. Particular attention has been given to finding work related to this interrelationship and climate change in PSIDS. Following the literature review, and the introduction of the existing research, this chapter will focus on establishing a basis for analysing the security and development intersections within the climate change discussion. This chapter will also expand more precisely the philosophical framework for understanding the interrelationship between international, regional and local responses to climate change.

Literature Review

With the emissions of carbon dioxide and other greenhouse gases respecting no political or administrative boundaries, climate change is a borderless phenomenon, both in terms of how it is induced and how it can and should be counteracted. It follows that local climate protection must be dealt with at all levels of society; climate protection is therefore part of a complicated multilevel governance chain (Cash & Moser, 2000; Gustavsson et al., 2009). The crucial problem facing scientists and policy-makers today is how to translate the existing knowledge on the environmental effects of climate change into adequate policy responses. One part of this problem is the lack of existing research on the interactions between the micro and macro scale of policy responses, and the interrelationship between the two (Cash & Moser, 2000; Schneider & Root, 1996; Wilbanks & Kates, 1999, p. 30).

Berger (2003, p. 4) describes governance as a "multi-level government involvement", which necessitates the greater involvement of all tiers of government—with a special emphasis on the regional and local levels—in the design, formulation and implementation of policies. While each step of the policy-making process is necessarily carried out at the appropriate level, all levels are inter-related. Understanding how this multilevel approach functions is crucial to enhancing the efficacy of policies, encouraging dissemination of information at the local level, and facilitating appropriate actions.

To date, climate change has primarily belonged to the national and international level as a democratic governance issue, with the Kyoto Protocol and the UNFCCC being the main institutional apparati for handling the problem. There is recognition that the existing institutional structure for improving the global environment needs strengthening (Elliott, 2007; Evans & Stevens, 2010). Local climate policy came into its own as a complement of the international instruments during the 1990s, and was established as a sovereign policy domain (Elliott, 2007; Per-Olof et al., 2005). In recent years, as we have seen a shift from sectorally fragmented and regulatory approaches towards a

greater use of voluntary, or market-based regulatory instruments, it has become evident that local level action can be an important supplement and integral component to climate change actions at other levels of governance (Bulkeley & Betsill, 2003; Collier & Hoeffler, 2000; Per-Olof, Jörgens, & Tews, 2005).

According to the UN, partnerships between NGOs, the United Nations system, international organisations and UN member states are essential to make progress to address climate change, both on adaptation and mitigation (United Nations Development Programme, 17 July 2009). Currently, new alliances are forming that are redefining the traditional dividing lines; modern ways of management are changing the role of the nation state. As the primary international body, the UN notes:

> Facilitating engagement and partnership with civil society and the private sector has become an important feature of the UN system's contribution toward a global response to climate change. However, tackling this collective concern requires solutions at all levels, including cooperation and linkages across traditional boundaries that separate government, NGOs, business and other civil society actors (UN Background Paper General Assembly Thematic Debate – 2008).

As a credible foundation for long-term international cooperation on climate change is built, partnerships and cooperative action by all stakeholders are vital to advancing the global effort to respond (McKibbin & Wilcoxen, 2007). Eckerberg and Joas (2004) analyse the multilevel governance system in an effort to understand the new alliances that are forming and suggest that there has been both a vertical and horizontal shift. They contend that: "*vertically*, we have seen a movement of political power upwards to trans-national levels of government, while sub-national levels of government are gaining more power" and "*[h]orizontally*, we have seen a shift of responsibilities from governmental actors towards non-governmental actors" (Eckerberg, 2004, p. 407) [*emphasis in original*]. Eckerberg and Joas (2004) posit that this shift can be noticed across all societal domains.

Supporting Eckerberg and Joas's theory, that non-governmental actors and sub-national levels of government are gaining more power, current trends suggest that the climate science community has a growing interest in obtaining more specialised and localised data (Cash & Moser, 2000, p. 109). Specifically, "*local*-scale data that can increase the accuracy and predictive capabilities of *global* climate models" (Cash & Moser, 2000, p. 109). Inversely, scientists are also responding to the demand of policy-makers to assess potential *local* impacts of *global* climate change and to produce policy-relevant information that can be used on *regional* and *local* scales. In addition, decision-makers from the *local* through the *global* scales are attempting to understand how mitigation and adaptation measures on one scale might constrain or provide opportunities at other scales (Cash & Moser, 2000; Intergovernmental Panel on Climate Change, 1995; Wilbanks & Kates, 1999) [*emphasis mine*].

Today, in our globalised world, Gustavsson and other scholars suggest that one has to contemplate the very definition of "governance" as a multi-sectoral, multi-level and multi-actor phenomenon when examining the interactions between the local, regional and global scales (Berger, 2003; Bogason, 2000; Gustavsson, Elander, & Lundmark, 2009). According to Gustavsson et al. (2009), recognition of this multilevel governance chain must guide any study of emerging local climate policies and should take into consideration the power relations between different institutions and the totality of societal actors (Gustavsson et al., 2009). In addition, this phenomenon must be teased apart in order to constructively analyse the negotiation and implementation of policies at the local level.

The inclusion of a local scale is acknowledged as noteworthy for a number of reasons (Kousky & Schneider, 2003; Löfstedt & Collier, 1997; Qi et al., 2008; Young, 1995). As nations have debated details of the Kyoto Protocol, the first government to effectively adopt an emissions reduction target was a city in North America: Toronto, Canada (Young, 1995). Since then there have been case studies that have shown that municipal action, particularly within the United States, has been proactive and effective (Barrett & Usui, 2002; Kousky & Schneider, 2003; Löfstedt & Collier, 1997; Qi, Li, Huanbo, & Huimin, 2008; Young, 1995). A growing number of scholars are pointing to the reality that the European Union, Japan, and to a lesser extent the United States, are leading the establishment of climate change policies and targets at the state and local levels (Schreurs, 2008).

In this context Kousky & Schneider (2003), for example, interviewed local officials and staff members from 23 cities who were part of the International Council for Local Environmental Initiatives' Cities for Climate Protection campaign. Interview questions addressed what the decision-making process and motivation had been when each city decided to join the campaign. The interviews suggest that local mitigation policy is predominantly a top–down decision based on what officials or staff members believe to be "good business" or rational economic and political choices (Kousky & Schneider, 2003, p. 3). In the majority of cities, policy is not driven primarily by widespread public pressure, nor wholly for climate protection, but instead, justified by cost savings and other perceived co-benefits (Kousky & Schneider, 2003, p. 3).

In addition to Kousky & Schneider's (2003) research, a recent qualitative analysis was used to understand the factors contributing to municipalities' decision to adopt the Climate Change Protection program in Australia, Canada and the United States (Vasi, 2007). Vasi's research shows that the diffusion of environmental programs is simultaneously influenced by processes operating within nested structures "at the local level, the nation-state level, and the world environmental regime level" (Vasi, 2007, p. 128). However, in the U.S. case, some academics and practitioners note that while there have been state, regional and local initiatives towards regulating climate change, these programs often do not have the capacity to effect change as extensively as federal action would (Abate, 2005, p. 385; Aldy & Stavins, 2008). State regulation has limited efficacy because state

governments (like smaller countries) have limited resources and lack the authority to implement a comprehensive climate change policy. Further, due to the ad hoc nature of sub-national implementation inefficient and unpredictable policies can result.

In response to these inefficiencies Aldy and Stavins (2008) argue for an expansion of current perceptions regarding the importance of national policies: because national governments maintain their sovereignty when they establish international institutions, the design of policy architectures should focus on national and—in some cases—regional institutions (p. 11). While legitimating decision making processes at local and global levels is important for initiating the adoption of environmental practices, legitimating processes at the nation-state level is crucial for their rapid implementation (Aldy & Stavins, 2008; Vasi, 2007, p. 114).

In Japan, for example, there is some tension between international and national initiatives. In 1993, in response to the Rio Earth Summit, the national Environment Basic Law was enacted which established guidelines for both central and local government, "the latter being responsible for the formulation of their own action plans concordant with specific locally determined needs and priorities" (Barrett & Usui, 2002, p. 8). One of the biggest issues for local environmental officials in Japan has been how to balance the competing approaches specified under Local Agenda 21 and Environment Basic Law (Barrett & Usui, 2002, p. 8). Empirical evidence suggests that Local Agenda 21 is beginning to make a difference to the structures and local policy processes in a very limited number of smaller local authorities and there are case studies which confirm that Local Agenda 21, "has been utilized as a conduit for civic engagement that complements, rather than distracts from, the traditional Environment Basic Law process" (Barrett & Usui, 2002, p. 14). Nonetheless, this internal tension within initiatives and the broader tensions between international and national initiatives are not fully resolved.

In neighbouring China, climate change - largely ignored as a problem in the past - has suddenly become a high priority of provincial and prefectural governments (Qi et al., 2008). It is observed that the mandate from the central government, internal needs, and the international market are three primary factors that transformed local governments' responses to climate change (Qi et al., 2008). The findings suggest that within China, while allowing that the primary characteristic of the Chinese government has heretofore been a unitary system with a strong hierarchy authority, "the central government will remain the most important player directing national, regional, and local responses to climate change, but its role needs to be complemented with local initiatives" (Qi et al., 2008, p. 380).

In Europe, regions are identified as a particularly appropriate level for sustainable development and related issues of policy making (Berger, 2003). That said, in general, environmental policy in Europe adopts a top-down approach (Löfstedt & Collier, 1997). Case studies examining climate change policies in Sweden and the UK assess the opportunities for, and obstacles to, the

implementation of local authority climate change policies under differing circumstances – environmental proactiveness and local competence (Löfstedt & Collier, 1997). While in principle, a considerable potential for climate change policies at the local level exists, the Swedish and UK case studies illustrate that the actual results depend both on the competencies and past achievements of local authorities (Löfstedt & Collier, 1997, p. 38).

To date, with more than 400 multilateral agreements created to address climate change, and with new treaties continually being added, it is important to analyze the ways in which systems to address climate change could be strengthened (Susskind, 2008, p. 5). Top-down architectures, such as those based on multilateral agreements with attendant targets and timetables may not provide incentives that are robust enough for participation and compliance at the local level. Some contend that the global environmental treaty-making system is not working very well because of this very lack of diffusion (Susskind, 2008). Susskind mentions that some of the biggest concerns are: the system for creating and enforcing multilateral agreements is still relatively undeveloped; ongoing North-South tensions get in the way; and there are few incentives for treaty compliance and few penalties for non-compliance (Susskind, 2008, p. 7).

To circumvent the disadvantages of global institutions some visions of the successor to the Kyoto Protocol attempt to harmonise actions across much stronger national and regional institutions. Warwick McKibbin of Australian National University and Peter Wilcoxen of Syracuse University propose a "Coordinated National Cap-and-Trade" architecture that relies on the strength of domestic institutions (McKibbin & Wilcoxen, 2007). For example, in Ireland, trans-national networks of local authorities are an emerging feature of multilevel governance and they have been heralded as a means to improve the implementation of climate change policy on the ground (Davies, 2005, p. 23).

Jorgenson (2005) argues that there has still been relatively little systematic research into local climate change policies and politics and few empirical studies that systematically analyze the environmental impacts of different forms of international power dynamics. Although there are by now many studies of climate change politics within specific countries and a growing number that make comparisons across states, few have local levels of government as a focus (Schreurs, 2008, p. 347). What is also missing from these ongoing efforts is a systematic way of thinking about and addressing the challenges involved in integrating these different scales of governance in a Pacific Islands context. Research is particularly absent in the Pacific and the PSIDS context, and made more problematic by distance and funding. There is a need to examine the political and institutional conditions leading to positive policies which are crucial components of climate change mitigation and adaptation efforts at the local level.

Furthermore, there has, until recently, been little research on urban and local initiatives and programs to address climate change, as well as the progress and problems local initiatives have encountered. However, there are some notable exceptions: Bulkeley & Betsill (2003) using case

studies from the United States and the United Kingdom, Davies (2005) using a case study in Ireland, and Kern (2001) using data gathered from major European cities (Bulkeley & Betsill, 2003; Davies, 2005) have provided the first insights into the interface between local and national/global climate change efforts. Building on research that has been conducted previously (Jorgenson, 2005; Per-Olof et al., 2005; Tsutsui & Wotipka, 2004), this research will contribute to understanding the current policy landscape with respect to climate change and SIDS and will work to examine the evolution of international, regional and national policy responses in this context, with a particular focus on how combining development priorities and climate objectives can mutually reinforce both (Davidson et al., 2003; Rai & Gurung, 2005).

Per-Olof et al. (2005, p. 147) gathered empirical data based on more than twenty environmental policy instruments and institutions in forty-three countries over a period of fifty years and found that "the global spread of new environmental policy instruments, then, could to a large extent be explained by the international diffusion of a new regulatory paradigm". Per-Olof et al.'s data concluded that the international spread of policy innovations were driven by information flows rather than hierarchical or collective decision making within international institutions.

The world, as evidenced by many of the studies outlined above, is already pursuing a hybrid bottom-up and top-down approach (blending international, regional, local initiatives) in responding and adapting to climate change. Parts of the world have pursued the multilateral Kyoto approach, while others, such as the United States, have taken unilateral action on climate policy. Modest plurilateral efforts, such as the Asia Pacific Partnership, have focused primarily on developing new climate-friendly technologies for use in the energy and industrial sectors. These efforts also reflect the emergence of bottom-up, multi-country agreements on climate-related issues. Finally, a number of quasi-unilateral commitments with serious climate change impacts have been made, from the European Union's January 2008 package of energy and environmental policies to China's Five Year Plan goal to cut the energy intensity of economic output by 20 percent (Barroso, 2008, p. 30).

After exploring the literature, it is obvious that the existing literature on global, regional and local responses to climate change is incomplete in terms of an explicit understand of the global/regional/local interrelationship and the ways in which the discourses of security and development factor in. The global, long-term nature of climate change necessitates a robust climate policy architecture that can provide the basis for multilateral and national actions. And, like Berger contends, "only when clear frameworks of rules, responsibility and accountability are discussed in an open manner can one find a way to understand policy making in an ever-changing society" (Berger, 2003, p. 219). Clear frameworks and a clear understanding of how multilateral and national actions are related will facilitate the development of more effective responses to the effects of climate change.

Security and Development Nexus within the Climate Change Discussion

Recognising that there is an absence in the climate change discussion on the ways in which the discourses of security and development factor in, this thesis will try to discern what type of role the different narratives have played in shaping policy. As Ogata and Sen (2003) note, "it is important, on one side, to see how the distinct ideas of human security, human development and human rights differ, but also to understand why they can be seen as complementary concepts" (p. 9). Formally delineating these concepts helps to identify a practical convergence that exists between them and supports the idea that "[m]utual enrichment can go hand in hand with distinction and clarity" (Ogata & Sen, 2003, p. 9). By linking 'rights' and 'risks' in practical actions and initiatives through inter-connected frameworks of human security and sustainable development, neither rights nor risks are under-emphasized; rather, actions must address and include both. Approaches that highlight both 'rights and risks' and cohesively merge human security, human development and human rights could bring us one step closer to practical effectiveness on the ground.

Understanding these relationships and the way these forces work may also provide a better knowledge of which policy instruments to use, what will have the most impact on outcomes and, ultimately, work towards the betterment of people's lives and the environment on which they depend. Human security and human development move the sustainable development field from a primarily needs-based focus to a rights-based focus in the quest of improving opportunities and capabilities (Ogata & Sen, 2003). Security and development can be seen as complementary concepts, which is important for the purposes of this thesis because both play an important role in the evolution of policy responses to climate change in PSIDS at the international, regional and national level.

Exploring the definition of security.

Security is becoming an increasingly important construct in the climate change discussions for PSIDS. Due to the lack of adequate responses to the effects of climate change from the development domain in PSIDS, appeals from the regional level have taken on a security focus as evidenced by recent resolutions and thematic debates. The chosen UN organs from the PSIDS have recently been the UN General Assembly and UN Security Council when a development focus might be more successful, humane and more philosophically compelling in the long term. In order to understand the significance of framing policies within a security domain, the philosophical framework, and modern understanding of security, must be established.

Security, in its most consistent sense, and the modern incarnation that informs international politics, is described as a condition, or an objective, that constitutes a relationship between individuals and states or societies. "The Latin noun 'securitas' referred, in its primary classical use, to a condition of individuals, of a particularly inner sort" (Rothschild, 1995, p. 64). The term 'securitas' denoted composure, tranquillity of spirit, freedom from care, it was: "the condition that

Cicero called the 'object of supreme desire' or 'the absence of anxiety upon which the happy life depends'" (Cicero & Yonge, 1899 as cited in; Rothschild, 1995, p. 64). As Rothschild notes, one of the principal synonyms for "securitas," found in the Lexicon Taciteum, is the German word "Sicherheit" or "Sicherheitsgefühl": roughly translated as describing the feeling of being secure (Gerber et al., 1903). The word later assumed a different and opposed meaning, still in relation to the inner condition of the spirit: it denoted not freedom from care but carelessness or negligence (Rothschild, 1995, p. 64).

Currently there is no definitional consensus for 'human security'. Part of this semantic ambiguity is due to the fact that the concept itself is inherently ambiguous (as it by definition encompasses a potentially unlimited list of threats) (Khagram & Clark, 2003, p. 134). However, despite being plagued by vagueness, the United Nations Development Program has fostered a definition for human security as "freedom from fear and want". There is, however, a normative vocabulary and understanding of human security emerging – one that is inextricably linked to human rights and development (UNDP, 1994; Florini et al., 1995).

Many of the basic principles of human security are deeply rooted in the philosophies of Montesquieu (1689-1755), Rousseau (1712-1778), Smith (1723-1790) and Condorcet (1743-1794), with the principles of state security rooted in the work of intellectuals such as Hobbes, Kant, and Grotius (Owen, 2004). Hobbes viewed security through a realist lens, a world where lives were "solitary, poor, nasty, brutish, and short", a world where we should give our obedience to the sovereign state – "for the actions of men proceed from their opinions, and in the well governing of opinions consisteth the well governing of men's actions in order to their peace and concord" (Hobbes, 1651). Kant viewed security in global terms and envisioned a quixotic sort of universal international order: a global society, based largely on the moral imperative of a common good as seen by its member nations (Haftendorn, 1991; Owen, 2004). Grotius, deemed by some to be the father of international law, believed that a more moderate international order was possible where international security would be provided by a balance of power amongst states with a social contract between them and their citizens (Haftendorn, 1991; Van Genugten & van Buitenlandse Zaken, 1999, p. 13).

Although each of these philosophers gave rise to a different school of international thought, all based the primary responsibility of protecting individual security in the hands of the state. This traditional view of security, where the focus was on ensuring the territorial integrity of sovereign states, was the dominant worldview until the end of the Cold War (when the traditional state-centred security that had dominated no longer had a focal point) (Owen, 2004). This traditional view also formed part of the discursive understanding of security by implicitly recognising the notion of vulnerability (Khagram & Clark, 2003; King, 2001).

In the late 1970s notions of security expanded from the military realm to include political, economic, social, environmental, and human components to security. The term 'human security' was coined to shift the focus of security from the state to the individual. The crucial contribution of this neologism was to "shift the referent object from the state to individuals who constitute humanity as a whole" (Dunne & Wheeler, 2004, p. 24). This major ideological and political shift (where territorial security was recognized as not being synonymous with human security and where territorial security does not ensure human security) was further influenced by the conflicts in Kosovo, Rwanda and Somalia in the 1990s. These conflicts, much as the end of the Cold War had done, challenged the primacy of military dogma in debates on the security of people and states (Duffield, 2001; Khagram & Clark, 2003).

The political responsibility for ensuring human security "is itself extended: it is diffused in all directions from national states, including upwards to international institutions, downwards to regional or local government, and sideways to nongovernmental organizations (NGOs), to public opinion and the press, and to the abstract forces of nature or of the market"(Rothschild, 1995, p. 5). Currently this responsibility to ensure security must be expanded to include local governments, international agreements, NGOs, public opinion, and the financial market. Although not an explicit definition, this conceptualization provides an example of how narrow the traditional paradigm has been, as well as how complex the expansion of the concept can become (Rothschild, 1995).

In addition to these major changes in the political landscape, the conceptualization of the factors influencing state and people's security has evolved. The threats to human security were originally conceived as threats to the survival and dignity of human beings, with the attendant protections emphasizing freedom from fear and freedom from want. However, the effects of poverty, internal conflict, over-population, environmental change and competition over finite resources are increasingly viewed as valid factors "threatening" the well-being of people and the territorial integrity of states. The resulting debate, as Raad et al. (2002) argue, to expand security has focused on three main dimensions: 1) expanding the threats to state security from the traditional military/political to the social, 2) inclusion of economic and environmental factors; expanding the realm of security to explicitly include people as well as states; and 3) expanding the definitions of security itself to incorporate physical safety, as well as basic needs and beyond that human dignity and capabilities (p. 5).

Human security focuses the analysis on who is vulnerable, how actions by people in particular places and conditions affect vulnerability, and what actions could be taken to reduce or mitigate vulnerability (Khagram & Clark, 2003). The emphasis on the security and sovereignty of individuals began to form the basis for the normative understanding of human security (Havel & Wilson, 1993). Havel et al. (1993) wrote, "the sovereignty of the community, the region, the nation, the state makes sense only if it is derived from the one genuine sovereignty – that is, from the

sovereignty of the human being" (as cited in Rothschild, 1995, p. 55). If we link the sovereignty of the human being to a core objective of development then we are reminded of Duffield's (2001) form of circular reinforcement, where security is not sustainable without development: "achieving one is now regarded as essential for securing the other" (p. 16).

As the objectives of the security infrastructure widen well beyond the preservation of state integrity, it is relevant to ask for elaboration on what does and does not constitute a security threat (Owen, 2004). For PSIDS the preservation of state integrity is at stake. "It is no longer viable for any state to assert unrestricted national sovereignty while acting in its own interests, especially where others are affected by its actions (Ogata & Sen, 2003, p. 12). Undeniably, with climate change there is an obvious inverse correlation between those that are effecting the change and those that are affected by it and with PSIDS this relationship is particularly dramatic.

Based on the traditional conception of security, with the state as the referent object charged with the responsibility to protect the integrity of the state, climate change (like interstate war and nuclear proliferation) is a genuine threat (Owen, 2004, p. 17). At the same time, human security, which places the individual as the referent object, with the responsibility being to protect the integrity of the individual, also shows that climate change is a genuine threat with repercussions including increased disease, poverty, higher number and greater intensity of natural disasters (Owen, 2004, p. 17; Risse, 2008).

Amartya Sen, an Indian economist, philosopher, and one of the pre-eminent scholars on development issues, draws upon economics, philosophy, political science and his own personal experiences to elaborate on development issues. Sen has played an integral role in developing the concept of human security in greater detail – positing that it is a fundamental part of broader development processes, integrally connected with securing human capabilities (Sen, 1998). According to Sen, there are distinct elements that lie at the core of the human security concept: a focus on individual human lives, the role of society and global social arrangements that are working to make individuals more secure, and the emphasis of protecting more basic human rights. To Sen, and encompassed in multiple contemporary definitions, security is as much a process as it is a condition, and one in which "the participants are individuals and groups as well as governments and states" (Rothschild, 1995, p. 56).

In 1994 the UNDP Human Development Report; *New Dimensions of Human Security,* which focused explicitly on the topic of human security, incorporated a broad understanding of human security – proposing that security should expand its scope by placing individuals at the core of security concerns, rather than focusing exclusively on states, territory and military questions concerns. However, a more recent report from the UN recognizes that this people-centred understanding of human security does not replace the security of the state with the security of people, rather it sees the two aspects as mutually dependent (Ogata & Sen, 2003).

