

Environmental Justice in the Anthropocene
Symposium 24-25 April 2017
Colorado State University, Fort Collins, USA

Title: Adaptation in the Anthropocene: Issues of Justice in National Adaptation Programmes of Action

Themes: Just Transitions, Just Futures

Contact details:

Abbie White
School of Social Sciences
UNSW Australia
Sydney NSW Australia 2052
abbie.white@student.unsw.edu.au

Adaptation is and will continue to be an opportunity to tackle the effects of climate change with the potential to address or exacerbate issues of justice. Adaptation activities and governance can support or derail just transitions and just futures. This is of particular importance for vulnerable communities, who contribute less to the drivers of climate change, but are burdened with more of the effects. In recognition of global inequalities and the specific vulnerabilities of least developed countries (LDCs), the United Nations Framework Convention on Climate Change (UNFCCC) developed National Adaptation Programmes of Action (NAPAs). NAPAs are a way for LDCs to determine and communicate their urgent adaptation needs and provide an avenue for adaptation activities to be funded. This paper analyses the considerations of justice that are inscribed in NAPA reports submitted to the UNFCCC. In doing so, it will examine issues of distributive justice and procedural justice embedded in the NAPA reports and preparation process. While the broad idea of NAPAs addresses issues of inequality and justice at a global scale, by applying to LDCs, this paper questions whether these rhetorical commitments to justice are actualised in the reports and whether a commitment to justice is carried through to the most vulnerable communities within countries. NAPAs can be seen as a governance tool that in theory can address issues of justice. Fair and transparent governance, planning and implementation of adaptation measures is necessary to avoid exacerbating existing inequalities and the creation of new injustices within and between current and future generations. This paper aims to contribute to this symposium by providing insights into the justice considerations in NAPAs.

Introduction

The objective of this paper is to examine issues of climate justice in adaptation plans submitted to the United Nations Framework Convention on Climate Change (UNFCCC). It is widely recognized that climate justice has both international and intranational dimensions. On an international scale the most vulnerable to climate change are least developed countries (LDCs). LDCs are particularly vulnerable to climate change due to the challenge of development, their dependence on natural resources and limited adaptive capacity. Intranational considerations of justice arise because within LDCs the most vulnerable sections of the population are likely to be the groups most adversely affected by climate change. The paper examines adaptation plans of LDCs, specifically National Adaptation Programmes of Action (NAPAs), and identifies intranational issues of climate justice.

The need to adapt to the effects of climate change and adaptation measures undertaken will be key characteristics of the Anthropocene. The Anthropocene is both the driver and setting for climate change adaptation. The conditions that created the Anthropocene, industrialisation and human influence on the global environment, have also perpetuated anthropogenic climate change and global inequalities. Adaptation practices in the Anthropocene have both the potential to exacerbate or contest existing vulnerabilities and inequalities.

This paper interrogates adaptation policy in Small Island Developing States (SIDS) in the Pacific. The argument is developed in four sections. The first section examines the challenge of adaptation in the Anthropocene. The second section introduces distributive and procedural justice as the central concepts of climate justice to be utilised in this paper. The third section of the paper explores the ways in which climate justice is inscribed in NAPAs. The final section of the paper explores issues of distributive and procedural justice in the SIDS.

Adaptation in the Anthropocene

The Anthropocene is not simply a conceptual map; it is a physical manifestation of human driven processes and actions, which have dominated since the industrial revolution. Given the reality of the Anthropocene, approaches to adaptation and mitigation to climate change need to be framed in relation to these changed conditions. This section first discusses current policy approaches to adaptation and mitigation, before examining ways in which considerations of the Anthropocene may shift the focus of policy.

Policy Responses: Adaptation and Mitigation

Mitigation and adaptation have formed the central policy responses to climate change. The focus of climate politics has largely been mitigation since the 1990s, when climate change became a prominent international concern. This focus was justified with the reasoning that if mitigation was successful there would not be a need for adaptation. It was also a concern that turning attention to adaptation would be seen as a sign of giving up mitigation efforts (Schipper 2006). Nevertheless, as early as 2001 concerted efforts were made to make adaptation a more prominent concern. At the Marrakesh Conference of the Parties (2001) marks a significant stage in the evolution of attention to adaptation. Furthermore, it is now widely accepted that the global climate is now at the stage where even if all greenhouse gas emissions were to cease today, the climate will continue to change for hundreds

of years to come (IPCC 2014: 16). In other words, we are past the point of no return – changes in the climate are a certainty, and so too is the necessity of adaptation.