In multiple reports (suggesting that a normative consensus is emerging) human security has been defined by four essential characteristics: 1) it is universal, 2) the components are interdependent, 3) it is best ensured through prevention, and 4) it is people-centred (United Nations Development Programme, 1994, pp. 22-25). The UNDP in their 1994 report proposed that threats to human security could be grouped in seven categories: economic security, food security, health security, environmental security, personal security, community security and political security (United Nations Development Programme, 1994, p. 23). Obviously, these categories are "neither exhaustive nor mutually exclusive, and they do not completely represent the fundamental or basic aspects of the idea" (King, 2001, p. 4). The definition for human security from UNDP, is: "Human security is the protection of the vital core of all human lives from critical and pervasive environmental, economic, food, health, personal and political threats" (United Nations Development Programme, 1994, p. 23). Axworthy (1999) criticises this formulation of human security as too broad a construct to be useful for security or foreign policy Owen (2004) however, would disagree; he posits that by grouping all possible threats into six categories, human security becomes both more manageable and analytically useful.

In the presence of globalization, climate change and the possible extinction of countries, the formerly dichotomous relationship between domestic and international politics, state sovereignty and individual rights becomes obsolete. State security must be extended to include supranational systems as well as the individual condition, and the range of included harms must be broadened to include serious threats to either. Additionally, for PSIDS, framing responses to climate change as a security issue seems particularly appealing and proportional to the gravity of the situation. As their safety, security, and livelihoods is impinged upon, the intersection of climate change and security is apparent.

Exploring the definition of development.

The intersection of climate change and security is apparent, but climate change affects all sectors of development, including agriculture, health, water, and infrastructure. Further, a development focus might be more humane and more pragmatic in guiding climate change responses in the long term. In order to properly understand the ways in which development interacts with how climate change responses are formulated, it is necessary to expand on the concept of development and its historical context.

If we were to attempt a brief timeline of the international conception of development, it would begin under the auspices of Sir William Petty (1690) and Adam Smith (1776). Influenced by these development predecessors, the field of development economics focused on broad, inclusive definitions and goals for human achievement and well-being (Petty & Graunt, 1899; Smith, 1776). Both Petty and Smith analysed the broader, systemic determinants of wealth and human capital, and

sought to understand the ways in which an individuals capacity to succeed could be enhanced (Petty & Graunt, 1899; Smith, 1776).

However, in the wake of the devastation of World War II, politicians and practitioners in international and bilateral aid agencies, together with the academic community and non-governmental organizations (NGOs), turned their focus to national income as the main object of development. This change was contemporaneous with the widespread application of national income and product accounts to measure economic activity (Eisner 1989). The basic premise was that human well-being was advanced primarily through economic growth (Eisner, 1989, p. 2; King, 2001). Eisner, however, noted his misgivings and questioned, "Do our measures really fit the theoretical constructs they are presumed to serve?" (Eisner, 1989, p. 2) Ravallion (1997) rebuts the misgivings, and theorizes that although there is no guarantee that economic growth will benefit the large numbers of people in the world who lack the access to market and non-market goods, "economic growth typically does reduce absolute poverty and promote human development" (Ravallion, 1997, p. 637). Gradually, and despite the continued debate, this narrowed focus on per capita income became the subject of criticism as dissatisfaction with improvements in the circumstances of the most impoverished nations mounted.

This dissatisfaction with development and the plight of the poorest in all nations spawned the "basic needs" movement in the 1970s, which emphasized achievement of a minimum standard for all as the first priority (Knowles & World Institute for Development Economics, 2001; Streeten, 1981). The 'human development approach', pioneered by the visionary economist Mahbub ul Haq captured and addressed some of these concerns when he released the first United Nations' Human Development Report in 1990 (Sagar & Najam, 1998).

The human development approach, and ul-Haq's work, has done much to enrich and broaden the literature on development and has heightened the recognition that income does not always predict other components of well-being. In particular, the human development approach has helped to shift the focus of development attention away from "an overarching concentration on the growth of inanimate objects of convenience, such as commodities produced (reflected in the gross domestic product or the gross national product), to the quality and richness of human lives, which depend on a number of influences, of which commodity production is only one" (Ogata & Sen, 2003, p. 8).

Development, as suggested by UNDP, must be focused on people (even though grouped by individual countries) rather than the security of their national boundaries, and on advancing health, education, and political freedom, in addition to economic well-being. Development was defined broadly as expanding people's choices in almost any relevant way. To enhance dialogue on human development and garner increased political attention, the UNDP now publishes annually the "Human Development Index" which is a somewhat narrower, but still broad, composite measure of income per capita, life expectancy at birth, and educational attainment (Ul Haq, 1995). The general view,

that development is not merely income, is linked in the Human Development Report to Sen's theory of capabilities (Sen, 1992). Sen's (1998) most recent formulation attempts to justify the movement in terms of expanding individuals' freedoms. "Human development is concerned with removing the various hindrances that restrain and restrict human lives and prevent its blossoming"(Ogata & Sen, 2003, p. 8).

The human development perspective has remained controversial (Ravallion, 1997), but it has been widely influential in emphasizing non-income dimensions of human well-being in the development policy debate. In some ways, the increasing focus of the World Bank and the International Monetary Fund on poverty alleviation, rather than their previous goal of increasing growth, can be seen as a response to the UNDP emphasis on human development. For another example, the UK Department for Foreign and International Development (DFID) has taken a similar approach and announced that its strategy is to reduce poverty by half in 2015 (King, 2001).

Another component of development that is particularly relevant to climate change and environmental concerns is the concept of sustainable development. Sustainable development is germane to the environmental dimension of development, and particularly relevant when examining climate change and development. Sustainable development can be traced from the early days of the international conservation movement to the 1972 Stockholm Conference on the Human Environment and the 1980 World Conservation Strategy (Adams, 2001). The 1987 Brundtland Commission report, *Our Common Future,* is also considered a seminal document in creating the contemporary field of sustainable development. The Brundtland Commission defined sustainable development broadly as the ability of humanity "...to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987, p. 8). The Brundtland Commission report transformed previous environment and development debates, and the idea of sustainable development, as articulated in the report was given early support by the United Nations Conference on Environment and Development in Rio de Janeiro in 1992.

From the Rio Conference of 1992, Local Agenda 21, among other sustainable declarations, was adopted by more than 178 Governments. Local Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the UN System. "The genius of 'sustainability' lies in its ability to provide 'space' for serious attempts to grapple with the real, dynamic and complex relationships among societies, economies and natural environments, as well as between past, present and the future" (Khagram & Clark, 2003, p. 296).

Within this broad space, a range of perspectives that differ on what exactly is to be sustained, what is to be developed, and the linkages between such differing views have emerged. For example, at the United Nations Environment Programme (UNEP) 1980 World Conservation Strategy, sustainable development was defined as: 'the management of human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to

meet the needs and aspirations of future generations' (Mather & Chapman, 1995; Moser & Norton, 2001, p. 9). Pearce et al. offer a different approach:

> We take development to be a vector of desirable social objectives, and elements might include: increases in real income per capita; improvements in health and nutritional status; educational achievement; access to resources; a 'fairer' distribution of income; increases in basic freedoms... Sustainable development is then a situation in which the development vector increases monotonically over time (p. 180).

Essentially all visions of sustainable development are characterized by the *joint* consideration of what is to be sustained *and* what is to be developed (Pearce et al., 1989) [*emphasis in original*]. Much of the planning for the 2002 World Summit, for example, invoked the 'three pillars' of sustainability: economic, environmental, and social. These goals were seen as equal in importance and linked together. Indeed, the social dimension was to be given priority attention, given that some critics felt that the 1992 Rio Conference on Environment and Development, at least symbolically if not in practice, had undervalued this pillar (Khagram & Clark, 2003). Similarly, it is by now progressively better understood that analysis of sustainable development requires understanding of complex trans-scale linkages and relationships global, regional and local actors.

Sen (2001) defines sustainable development as a system "that promotes the capabilities of people in the present without compromising the capabilities of future generations"(as cited in Moser & Norton, 2001, p. vii). Sen's conceptualisation of sustainable development as "pertaining to inter-generational equity of capabilities" provides a powerful linkage with the human rights agenda (Moser & Norton, 2001, p. 36). The next section will elaborate on the linkages between security and development and human rights.

Human rights, interdependence and shared sovereignty.

There are intricate interactions between human, social and environmental systems — with actions on one element invariably affecting the outcomes of the other. Nature and society are interdependent: what happens within one affects the other in significant ways. "This is not a normative statement, but rather an empirical finding about how the world works" (Khagram & Clark, 2003, p. 13). While many environmental problems are localized, others are widespread and trans-scale in nature (climate change for example). The interdependencies of nature and society generate not only threats to both, but also opportunities for positive change. The potential for mutually destructive degradation and for mutually supportive nurture exists.

The prevalent idea in the political philosophy of the 17th century, as espoused by noted philosophers including: Grotius, Hobbes, Pufendorf, Filmer, Locke, was that humanity collectively owns the earth (Risse, 2008). Within this collective philosophical framework pollution and climate change can be conceptualized as a 'tragedy of the commons' problem (Cash & Moser, 2000; Hardin, 1968; Sinden, 2008). In regards to climate change, for example, we can think of the global

atmosphere as a common good and we can argue that the proper management of common-pool environmental resources depends on centralized control and management, including collective action and the establishment of institutionalized norms and rules for behaviour (Bromley & Feeny, 1992; Hardin, 1982; Ostrom, 1991).

Efforts to advance human security and human development, should frame their activities based on an interdependent, and dynamic worldview. It is obvious that a great deal of human security and human development is tied to peoples' access to natural resources and vulnerabilities to environmental change and the converse also proves true: a great deal of environmental change is directly and indirectly affected by human activities and conflicts (Khagram & Clark, 2003). The effects of climate change will invariably have a profound impact on human security, human rights and development.

According to a prescient researcher in 1988, the concept of national security must now be revised, so as to include awareness of mounting threats to the global environment. "Environmental strains that transcend national borders are already beginning to break down the sacred boundaries of national sovereignty, previously rendered porous by the information and communication revolutions, and by the instantaneous global movement of financial capital" (Mathews, 1988, p. 121). The image provided below in Figure 1 highlights how environmental issues overlap with global environmental stability, influencing foreign policies and national security. As Allenby (2000) clearly articulates, "environmental issues can no longer be thought of as ancillary, rather than integral components of industrial, social, and economic systems" (Allenby, 2000, p. 7).

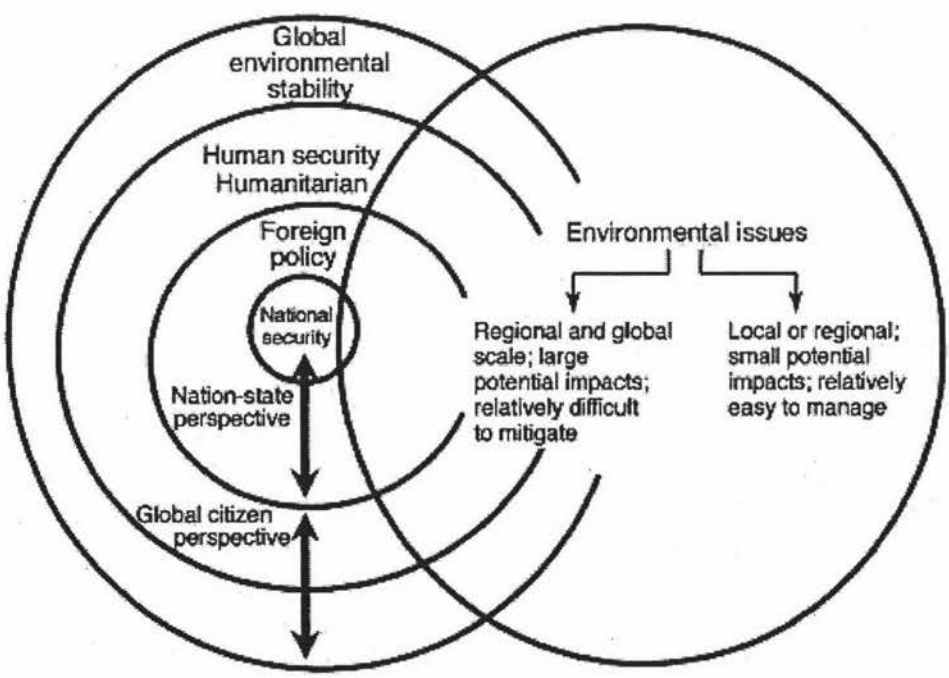


Figure 2 - Allenby, B. R. (2000). Environmental Security: Concept and Implementation. *International Political Science Review / Revue internationale de science politique, 21*(1), 5-21, p. 11.

This figure also highlights the different perspectives regarding environmental issues, differentiating between global views, as it relates to global environmental stability and human security, as distinct from a national state view, which focuses on the interest of the state and national security rather than on global systems.

However, again referring to Talal's paper presented at the UN Thematic Debate on Human Security (2008), suggests that the global response to climate change "depart from the familiar dichotomy between security as the *defense of states* and security as *a personal right,* and offer a different perspective, viewing this question through a wider lens, a lens which captures the full gamut of interpersonal, community-oriented and culturally-founded relationships which take place between the levels of individual and state" (Talal, 2008, p. 2) [*emphasis in original*]. Talal (2008) advocated this integrated approach as the best way to implement effective and collective action toward the advancement of human security and human development.

In addition, because our human rights tradition is fundamentally rooted in concerns about power imbalance, framing climate change related claims in human rights terms may help effect a needed shift in the debate, focusing attention on the problem of political failure rather than market failure. Once we have established a human rights framework, instead of arguing over how to best measure in dollar terms the costs and benefits of climate change regulation, we can shift our thinking towards how to best "counteract the distorting effects of power imbalance on our collective decision making processes" (Sinden, 2008, p. 16). From every crisis there is opportunity: enshrining responses to climate change within a human rights framework could potentially transform climate change into an opportunity to fundamentally counter the exploitation of the weak by the powerful (Sinden, 2008).

Today, just as human rights was the law's response to the most profound moral crises of the twentieth century (WWII), human rights should form part of the process in developing appropriate responses to what is the most profound moral crisis of the twenty-first century: climate change.

Chapter Summary

In closing, to borrow again from Ogata and Sen, it is important to understand the differences between human security, human development and human rights, in order to understand how they can be seen as complementary concepts. "Mutual enrichment can go hand in hand with distinction and clarity"(Ogata & Sen, 2003, p. 9). Now that the philosophical framework for understanding the concepts at play behind global, regional and national responses has been established, we can look towards these multi-dimensional interactions on a functional level with distinction and clarity.

Chapter Three – Political Context

Introduction

The focus of this chapter is to assess the three different domains of climate change policies as they relate to Kiribati. The chapter will begin by providing an overview of climate change policies at the international level. After the overview, Chapter Three will continue by providing context for the current landscape at the international, regional and national level as it relates to Kiribati and PSIDS in general. Outlining the current landscape of climate change policies will provide background for data analysis and discussion and will offer a more comprehensive analysis of key policy documents and fieldwork results.

Brief History of Climate Change Policies

Globally there have been many major conferences, resolutions, and summits dealing with climate change and the impact on PSIDS. International intergovernmental responses to climate change arguably began in 1972, when the UN convened the first global conference in Stockholm to address environmental issues. Since the Stockholm Conference, numerous international actors have recognised a requirement for comprehensive scientific information concerning global climate change as a foundation for coordinated multilateral remedial action (Penny, 2007). By 1979, the first World Climate Conference was convened in Geneva by the World Meteorological Organization (a UN agency); the conference was organised in further recognition of the serious nature of the climate change situation. Following these two landmark meetings, a number of intergovernmental conferences focusing on climate change were held in the late 1980s and early 1990s, the most significant of which being the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer. The Montreal Protocol has been remarkably successful and is a testament to the power of coordinated multilateral action because ozone depletion was tangibly addressed through a multilateral treaty. The Montreal Protocol is also particularly relevant in the climate change context for the precedent that it set in the simple sense that it acknowledges that ozone depletion is a global scale atmospheric problem arising from emissions of damaging substances (Barnett & Adger, 2003). In a more complex sense, Barnett & Adger (2003) presciently observe, is that "the Montreal Protocol was negotiated, and implemented, despite there being scientific uncertainty about the magnitude and implications of the problem at the time" (p. 330).

The Montreal Protocol is an interesting example of how international actions, an intergovernmental conference in this instance, translate into national actions and eventually tangible outcomes. The Montreal Protocol was able to eliminate production (in developed countries) of the most damaging ozone-depleting substances, except for a few critical uses, by 1996 (Susskind, 2008,

p. 63). By 2010, production is scheduled to be phased out in developing countries as well. Without the Montreal Protocol the levels of ozone-depleting substances would be an estimated five times higher than they are today, and "surface UV-B radiation levels would have doubled at mid-latitudes in the northern hemisphere" (Susskind, 2008, p. 63). Based on current estimates, the CFC concentration in the ozone layer is expected to recover to pre-1980 levels by the year 2050 (Agard et al., 2007, p. 69). Another element that should be noted is that although there was scientific uncertainty about the effects of CFC concentration, the Parties to the Montreal Protocol were informed by the precautionary principle, and were able to commit themselves to reducing emissions of ozone depleting substances. Later, when the uncertainties were reduced, the problems were revealed to be "more significant than first realized" and the precautionary approach "was vindicated" (Barnett & Adger, 2003, p. 330). Barnett and Adger (2003) suggest that this success should instil a sense of hope that "States can and do act in precautionary ways in the face of scientific uncertainty, and while reducing greenhouse gas emissions is a far more complex policy problem than reducing ozone depleting substances, this does not obviate the dangers of climate change and the need to act in a precautionary manner" (Barnett & Adger, 2003, p. 330). I agree with Barnett and Adger's appraisal and think that this protocol establishes an important precedent.

Another landmark event occurred in 1987 with the establishment of the World Commission on Environment and Development (also known as the 'Brundtland Commission'). The resulting Brundtland Commission report – *Our Common Future*, was an explicit recognition that environmental problems had grave consequences for economic and social development (Brundtland, 1987). The report also set the precedent for future discussions and explicitly linked development and the environment. In establishing the commission, the UN General Assembly recognised that environmental problems were global in nature and determined that it was in the common interest of all nations to establish policies that preserved the environment for future generations.

In 1998, following the suggestions of the Brundtland Commission, the Intergovernmental Panel on Climate Change (IPCC) was established. The IPCC is not purely a scientific organisation, but is established as a joint program of UNEP and the World Meteorological Organization (WMO) and includes approximately 2,000 scientists and government representatives (Renowden, 2007, p. 25). The purpose of the IPCC is to provide the world with a clear scientific view on the current state of climate change and its potential environmental and socio-economic consequences (Bernstein, 2007, p. 35). However, some scholars and scientists have expressed concern that the IPCC estimates are too conservative (Flannery, 2005; Renowden, 2007).

The IPCC released its First Assessment Report in 1990, with subsequent reports in 1995, 2001, and most recently the IPCC Fourth Assessment Report "Climate Change 2007" (Intergovernmental Panel on Climate Change, 2007, p. xi). The main activity of the IPCC is to provide assessment reports at regular intervals that capture the state of knowledge on climate change.

While its reports are drafted and edited in collaboration with as many as one thousand scientists, they are amended, line by line, by government representatives, in conjunction with industry representatives and technical experts (Christianson, 1999, pp. 295-296).

As part of this process of collaboration, Flannery (2005) notes "undue influence" exerted on IPCC reports from the delegates of fossil-fuel exporting nations. This pressure, Flannery contends, results in "lowest common denominator science", with estimates that are lagging behind the scientific consensus (Flannery, 2005, pp. 245-246). In additional appraisals of the functions and utility of the IPCC, some scholars offer further condemnation alleging that the IPCC was intentionally structured to "ensure that the reports were conservative" (Flannery, 2005; Renowden, 2007, p. 25).

Cognizant of these criticisms, in 2009 a group of authors involved with the IPCC updated the 'reasons for concern' framework (Smith, et al., 2009). The combined work of these authors provides an update to the IPCC reports and offers new knowledge about the sensitivity of environmental systems to climate change, information on new models of potential thresholds and irreversibilities in the earth's system. In this updated framework the authors show that the sensitivity of systems at risk is now greater, and so "the risk of large-scale disruption is higher than before for any given level of mean temperature rise" (Adger, 2009, p. 2800). This publication, *"Assessing dangerous climate change through an update of the Intergovernmental Panel on Climate Change (IPCC) 'reasons for concern'"* (2009) and the assessment reports that are provided at regular intervals, offer statistically significant data regarding the effects of climate change. Although hindered by structural constraints, and rendered more conservative as a result, the IPCC reports do capture and consolidate much of the scientific knowledge that is available on climate change.

In response to the IPCC's First Assessment Report in 1990, in December 1990 the United Nations General Assembly approved the start of treaty negotiations which resulted in over 185 nations (including New Zealand) signing the United Nations Framework Convention on Climate Change (UNFCCC) at Rio de Janeiro in 1992. The UNFCCC, as suggested by its name, is intended to provide an international 'framework', rather than a complete and exhaustive solution (Intergovernmental Panel on Climate Change, 1990; UNFCCC, 1992). At the international level, the UNFCCC, along with other international legal agreements (for example the Kyoto Protocol), operationalizes the need for global action and plays the main role in facilitating negotiated solutions to climate change issues and working towards galvanizing global action.

Some scholars identify the conference, the Rio Earth Summit (1992), where the UNFCCC was signed as a turning point which "confirmed a shift in understanding among developing and developed nations alike that global environmental issues were central to international relations, security, and development" (Corfee-Morlot et al., 2007, p. 2756). The UNFCCC entered into force on 21 March 1994. 1994 also heralded both the Barbados Programme of Action (BPoA) and the

publication of the UNDP's *Human Development Report (HDR)*. The *HDR* focused on human security, and the intersection with development and has had a profound impact on informing subsequent policies and projects on environmental security (Raad, Khagram, & Clark, 2002).

The Conference of the Parties (CoP), functioning as the UNFCCC's ultimate authority, held its first session in Berlin from 28 March to 7 April 1995. At this first meeting of the CoP the Association of Small Island States (AOSIS) called for a binding agreement to cut emissions to 20 percents below 1990 levels (Gillespie, 1997, p. 64). As developed nations opposed this proposal, although agreeing in principle on the possibility of an "eventual binding protocol", the meeting collapsed into deadlock (Gillespie, 1997, p. 64). Despite the fact that both major political parties in New Zealand, Labour and National, had set 20 percent reduction targets in 1990, and additional statements to the contrary, New Zealand "refused outright" to endorse the AOSIS suggested target (Gillespie, 1997, pp. 64-68). Although unsuccessful, the 1995 CoP set a mandate for the next CoP.

As climate has gradually worked its way up the international political agenda, the annual CoP has become one of the most important focal points for international politics (CoP-15, 2009a). As an illustration of the importance of the annual conferences of the countries behind the UNFCCC, the third CoP in December 1997 was the venue where the Kyoto Protocol was adopted. At a subsequent conference, CoP-6 in November 2000, a political agreement on the operational rulebook for the protocol was reached at (Climate Change Secretariat, 2002, p. 22). The Kyoto Protocol to the UNFCCC is a subsidiary agreement to the UNFCCC and although guidelines were made operational in 2000, the protocol did not enter into force until 16 February 2005, ten years after the original Framework Convention. The chief aim of the protocol is to provide a framework for binding emissions reductions by industrialized nations and only parties to the UNFCCC can become parties to the protocol (Climate Change Secretariat, 2002, p. 22). The Protocol identifies "common but differentiated emissions reduction commitments for developed and developing countries" (Abate, 2005, p. 271). To assist nations in meeting their emissions reduction commitments, the Protocol also includes flexibility mechanisms (Abate, 2005). Noting the progress and "huge step forward" that the Kyoto Protocol marked, there were serious structural flaws in the way developed and developing nations chose to engage in effectively meeting the targets established (Stokke et al., 2005, p. 232). Some scholars content that the serious weaknesses in Kyoto's institutional arrangements render it, "at best, proof that international co-operation on climate is possible, ...[but i]t does not provide a model for how co-operation should be structured and deepened in the future (Evans & Steven, 2009, p. 23). Worrying further that the Protocol is evidence that "the institutions we are relying on today are in poor shape to handle the massive challenges ahead" (Evans & Steven, 2009, p. 23).

The thirteenth CoP (CoP-13) in Bali was held in 2007, shortly after the IPCC published its fourth large synthesis report on the state of the climate. The conclusions in the fourth report are clearer than in any of the previous reports from the IPCC, and with differing degrees of probability,

the IPCC points out consequences such as further rises in temperature, rises in the sea level, heat waves and droughts, flooding, the destruction of ecosystems and the lack of drinking water (CoP-15, 2009b).

At the CoP-13 countries negotiated and agreed to the Bali Action Plan – which acknowledges that the signs of warming are unambiguous, and that delays in our efforts to limit the emissions of greenhouse gases will increase the risk and severity of the consequences. Accordingly, the Bali Action Plan recommends that the speed of the work being carried out to limit the quantity of greenhouse gases in the atmosphere increase to reflect the urgency and the gravity of the situation. The Bali Action Plan also adopted an ambitious plan to reach a global long-term agreement which aims to reach this agreement at the CoP-15 conference in Copenhagen in December 2009 (CoP-15, 2009b).

As negotiations for CoP-15 in Copenhagen have just recently concluded, there is a growing acknowledgement that 2009 represented a well-timed opportunity to achieve an agreement, if the agreement was to be approved and ratified in time for it to come into force without a lapse after the first commitment period of the Kyoto Protocol (which expires in 2012). When the parties met in Copenhagen from 7 December to 18 December 2009, it was the culmination of a series of intense negotiations (CoP-15, 2009a). After a build-up that lasted more than two years, the Copenhagen summit stands at best as anticlimactic. Far from reaching an ambitious global climate deal, two weeks of negotiations progressed the climate change debate very little from where it started at the Bali summit in 2007 – "with no more than a non-binding political agreement to keep talking" (Evans & Steven, 2010, p. 3).

Despite these ongoing processes, and the lack of success in Copenhagen, even conservative scientific projections indicate that climate change will continue for the foreseeable future. While the aforementioned efforts mark a clear progression, they will not eliminate the causes and consequences of climate change. Simply put, although states and international actors are continuing to work to strengthen the responses to climate change, current international remedial measures are inadequate (Evans & Stevens, 2010; Stokke et al., 2005).

Current Policy Landscape

Tracing briefly the evolution of climate change policies at the international level from 1972-2009 provides context for understanding the current landscape at the international, regional and national level as it relates to Kiribati and PSIDS in general. The next section will begin by briefly outlining the historical and expanding role of the UN. Additionally, while examining the intersection of the United Nations and Kiribati a number of projects and partnerships will be identified. Following the international policies, the regional policies in the Pacific and then the national policies within Kiribati will be outlined.

International policies - the intersection of the United Nations and Kiribati.

Maintaining international peace and security is the primary purpose of the UN. The founders of the United Nations set out, in the words of the UN Charter, "to promote social progress and better standards of life in larger freedom— above all, freedom from want and freedom from fear" (Murphy, 1996, p. 67). However, according to the former Secretary-General of the UN, Kofi Annan, the founders of the UN in 1945, "could not have anticipated, however, the urgent need we face today to realize yet a third: the freedom of future generations to sustain their lives on this planet"(Annan, 2000a). This need to move towards sustainable development is unmistakably acknowledged within the climate change discussions.

Expanding on the evolving role of the UN it should be noted that the complex interrelationships between state and non-state actors characterise the present international system. Political authority in recent decades has become increasingly multi-levelled and, compared to the nation-state ideal, asymmetrical. "The growing importance of networks and cross-cutting linkages is central to the transition from hierarchical structures of government to the more polyarchical and networked patterns of governance" (Duffield, 2001, p. 50). In addition, "[t]he attenuation of state competence through the inclusion of new supranational, international and subnational actors within decision making processes has significantly altered the nature of political authority" (Demirovic, 1996). Recognising that the nature of political authority has altered, and recognising that cross-cutting linkages are central to this new system of governance makes understanding the role of the UN particularly relevant – especially in responding to climate change.

At the UN Millennium Summit in September 2000, under the overall "Role of the United Nations in the Twenty-First Century", Kofi Annan underlined the need for a more human-centred approach to security – with security defined less in terms of defending territory and more in terms of protecting individuals (Annan, 2000a). This concept, a departure from the traditional state-centred notions of security, places individuals at the heart of international development policy and practice, and characterises the UN's approach to security. Kerim (2008) argues that the UN, because of its global efforts to advance security, development and human rights, "is a particularly important nexus in further evolving the notion of human security that puts positive peace, not the mere absence of conflict, at the heart of the understanding of security" (Kerim, 2008, p. 2).

Development and climate change policies imply a two-way relationship: choices about development pathways influence climate change as well as the vulnerability of societies to climate change impacts; on the other hand, "climate change impacts could influence the rate and level of economic development itself" (Agrawala & Berg, 2002, p. 6). It is becoming clear that the realisation of development goals may be hampered by climate change and since the World Summit

on Sustainable Development in Johannesburg in 2002, there has been "renewed interest in putting climate change in the context of sustainable development" (United Nations, 2002b, p. 42).

Environmental change can have direct and immediate effects on well-being and livelihoods, as well as indirect and secondary effects with a delayed onset. Environmental change can have a significant impact on the lives of people today and may extend into the future and impact the lives of generations to come. With regard to security, for example, water scarcity may not cause war but still engender insecurity by contributing to dehydration-related death, reducing food production, and undermining livelihood opportunities.

At the international-national nexus, one of the key roles of UNDP and other in-country UN bodies is facilitating collective action for managing climate change and sustainable development. Although various UN agencies have been active in assisting climate change projects throughout the Pacific region, UNDP and UNEP have been the principal actors. Serving as the focus of this thesis, and operating as the UN's global development network, UNDP was founded in 1965 and is "an organization advocating for change and connecting countries to knowledge, experience and resources to help people build a better life" (United Nations Development Programme, 2010). According to the UN Development Assistance Framework for Kiribati (2002), UNDP's intention in Kiribati is to support stakeholders as they develop local capacity and enable them to "to catalyse the involvement of the Government or members of the donor community in a range of initiatives" (United Nations, 2002c).

Initially, and in response to the adverse effects of climate change, UNEP was highly involved with the environmental concerns, with UNDP focusing almost exclusively on mitigation strategies. Within a Pacific context, one of the first UNDP projects with a clear climate change focus was the Asia Least Cost Greenhouse Gas Abatement Strategy (ALGAS) which was a technical assistance project involving 12 Asian and Pacific countries. (United Nations Environmental Programme, 2009). Executed by the ADB and UNDP to reduce atmospheric accumulation of greenhouse gases, UNDP and ADB collaborated on the implementation of the Asia Least Cost Greenhouse Gas Abatement Strategy project over a seven year period beginning in 1991. In 1997 the focus of UNDP "expanded from it's mitigation base , to considering further ideas of capacity building and adaptation, primarily through the development of the Pacific Islands Climate Change Assistance Programme" (Long, 2009). Started in 1997, the Pacific Islands Climate Change Assistance Programme was funded by the Global Environment Facility administered through UNDP and implemented by SPREP and local partnering organizations (Agrawala et al., 2003, p. 24; Reti, 2008, p. 33). The structure of the Pacific Islands Climate Change Assistance Programme highlights the complicated relationship between the UN, regional powers and local governments' in responding to climate change.

Undertaken over a four year period, with SPREP coordinating the efforts of country teams in the ten participating countries, the main objectives were to provide: (i) assistance to the countries in

reporting to the UNFCCC, and (ii) capacity building; (iii) vulnerability and adaptation assessments (iv) submission of National Communications (Agrawala et al., 2003, p. 24). Wide in its scope, "the creation of the Pacific Islands Climate Change Assistance Programme could be viewed as a key progression toward the initial inclusion of capacity building and climate change adaptation as a consideration in development projects around the Pacific region" (Long, 2009). In Kiribati, the Pacific Islands Climate Change Assistance Programme team supported the preparation of Kiribati's initial National Communication to the UNFCCC (submitted at the 5th Conference of the Parties in 1999), as well as a Climate Change National Implementation Strategy (NIS), issued in January 2003 (Gorman & Broadfield, 2004, p. 7).

UNDP further supported the objectives of Pacific Islands Climate Change Assistance Programme by working towards the inclusion of capacity building and climate change adaptation in development projects around the Pacific region. In 2003 UNDP began supporting the development of National Adaptation Programmes of Action (NAPA). The process in the Pacific began with five Pacific Island states: Kiribati, Samoa, Tuvalu, Vanuatu and the Solomon Islands. The NAPA process in Kiribati was supported by UNDP, the Kiribati Adaptation Programme (KAP) and the World Bank. Both the Kiribati NAPA and Kiribati Adaptation Programme involve/d funding from the GEF and cover substantially the same policy areas (Asian Development Bank, 2008, p. 6).

As the policy landscape at the international level has just outlined, there is an obvious collaboration and intersection between the policies developed at the international level and implemented at the regional level.

Regional policies in the Pacific.

For the Pacific, with its nations of small low-lying atolls, demographic isolation makes regional cooperation imperative. Climate change impacts are not constrained by national boundaries, and regional cooperation is often the only means of addressing impacts and decreasing vulnerability. The way forward for PSIDS entails the harmonization of climate change science and action, working towards a more integrated approach which grasps the critical linkages, mobilises resources, transfers technology, and aids in creating a concerted and collective response. Several regional strategies support climate change action in the Pacific: Pacific Islands Framework for Action on Climate Change, 2006–2015; The Pacific Islands Disaster Risk Reduction and Disaster Management Framework for Action, 2005–2015; and the Pacific Islands Energy Policy and Plan. To support implementation of these strategies, the Secretariat for the Pacific Regional Environment Programme (SPREP) convenes regular meetings of the Pacific Climate Change Roundtable (Asian Development Bank, 2008).

The Pacific Climate Change Roundtable is comprised of "a group of all regional and international organizations, as well as civil society organizations, with active programs on climate

change in the Pacific region—to share information about ongoing actions and planned activities (Asian Development Bank, 2009, p. 37). As a strong regional organization, SPREP was established in the 1980s by the governments and administrations of the Pacific region to deal with environmental concerns. In the 1980s, Pacific Island governments identified the need for SPREP to serve as the conduit for concerted environmental action at the regional level. The establishment of SPREP also broadcasts a clear signal to the global community of the deep commitment of the Pacific island governments and administrations towards sustainable development. Based in Apia, Samoa, SPREP is one of the Pacific region's major intergovernmental organizations and since its inception as a small programme attached to the South Pacific Commission (SPC) in the 1980s, SPREP has grown in numbers currently including over 70 staff (South Pacific Regional Environment Programme, 2009).

In 1989 an Intergovernmental Meeting on Climate Change and Sea-Level Rise for the South Pacific was organised by the Secretariat of the Pacific Community, formerly the South Pacific Commission, and South Pacific Regional Environment Programme (SPREP). One of the outcomes of this first intergovernmental meeting on climate change and sea-level rise in 1989 was the provision by UNEP of financial assistance through SPREP to undertake a preparatory mission to Kiribati (Ponzi, McCauley, & Calanog, 2004, p. 30). Another outcome of the meeting was a commitment to conducting vulnerability and risk assessments (Ponzi et al., 2004, p. 82). In the Pacific, vulnerability assessments, conducted predominantly in terms of the likely effects of rising sea-levels, have substantially advanced knowledge about the impacts of climate change and sea-level rise (Aston, 1997; Barnett, 2001a; Mimura, 1999; Yamada, Nunn, Mimura, Machida, & Yamamoto, 1995).

Another regional alliance that supports PSIDS gain added leverage on an international scale is a negotiating group called the Alliance of Small Island States (AOSIS). AOSIS's position on unresolved issues in negotiations is guided by clearly stated principles, including the principle of preventative action, the precautionary principle, the polluter pays principle, the duty to co-operate and the principle of equity (Nicholls & Mimura, 1998, p. 13). AOSIS's stated goals are "to seek strong emission-reduction commitments, strong monitoring and compliance measures, and assistance for adaptation to the adverse effects of climate change" (Barnett, 2001b, p. 8). Supported by the AOSIS, a Pacific Island High Level Consultation on Investing in Adaptation was held in Nadi, Fiji, in May 2002 with senior representation not solely from Environment, but also from Finance and Planning ministries.

In 2002, following the Pacific Island High Level Consultation on Investing in Adaptation, the Nadi Communiqué, endorsed by the Pacific Island Forum, "highlighted the importance of an integrated and participatory approach to climate change, climate variability and sea-level rise [...] within national development plans, budgets and national planning and decision-making machineries of governments". (Agrawala et al., 2003, p. 48). The Nadi Communiqué, borne out of regional efforts and endorsed by a regional organisation (the Pacific Island Forum), emphasised the importance of

integration in *national* development plans and *national* planning and highlights the national-regional intersection [*emphasis mine*].

On the other hand there are a number of instances that illustrate the regional-international intersection. For example, Kiribati has established requirements for marine protected areas, sustainable coastal fisheries, and protection of freshwater resources, actions which have required regional and international collaboration. These actions were part of a regional UNDP-GEF supported International Waters Program, executed through SPREP. UNDP-GEF also prepared a National Capacity Self-Assessment (NCSA) project, which consists of a self-assessment of the current capacity constraints to be able to address global and local environmental issues, and identified local priority issues and needs for capacity building towards the implementation of the UNFCCC (United Nations, 2002c; World Bank, 2006).

In short, the success of PSIDS in implementing changes at the national level will depend on effective technical capacity related to policy development, monitoring and coordination, especially through the support of regional organizations. At the international level, it is essential that development partners support agreed goals and assist in the implementation of actions to achieve them, particularly through the provision of financial and technical support. The foreign (to Kiribati) genesis of the climate change situation, coupled with the external and multilateral focus of much of its domestic climate change policies, clearly illustrate the importance of the interconnection between foreign/intergovernmental bodies and Kiribati with respect to climate change.

National policies within Kiribati.

At the national level, the Government of Kiribati (GoK) has shown over a decade of commitment to adapting to the effects of climate change. Kiribati ratified the UNFCCC on February 7, 1995; the Conservation on Biological Diversity on August 8, 1994; and the UN Convention to Combat Desertification on 8 September 1998. The GoK has worked to prepare an initial National Communication (submitted at the 5th Conference of the Parties in 1999) and a National Implementation Strategy (2003), with support from the UNDP-GEF funded Pacific Island Climate Change Assistance Program. (Asian Development Bank, 2008). The GoK is also strongly committed to other international agreements, including the Convention on Biodiversity and the Cartagena Protocol on Biosafety, the UN Convention to Combat Desertification, and the Stockholm Convention on Persistent Organic Pollutants (Gorman & Broadfield, 2004, p. 2).

The ministries that are involved in integrating responses to climate change and upholding the commitments made in the multilateral environmental agreements include: Ministry of Finance and Economic Development, Ministry of Environment, Land and Agriculture Development, Ministry of Public Works and Utilities, Ministry of Internal and Social Affairs, Ministry of Fisheries and Marine Resources Development, Ministry of Line and Phoenix Islands Development, Ministry of Health and

Medical Services and Ministry of Foreign Affairs and Immigration (Republic of Kiribati, 2007). Also actively involved in responding to climate change in Kiribati is the civil society sector and the private sector, most notably the Kiribati Association of NGOs, the Council of Churches, the Kiribati Chamber of Commerce. These aforementioned stakeholders have been participants in the consultation and planning process, and have had opportunities (as at the National Consultations) to influence policy responses to climate change.

As a central component to Kiribati's national response to climate change, the Kiribati Adaptation Program (KAP) began in 2003 under World Bank and Japanese combined assistance. The World Bank has been involved in climate change adaptation in Kiribati since 1999, when it funded a major study on vulnerability and adaptation for the Regional Economic Report 2000 (Forbes & Solomon, 1997; Whitehead, 2000). Since that review, adaptation and risk management have become the key pillars of the World Bank program in the Pacific.

With the World Bank/Japanese funded KAP project, the aim is to: "mainstream adaptation to climate change, climate variability and sea level rise into Kiribati's national development planning" (Agrawala et al., 2003, p. 26). The KAP project (broken in to three phases: KAP-I, KAP-II, KAP-III) is part of a major, multi-phase, multidimensional project designed to help Kiribati adapt to the challenges of climate change, climate variability and sea-level rise. The project has support, both directly or indirectly, from numerous donor and other international agencies including AusAID, NZAID, the European Union, GEF, the World Bank, ADB, UNDP and UNEP (Hay, 2006, p. 45).

The preparation phase of the KAP, known as KAP-I (2003-2005) worked to identify how to mainstream adaptation into national economic planning, and designed the implementation phase of the KAP, known as KAP-II (2006-2008). KAP-II's focus was on implementation and creating close linkages to national economic planning. In addition, KAP-II was devoted to building on the merged activities in KAP-I and to developing a more systematic diagnosis of climate related problems (World Bank, 2006).

The KAP-II coordination arrangements are represented in the figure below:

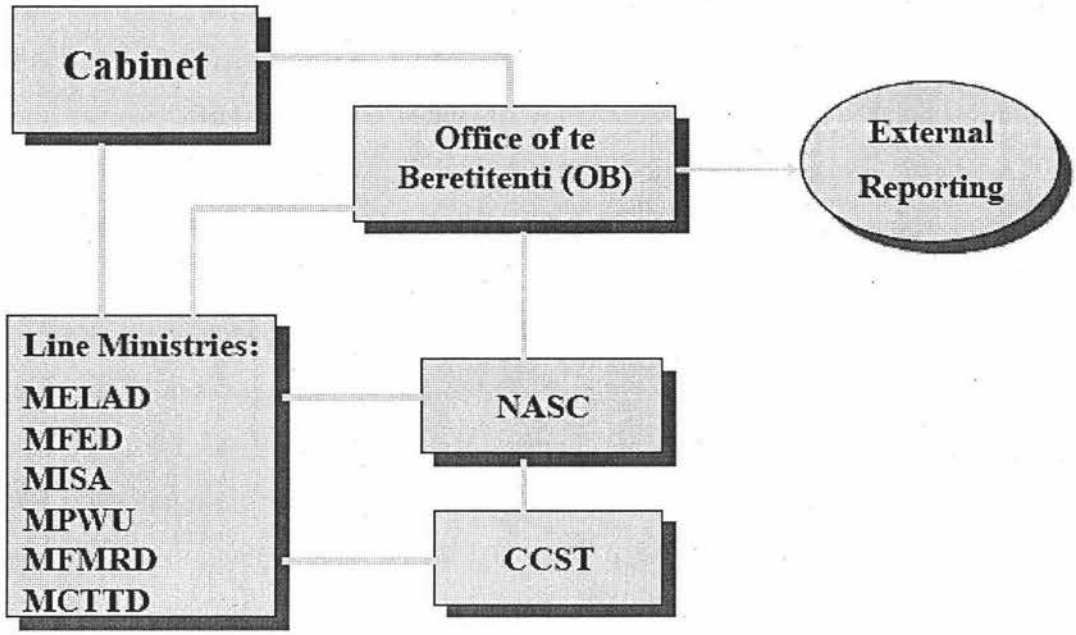


Figure 2: KAP-II Coordinating Arrangements. *Climate Risk Profile for Kiribati*: Asian Development Bank (Hay, 2006, p. 45).

As outlined in the figure above, various ministries including the Ministry of Environment Lands and Agriculture Development (MELAD), the Ministry of Fisheries and Marine Resources Development (MFMRD) and the Ministry of Communications, Transport and Tourism Development (MCTTD) among others, communicate with the cabinet, the Office of the Beretitenti, NASC and CCST. The responsibilities of Government are carried out by the President and cabinet ministers (with the cabinet ministers appointed by the President from the elected members of parliament) (Hay, 2006). The Office of the Beretitenti administers strategic national policy and risk assessment, while the Ministry of Finance and Economic Planning oversees economic and development planning processes and the MELAD has overall responsibility for the environmental management processes of the Government. The KAP-II coordinating arrangements are attempting to harmonize the different branches of government at the national level working towards a more integrated approach which grasps the critical linkages and provides appropriate and efficient responses.

The final stage, KAP-III would gradually scale-up the investments piloted under KAP-II. However, KAP-III, the expansion phase, was slated to begin in 2009, but is behind schedule. As of June 2009, the KAP project design has been simplified by "reducing the scope and number of activities" (Barbut, 2009, p. 4). Currently, structural changes to the project are being proposed in an attempt to increase coordination and reduce bureaucracy (Barbut, 2009).

Other structural changes occurred earlier in the project cycle. For example, during the preparation phase (KAP-I) it became clear that close linkages should be established with the preparation of Kiribati's National Adaptation Programme of Action (NAPA). Given the strong interrelationships between the NAPA and the KAP-I project, it was determined that these

connections would be mutually beneficial to both projects and the government decided to fully merge the two activities in 2004-2005 (Asian Development Bank, 2008, p. 6; Republic of Kiribati, 2007). The merger resulted in a joint national adaptation strategy covering a full range of responses at government, community and household levels, as well as a NAPA to communicate the most urgent and immediate needs to the UNFCCC. Kiribati's NAPA was accepted and posted by the UNFCCC Secretariat in January 2007 (UNFCCC, 2009).

National Adaptation Programmes of Action (NAPAs) are a global capacity building activity mandated by the UNFCCC in 2001, and designed to provide a process for Least Developed Countries (LDCs) to identify priority activities that respond to their urgent and immediate needs to adapt to climate change – those for which further delay would increase vulnerability and/or costs at a later stage. The National Adaptation Programme of Action (NAPA) for Kiribati is part of this process and highlights the urgent adaptation priorities and vulnerabilities for Kiribati (Weiss, 2000). Smit and Wandel further suggest that if NAPAs are effectively implemented, they should generate results evident within communities (Smit & Wandel, 2006). Smit et al. (2001) expands upon the potential value of the NAPA process, stating that the adaptive capacity of a system or nation is likely to be greater when the following requirement, among others, is met: "[t]he roles and responsibilities for implementation of adaptation strategies are well delineated by central governments and are clearly understood at national, regional, and local levels" (Burton, 1996; Smit et al., 2001, p. 898).

Since its inception, the KAP Steering Committee has been re-established under a new name, National Adaptation Steering Committee, under the Office of the President, with the mandate to oversee the joint work program for the NAPA and KAP (the KAP office acts as the secretariat for this steering committee). The National Adaptation Steering Committee (NASC), was established during KAP-I, and is responsible for promoting and monitoring coordination among project activities across the ministries involved in the project, including the utilisation and sharing of technical expertise (Hay, 2006). The NASC is charged with providing policy analysis, quality control and advice to the Government of Kiribati on matters related to climate risk. The NASC is also responsible for covering both NAPA and KAP-II issues and activities (Asian Development Bank, 2008, p. 52). The NASC includes officials from key Ministries within the Kiribati government, as well as representatives of the Kiribati Council of Churches, the Kiribati Association of NGOs (KANGO), the national women's organisation All Women of Kiribati (AMAK), and the Kiribati Chamber of Commerce.

The existing NAPA Team has become the Technical Climate Change Study Team for the unified program, reporting to the Steering Committee (the NAPA program management unit acts as the Secretariat to this Study Team). The Kiribati Office of the President (Office of te Beretitenti) is now the responsible agency for overall supervision of the unified climate change program. The national Climate Change Team was established in 1995 under the United States Country Studies

Program. The Climate Change Study Team (CCST) contains technical officers from key departments affected by climate risks (Asian Development Bank, 2008, p. 50). The team continued its work under the GEF-funded Pacific Islands Climate Change Assistance Programme, which supported the preparation of Kiribati's initial National Communication, as well as a Climate Change National Implementation Strategy (NIS), issued in January 2003 (Asian Development Bank, 2008, p. 52).

The key objectives of the NIS were to identify specific adaptation and mitigation measures and establish a coherent strategy to respond to climate change by integrating climate change considerations into national development planning and relevant sectoral policies. It has been noted that Kiribati has a government with "strong sectoral segmentation" (Tearfund Climate Change Briefing Paper 1, 2006, p. 10). Emphasising cohesion, the Climate Change Study Team has supported the planning and execution of the NAPA and KAP-II and will continue to provide expert analysis and technical advice to the Government of Kiribati on climate change-related matters, as well as coordinate scientific activities relevant to climate change (Gorman & Broadfield, 2004, p. 8).

In June 2005, and in an effort to provide an even firmer political basis and national planning context for comprehensive climate risk management, the government of Kiribati adopted the Climate Change Adaptation (CCA) Strategy (Asian Development Bank, 2008, p. 49). The CCA document provides the framework for a "participatory planning process and integration of climate risk management into Ministry Operational Plans; implementation of projects; and legislative and regulatory arrangements"(Gorman & Broadfield, 2004, p. 8). KAP-II is designed to closely fit the objective and approach of this CCA Strategy. The government is devoted to responding to the effects of climate change, with the GoK co-financing the programme and providing the largest single contribution to KAP-II, "through the recurrent budget for adaptation related programs in Ministry Operational Plans" (World Bank, 2006, p. 8).

In terms of understanding the governance chain as a multi-sectoral, multi-level and multi-actor phenomenon, the lessons of the KAP phases are two-fold. Firstly, "horizontal coordination across sectors is more effective if it is situated within an important ministry: in Kiribati, the program was situated within the Ministry of Finance and Economic Planning and then, when it had built up enough broad support, was moved to the Office of the President as part of a new National Strategic Risk Management Unit" (Tearfund Climate Change Briefing Paper 1, 2006, p. 11). The second lesson that can be drawn from the governance structure is that, "such horizontal coordination is not as effective as vertical coordination when attempts are made to institute regulatory changes or consult with communities on development plans" (Tearfund Climate Change Briefing Paper 1, 2006, p. 11). The greater involvement of all tiers of government is needed, with a special emphasis on the regional and local levels in the design, formulation and implementation of policies.

Chapter Summary

In response to climate change and environmental effects that are occurring on a global scale, the nature of political authority has altered, with the ability to make cross-cutting linkages imperative to this new system of governance. By providing an overview of climate change policies at the international, regional and national level it becomes obvious to see what Berger (2003) describes as a governance chain that involves "multi-level government involvement" (p. 3).

For example, as outlined in the Kiribati Adaptation Programme or in the development of the Kiribati NAPA, the UN partners with regional organisations in an effort to build capacity at the local level and to mainstream climate change responses in national development. The role of the UN is also expanding to accommodate the needs of local populations and ideally the needs of "future generations to sustain their lives on this planet" (Annan, 2000a). At the regional level there are clear intersections with national and international interests and at the national level the GoK is highly responsive to and reliant on international and regional efforts. These interactions necessitate the greater involvement of all tiers of government in the design and implementation of policies *and* an explicit recognition that all levels are inter-related.

To summarise the current policy landscape in Kiribati, over the past twenty years the GoK has approved and committed themselves to key multilateral environment agreements (MEAs) to which it is a party, including: UN Framework Convention on Climate Change, UN Convention on Biological Diversity, and others. Furthermore, there are national policy frameworks for environmental and resource management that correspond to Kiribati's obligations and commitments to the key MEAs to which it is a party, including: National Biodiversity Strategy & Action Plan 2001, National Adaptation Programme of Action 2004 on Climate Change Impacts, KAP - Kiribati Adaptation Programme 2004, and others.

Now that the political context has been established, Chapter Four will discuss the methods used to critically analyse and assess the evolution of policy responses to climate change, and their implications, at the international, regional and national level.

Chapter Four – Methods

Introduction

The main focus of Chapter Four will be to discuss the methods used to critically analyse and assess the evolution of policy responses to climate change at the international, regional and national level and their implications. The methods employed: interviews, document content analysis, and critical reading, were used to establish a broad thematic understanding of how climate change responses are evolving and developing with respect to security and development. Chapter Four will begin by establishing my interest and background in the field, and follow by carefully detailing the research strategies, including information on the research procedure, chosen methods and fieldwork conducted.

Personal Background

My interest in the PSIDS and the effects of climate change began in 2008 when I was able to work as an Associate Research Fellow at the Measurement and Human Rights Program at Harvard University (June 2008 – October 2008). During my time with the MHR Program I was able to focus on climate change and human rights - looking particularly at rising sea-level and the implications for the Small Island Developing States in Oceania. Stemming from this experience I became very interested in learning how to foster environmentally focussed development Small Island Developing States, like Kiribati. My interest in this subject is centred on my desire to work to understand, and better deal with, economic and environmental vulnerability including the anticipated effects of global climate change. My long-term objectives are to support the formulation of good policies, specifically in regards to effective adaptation to climate change, environmental sustainability, and the active protection of human rights.

During this past year I was awarded a NZAID Postgraduate Field Research Awards (2008/2009) which enabled me to do field work at the United Nations. The fieldwork for this thesis included interviews with opinion leaders, academics, regional and national NGOs, and IGOs, as well as work at libraries and databases overseas. While conducting interviews at the United Nations Headquarters in New York, I was also able to complete a United Nations Development Programme (UNDP) internship (June – August 2009). Unfortunately, fieldwork in Kiribati did not eventuate, but I was able to access and utilise documents taken from the local level: Kiribati News LIB (Feb 2006 – Present); Kiribati News EIN (May 2004 – Present); Oceania Kiribati News (Dec 2006 – Present); Te Uekera: the national weekly paper of Kiribati (Jan 2009 - Present); and the on-line database provided by the Parliament of Kiribati.

Access to additional resources not found online was offered by taking the opportunity to work as an intern within UNDP with the Adaptation Learning Mechanism (ALM). This internship

provided an identity pass which enabled access to the United Nations buildings, the Dag Hammarskjöld Library (located in a non-public area of the United Nations Headquarters complex), UN Archives and Records Center, and was also instrumental in providing the ability to attend lectures, approach UN staff and consultants officially for an interview, and engage in informal discussions with UN staff. Although all research may be grounded in some element of subjectivity, the internship was non-stipendiary and resulted in no impingement on my objectivity. To avoid a conflict of interest, I took care to fully disclose my concurrent thesis research, and my objectives in conducting this research.

With the focus of this thesis on examining the intersection of international, regional and local responses to climate change, the ALM, as a UN inter-agency global knowledge platform on climate change adaptation, was a particularly opportune project to be involved with. The ALM's stated objective is to support developing countries as it brings together national and regional stakeholders, including governments, the scientific community, and civil society to share information and technology on adapting to climate change. This objective merged well with my academic interests and complemented the research I was doing.

Research Strategies

The actual methods employed were comprised of three components chosen for their ability to analyse precisely the discourse and how the climate change debate and approach is shifting. Using discourse analysis as the cornerstone for analysis, a triangulation of methods was chosen: interviews, critical reading, and document content analysis. Building on the introduction to discourse analysis in Chapter One, a more detailed description of using discourse analysis as a methodological framework will be offered.

Discourse analysis.

Discourse analysis was used in this thesis as the guiding principle and research framework for each of the methods employed: interviews, document content analysis, and critical reading. Discourse analysis provided the foundational method for understanding how new knowledge is institutionalized and social practices/policies are shaped.

A more explicit definition of discourse suggests that discourse analysis can be understood as referring to:

> "... [A] group of statements which provide a language for talking about a topic and a way of producing a particular kind of knowledge about a topic. Thus the term refers both to the production of knowledge through language and representation and the way that knowledge is institutionalized, shaping social practices and setting new practices into play" (Du Gay, 1996, p. 43).

One of the main progenitors of discourse analysis, French historian and philosopher, Michel Foucault, mentions that in the analysis of politics there has been both a growing awareness of global determinants and the interplay of differences (Foucault, 1970). "[D]ocuments are no longer inert matter to be used in an attempt to reconstruct what men did or said - what is past - and of which only traces remain. Instead history seeks to determine units, sets, series and relationships within the documentary fabric itself" (Foucault, 1970, p. 178). The "questioning of documents" yields complementary information and allows us to establish significant links (Foucault, 1970).

There is no prescribed Foucauldian method of analysing discourse, but rather the abstract notion that discourse can be used as a powerful means of "enabling forms of critique and resistance" (Foucault, 1981; Hook, 2001, p. 522). Despite the lack of objective guidelines, Young (1981) notes that the central focus of discourse analysis is indeed based on rules, systems and procedures that "comprise a discrete realm of discursive practices: the order of discourse" (p. 48). That is, while the approaches to discourse analysis differ widely, they share some common characteristics: the use of naturally occurring, unedited text or talk as data (interviews), attention to the significance and structuring effects of language, a focus on the local and global context of discourse (and regional), and a focus on discourse as social practice (Foucault, 1981). Discourse as social practice is how users enact or resist social and political structures, giving attention to the ways in which social members interpret, categorise and construct their social experience and the use of interpretive and reflexive styles of analysis (Ainsworth, 2001, p. 3; van Dijk, 1997).

Beyond these general similarities, discourse research varies in its focus and approach, for example, between descriptive or critical studies (van Dijk, 1997). Descriptive studies explore the discursive processes of social construction. In this context, documents and social texts can be used as empirical data that 'articulate complex arguments about race, class and gender [and other determinants] in power relationships and politics" (Ainsworth, 2001, p. 3). Further, discourse theory as a research framework "matters because [discursive categories] generate their own altered realities, setting the terms of debates, changing political landscapes and shifting power relationships between people, institutions and non-human entities" (McNamara & Gibson, 2009, p. 476). Ultimately using discourse analysis as the guiding framework for each method will help shed light on how these discursive categories are constituted and how they are evolving (as evidenced by the narrative provided in Chapter Five from the semi-structured interviews, public debate, policy discourse, and media coverage).

Within the environmental context, discourse analysis is particularly useful: "[r]ather than seeing environmental problems as ontologically defined; they are instead subject to discursive struggles. Discourse analysis has established that nature is no longer lying outside society but is being co-produced with society" (Lindseth, 2006, p. 25). This concept is remarkably accurate within climate change discussions. As Lindseth (2006) states, "environmental problems have become a

conflict of interpretation, where different actors gather around specific concepts and ideas that produce common understandings" (p. 26). As evidenced at the Copenhagen summit in December 2009, where a myriad of climate actors convened, the environmental problems discussed had an equally diverse range of interpretations.

To clarify the use of discourse analysis within this thesis, I followed the steps that as outlined by Yanow (2000, p. 22; as cited originally in Lindseth, 2006, p. 27). Yanow (2000) prescribes four steps that can be used to guide the study of discourse in interpretative policy analysis. To begin with Yanow (2000) suggests the researcher should 'identify' the artefacts (language, objects, acts) that are carriers of meaning in a specific policy analysis. With the focus of this thesis on analyzing global, regional and local responses to climate change in Pacific Small Island Developing States, I was able to collect relevant policy documents within this realm. Further, I collected documents that were relevant to the UN and regional powers' involvement in Kiribati *and/or* that were relevant in the greater context of the security-development nexus. Recognising that discourse analysis does not simply focus on individual or isolated texts, but on collections of texts and the ways they are made meaningful through links to other texts, I gathered as many documents as possible.

Secondly, Yanow (2000) calls upon the researcher to identify the "communities of meaning" that are relevant to the policy issue (p. 22). By identifying the "communities of meaning" the focus shifts to who is producing the texts and what kind of policy communities are involved. My "communities of meaning" were fairly circumscribed by the research approach (using the UN, NZ, and Kiribati as the elected "communities of meaning"). However, I did critically analyse this selection choice and found it useful and worthwhile to expand the regional component to include other regional organisations.

The third step as prescribed by Yanow (2000) is to identify the relevant discourses that emerge from the texts. This proved to be slightly more difficult. Documents, interviews, news articles, and debates, were organised into folders – separated by scale (international, regional and local). Arranged chronologically, subsequent critical scrutiny of these texts involved reading, highlighting and questioning the themes emerging from the various sources. This step clarified the terms and keyword choices used for the document content analysis. The fourth and final step in utilising discourse analysis was to identify points of departure from the mainstream and alternative narratives, identifying how they reflect different interpretations by different scales of policy formation.

Discourse analysis is a necessary pillar of this research, providing the backbone and the abstract/theoretical framework. Discourse analysis colours the course of the interviews performed, the close textual readings and both are ultimately compared with a quantitative word frequency analysis for the broadest possible understanding of the subject matter.

Triangulation.

Within a discourse analysis framework, three methods were employed to begin to tease apart the security-development nexus and the evolution of policy responses to climate change and their implications at the international, regional and national level. Triangulation can broadly be defined as "the combination of methodologies in the study of the same phenomenon" (Jick, 1979, p. 2) with the use of multiple methods reflecting an attempt to secure an in-depth understanding (Denzin & Lincoln, 2005). "The major types of triangulation include the use of: multiple sources, methods, investigators and theories" (Hay, 2000, p. 47). As Hay (2000) outlines, rigour is a matter that needs to be considered from the outset of research, and in order to ensure academic rigour, methods should include the use of multiple procedures in the research process. The three methods work together in an effort to find complementary information and establish significant links.

An in depth understanding of the individual components involved in climate change responses allows us to systematically examine the relationship between IGOs, regional powers and local governments' policy responses to climate change. Using policy documents and ancillary publications to conduct keyword analysis shows that there have been some fundamental thematic shifts in the discourse regarding responses to climate change. The following sections will compare the insight of leading practitioners with a broader thematic analysis, against a backdrop of quantitative word-frequency analysis. As with the interplay of local, regional, and international entities, all three analytical domains are necessary to fully contextualise the research.

Interviews.

The first component of the triangulation is semi-structured interviews conducted during fieldwork. The information drawn from the interviews will rely on the use of discourse analysis to analyze the rhetoric of climate change policies and the intersection of security and development. Using discourse analysis as a methodological framework, it will be shown how 'security' and 'development' must be understood not just as arenas where political struggles play out, but as discursively constructed concepts that consciously and unconsciously are used to shape tangible outcomes in political processes (Ainsworth, 2001).

Twelve semi-structured interviews were conducted during a period of three months, from June through August 2009 in New York, Boston and Washington D.C. These interviews were undertaken on a one on one basis and were held primarily at UNDP Headquarters, New York. A further four interviews were conducted with participants outside of the UN, with two interviews conducted at Harvard University. In addition to the semi-structured interviews, numerous lectures and informal discussions helped shape the structure and focus of the research. Although it should be noted that fieldwork in Kiribati did not eventuate.

The interview preparations began months in advance of the actual interviews starting with an ethics process that will be detailed in the following section. The participant recruitment and interview procedure will then be detailed. The interviews proved to be instrumental in assessing responses to climate change at the international, regional and national level while cognizant of the intersection with development and security. Despite the broad range of fields and differing opinions, many of the interviewees highlighted the fact that the narrative is just as important as the national policy.

Ethics process.

Prior to conducting the semi-structured interviews the proposed study was presented to the Massey University Human Ethics Committee (MUHEC) and granted approval. In addition to the MUHEC application, the in-house ethics approval process involved a separate ethics form to be submitted to the Development Studies program. Both processes were designed to ensure that there was adequate reflection on the ethical issues with relation to this research project.

The Development Studies in-house ethics application requested additional information relating to numerous components of the research, including: information on potential harm that may be caused to the participants/researcher/university; information on how the information/data would be handled; details ensuring the security/privacy of information; details regarding the use of information; and elaboration of the cultural and gender concerns, among others. In order to appropriately address all of the questions contained within the Development Studies ethics application, multiple discussions over the telephone with one of my supervisors, Dr. Maria Borovnik, ensured that the commitments and responses outlined in both applications were actionable and appropriate.

Participant recruitment and procedure.

In terms of participant identification and recruitment, four different groups were targeted: opinion leaders, government officials, regional and national non-governmental organizations, and members of the UN. The research focused on selecting UNDP staff likely to constitute the most frequent or substantive interaction related to climate change and/or with the Pacific.

Access to research participants was gained by taking the opportunity to work as an intern with the Adaptation Learning Mechanism (as detailed in the personal background section). This opportunity was instrumental in allowing me the ability to approach UN staff and consultants officially for an interview. In order to avoid conflicts of interest, I added a declaration of interests clause to the participant consent form (attached in Appendix 4, p. 104). As suggested in preparing for the fieldwork, it was noted by Hay (2000, p.44), that: "opportunistic sampling requires that the researcher flexibly follows new leads during fieldwork and takes advantage of the unexpected". The

interviews conducted and much of the access gained was unexpected and hopefully represents a valuable cohort of 'opportunistic sampling'.

Once participants were selected, the same key interview themes were presented to all interviewees. There was, however, no rigid format of questions. A semi-structured interview format allowed the questions to be tailored to the expertise and interests of the interviewee. (The semi-structured Interview Guide is attached in Appendix 3, p. 100.) This guide served as the framework from which the questions were adjusted to the specific expertise of the interviewee. Prior to the start of the interview, participants were asked whether the interview could be recorded, and were made aware that the recorder (and interview) could be paused or stopped at any stage. The information sheet, given to the participant at the beginning of the interview, explicitly detailed to the participant that they were under no obligation to accept this invitation (attached in Appendix 1, p. 97). Further, it stated that the interviewee had the right to:

- decline to answer any particular question;
- withdraw from the interview at any time;
- ask any questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- ask for the recorder to be turned off at any time during the interview (if applicable); and
- request a copy of the taped interview.

While the issue of recording the interview did not prove to be problematic for most of the interviewees, many of the officials interviewed wished to remain anonymous (or expressed the desire to have the opportunity to edit and approve of anything attributed to them). It was promised to the participants that anonymity and confidentiality would be provided by interview coding and ensuring that no one else would have access to the materials. Hence, for ease of reference and to suit the purposes of this chapter, those interviewed are referenced as 'Official A', alphabetically coding participants through 'Official Y', and introduced by their name and/or title if permission was granted. Quotes and/or details from the interviews are only used with the explicit approval of the interviewees. Although some interviews may not be explicitly mentioned in the following sections, the input and insight gleaned from all interviewees proved invaluable for guiding and directing the research, either in supporting or expanding the mainstream or alternative discourses, or in revealing complexity and different sub-discourses.

Interview Participants.

During the course of my fieldwork and internship, I was able to attend numerous lectures, approach UN staff and consultants as well as academics and practitioners officially for an interview, and engage in informal discussions with UN staff. The semi-structured interviews, lectures and informal discussions are detailed in the tables below. Table 1 details the twelve semi-structured

interviews that were conducted between June and August 2009 in New York, Boston and Washington D.C. Interviewees were chosen for their command of relevant literature, knowledge of PSIDS-related issues, experience in the field, and breadth of perspective. Interviewees contacted were from academic, NGO, IGO, and media domains.

Table 1: Semi-Structured Interviews

In-text Identification	Type	Date	Position	Location	Field
Official A	Semi-structured interview	11 August 2009	Associate Professor of Public Policy and Philosophy, John F. Kennedy School of Government, Harvard University	Boston, MA	Academic
Official B	Semi-structured interview	11 August 2009	Anonymous	Boston, MA	Academic
Official C	Semi-structured interview	27 July 2009	Anonymous	UNDP Headquarters, New York	UN Official
Official D	Semi-structured interview	24 July 2009	Andrew Crane-Droesch Project Manager Community Based Adaptation Energy and Environment Group, UNDP	UNDP Headquarters, New York	UN Official
Official E	Semi-structured interview	23 July 2009	Jennifer Baumwoll Consultant Energy and Environment Group, UNDP	UNDP Headquarters, New York	UN Official
Official F	Semi-structured interview	15 July 2009	Mark Jariabka Executive Director Islands First	New York	NGO
Official G	Semi-structured interview	13 July 2009	Devin Greenleaf Producer Al Jazeera	Washington D.C.	Private Sector
Official H	Semi-structured interview	16 July 2009	Anonymous	UNDP Headquarters, New York	UN Official

Official I	Semi-structured interview	21 July 2009	Anonymous	ECOSOC - UN Headquarters, New York	UN Official
Official J	Semi-structured interview	24 June 2009	Anonymous	UNDP Headquarters, New York	UN Official
Official K	Semi-structured interview	24 July 2009	Anonymous	ECOSOC - UN Headquarters, New York	UN Official
Official L	Semi-structured interview	10 August 2009	Regional Technical Advisor for Climate Change Adaptation in the Pacific	UNDP Headquarters, New York	UN Official

The following table, Table 2, outlines eight formal lectures on the use and opinions related to policy responses to climate change at the international, regional and national level were attended during fieldwork between June and August 2009 in New York. While some of the lecture content may have been outside of the purpose of this thesis, reference to them is included if they were useful either in supporting or expanding the mainstream or alternative discourses in the climate change discussion.

Table 2: Lectures

In-text Identification	Type	Date	Position	Location	Field
Official M	Lecture – "Regional Cooperation and Climate Change"	12 June 2009	Dr. Andreas Schild Director General International Centre for Integrated Mountain Development	UNDP Headquarters, New York	NGO
Official N	Lecture – "A Development Focused Climate Agreement"	10 June 2009	Professor William Moomaw The Fletcher School of Law & Diplomacy Tufts University	UNDP Headquarters, New York	Academic
Official O	Lecture – "Institutional Architecture for	4 June 2009	Alex Evans Non-resident fellow	UNDP Headquarters, New York	Academic

	Climate Change"		Center on International Cooperation New York University		
Official P	Lecture - The World is Hotter, Flatter, Vulnerable and Capacity-challenged Proposing an Integrated Approach to Addressing Climate Change Adaptation and Human Development	24 June 2009	Veerle Vandeweerd UNDP Director of Environment and Energy Group	UNDP Headquarters, New York	UN Official
Official Q	Lecture - "Local Knowledge Sharing and Learning Processes at UNDP"	30 June 2009	Joseph Corcoran Research Analyst Equator Initiative	UNDP Headquarters, New York	UN Official
Official R	Lecture – "Gender Assessment of Economic Stimulus Packages in Asia-Pacific"	24 June 2009	UNIFEM and ESCAP Representatives	UNDP Headquarters, New York	UN Officials
Officials S-T	Lecture – "The UNDP Community-Based Adaptation Project - A bottom up approach to building systemic resilience to climate change."	22 July 2009	Community Based Adaptation Energy and Environment Group, UNDP	UNDP Headquarters, New York	UN Official
Official U	Lecture – "An Integrated Approach to Addressing Climate Change"	25 June 2009	UNDP Alex Evans Non-resident Fellow Center on International Cooperation New York University	UNDP Headquarters, New York	Academic
Officials V	Lecture – "The UNDP Community-Based Adaptation Project - A bottom up approach to building systemic resilience to climate change."	22 July 2009	Community Based Adaptation Energy and Environment Group, UNDP	UNDP Headquarters, New York	UN Official

Table 3 includes three informal discussions and observations on the use and opinions related to development responses to climate change at the international, regional and national level. These three conversations provided clarity at opportune times and helped shaped the understanding of the discourses emerging from the United Nations and subsequently in shaping policy.

Table 3: Informal Discussions

In-text Identification	Type	Date	Position	Location	Field
Official W	Informal discussion	30 June 2009	Joseph Corcoran Research Analyst, Equator Initiative	New York	UN Official
Official X	Informal discussion	28 - 29 July 2009	Julia Wolf Project Manager, Adaptation Learning Mechanism, UNDP	UNDP Headquarters, New York	UN Official
Official Y	Informal discussion	14 July 2009	Bo Lim, Chief Technical Advisor, Capacity Development and Adaptation Cluster, UNDP	UNDP Headquarters, New York	UN Official

Tables 1-3 detail the bulk of the fieldwork that was conducted: organising semi-structured interviews, attending lectures and engaging in informal discussions. These tables reflect the open, explorative, and qualitative components of my research approach.

Document content analysis.

The second component is a document content analysis that yields insights into the interaction and evolution of international/regional climate change policies vis-à-vis Kiribati. By using proximity keyword searching within key policy and ancillary documents (including UN databases, New Zealand's Parliamentary records, and Kiribati's national documents) the analysis is used to outline key climate change policy dimensions, and to analyse patterns and predictors of correlation. The database searching will be based on the principles of Boolean logic. Boolean logic is named for the British-born Irish mathematician George Boole and refers to the logical relationship among search terms (Ryan & Bernard, 2000). Boolean algebra "involves just two states (true and false, present and absent)" (Ryan & Bernard, 2000, p. 787).

Boolean analysis enables researchers to use key words to search for additional occurrences of the theme in large corpuses of text (Ryan & Bernard, 2000, p. 787). Although the body of documents spreads across 67 years, the time-span for intensive archival searching was 1996 through to 2010.

1996 coincides with the introduction of contemporary constructions of climate change and global warming and also allows for a span of time long enough to allow rule out random or statistically insignificant correlations.

The research process for the document content analysis began with the examination of online sources of UN documents and media articles with a subsequent critical scrutiny of these texts both in preparation for fieldwork and as part of the critical reading. One way to yield insights into the interaction and evolution of international/regional climate change policies vis-à-vis Kiribati is through proximity (Boolean) keyword searching. Word frequency analysis was pioneered in the 1930s, in an effort to ascertain the relationship between word appearance frequencies in a language corpus. It demonstrated the existence of power laws (for example, the most frequently-used word in the English language ['the'] appears twice as frequently as the second most frequently used word ['of'], which in turn appears twice as frequently as the third most frequently used word ['and']) (Zipf, 1965). As such, word frequencies follow a logarithmic/fractal distribution, not a Gaussian/bell-curve distribution. This is also applicable in analyses of thematic shifts. For example, word frequency analyses can be used "to trace shifts in authorial and public taste" (Frautschi, 1973, p. 368).

Analogously, ideas diffuse across academic fields in much the same pattern as disease epidemics spread through a population (Goffman, 1966, pp. 449-452), a finding which gave rise to the concept of memes. To provide a quantitative measure of the thematic shift of climate change responses, a simplified version of Zipf-Mandelbrot language measures was utilised on the collection of documents envisaged as most likely to address climate change and Kiribati (Mandelbrot, 1968). The frequency of appearance of related terms was graphed against time, to demonstrate the diffusion of concepts related to climate change, and to illustrate the thematic shift of climate change measures and the relationship between a security construct and a development construct.

Sources for analysis.

Cognizant that investigators must first identify "a *corpus of texts,* and then select the *units of analysis within the texts",* the selection was purposive (rather than random), and the sources were cautiously chosen to incorporate international, regional, and local level data (Ryan & Bernard, 2000, p. 780).

The sources for the analysis at the International Level include:

- United Nations Development Programme (2005-Present): speeches and news articles for UNDP;
- United Nations Security Council (1943-Present): Documents (e.g. Resolutions, Reports, Annual Reports);
- United Nations General Assembly (1943-Present): UNGA Presidential statements, Agenda, Meeting, Resolutions, Sessions, Thematic debates.

The sources for the analysis at the Regional Level include:

- New Zealand Parliamentary debates (Jan 2000 – Present): parliamentary papers, debates, legislation bills, and select committee reports;
- Ministry of Foreign Affairs and Trade (Jan 2004 - Mar 2009): Key New Zealand climate change documents, media and publications;
- New Zealand Aid (2006 - Present): Library, NZAid Annual Review;
- Asia-Pacific Parliamentary Forum (1993-Present);
- South Pacific Regional Environment Programme (Mar 2001 – Present): Climate Change bulletins, snapshots, technical meetings, agendas, reports.

The sources for the analysis at the Local Level include:

- Kiribati News LIB (Feb 2006 – Present);
- Kiribati News EIN (May 2004 – Present); and
- Oceania Kiribati News (Dec 2006 – Present).

The corpus of documents spreads across 67 years, although the spread of data spans the most recent 14 years, as this represents the first appearance of search terms. Fourteen years provides a comprehensive sampling period, where critical shifts to UN, New Zealand and GoK policy and structure could be examined.

Search strategy.

To analyse the thematic shift the following search strategy was employed: proximity (Boolean) keyword searching within key policy and ancillary documents, which was ultimately tabulated in Microsoft Excel, and exported via line graphing software.

Search terms were executed serially, and followed two major formats, depending on the construction of the document database. For publicly-available, surface web databases, publicly available search engines were utilised, using the following query: "|"climate * develop*"| climate-*-*-develop* | climate-*-*-*-develop* | climate-*-*-*-*-develop* | climate-*-*-*-*-*-develop* | climate-*-*-*-*-*-*-develop* | global-warming-*-develop* | global-warming-*-*-develop* | global-warming-*-*-*-develop* | global-warming-*-*-*-*-develop* | global-warming-*-*-*-*-*-develop*| site:[relevant site]". The asterisk is a wildcard operator. In the above utilisation, it serves two distinct functions. The first is appended to the word 'develop' to catch all iterations of that word. The second is as a place holder to elicit instances where these iterations of 'develop' occurred within one to eight words of global warming or climate change. Thus, this query would find all results where the word 'climate' appeared within one to eight words of any iteration of the word 'develop' (including 'develop', 'developing', 'development', etc.), and/or instances where the words 'global warming' appeared within one to eight words of any iteration of the word 'develop'. This query terminology illustrates the number of times where climate change responses were promulgated from within the 'development' context.

The previous query was subsequently repeated with 'security' replacing all instances of 'develop', to illustrate the number of times where climate changes responses occurred within the 'security' context. Dates were determined primarily via document dating (where publicly displayed), or via document last modified dates (if in .pdf or .doc format), or javascript (if in .html format): javascript:alert(document.lastModified). For private, deep web databases, query terminology followed the protocol determined by the specific database, using the same search terms as above. Raw data and detailed discussion are included in Chapter Five and also included in the Appendix.

Critical reading.

The third element of research was a critical reading of key texts. Additionally, as part of the fieldwork conducted, the Dag Hammarskjöld Library and UN Archives and Records Centre were utilized to offer additional readings. Using discourse analysis as the guiding framework, a close textual analysis of the 2007 Security Council thematic debate and a 2008 speech by Kiribati's President, Anote Tong, will add to the examination of how these discursive categories are constituted and how they are evolving (as evidenced by public debate, policy discourse, and media coverage). The critical reading analysis will be integrated into analysing the different narratives to give a cohesive understanding of the issues involved.

Chapter Summary

Chapter Four avers a triune methodological framework (text, interview, quantitative analysis) which best addresses the nested triplet of local, regional, and international interactions vis-à-vis climate change in Kiribati. Modest practical limitations relating to the scope of the thesis, absence of fieldwork in Kiribati, numbers of interviewees it was feasible to interview, and accessibility of databases were noted. In the case of database accessibility, limitations were addressed by expanding the breadth of the enquiry when data sources were not comprehensive. In the case of interviewee numbers, significant effort was expended to ensure the broadest possible perspective, including recruitment from governmental officials, NGOs, IGOs, and media. The consonance between quantitative analysis and interview/textual analysis is encouraging.

Working to yield complementary information and establish significant links, the analysis and the results from the research strategy detailed above will be discussed in Chapter Five and further reflected upon in Chapter Six.

Chapter Five – Analysis and Results

Introduction

In the past twenty years the approach to climate change has markedly changed and this chapter will attempt to analyse precisely how the debate is shifting. As early as 2000, the OECD noted suggestions that in the environmental domain "security is simply a code word for sustainable development, although in practice the concerns of both communities may often intersect" (OECD DAC Working Party on Development Co-operation and Environment, 2000, p. 15). Such a suggestion gives rise to questions of origin and currency, that is to say: which element of the security/development dichotomy was the progenitor and which is currently most widespread? This chapter attempts to answer these fundamental questions, thereby contextualising climate change responses in Kiribati.

The first instance of discussing either security or development in the climate change or global warming context took place in 1996, when the South Pacific Regional Environment Programme (SPREP) noted that a meteorological satellite monitoring project had the potential to "provid[e] security and information" to member nations throughout the Pacific region (Koop, 1996, pp. 5-9). The SPREP/WMO Meteorological Satellite Receiving Equipment Project in the Pacific Islands implemented in the Cook Islands, Kiribati, Tonga and Western Samoa was working to improve their national capacity for monitoring and predicting meteorological events (Koop, 1996, p. 7). This initial reference and subsequent references to climate change in the security context percolated until reaching a mini-peak in 2004.

In contrast, the first instance of discussing climate change or global warming in the development context took place in 1999, when the Asia-Pacific Parliamentary Forum situated "key climate change issues" among related matters "such as the clean development mechanism, emission treating and adaptation activities" (Asia Pacific Parliamentary Forum, 1999). References to climate change in the development context seem to be correlated with a preceding reference to climate change in the security context. Security serves as the cause for alarm (the catalyst in the equation); development is the response. This pattern holds across both major chronological eras of climate change attention, and is constant across international, regional, and local organisations. Graphs of these references, across agencies, and comparing concepts across time, are on the subsequent pages.

The graphs were created (as detailed more comprehensively in Chapter Four: Document content analysis) through proximity (Boolean) keyword searching. Using word frequency analysis the following graphs were created to create a quantitative measure of the thematic shift of climate change responses. These graphs were created using a simplified version of Zipf-Mandelbrot language measures. Although different iterations of presenting the material were tested (producing bars, pie,

and area charts), line graphs were chosen as the best way to graphically represent the data. Because the data is being tracked across two continuous dimensions: time and by number of references (trying to show the evolution of references), using bar graphs for the tables was not possible. "In general, line graphs are used to demonstrate data which are related on a continuous scale, whereas bar graphs are used to demonstrate discontinuous or interval data" (Heidcamp, 1995, para. 10). The frequency of appearance of related terms was graphed against time, to demonstrate the diffusion of concepts related to climate change, and to illustrate the thematic shift of climate change measures and the relationship between a security construct and a development construct.

Specifically, the corpus of documents searched for all graphs consist of: New Zealand Parliamentary debates (Jan 2000 – Present), including parliamentary papers, debates, legislation bills, and select committee reports; United Nations Development Programme (2005-Present), including speeches and news articles for UNDP; New Zealand Aid (2006 - Present), including online library, NZAid Annual Review; Ministry of Foreign Affairs and Trade (Jan 2004 - Mar 2009), including key New Zealand climate change documents, media and publications; United Nations Security Council (1943-Present), including resolutions, reports, annual reports; United Nations General Assembly (1943-Present), including UN General Assembly presidential statements, agendas, meeting notes, resolutions, sessions, and thematic debates; Asia-Pacific Parliamentary Forum (1993-Present), online documents; South Pacific Regional Environment Programme (Mar 2001 – Present), including climate change bulletins, snapshots, technical meetings, agendas, reports; Kiribati NewsLIB (Feb 2006 – Present); Kiribati News EIN (May 2004 – Present); and Oceania Kiribati News (Dec 2006 – Present).

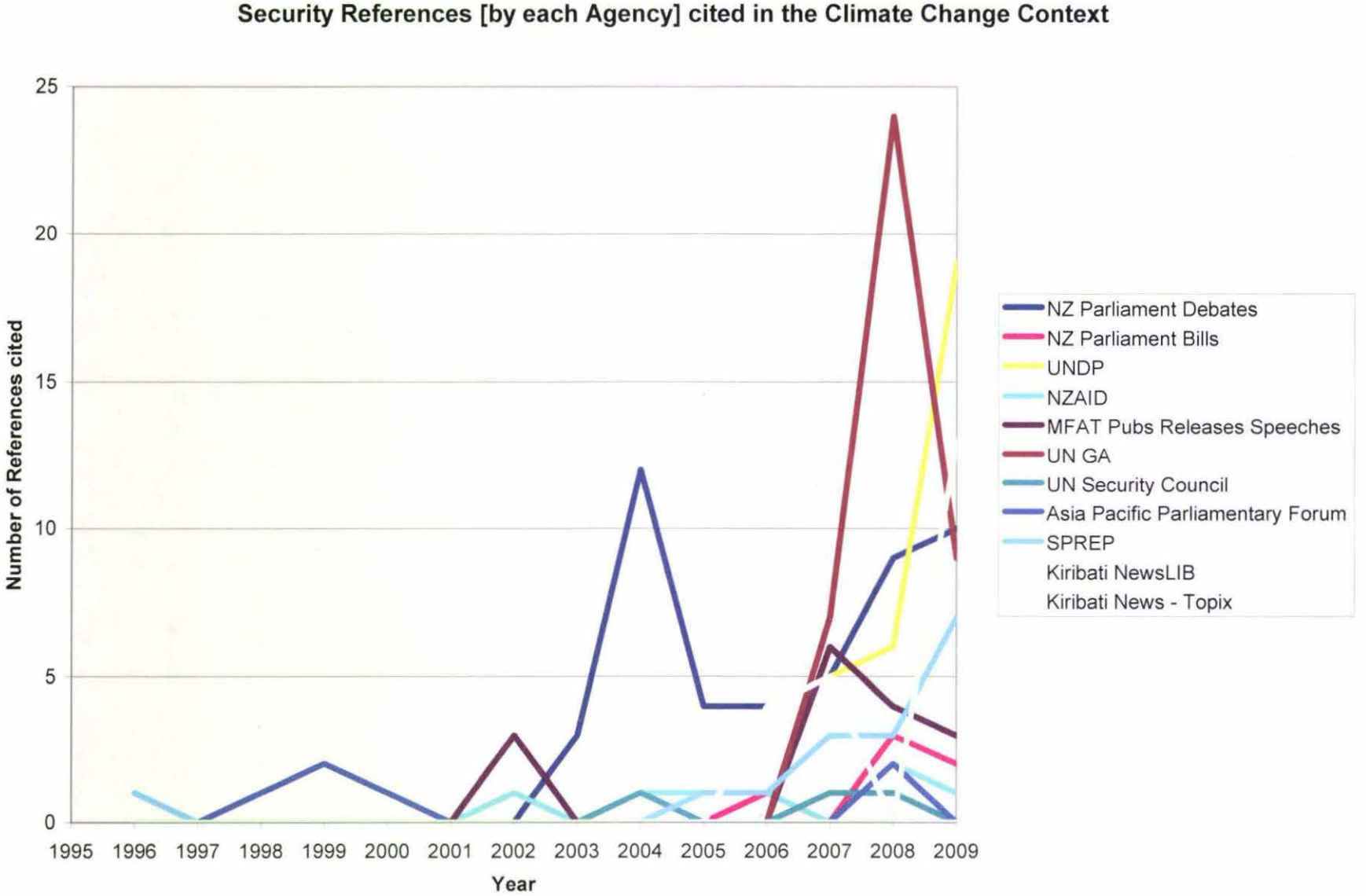
This chapter attempts to provide quantitative and graphical analyses of the dynamic security/development discourse, and to utilise such analyses in service of a broader contextualisation of the evolution of climate change responses in the Kiribati case.

Discourses on Security

In light of the fact that references to climate change in the security context predate such references in the development context, it is important to examine the security domain first. This section will assess the three different scales of policy making: global (UN), regional (Pacific as the regional conglomerate, and Australia and New Zealand as major regional actors) and local (Kiribati) as they relate to security. This section will also demonstrate which discourse currently enjoys primacy in the security context, and how the initial dominance of the security discourse at the regional level coloured the ultimate local/international and development responses.

The first graph presented below, Graph 1: *Security references cited in the Climate Change context*, draws on information from various sources at the international, regional, and local level. In order to assess whether or not the analyses comport with the thoughts of leading practitioners and

academics working in this field, I conducted a series of interviews to elucidate the direction of discourse in regards to security. Where applicable, I have integrated the comments from the interviews into the different scales and discourses, the following sections will serve to highlight some of the more salient points.



Graph 1: ***Security references [by each agency] cited in the Climate Change context***

When documents were not obviously or formally dated, they were given a chronological value based on the date of their inclusion in the database. As reflected in the composition of Graph 1, the time-span for most intensive archival searching was 1996 through to 2010, as this represents the period of greatest consonance across databases. As the graph identifies, and as mentioned previously, 1996 marks the first instance of discussing either climate change or global warming in the security context. Further, Graph 1 provides a quantitative measure of the thematic shift of climate change responses, and illustrates the dramatic spikes (in 2004 and 2008) in security references within the climate change context. The graph shows this by the sheer volume of references to security in the climate change context.

The sources that most frequently referenced climate change and security, in descending order, are UN General Assembly, UNDP, and Kiribati News. The frequency of appearance of climate change references in the security context is most dramatic within the UN General Assembly. Appearing for the first time in 2006 and quickly eclipsing all other sourced references, the use of climate change references in a security context in 2008 marks what graphically looks like a dramatic departure from the preceding 61 years for the UN General Assembly. Rather than a consistent escalation of the frequency of climate change references within the security context, the dramatic spikes of climate change references within the security context suggest that climate change references are being used in a novel and strategic fashion within the security domain.

Security in relative terms.

In relative terms (scaled to the total number of documents hosted by individual sources), the sources that most frequently referenced climate change and security are an interesting and polarised mix of international and local sources. UN General Assembly leads dramatically, and although the sources for UN General Assembly spanned 1943-present, (and included: UN General Assembly Presidential statements, Agenda, Meetings, Resolutions, Sessions, and Thematic debates) the first mention of security within the climate change context was in 2006, rising dramatically in the next two years (2006-2008). As Graph 1 shows, with the apex of security references in the climate change context occurring in 2008, the dramatic increase has been followed by a proportionally dramatic decrease. These findings suggest that the security discourse is giving way to further varieties of discourse (for example, adaptation). Although adaptation was not formally included in the search terms, funding allocations and a cursory examination of documents that emerged from the Copenhagen summit in December 2009 would suggest that adaptation is gaining traction within climate change discussions.

As mentioned in the introduction, the first instance of discussing either climate change or global warming in the security context took place in 1996, but Graph 1 clearly shows that within the past three years security has been referenced in the climate change context much more often.

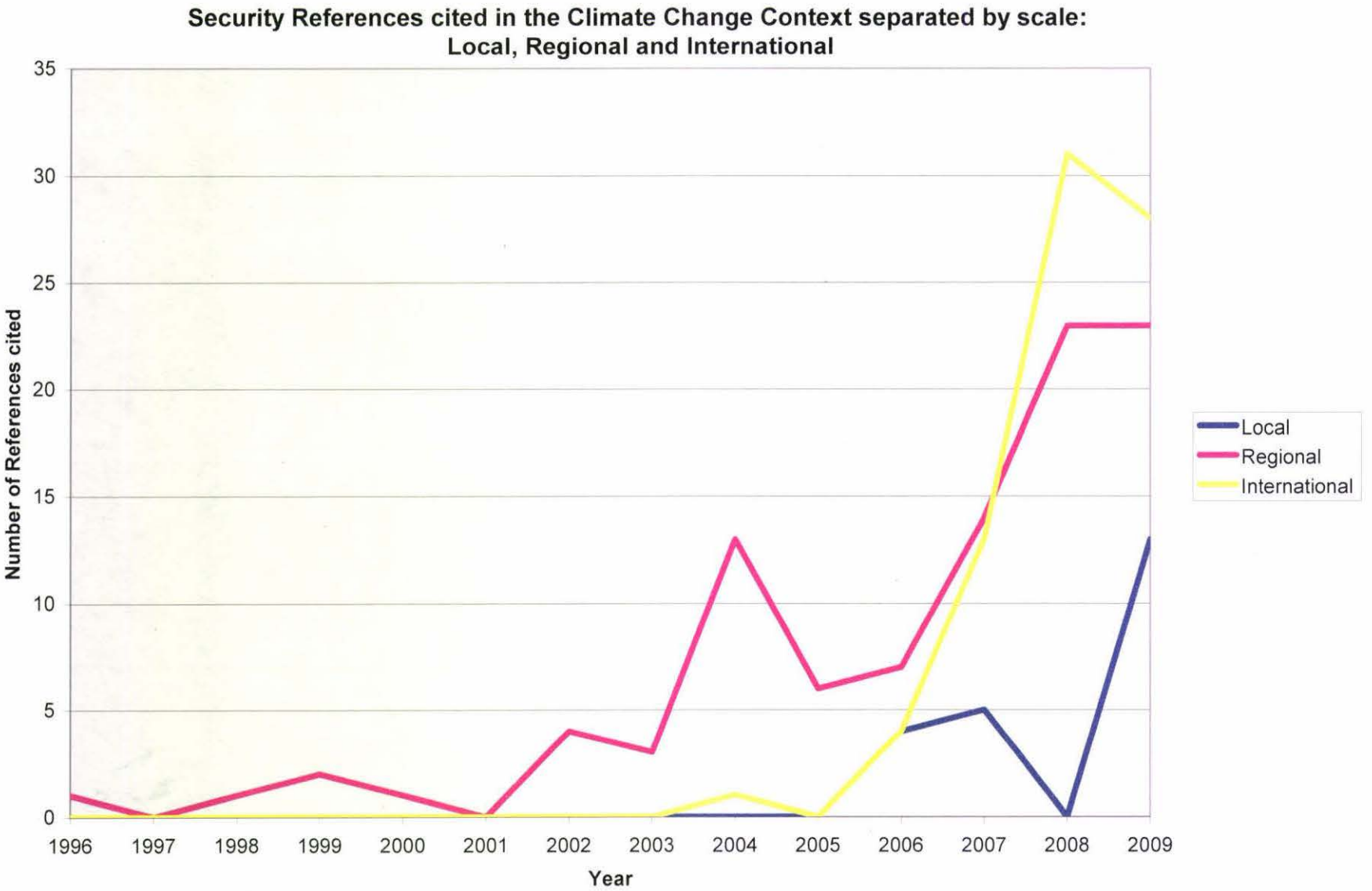
Also noteworthy is the fact that NZ parliamentary debates mentioned security in the climate change context 2003-2005 (peaking in 2004) which preceded and possibly occasioned or catalysed the international momentum of UN General Assembly and UNDP. This shift within the past three years is significant as discourse analysis suggests that the narrative is altering the political landscape and shifting the subsequent responses and actions.

For example, at the 60th session of the UN General Assembly in 2005, when Kiribati's President, Anote Tong, highlighted the need for nations to seriously consider the option of relocation there were subsequent shifts of resources within Kiribati to create a relocation plan and educate citizens of Kiribati. By educating I-Kiribati they will then be able to relocate to Australia and New Zealand as skilled workers (Loughry & McAdam, 2008, p. 2). President Tong's narrative in 2005 has resulted in educational programs, such as the Kiribati-Australia Nursing Initiative (KANI), which was established in 2008 (Tong, 2009). President Tong's chosen narrative is shifting the responses within Kiribati and regionally.

Security in absolute terms.

In order to understand how the narrative may be shifting, it is necessary to look in absolute terms at how security references in the climate change context are interacting. Namely, how do security references in the climate change context interact by scale? The next graph, Graph 2, created again by using word frequency analysis, examines how the security references in the climate change context interact by scale by detailing the number of references cited at the local, national and international level. Graph 2 is comprised of the exact same set of sources and body of documents used in Graph 1, with one distinct caveat: rather than the lines reflecting each individual source, all of the sources were separated by scale into three lines (local, regional and international).

In Graph 2 the international scale is the dominant referent, although it should be noted that the data may be skewed by the sheer volume of sources produced at the international level relative to the volume at the regional and local levels. However, what is interesting, albeit at a lower magnitude, is that there is a marked increase from 2007-2009 in the local level use of security references in the climate change context. These data suggest that the Kiribati sources (local level) examined only began to discuss climate change in the security context after it was made clear at the regional/international level that questions of sovereignty were pre-eminent. It should also be noted that were these data scaled on a per-capita basis, there would be more local references to security than at the national or international levels combined. If President Anote Tong's impassioned pleas and the data in Graph 2 are accurate reflections of the narrative emerging from Kiribati, it would suggest that the i-Kiribati recognise the existential and security threat that climate change represents.



Graph 2: *Security references cited in the Climate Change context separated by scale*

Summary on security.

To summarise briefly, representatives of PSIDS are advocating for increased attention and responsiveness to climate change issues from a security perspective. This security focussed narrative is consistent with the environmental imperatives at the regional and local level within the Pacific. At the international level, however, some member states are resistant to acknowledging the security dimensions of climate change. This resistance is guided in large part by a reticence to accept any financial culpability or burdens that would be implicit in such an acknowledgement (evidenced by the fact that China and Russia emerged as the harshest critics). The resistance to framing climate change discussions solely within a security purview is also partially philosophically and pragmatically motivated. This philosophical reticence, largely existing in macro-level interpretations by academics and development practitioners, desires to address climate change from the viewpoint of sustainable development.

Discourses on Development

To illustrate the thematic shifts of climate change measures and to analyse development references more carefully, Graph 3: *Climate Change references in the Development context* and Graph 4: *Development References cited in the Climate Change context by scale* (below) used the same sources for analysis as the preceding graphs and illustrates the frequency of climate change references in the development context. The sources that most frequently referenced climate change and development are UNDP, SPREP, UN General Assembly, and MFAT. The first instance of discussing climate change or global warming in the development context (in the source databases) took place in 1999, when the Asia-Pacific Parliamentary Forum situated "key climate change issues" among related matters "such as the clean development mechanism, emission treating and adaptation activities" (Asia Pacific Parliamentary Forum, 1999).

Development in relative terms.

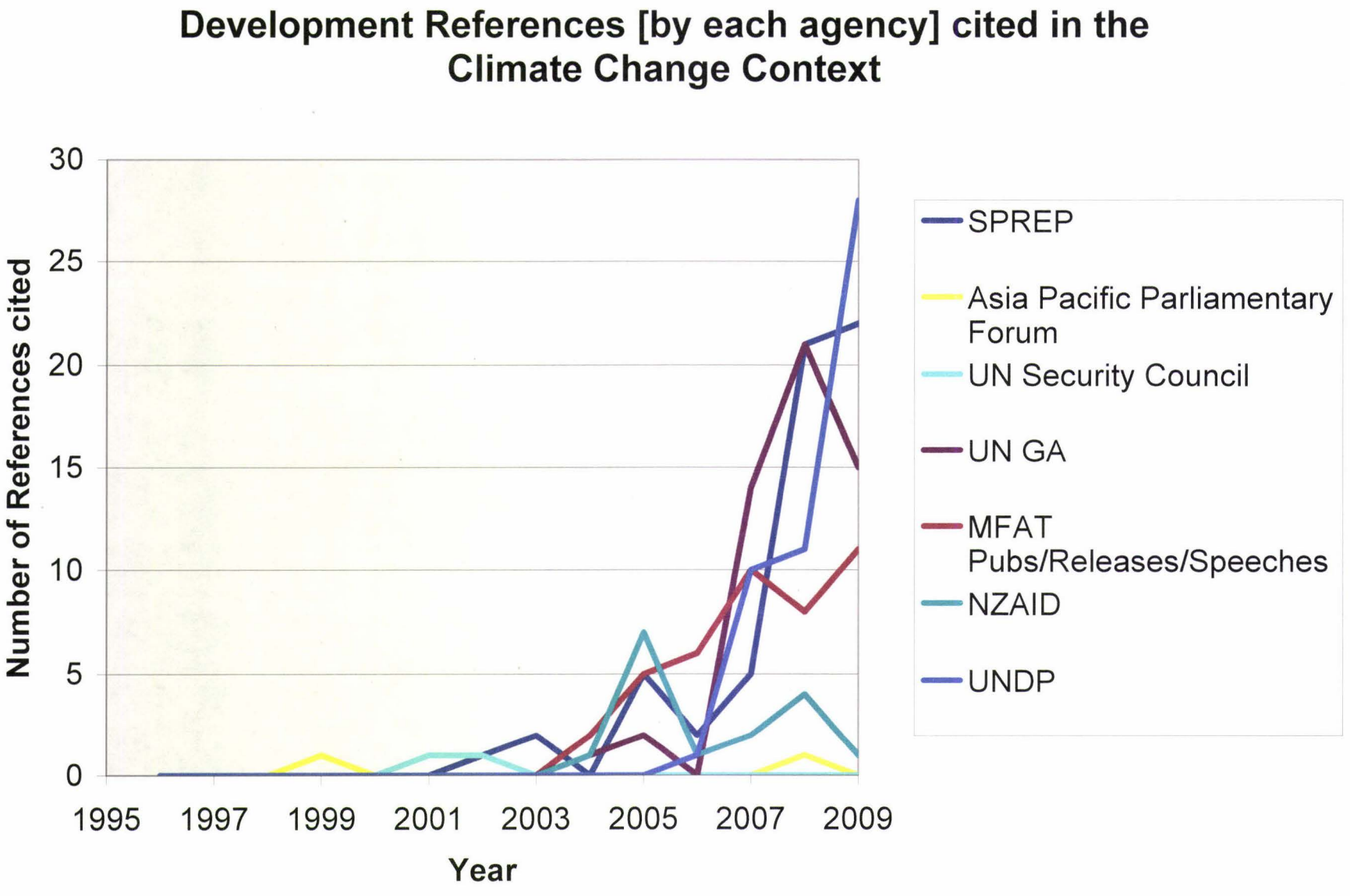
In relative terms (scaled to the total number of documents hosted by individual sources), the sources that most frequently referenced climate change and development offer a dramatic mix of frequency. Graph 3: *Development references cited in the Climate Change context* separates development references by each of the sources used for analysis and graphs the results on the x and y axis by year and by frequency. Relative to each of the sources used, how often are development references cited in the climate change context? The sources that most frequently referenced climate change and development at the end of 2009 were UNDP (international), SPREP (regional), and the UN General Assembly (international), closely followed by MFAT (regional). In 2005, the first spike reflecting the increased number of development references was attributable to references from the

regional level - MFAT and NZAID sources. The second spike of references occurred in 2007 and was led by the UN General Assembly and UNDP.

This graph highlights the relative complexity in teasing apart the relative discourses by scale: the number of times that development is referenced within the climate change context cannot discretely be categorised into respective scales. However, some interesting insights can be extrapolated from this graph. The first insight is that development references at the local level are absent, and the second valuable insight is that while there are subtle variations should be noted once the references are separated out into relative terms, there are overarching trends once the sources are grouped together by scale.

The next graph *will* separate the development references by scale (that is, local, regional and international), but I felt that it would have been remiss to exclude Graph 3 and the opportunity to highlight some of the difficulties in drawing absolute comparisons. For example, in Graph 4, where the development references are separated by scale, the international scale is the dominant referent, with the regional level first mentioning development within the climate change context, but quickly eclipsed by the frequency of development references at the international level. However, this graph misses some of the subtlety and nuance captured in Graph 3.

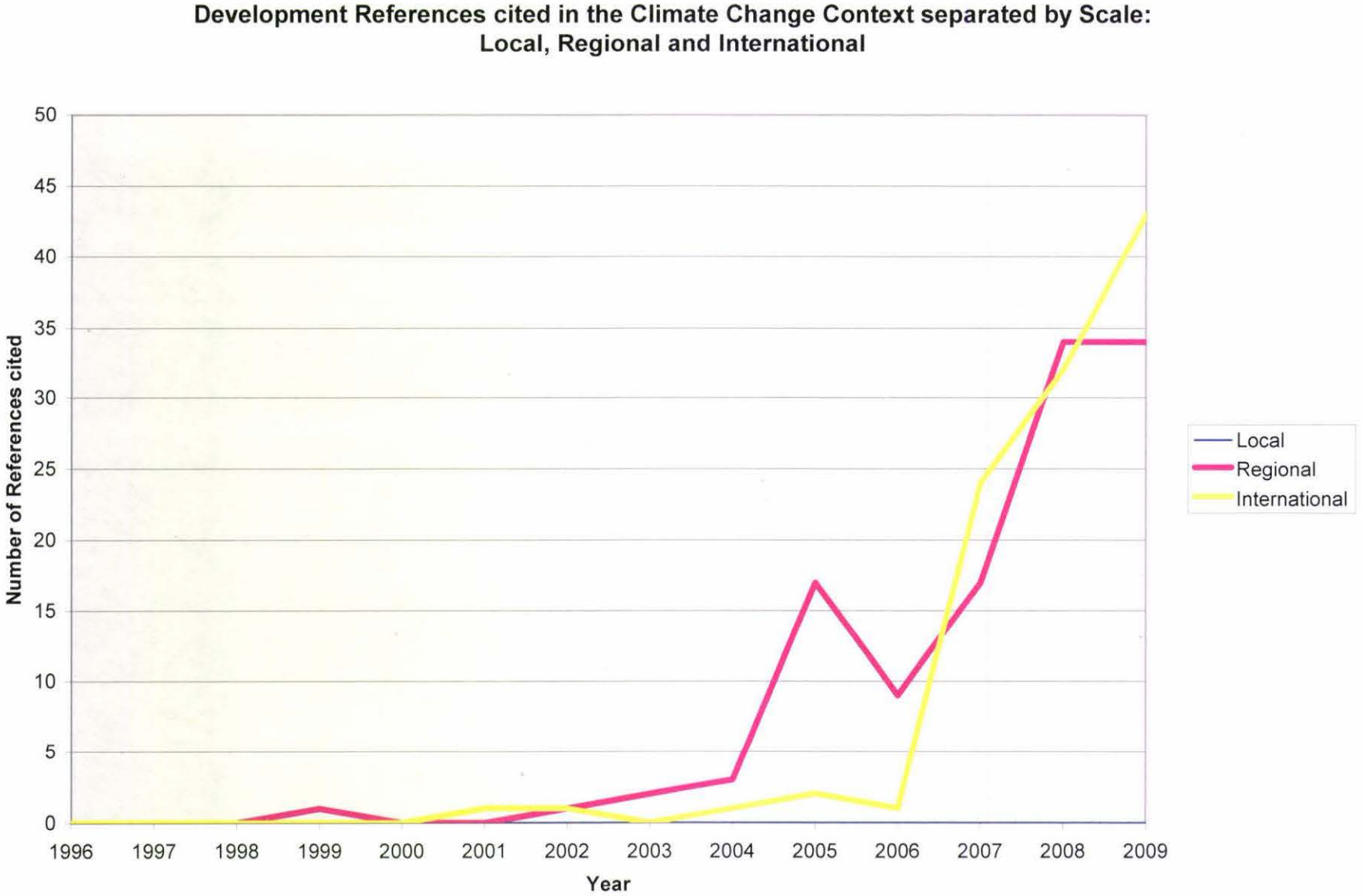
Graph 3 shows that in 2005 development references were most often cited by NZAID and MFAT, however, this information is muted in Graph 4 when all of the regional sources are grouped together. This information reveals the influence of the regional level as this trend was followed at the international level by dramatically increased references in 2006 and 2007 by both the UN General Assembly and UNDP.



Graph 3: ***Development references [by each agency] cited in the Climate Change context***

Development in absolute terms.

In absolute terms the question is, how do development references in the climate change context interact by scale? The next graph, Graph 4: *Development References cited in the Climate Change context by scale,* examines how the development references in the climate change context interact by detailing the number of references cited at these different levels. The international scale is again the dominant referent (as with security), with the regional level closely following and mirroring the frequency of development references. There is a noted absence of local development references in the climate change context. Of the sources for the analysis that were used at the local level: Kiribati News LIB (Feb 2006 – Present); Kiribati News EIN (May 2004 – Present); and Oceania Kiribati News (Dec 2006 – Present); there were zero references to climate change within the development context. Whilst there was a dearth of local references to climate change, regional references preceded international references, although regional references were ultimately superseded by international references in absolute terms. This suggests that local entities did not have the philosophical focus or infrastructure to consider climate change in the development focus, but that the subject was below the radar for international entities. Regional powers precipitated the climate change and development response, but the torch was ultimately passed to international organisations. At every peak (or spike in references -1999, 2003, 2005), regional entities precede international entities chronologically, but are eclipsed by number of references in absolute terms. We can see this more clearly in Graph 3 where the Asia Pacific Parliamentary Forum is the dominant referent in 1999, followed by NZAID in 2001, and subsequently with UNDP leading in 2003. This trend is again repeated when NZAID and MFAT lead in 2005, but the regional references are eclipsed by UNDP and UN General Assembly in 2007.



Graph 4: ***Development References cited in the Climate Change context separated by scale***

Summary on development.

Development, as discussed at both the regional and international level, has the capacity to address interconnected problems. In recognition of this fact, the international and regional discourse reflects this reliance on development. However, development has much less cache and will provoke a much less dramatic response at the local level. Regional powers triggered the climate change and development response, with international organizations responding to the narrative linking development and climate change.

Security versus Development

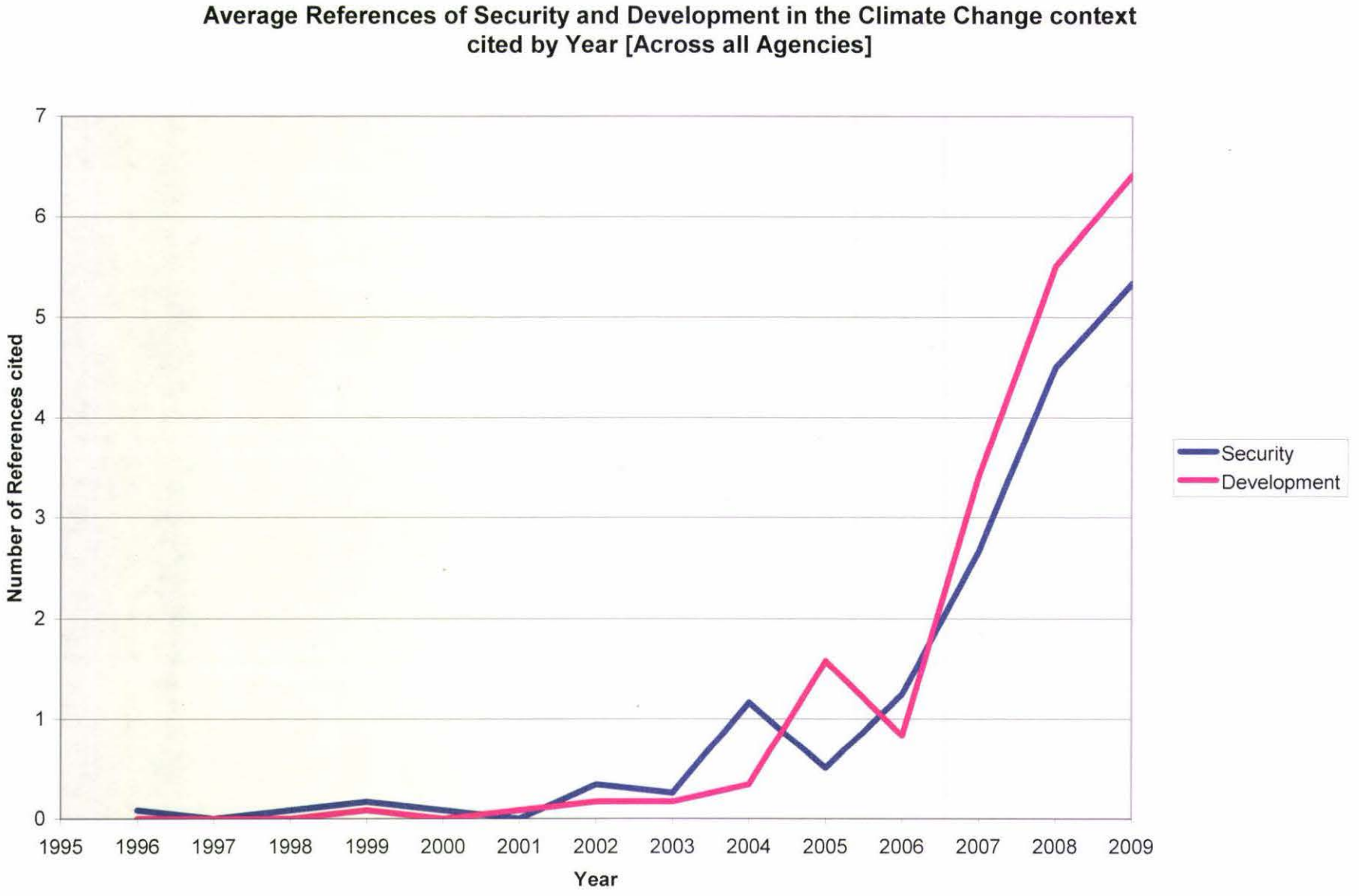
Average references of security and development by year.

A much more nuanced and illuminating look at this interplay is created by the next graph, Graph 5: *Average References of Security and Development in the Climate Change context cited by Year [Across all Agencies]*, that represents on a linear scale the security and development references within the climate change context by year. Graph 5, using the sources for analysis at the international, regional and local level detailed earlier, averages development and security references by year and illustrates the frequency across all agencies, highlighting the broad thematic shifts of climate change measures. From this graph we can extrapolate some understanding of the intersection between a security construct and a development construct. References to climate change in the development context seem to be correlated with a preceding reference to climate change in the security context. Security serves as the trigger for alarm, acting as the catalyst in the equation, with development forming the response. This pattern holds across both major chronological eras of climate change attention, and is constant across international, regional, and local organisations. Graph 5 also highlights observable changes in the responses to climate change, most notably the sharp increase in 2006 in the absolute number of references.

Although beyond the scope of this thesis, the findings suggest that were we to analyse references to the environment in the same manner (and using the exact same data set) we would find that climate change effects were sequestered almost entirely in an environmental domain prior to 1996. This hypothesis is based partially on the fact that although the sources used for analysis date as far back as 1943, the first instance of security and development within the climate change context emerged in 1996. The idea that climate change effects were considered through an environmental domain also comports with the time frame of the early and ground breaking conferences beginning in 1972 at the Stockholm Conference on the Human Environment and the 1980 World Conservation

Strategy. A more explicitly linking of climate change and development occurred in 1992 at the Rio Conference on Environment and Development.

Flowing from the analyses that have been performed, it may be valuable to analyse the frequency and use of adaptation references versus mitigation references in predicting future policy formation in the field of climate change. Based on this data, implications for the future, to be discussed more thoroughly in Chapter Six, suggest that the thematic shift of climate change measures will not be confined to a security construct or a development construct, but will use both, and further utilise a human rights construct to use discussions of equity and justice in the field of climate change.

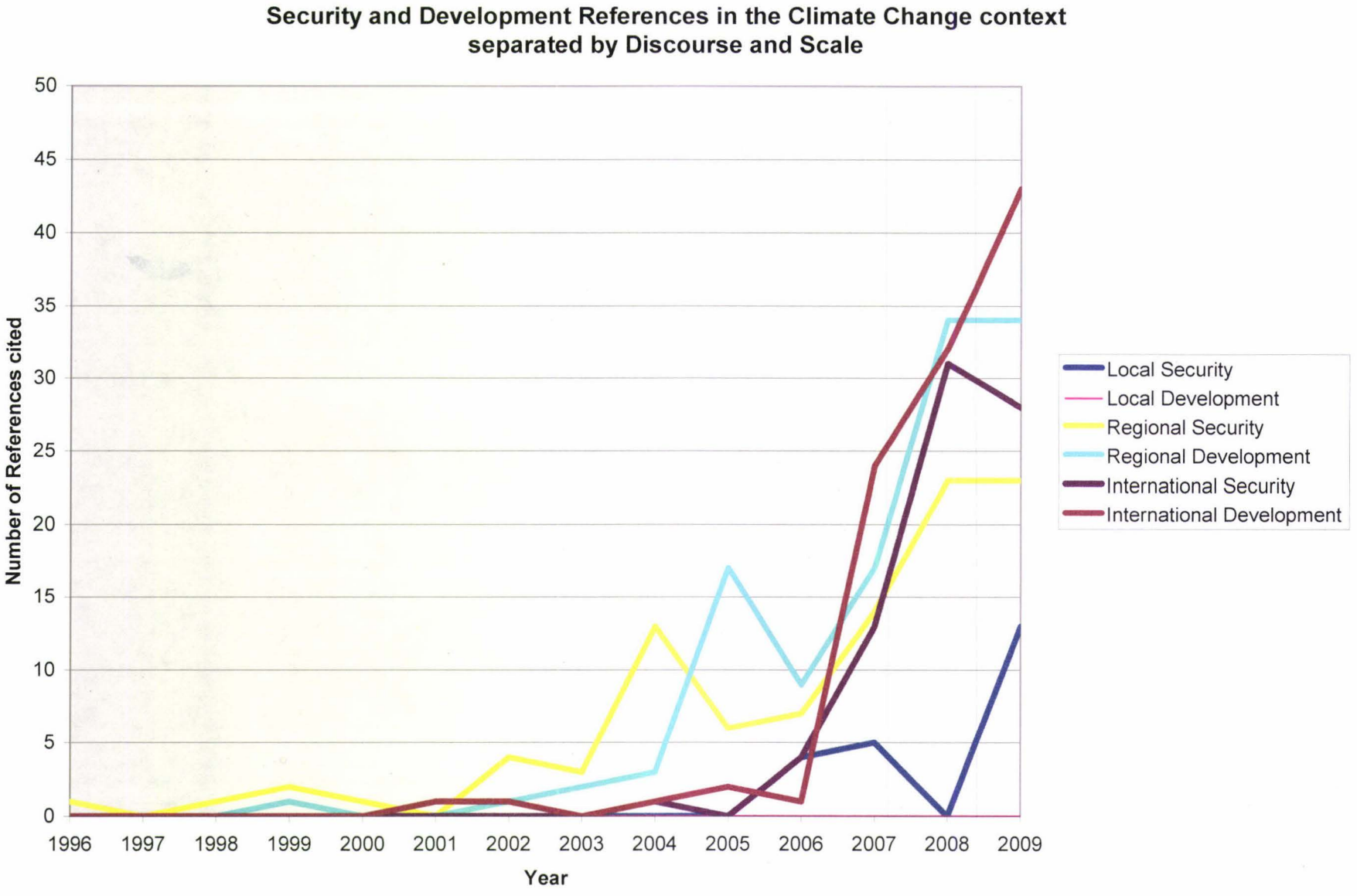


Graph 5: ***Average References of Security and Development in the Climate Change context cited by Year [Across all Agencies]***

Security and development references by discourse and scale.

Graph 6: *Security and Development References in the Climate Change context by Discourse and Scale* extracts the references to either security or development and highlights at what scale the reference occurred. For instance, the sources for the analysis at the international level included: United Nations Development Programme (2005-Present): speeches and news articles for UNDP; United Nations Security Council (1943-Present): Documents (Resolutions, Reports, and Annual Reports); United Nations General Assembly (1943-Present): UNGA Presidential statements, Agenda, Meeting, Resolutions, Sessions, Thematic debates. The information in Graph 6 separated out the data within the international level to international security and international development. Drawing from the same body of documents used for the other graphs, Graph 6 separates the security and development references in the climate change context by discourse and scale. At the international level development references in the climate change context number 43, while international security references in the climate change context and drawn from the same data total 28.

Overall in Graph 6: *Security and Development References in the Climate Change context by Discourse and Scale,* the trends show that international development and regional development are responsible for the greatest number of climate change references, followed by international security and regional security. Total references to climate change in general grow every year, so the primacy of international/regional development references may be owing to their greater recency. In all domains, security references precede development references, with the caveat that local development discourse is notably absent.



Graph 6: ***Security and Development References in the Climate Change context separated by Discourse and Scale***

Chapter Summary

In short, the data and analysis in this chapter is in service of the two broad aims of this thesis: to assess the evolution of policy responses to climate change in Kiribati and to analyse the implications of those policy responses. The data compiled highlights the evolution and intersection between the three scales of policy making and shows that in international affairs security has been used as the naturalised focus of attention with references to climate change in the development context correlated with references to climate change in the security context. In an attempt to secure an in-depth understanding of this relationship between development and security, the second component of the research, semi-structured interviews and close textual analysis, supports and complements the data produced in the document content analysis. The aim of this chapter was to provide quantitative and qualitative measures of the thematic shifts of climate change responses, and to highlight and identify some commonalities and differences in responses across scales.

Chapter 6 will include research conclusions, implications and discussion based on this data, and will include philosophical implications and future considerations for Kiribati and PSIDS. The concluding chapter of this thesis will also revisit the aims and objectives detailed in the first chapter.

Chapter Six – Discussion and Conclusions

Introduction

The concluding chapter of this thesis highlights some of the key findings from the research on security and development, with details regarding the broader philosophical implications. After outlining some of the implications, future considerations are presented and some critical conclusions are drawn. Finally, a brief summary of the thesis and a section reviewing the initial objectives will conclude this last chapter.

The recent events at the 15th meeting of the Conference of the Parties to the UNFCCC in Copenhagen should be briefly considered, given that the proceedings have a direct influence on future policies. After a build-up that lasted more than two years, the United Nations Climate Change Conference in Copenhagen (7–18 December, 2009) was at best anticlimactic. Far from reaching an ambitious global climate deal, two weeks of negotiations progressed the climate change debate very little from where it started at the Bali summit in 2007 – "with no more than a non-binding political agreement to keep talking" (Evans & Steven, 2010, p. 3). Modest successes were not entirely absent: a plan was mooted for all countries to make specific commitments to reduce or limit the growth of emissions, and a new provision was made for some form of external review of how effectively developing countries are controlling the growth of their carbon emissions (Evans & Steven, 2010; CoP-15, 2009a).

Security

International level discourses related to security and climate change.

With a binding and meaningful agreement not reached at Copenhagen, Officials F, A, and C, albeit with varying degrees of certainty, predicted that the Security Council will logically be the next venue that vulnerable countries take their concerns to more consistently on climate change matters. The Security Council is the organ of the UN that can begin to take more drastic measures in the absence of broad based acceptance at Copenhagen and the perceived shortcomings of the UNFCCC process. PSIDS note that there may be a risk in thinking that the UNFCCC process will solve everything. Official F states:

> International law is shaped by the more times you see it written down. The more times you see that certain states have certain responsibilities within the context of climate change, the more likely it is that it is going to be respected as binding customary law. The more times that you see that security is implicated with climate change, the more foundational that concept will be in future discussions (personal communication, 15 July 2009).

At the international level this suggests that the narrative regarding the effects of climate change is beginning to rely more heavily on the security dimensions. The international level discourse linking security and climate change arguably began in earnest on April 17, 2007, at the UN Security Council open debate on energy, security and climate change. The meeting, called by the United Kingdom as it held the presidency of the Council, aimed to examine the relationship between energy, security and climate, and "featured interventions from more than 50 delegations, representing imperilled island nations and industrialized greenhouse gas emitters alike" (United Nations, 2007b, para. 2). In the day-long debate it was repeatedly stressed that issues placed on the Security Council's agenda, as determined in the 1948 Charter of the United Nations, must involve "a threat to international peace and security" ("Article 39, Chapter VII: Action with respect to threats to the peace, breaches of the peace, and acts of aggression," 1948). However, the chair of the session, British Foreign Secretary, Margaret Beckett, said that climate change was a security issue, and not merely a matter of narrow national security – it was about "our collective security in a fragile and increasingly interdependent world" (United Nations, 2007b, para. 68). Evoking a background of fragility and interdependence is a decidedly passive note if counterpoised with classic sabre-rattling security discourse relating to nuclear proliferation or the like. This word choice, and the relation of security and fragility, is a highly emotive enterprise with specific connotations.

In addition to Ms. Beckett's statement, and very shortly after that debate, UN Secretary General Ban Ki-Moon declared in no uncertain terms that climate change is "at least as big a threat to the world as war" (Osborne, 2007, para. 1). Again, recognizing that "[g]lobal decisions are not just negotiations between diplomats" and that "the narrative is just as important as the national policy" Secretary General Ban Ki-Moon's use of the word 'war' seems to necessitate a specific degree of action and response (Evans & Steven, 2009). In this construction, climate change – being a security issue comparable to war - would fall under the purview of the Security Council. Yet, work remains to be done to build consensus among members for the Security Council to play an effective role in addressing climate impacts on security.

Within the UN system only the Security Council is endowed with comprehensive coercive enforcement authority to address international threats. This authority rests on the UN Charter, as outlined previously and interpreted and applied since the UN's establishment in 1945 (Penny, 2007, p. 56). The Security Council alone possesses coercive legal authority sufficient to compel state action when international peace and security is threatened, rendering it the most powerful UN organ (Penny, 2007, p. 56). The Security Council is a representative body composed of five permanent members [known as the P5] and ten non-permanent members, the Security Council acts on behalf of all UN Members, who have expressly conferred upon it "primary responsibility for the maintenance of international peace and security" (Penny, 2007, p. 56). However, as will be outlined in this

section, determining what precisely constitutes a threat to international peace and security can be ambiguous and subjective.

At the Security Council Thematic Debate, Papua New Guinea's representative, Robert G. Aisi, speaking on behalf of the Pacific Islands Forum, said that the impact of climate change on small islands was "no less threatening than the dangers guns and bombs posed to large nations" (United Nations, 2007b, para. 8). This narrative, from a regional representative within an international context, is heavily influenced by the security components of climate change. Aisi noted that Pacific Island countries are likely to face in the not too distant future massive dislocations of people, analogous to population flows sparked by conflict. The impact on identity and social cohesion were likely to cause as much "resentment… hatred and alienation as any refugee crisis" (United Nations, 2007b, para. 8). "The Security Council, charged with protecting human rights and the integrity and security of States, is the paramount international forum available to us," he said (United Nations, 2007b, para. 9). The Forum did not expect the Council to get involved in Climate Change Convention negotiations, but it did expect the 15-member body to keep the issue of climate change under continuous review, to ensure that all countries contributed to solving the problem and that those efforts were commensurate with their resources and capacities. It also expected the Council to review sensitive issues, such as implications for sovereignty and international legal rights from the loss of land, resources and people (United Nations, 2007b).

Afelee F. Pita as a representative of Tuvalu (again, a national/regional representative functioning at the international level) was also among the fifty speakers who spoke at the Security Council Thematic Debate and reiterated the view that the issue of climate change and environmental security is a topic of extreme importance to small, atoll nations (United Nations, 2007b). Mr. Pita's comments, although he was acting in his capacity as a local representative of Tuvalu, is included in this section regarding international level discourse because the international audience is possibly the largest determinant in guiding the tenor of the discussion. Were Mr. Pita speaking in Tuvalu, to Tuvalans, it is quite plausible that he would have adopted a different tone and muted the terminology.

In addition to the environmental security references, Mr. Pita said the world had moved from the cold war to the "warming war", in which chimney stacks and exhaust pipes were the weapons, and it was a "chemical war of immense proportions" (United Nations, 2007b, para. 82). This rhetoric and the references to "war" and "weapons" seems to purposefully situate the discussion within the security domain.

Further, Mr. Pita discussed that the world needs a mix of energy sources easily accessible to all countries, since it was clear from ongoing world crises that there were security dimensions to prohibitive access to and use of energy. He noted that imported fossil fuel was one of the greatest drains on Tuvalu's economy, and the high costs of energy threatened the country's security. Partially

as a result of Mr. Pita's agitation, and other members at the debate, the Security Council was called on to understand and respond to the new and emerging concepts of security and conflict in light of climate change and its attendant effects (United Nations, 2007b, para. 83). The commonality of the discourse: representatives of PSIDS agitating for a security perspective, in conflict with resistance from Security Council members and developed member states, provides meaningful insight into the imperatives at the regional level.

Regional level discourses related to security and climate change.

Given that references to climate change in the security context were originally made at the regional level, the role of regional institutions remains important. Members of PSIDS (Pita and Aisi), as well as advocates for PSIDS, (Beckett and Ki-Moon), are using specific rhetoric to escalate the terms of the climate change debates. Whether it be to increase international attention or funding, or evident by subsequent initiatives and projects, the narratives from these representatives alters the responses. Following the 2007 thematic debate, the revised draft resolution, now entitled 'Security and Climate Change' was introduced by a group of over 50 member states of the UN General Assembly on Friday, October 24, 2008, at the 63rd session of the General Assembly (General Assembly, 3 June 2009). Originally sponsored by the PSIDS, the resolution gained momentum and was eventually co-sponsored by many nations who recognize the gravity of the threats of climate change to international peace and security.

The draft resolution called on the UN Security Council to take urgent action on the security threats posed by climate change to peoples around the world. The resolution specifically requested that the Security Council follow up on the thematic debate of 2007 on "Energy, Security and Climate" by considering and taking action to address the very real threats to international peace and security resulting from the negative impacts of climate change, including those associated with rising sea levels, increasing frequency and intensity of natural disasters, and declining access to food and fresh water (Pacific Small Island Developing States Permanent Mission to the United Nations, 2008). Both the Security Council and Secretary-General are urged in the resolution to update the General Assembly on progress toward these goals during the coming year.

Islands First is a New York-based NGO that assists the small island states by (1) building the capacity of their UN missions by providing highly trained, professional advisors, (2) creating and sustaining strategic networks of scientific, environmental, and policy experts in order to share information and coordinate activities, and (3) devising comprehensive political strategies for advancing their environmental agenda (Islands First, 2009). Islands First was instrumental in the drafting and formation of the resolution. Official F is the Executive Director of Islands First, The Chairperson of Islands First is Ambassador Stuart Beck, Palau's first Ambassador to the United Nations, serving continuously in his position from 1994 to the present. As Official F detailed in the

interview, Islands First is a "capacity building and climate change action organisation. The way we have chosen to take this action is by supporting the best advocates out there - the Small Island Developing States" (Official F, personal communication, 15 July 2009). Further, Official F stated that, "the Islands themselves are the best voices for strong climate change mitigation and oceans protection, and we want them to do the talking. Our role is to help them to become better advocates" (personal communication, 15 July 2009). Towards that end, and increasing their capacity to act as advocates for their needs and wants, Islands First was instrumental in the germinal and formulative stages of the non-binding resolution, passed by consensus by the General Assembly (Jariabka, 2008).

The draft resolution introduced climate change as an important development issue and simultaneously included language to signal the important link between climate change and sustainable development. The assertion within the resolution is that climate change is a development issue with security implications, and the implicit understanding is that both aspects of the effects of climate change should be addressed accordingly. PSIDS recognise that the Security Council is uniquely mandated by the international community to address these existential issues, and urges Council Members to do so urgently (Jariabka, 2008).

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However, and despite the original momentum, "[t]he politics [surrounding the resolution] proved to be more complicated than the issue itself" (Official F, personal communication, 15 July 2009). As Official F elaborated, the issue itself is "fairly straightforward", "sea-levels are rising, territorial integrity is threatened, and there is a clear link with the effects of climate change and security issues"(personal communication, 15 July 2009). Following this logic, the resolution simply says that climate change warrants greater attention from the UN as a possible source of upheaval worldwide and calls for more intense efforts to combat it. The issue and the text of the original resolution inspired intense wrangling, with some nations accusing the islanders of "both exaggerating the still murky consequences of climate change and trying to expand the mandate of the Security Council by asking it to take action" (MacFarquhar, 2009, para. 8). Official F discussed at length the issues that arose and the resistance that the resolution was met with. The resistance to the resolution is borne out by the conflicted nature of UN member states' views.

With climate change, clear cross-border consequences can be identified and cogent arguments that the effects of climate change represent 'threats to international peace and security' are beginning to receive the general support of UN Members. Some member states are calling on the Security Council to take urgent action on the security threats posed by climate change to peoples around the world. While the precise legal limits of the Security Council and the efficacy of the Security Council intervening in this realm warrant further detailed investigation, the non-forceful measures available to the Security Council to react to non-traditional threats are extensive and varied, "ranging from economic sanctions to the imposition of mandatory domestic legislative requirements" (Penny, 2007, p. 57). The Security Council can establish subsidiary organs to monitor and review state compliance with its decisions. As a last resort, the Security Council may even authorise the use of military force. In all such cases, the appropriateness of adopted measures falls solely within the discretion of the Security Council to determine, but should be expanded to include additional determinants (Burleson, 2009; Penny, 2007, p. 57).

Many member states, as summarized succinctly by the Egyptian ambassador, Maged A. Abdelaziz, "don't consider climate change is an issue of security that properly belongs in the Security Council; rather, it is a development issue that has some security aspects." (MacFarquhar, 2009, para. 9). This contention was supported by powerful Security Council members including Russia and China, who questioned whether the issue belonged in the Security Council (detailed in Chapter 3 – detailing UN Resolution "Security and climate change" A/63/L.8). In direct rebuttal, Nauru Ambassador Marlene Moses told the General Assembly, speaking on behalf of the Pacific Small Island Developing States which introduced the resolution: "We are of the firm view that the adverse impacts of climate change have very real implications for international peace and security" (Parsons, 2009, para. 3). Additionally Beck notes, "[f]or the first time in history, you could actually lose countries off the face of the globe" (MacFarquhar, 2009, para. 7). This rhetoric suggests that

security and development issues intersect. As Official F remarked in the interview, "conflict is very rarely caused by an easily identifiable event or issue, it usually is the confluence of a number of different factors - beginning with the governance, capacity, and wealth, development and national cohesiveness of any given country" (personal communication, 15 July 2009). Whether something can be identified as a security or development issue can also depend on the vulnerability of specific countries to certain natural processes. What may be an existential security issue for one country may be easily manageable for another. Elaborating on the Pacific Islands context, Official F elaborated by saying, "sea-level rise for PSIDS is more than a development issue," suggesting that there are cascading effects of climate change that security debates try to take into consideration. Effects that Official F believes development thinking does not necessarily always capture.

In addition to questions regarding whether this issue and the resolution belonged within the purview of the Security Council, Official F notes that there is an ongoing debate on the role of the Security Council in relation to the General Assembly. Although General Assembly resolutions are largely symbolic they can carry moral weight; PSIDS identified and appreciated that the General Assembly is a much more democratic body in structure, as all states are represented, whereas with the Security Council there was a "concern about giving the Security Council too much power within the Pacific" (Official C, personal communication, July 27, 2009). This partially explains the transformation from the first draft to the second draft of the resolution. The second draft, which was the accepted resolution tabled and accepted by the General Assembly, does not mention such specific steps. Britain, which originally introduced climate change as a Security Council discussion topic in the 2007 thematic debate, supported the revised version of the resolution. Most of Europe supported the resolution as well, while other permanent Council members — namely, the United States, China and Russia —backed the measure once it no longer explicitly demanded Security Council action (Jariabka, 2008).

On June 1st, 2009, the UN General Assembly unanimously passed the resolution urging the relevant organs of the UN to intensify their efforts to address the security implications of climate change, including sea-level rise. The resolution recognizes climate change as a possible threat to security and marks a symbolic victory and the culmination of a year-long campaign by a coalition of PSIDS to focus the attention of the international community on the security aspects of climate change and to refer the issue to the Security Council (Jariabka, 2008). The resolution said the 192-member General Assembly was "deeply concerned that the adverse impacts of climate change, including sea-level rise, could have security implications" (United Nations General Assembly, 2009). Although international organizations and national governments have been examining the links between climate change and security issues, the resolution marks the first time that the full UN General Assembly made the explicit connection via a formal instrument.

Speaking only weeks after the resolution was accepted, Official F detailed some examples of things that may be actionable from the resolution: "climate change could be added as a permanent agenda item for the General Assembly, a regular world summit on climate change could be convened annually, [and] a permanent position for security and climate change could be established" (personal communication, 15 July 2009). With this resolution, PSIDS were hoping for the CoP-15 Copenhagen process to result in "outcomes [that are] driven by science and not politics. They want to make sure that the most vulnerable are at the foremost of everyone's concerns" (Official F, personal communication, 15 July 2009). To paraphrase Official F's sentiments, the Pacific in general has an interest in the climate change debate being not simply a matter of economics, but also a debate on ethics and responsibility and morality, as well as the acceptability of adapting to the effects of climate change. "It seems kind of obscene to calculate a cost-benefit analysis when people are at risk of permanently losing their homes" (Official F, personal communication, 15 July 2009).

It can be assumed that the drafters of the non-binding resolution, passed by consensus by the General Assembly, hope that this resolution may help put climate change on the agenda of the more powerful UN Security Council, which deals with threats to international peace and security. General Assembly resolutions are largely symbolic, but carry moral weight and set meaningful precedents, as resolutions may "eventually *become* binding, through state practice, as customary international law"(Barsh, 1996, p. 790) [*emphasis in original*]. Other experts also reference the possibility that such resolutions may "eventually lead to a convention" (Barsh, 1986, p. 378) or even serve as a de facto convention insofar as "a declaration alone, if well crafted and supported by governments, could achieve as much as a binding instrument" (Barsh, 1986, p. 378).

In a similar context, member states deliberating the UN Declaration on the Rights of Indigenous Peoples "took pains to remind delegations that declarations can have a 'moral' influence on state practice, and usually lead to the drafting of a binding instrument" (Barsh, 1996, p. 790). Some scholars contend that the Security Council has the legal authority to address the causes and consequences of climate change, and that its recent counter-terrorism and non-proliferation measures provide an illustrative institutional framework within which to address this emerging 'threat to international peace and security' (Penny, 2007, p. 35).

Initiatives like the General Assembly resolution shape the debate and lay the groundwork, beyond the UNFCCC process. The resolution marks the first symbolic success for PSIDS looking for alternative options to the UNFCCC process and actively working to find support in other places. Some are hesitant to work outside the UNFCCC process, recognising that coordination is important, but there may be value in broadening the PSID approach and finding more options - especially in light of the fact that the solutions to these problems still seem elusory.

Local level discourses related to security and climate change.

President Anote Tong of Kiribati, as the chosen ambassador for the local level discourse within this thesis, is an impassioned and articulate proponent of adaptation to climate change. As mentioned previously, President Tong's impassioned pleas for recognition of the effects of climate change on Kiribati (and other PICs) form the impetus behind this thesis. President Tong spoke on Sept. 22, 2008 at the Science Center as part of the Harvard University Center for the Environment's "Green Conversations" lecture series. As the most obvious spokesperson for Kiribati, and the gauge by which we can most appropriately determine the national narrative for Kiribati, President Tong offers insight into how I-Kiribati are generating their own altered realities, "setting the terms of debates, changing political landscapes and shifting power relationships between people, institutions and non-human entities" (McNamara & Gibson, 2009, p. 476).

As quoted in the article published by the Harvard News Office following his speech, President Tong said: "We are in danger of falling off the other side if we keep moving back" (Powell, 2008). Tong further elaborated by saying that when he talks about the coming humanitarian disaster, other nations only want to talk about terrorism or the economic impact of steps to curb global warming. "While it may be a matter of economics for some of you, for us it's not economics; it's a matter of survival," he said (Powell, 2008)."As a leader, what do you do? Tell them to wait for the water to come and they will drown and I will drown with them?" (Powell, 2008)

Official A offered insight on Tong's narrative from an academic and philosophical perspective. Official A is an academic philosopher working as an associate professor at the Kennedy School of Government at Harvard University with an emphasis on political philosophy, and particular specialisation on a range of questions including equality and responsibility, equality of opportunity. He has focused primarily on questions of global justice, including topics such as obligations towards the poor, how the global order might harm the poor, fairness in trade, human rights, immigration, and the justifiability of the state. Official A believes that: "Global climate change is *the* policy problem that we have at the global level" (Official A, personal communication, 11 August 2009). Official A became interested in Kiribati and PSIDS when Tong spoke in September 2008 at the Harvard University Center for the Environment. Official A noted that President Tong's presence and rhetoric is pushing for a change. President Tong's rhetoric included the use of highly emotive words: urgency, extinction, relocation and is consistent with the severity of the problems for Kiribati. Official B, another academic with an economics background, largely concurred with Official A's appraisal of the sentiment, but offered a cautionary word that calling for change at the international level can truncate or obviate the need for local and national responsibility (Official B, personal communication, 11 August 2009). In addition, "[t]he dangerous thing about [framing climate change] as a security issue is that it forces the response to become introverted" (Official A, personal communication, 11 August 2009).

Climate change is a problem of global proportion – framing it as a security issue is obviated if we are operating from the premise that we globally and collectively own the earth. Framing climate change within the security context could potentially lead to "navel gazing", Official A suggests (personal communication, 11 August 2009). He elaborated further by saying that, "[i]t is important to think of climate change policies not just as a problem of mutual self-interest. We have to start thinking of climate change as a problem of justice." Official A is proposing that responses to climate change not be reduced to a mixture of self-interest and generosity, but be conceptualised as a problem that we are facing as co-owners of the planet in need of equitable solutions (Official A, personal communication, 11 August 2009). "There is co-ownership status that needs to be preserved. We first have to see it as a fair division problem, fair division of burdens once we view it as an issue of justice" (Official A, personal communication, 11 August 2009). Official A's appraisal and philosophical insight reaffirms the value in examining how conceptual understandings have operated together to contribute to policy formulation in the field of climate change.

The local level discussion is steeped in harsh rhetoric and rests well within the security domain is consistent with the gravity of the situation and proportional to the geographic vulnerability of Kiribati. However, from a philosophical and pragmatic perspective the local level discourse should not be consigned to the sphere of security, but should encompass and include development.

Development

International level discourses related to development and climate change.

Development, as suggested by UNDP, must be focused on people (even though grouped by individual countries) rather than the security of their national boundaries, and on advancing health, education, and political freedom, in addition to economic well-being. Discussed more thoroughly in Chapter Two, development was defined broadly as expanding people's choices in almost any relevant way. However, development (or lack thereof) is not the only factor in determining climate resilience. Human rights are another aspect of this debate. "Security I think is sometimes looked at as kind of an umbrella under which these aspects – development, human rights, governance, are viewed," Official F stated (personal communication, 15 July 2009). However, many member states, as summarized succinctly by the Egyptian ambassador, Maged A. Abdelaziz, would disagree: " [w]e don't consider climate change is an issue of security that properly belongs in the Security Council; rather, it is a development issue that has some security aspects." (MacFarquhar, 2009, para. 9).

Official E, a Consultant for the Energy and Environment Group within UNDP spoke explicitly of the value in linking development and climate change. Official N, an academic from Tufts University, Boston, Massachusetts, agreed with Official E. As a new diplomacy issue with a myriad of interconnected problems, climate change affects all sectors of development, including

agriculture, health, water, and infrastructure and as such the response to the effects should logically rest within the development domain (Official N, lecture, 10 June 2009). Official N spoke specifically of the possibility and need for a development focused climate agreement (Official N, lecture, 10 June 2009). With the precedents set by previous international conferences and agreements: 1992 Rio conference on Environment and Development which resulted in Local Agenda 21; Stockholm Conference, 1972; Millenium Development Goals, climate change has been established as a development issue.

Official E also offered insight on the complexities of local, regional and international interactions. Beginning the interview, Official E set the tenor for the discussion in unambiguous terms: "Climate change provides an opportunity for accelerated human development" (Official E, personal communication, 23 July 2009). Speaking specifically of the impact the new UNDP Administrator, Helen Clark, has had, Official E spoke of the revised strategy for working towards sustainable development that is being forged within UNDP to address the challenge of climate change. The Administrator recently stated that climate change "cannot be treated as a silo issue and must be brought to the heart of UNDP's work, especially in addressing poverty and the Millennium Development Goals." (United Nations Development Programme, 17 July 2009).[1] This sentiment was supported by Officials J and L. Official E elaborated on the Administrator's objectives by detailing how Ms. Clark has emphasized the need to strongly link responses to climate change, human rights and development (Official E, personal communication, 23 July 2009). In a UNDP statement (2009), Ms. Clark states that the issues related to climate change, global poverty and the Millennium Development Goals (MDGs) are intertwined and therefore the responses to them must cross sectors and themes.

UNDP supports a shift to a "21st Century development paradigm" which is guided by facilitating increased resilience and adaptive capacities of human, natural and economic systems by understanding the "nexus between climate change adaptation and human development" (United Nations Development Programme, 17 July 2009). Responding to the climate challenge will involve innovative methods for supporting countries under a new, "holistic and invigorated development vision including scaling up delivery at the country level, finding new mechanisms to support direct access to climate resources, and moving from projects to programmes" (UNFCCC, 1992).

Official E noted that there is also a growing need for adaptation processes and measures that develop capacities and draw on existing knowledge of urban, rural and indigenous communities (personal communication, 23 July 2009). Speaking specifically to how the local, national and international levels interact, Official E emphasised the importance from the local level (grassroots organizations) to global levels, "civil society is critical to inclusive development" (personal communication, 23 July 2009). Civil society and engagement at the grassroots level (noted as a

[1] Excerpt taken from luncheon discussion with civil society leaders gathered to launch Platform HD2010 (New York, June 4-5, 2009).

bottom-up approach) is critical to ensuring that development approaches are sustainable and effective. Official D supported this assertion and further elaborated by pointing out that even if the policy is right at the national level, local actors are the ones at the end of the policy delivery chain (Official D, personal communication, 24 July 2009).

Civil society can bring all its experience and networks to bear on the human impact of the current climate crisis. Official U supports this sentiment, and suggests that "low-income countries provide a critical entry point for institutional change" (Official O, lecture, 25 June 2009). Official U is a non-resident fellow at the Center on International Cooperation (CIC) at New York University, where he runs CIC's work on climate change and global public goods. He was seconded from CIC to the United Nations from June to October 2007 as part of the team charged with planning and executing the UN Secretary-General's High Level Event on climate change.

It has been noted by UNDP officials that as the scope of the challenge becomes more complex, the current incarnation of public management systems are falling short of the task. Overall, as noted by Official E, there is a need for investment in developing and building the capacity at the local level to address growing climatic and economic challenges. The conclusions and attendant next steps reiterate the introductory sentiment: "climate change is an opportunity to accelerate human development" (Official E, personal communication, 23 July 2009). There is a need for cross-practice through various thematic areas to promote a programmatic approach to supporting national planning, in partnership with NGOs, bilateral and multilateral partners (United Nations Development Programme, 17 July 2009). Steeped in the practical applications and limitations, Official E offered a perspective strongly grounded in what is currently happening on the ground in the 177 countries where UNDP has a presence.

The key reflections on the international level discourses related to development and climate change cannot necessarily be summarised discretely, but rely on which player within the international level is making the assertion. Depending on the financial and practical implications, member states have alternately supported and resisted the linkages between security and climate change. However, it can be said that security has been used at the international level as the natural impetus for garnering attention.

Regional level discourses related to development and climate change.

Regional level discourses related to development lags only slight behind the international level by volume, but not in urgency or chronology. Given the fact that references to climate change in the development context were first promulgated at the regional level, it could be suggested that these regional references served to bring the issue to international attention, and to ultimately direct the debate. With one of the critical reading selections that was analysed in the security context (the PSIDS Resolution), it should be noted that the key point of the resolution was to suggest that the

adverse effects of climate change are irrevocably linked to issues of human security and development – not solely within the security purview.

From a pragmatic point of view, framing climate change within the development context at the regional level is consistent with the actions that will be taken – using the existing institutional structure that is devoted to development. Given that even IGO responses attempt to devolve development (as with UNDP country offices), the regional response may ultimately serve as the framework for development responses to climate change.

An exemplar of such a dynamic is Official M, the director of a non-governmental regional organization - a regional knowledge development and learning centre serving the eight regional member countries of the Hindu Kush and Himalaya mountain ranges. Dr. Schild in his lecture "Regional Cooperation and Climate Change" noted how important it was to recognise the interplay of development and climate change (Official M, lecture, 12 June 2009).

Official L noted that Least Developed Countries (LDC) have begun to implement priority projects identified through their National Adaptation Programmes of Action (NAPA) (personal communication, 10 August 2009). As mentioned previously, NAPAs are a global capacity building activity mandated by the UNFCCC in 2001, and are designed to provide a process for LDCs to identify priority activities that respond to their urgent and immediate needs to adapt to climate change. LDCs must be supported in learning and up-scaling of successful experiences to the greatest extent possible to ensure that development funds are used effectively (Official L, personal communication, 10 August 2009).

Regional level discussions note the strong relationship development and responses to climate change. This relationship was supported by resolutions, lectures, and personal communication. As noted previously, the regional level discourse related to development lags only slight behind the international level by volume, but not in urgency or chronology.

Local level discourses related to development and climate change.

However, the local level discourse related to development and climate change (at least in the sources examined) is noticeably absent. In light of the fact that fieldwork in Kiribati did not eventuate, this quantitative analysis drew from large bodies of data. The sources for the analysis at the local level include: Kiribati News LIB (Feb 2006 – Present); Kiribati News EIN (May 2004 – Present); and Oceania Kiribati News (Dec 2006 – Present). An explanation for this absence arises from the fact that since, at the local level, sources chosen are within the news media, for the media it is much more interesting and saleable to discuss urgent security threats as opposed to the more complex development dialogue. It may have been more illustrative to draw from a variety of sources, but the analysis was dependent upon large bodies of data which were not readily available. Rather than drawing speeches or documents from a variety of sources (which would have been on a largely

ad hoc basis and problematic in that regard), the sources were chosen for their comprehensive sampling period, frequency and consistency.

Philosophical considerations.

From a philosophical perspective, a broad measure that could be taken to improve the situation of PSIDS is to steep the discussion in "the preservation of common property management rights; and the promotion of collective security" (Kelly & Adger, 2000, p. 348). Once the assumption of collective ownership of the earth and the atmosphere is established, the climate change debate shifts. "The core idea of common ownership is that all co-owners ought to have an equal opportunity to satisfy their needs to the extent that this turns on obtaining collectively owned resources" (Risse, 2009b, p. 13). The principles of Common Ownership guarantee that individuals, as co-owners of the earth, should have minimal exclusive access to resources. From that premise, the logical elaboration is that we should be able to "impose duties to refrain from interference with certain forms of use of resources" (Risse, 2009b, p. 14). Risse is proposing that responses to climate change should not be a mixture of self-interest and generosity, but they should be considered a problem that we are all facing as co-owners of the planet. Therefore, the equitable solution is that we have to be driven in particular by the idea of co-ownership (Official A, personal communication, 11 August 2009). "There is co-ownership status that needs to be preserved. We first have to see it as a fair division problem, fair division of burdens once we view it as an issue of justice" (Official A, personal communication, 11 August 2009). This philosophical exercise highlights some of the potential for thematic changes in the responses to climate change.

Philosophically expanding on climate change and the relationship between a security construct and a development construct does have some negative aspects, "[t]he dangerous thing about [framing climate change] as a security issue is that it forces the response to become introverted" (Official A, personal communication, 11 August 2009). Climate change is a problem of global proportion – framing it as a security issue is obviated if we are operating from the premise that we globally and collectively own the earth. Risse (2009) suggests that, "[i]t is important to think of climate change policies not just as a problem of mutual self-interest. We have to start thinking of climate change as a problem of justice." Another philosophical imperative is to redress the underlying causes of vulnerability such as detrimental policies and poor governance, social discrimination and degraded ecosystems. A sustainable response to climate change must also work to address the underlying causes of social vulnerability, including the inequitable distribution of resources (Kelly & Adger, 2000, p. 348).

Philosophically expanding on climate change and the relationship between a security construct and a development construct, Official A stated: "what is important is that climate change ceases to be a development issue because anything associated with development has a touch (at least

in the eyes of many people) of beneficence and voluntariness and generosity" (Official A, personal communication, 11 August 2009). This benevolence or reliance on goodwill may undermine the responses to the effects of climate change. According to Official A, within the development purview there is the idea that responses to climate change are optional, which is not proportional to the gravity of the situation. Understanding the practical and philosophical implications from the findings leads logically to policy recommendations that will help translate the insights from academic exploration to action.

Climate justice.

Expanding on this idea of collective ownership to incorporate collective action, cooperation and exchange, technical support and linkages are important to responding to the effects of climate change. However, without financial support and the resources devoted to transferring knowledge and competence, cooperation and exchange will not result in action. In response to mobilising resources and facilitating action, the narrative on climate change should be rooted in justice and equity.

Concepts of justice and equity have been present in the theoretical environmental domain since the 17th century, with the most pressing challenge of climate change being our capacity to find an equitable distribution of responsibilities and rights and to not allow these burdens to be borne by countries that are least equipped to combat the negative effects. "Notions of justice and equity, although enshrined in the Framework Convention on Climate Change, have not shaped the outcome of the subsequent negotiations to any substantial extent" (Sagar & Banuri, 1999, p. 1). The UNFCCC Principles state that climate change protection must have an equitable basis "in accordance with their [the Parties] common but differentiated responsibilities and respective capacities", and that developed country Parties should take the lead in combating climate change (as cited in McGuigan, Reynolds, & Wiedmer, 2002, pp., para. 6). However, in practice there are major differences in the interpretation of 'equity'. In addition, Official A offers a foundational theory of global justice that takes an approach 'in between' the classical dichotomy according to which principles of justice either apply only within the state, or else apply globally, either because they apply to the global political and economic order, or else because they apply to all human beings in virtue of being human. Official A has "developed a view [he] call[s] pluralist internationalism, according to which there are different grounds of justice that individuals may or may not share, such that those who share such a ground are people to whom the distribution of certain goods must be justifiable" (Risse, 2009a).

What is most "distinctly novel" about Official A's principles of justice, and most germane to this thesis, is that from among all of the various grounds for justice, the most fundamental and basic is shared ownership of the earth (Risse, 2009a). His stated objectives are to "revitalize a standpoint that was central to 17th century political philosophy but has since never received as much attention"

(Risse, 2009a). Based on the predominant idea in 17th century political philosophy that humanity collectively owns the earth (and was discussed in greater detail in Chapter Two - Interdependence and shared sovereignty), obligations to future generations in the context of climate change and current responses to climate change can benefit greatly from exploring more fully the ethical dimensions of climate change.

In one sense, all of humanity is in this together. But in another sense this crisis divides us both in terms of culpability and vulnerability. The developed regions of the world are responsible for the vast majority of the greenhouse gases that have already accumulated, and yet it is the least developed countries (and the most vulnerable people within them) who are likely to bear the brunt of its effects (Sinden, 2008, p. 2).

The role of discourse in influencing policy.

From a pragmatic point of view, framing climate change within the development context at the regional level is consistent with the actions that will be taken – using the existing institutional structure that is devoted to development. Viewed as a continuum, proportional to the effects of climate change and as leverage to secure financing for adaptation, regional to international dialogue (and particularly local to international dialogue) is marked by increasing references to security as the size of the entity increases.

The interviews proved to be instrumental in assessing responses to climate change at the international, regional and national level while cognizant of the intersection with development and security. As official U eloquently stated: "Global decisions are not just negotiations between diplomats… the narrative is just as important as the national policy" (Evans & Steven, 2009). Despite the broad range of fields, academics, practitioners, members of the UN, many of the interviewees highlighted the fact that the narrative is just as important as the national policy.

Climate risk information should refrain from the use of hyperbole and policy-makers and scientists alike should be aware of how the discourses and rhetoric used can alter and shape the responses to climate change: "setting the terms of debates, changing political landscapes and shifting power relationships between people, institutions and non-human entities" (McNamara & Gibson, 2009, p. 476). The rhetoric should be marked by sincerity. By showing a willingness to talk frankly and honestly about how to manage climate risk this will help to re-establish trust in the scientific community as well as the levels of trust in the climate policy debate.

How the climate change discourses can be further developed.

Based on the research done for this thesis, the climate change discourses – operating and using rhetoric within two contexts (security and development) and in combination with three different scales (local, regional, and international), is multifaceted and multidimensional. Further, it

is constantly evolving and responding to the changing environment (in both the literal and figurative terms).

The research conducted in this thesis has served to analyse global and local responses to climate change in the Pacific and navigate through this territory. The overarching conclusions that can be drawn from the graphs created suggest that references to climate change in the development context seem to be correlated with a preceding reference to climate change in the security context. Again, security has been shown to serve as the cause for alarm, with development as the response.

Constant across international, regional, and local organisations this pattern between development and security suggests that future thematic shifts within climate change measures will not be confined to a security construct or a development construct, but will use both and eventually shift to the further utilisation of a human rights construct to integrate discussions of equity and justice in the field of climate change. In the future, it is likely that framing climate change responses within a human rights context, much like within the security domain, will be used strategically to strengthen responses and increase available options.

Overall, despite obvious synergies and commonalities between the human rights and development frameworks, neither has yet taken the necessary steps to capitalize on the potential for a meaningful, consistent and complementary approach (Chauffour, 2008, p. 62). Concepts of human rights and climate justice are now permeating the discussions surrounding climate change and suggest that the thematic shift of climate change measures will not be confined to a security construct or a development construct, but will use both and further utilise a human rights construct to introduce discussions of equity and justice in the field of climate change. The prediction is that framing climate change responses within a human rights context, much like within the security domain, will be used strategically to strengthen responses and increase available options. As international norms of justice, sovereignty, and human and national security emerge within the climate regime, choosing a development path that decreases PSIDS vulnerability to climate events and maintains the quality of the social and physical environment will be central to the future well being of the Pacific Island people and to the lives of the people in Kiribati.

Research Objectives

This chapter has provided some discussion and reflections on the evolution of policy responses to climate change, and their implications, at the international, regional and national level. Revisiting the original aims of this thesis is useful in critiquing whether the research objectives were met. The two broad aims were: to assess the evolution of policy responses to climate change in Kiribati and to analyse the implications of those policy responses. The first aim, outlining and assessing policy responses, was addressed in Chapter Three: Political Context. This chapter emphasised that the three different scales of policy making are influenced by processes operating

within each of the nested structures "at the local level, the nation-state level, and the world environmental regime level" (Vasi, 2007, p. 128).

The second aim was to provide an empirical basis for understanding policy responses with respect to climate change in Kiribati. The analysis and results in Chapter Four analysed precisely how the climate change debate is shifting within the security/development dichotomy, thereby contextualising climate change responses in Kiribati. Interviews and critical reading have been added to these results in order to establish a broad thematic understanding of how climate change responses are evolving and developing with respect to security and development. Through the graphs and the discussion, this research was able to discern the narratives emerging from the United Nations, New Zealand (among other regional organisations) and Kiribati. Based on this analysis we were able to identify commonalities and differences in responses across international/regional/local policies regarding climate change and PSIDS. We were also able to see the role that discourse has played in shaping policy and the development of climate change responses in the Pacific.

Conclusion

Climate change and its effects transcend national borders, with those that are effecting climate change and those that are affected by it often falling within different administrative borders. Although states and international actors are continuing to work to strengthen the responses to climate change, current international remedial measures are inadequate. Climate change is a novel risk to the environment, to the global economy, and to international development. The multilateral approach, advancing simultaneously via multiple sectors of government and civil society, is a relatively recent path in international affairs. In order to effectively adapt to climate change, a wide range of stakeholders must be consulted. The discourses that these stakeholders engage in matter. Whether the narrative has a security, development or human rights focus, connections between officials, who rarely sit down with one another, must be carefully cultivated. Short-term and long-term interests, as well as commercial, private, national and regional interests must be balanced. Ideally, once these paths are created, international, regional and local actors will be able to move more quickly from proposal to action.

Appendices

1. Information Sheet
2. Support Letter
3. Semi-structured Interview Guide
4. Participant Consent Form
5. Participant Consent Form with explicit consent for name and/or title to be used

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12 June 2009

INFORMATION SHEET

Dear Sir or Madam,

My name is Andrea Egan, and I am currently in process of conducting a Masters of Philosophy thesis in Development Studies at Massey University, Palmerston North, New Zealand. The title of my thesis is: ***Analysing the impact of global, regional and local responses to climate change in Kiribati.*** The aim of this thesis is to assess the evolution and practical implementation of policy responses to climate change at the international, regional and national level, with specific focus on the United Nations, New Zealand and Kiribati.

I would like to extend an invitation to you to participate in this research project.

If you participate in this study, I would like to conduct a semi-structured interview on the use and opinions about policy responses to climate change at the international, regional and national level. The interview may take up to 45 minutes.

The information you provide in this interview will be anonymous. Interview notes and/or tapes will be kept in a locked document bag while traveling and in a locked filing cabinet at all other times; I will be the only person with access to interview data. The interviews will be used to inform my Masters thesis and the final product will be available through the Massey University library.

If you kindly agree to participate in this interview, I would like to ask you to sign a consent form.

You are under no obligation to accept this invitation.

<u>If you choose to participate, you have the right to</u>:

- decline to answer any particular question;
- withdraw from the interview at any time;
- ask questions about the study at any time during participation;
- provide information on the understanding that your name will not be used unless you give permission to the researcher;
- ask for the recorder to be turned off at any time during the interview (if applicable);
- request a copy of the taped interview

Thank you very much!

Please feel free to contact me and/or my supervisors if you have any questions about this project.

Researcher

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This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Professor Sylvia Rumball, Assistant to the Vice-Chancellor (Research Ethics), telephone 06 350 5249, email humanethics@massey.ac.nz.

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12 June 2009

Dear Sir or Madam,

I am writing to ask you for support for Andrea Egan. Andrea is currently enrolled in a Masters thesis project in the Development Studies programme at Massey University. The thesis is titled ***Analysing the impact of global, regional and local responses to climate change in Kiribati.*** I am supervising her project together with Associate Professor Glenn Banks.

Andrea intends to analyse the impact of global, regional and local responses to climate change in Pacific Small Island Developing States through an examination of the UN and regional powers' involvement in Kiribati and the human security, human rights and development nexus. Andrea's fieldwork is based in the United States and in Kiribati and will include interviews with experts, government officials, regional and national NGOs and IGOS. She will also work in different libraries and archives in New Zealand, the United States and in Kiribati.

It would be very much appreciated if you could grant Andrea your support and permission to access the data needed for her research and, where appropriate, would make yourself available to be interviewed.

Thank you very much!

Best wishes and kind regards,

Maria Borovnik

Dr Maria Borovnik

Andrea Egan
131.899
15 July 2009

Semi-structured Interview Guide
Four different groups will be targeted in order to properly assess the impact of global, regional and local responses to climate change: opinion leaders, government officials, regional and national non-governmental organizations, and members of the United Nations. With this broad spectrum of participants this interview guide will have to be tailored to the individuals and their expertise – excising questions that may be beyond the scope of their position, or generalizing specific questions (for example, replace Kiribati with PSIDS).

Name:
Title/Position:
Country:
Contact details:

Researcher Introduction
Name: Andrea Egan
Project title: Analysing the impact of global, regional and local responses to climate change in Pacific Small Island Developing States: A look at the UN and regional power's involvement in Kiribati.

I am a student at Massey University working on my thesis. This thesis will count towards partial fulfilment of the requirements for the degree of Master of Philosophy in Development Studies at Massey University, Palmerston North, New Zealand. The aim of this thesis is to assess the evolution of policy responses to climate change at the international, regional and national level, with specific focus on the United Nations, New Zealand and Kiribati. Thank you sincerely for your time and contribution to this study.

Question Guide

Pacific Islands pass U.N. resolution on climate change and security- 3 June 2009

The GA unanimously passed a resolution urging the relevant organs of the U.N. to intensify their efforts to address the security implications of climate change, including sea-level rise. The passage of the resolution marks the culmination of a year-long campaign by a coalition of Pacific small island developing states (PSIDS) to focus the attention of the international community on the security aspects of climate change and to refer the issue to the Security Council. Though international organizations and many governments have been examining the link between climate change and security issues, this is the first time that the full U.N. General Assembly has made the connection in this type of formal instrument.

What is the next step?

"We don't consider climate change is an issue of security that properly belongs in the Security Council; rather, it is a development issue that has some security aspects," said Maged A. Abdelaziz, the Egyptian ambassador.

1) What are your hopes for Copenhagen? How do the next five months look for you on your road to Copenhagen?

2) What are your main concerns with the effects of climate change in Kiribati/PSIDS?

3) When assessing current vulnerability of development objectives in light of climate change, what are the main challenges and impacts for Kiribati/PSIDS?

4) What are the current major impacts/outcomes of these climate-related hazards in Kiribati?

5) How would you determine the type and severity of the impacts/outcomes (vulnerability)?

6) How effective do you think the measures and policies are that currently relate to climate risks, impacts and selected development outcomes?

7) Do development policies within Kiribati increase or decrease these risks?

8) What are the main institutional sources of information you have used to familiarize yourself with climate change and PSIDS issues?

1) United Nations programs or publications – UNDP, UNEP, UNFCCC 2) IPCC Reports and Assessments, 3) SPREP, 4) media – newspapers, television, 5) published articles in journals, 6) other

9) Can you identify the key geographical areas from where you obtain your information?

1) Pacific region, 2) Australia, 3) New Zealand, 4) United States, 5) Japan, 6) other

10) Have you attended any conferences, workshops, seminars on climate change issues in the past year? (Yes / No / Don't Know). If so, which meetings and where and when were they held?

On a scale of 1-10, how useful was the information that you received at those meetings? (1 = not useful and 10 = very useful).

Policy Development

11) What groups are particularly at risk to climate change and how can they engage in the policy, plan or project design process as stakeholders?

12) What would you say are the most effective ways of integrating climate resilience into development planning (i.e. - bottom-up risk and adaptation opportunity assessments)?

13) Greater progress is needed to develop national capacity and to support cross-sectoral policy processes as the foundation for sustainable adaptation, what is your role in that process?

14) Do you contribute to the strategy at a local, national or global level?

15) If you had to place in order of importance: a) capacity building and strengthening of institutions; b) technical and policy advice; and c) collaborative solutions that integrate sectors and scales, how would they rank and why?

16) What do you think of the UN General Assembly (UNGA) draft resolution on "Security and climate change" (A/63/L.8) tabled by PSIDS which calls on the UN Security Council to consider and address the security threat posed by climate change?.

Management in Practice

17) How effective are the programming strategies currently within Kiribati – linking assessments, climate change projections, and development priorities?

18) Do you think that the changes in policy that have happened will impact on current management practices?
If yes, which impacts will affect which activities and how?

19) Are management plans, policy, laws understood clearly and implemented effectively?

20) Are there any sources of inefficiency in the Kiribati's National Adaptation Programs of Action (NAPA) and its implementation?

21) Stronger Government capacity to deal with the global environmental and sustainable development consequences of the increasing climate risks is imperative, how has Kiribati (or how can a country) work to fully integrate adaptation into economic planning? Mainstreaming NAPA objectives in the National Economic Planning Office (NEPO) assign staff members to provide oversight of mainstreaming of NAPA projects

22) What will encourage better compliance with obligations stemming from the country's international commitments for the conservation and sustainable use of biodiversity resources, even in the face of the new climate risks?

Institutional Strengthening within Kiribati

23) Policy planning and information within Kiribati relies on national consultation (two yearly consultation in 2006 and 2008), participation, and awareness, how involved do you think the community is in policy development?

24) What is the relationship with government and NGOs involved in community development within Kiribati?

25) Some of the goals from the 2007 NAPA included: regular Climate Change Adaptation (CCA)-based participatory events, newsletter, media releases, and educational materials and an annual survey of public attitude and awareness. Are these goals being achieved?

26) Kiribati Adaptation Project (KAP) hires several international technical consultants and advisors who could have much influence on the course of KAP activities, whilst the NAPA is largely of national consultative inputs but could be disadvantaged for lack of international credibility. To optimize the benefits for Kiribati from the two projects, a one management structure for both was established. This is in the form of the Climate Change Study Team, and the National Adaptation Steering Committee. Collaboration in the implementation of NAPA and KAP has resulted in the sharing of information, capacity building of national players in adaptation planning, and cooperation between donor countries and Kiribati. As a result of shared information, the two projects are able to identify projects that are complementary. What are your thoughts on how the National Adaptation Steering Committee (NASC) and Climate Change Study Team (CCST) are working?

27) Staff members are tasked to liaise with Ministries to include outputs of the NAPA projects into their Ministries Operational Plans (MOPs), how is this working?

Participation at regional and international forums on climate change

28) Enabling Kiribati effective participation in regional and international meetings on climate change and other related activities is important, how effective is this participation in the development and application of tools and techniques that will result in sustainable management of climate change risks in an integrated and cost-effective manner?

29) Has engagement in these forums allowed Kiribati to explore funding support from the international community for climate change adaptation-related projects?

30) What do you think Kiribati's role is in encouraging international support for ratification of the UNFCCC Kyoto Protocol and reduction in greenhouse gas emissions?

31) How accessible is information regarding climate change? IPCC Assessment Reports will be available

32) There have been workshops on NAPA mainstreaming, NAPA Linkages with National Development Strategies (NDS), CCAs, KAP, and vulnerability and economic implication of adaptation projects. How valuable have these been and how do they relate to what is happening regionally and internationally?

Awareness and capacity building at island and community level

Local consultation and participatory risk assessments, training in local government CCA roles and responses, training materials and outreach programs are all designed to increase awareness and build capacity of the I-Kiribati at the island and community level.

33) What do you think is the most effective way of increasing the ability of the I-Kiribati to adapt to the stresses presented by changes as a result of climate change?

34) How can we work to improve the ability of people at the local level to interact with officials at island and national level in ways that allow integration of local level concerns and strategies with island and national level responses?

Conclusion

Do you have any further comments that you would like to make?

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Analysing the impact of global, regional and local responses to climate change in Kiribati

PARTICIPANT CONSENT FORM - INDIVIDUAL

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to the interview being sound recorded.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature: ..... **Date:** .....

Name: .....

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In addition, I explicitly give consent for my name and/or title to be used.

Signature: ..... **Date:** .....

Name: .....

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