A focus on mitigation has also been a characteristic of the literature on climate justice. Much of this literature examines the historical responsibility for climate change and explores how the international community should allocate efforts to limit greenhouse gas emissions. This literature has a particular focus on climate justice at the international level. However, in order to achieve just outcomes, it is necessary for issues of justice to be considered in both mitigation and adaptation to climate change, from the international down to the local scale. As scientific certainty of climate change has developed there has been a corresponding growing interest in adaptation and the climate justice dimensions of adaptation, at various scales. This is reflected in an expanding body of literature that studies climate justice and adaptation (Adger *et al.* 2006; Paavola and Adger 2006; Paavola 2008; Thomas and Twyman 2005; Barrett 2013, 2014).

The Problematic of Adaptation

Adaptation to climate change presents both opportunities to address or exacerbate existing inequalities, vulnerabilities and injustices. The multi-scalar nature of adaptation governance presents various issues of justice. Climate change is a global process, but its effects are experienced at the local level. In addition, adaptation governance takes place at various scales, involving international organisations, primarily the UNFCCC, nation states, and intranational governance. Adaptation governance at the international level may be considered just or fair, but this will not necessarily ensure just or fair outcomes at the intranational level. By the time adaptation is applied at the national and intranational levels, injustices can occur, producing stratified issues of climate justice. This paper is focused on this multi-scalar issue of climate justice that characterises adaptation, using the example of NAPAs. NAPAs apply to least developed countries as defined by the UN. At an international level, NAPAs can be seen as working toward climate justice, as they give adaptation assistance to the most vulnerable countries to climate change. However, NAPAs are prepared at the national level, and vulnerability is not experienced evenly within countries. Nor are citizens provided with equal representation within all countries. Frequently the most vulnerable are the least heard (Paavola and Adger 2006: 595). There is no guarantee that nation-states will distribute adaptation funding or prioritise adaptation activities in a fair and just way. It is possible that local level implementation may undermine NAPAs broad goal of assisting the most vulnerable to climate change. In light of these concerns, this paper aims to examine issues of justice present in the NAPA documents.

Adaptation in the Anthropocene: Issues and Challenges

The need to adapt is not unique to the Anthropocene or consequences of climate change. Societies have always adapted to changes in environmental and climatic conditions. Adapting to these changes was, and is, a matter of survival. Nevertheless, adaptation in the Anthropocene has unique characteristics that are distinguishable from adaptation that has taken place in other eras. The focus of this paper is on human adaptation to climate change but I am cognizant of the fact that other semblances of adaptation will be required, including adaptation of non-human nature.

The Anthropocene presents unique governance challenges, particularly in relation to scale, boundaries and time (Harden *et al.* 2014). Actions that take place at the local level can have global impacts, which in turn cause local impacts in other parts of the world, and there is often a significant time lag between actions and experienced impacts.

There are three main points of difference for adaptation practices in the Anthropocene. Firstly, the speed at which adaptation needs to take place. Societies have adapted to change for thousands of years. However, climate change, a dominating force of the Anthropocene, is accelerating climatic and environmental change, at a rate faster than ever seen before. This means societies and environments have less time to adapt, less leeway for maladaptation and higher stakes for failing to adapt. In addition, traditional adaptation methods will not be as effective in these new climatic conditions, for instance increased frequency of extreme weather events will leave less time for recovery. Secondly, the adaptation process has the potential to compound and exacerbate inequalities and injustices – social, environmental and otherwise. The governance of adaptation is fraught with issues of justice and power (Biermann *et al.* 2010). As such this could lead to worsening social inequality and environmental injustices, for current and future generations. Thirdly, adaptation also has the capacity to address inequalities and injustices. In order for this potential to be realised, factors of justice and fairness must be actively considered during adaptation planning.

Below I develop the second and third points above - in examining adaptation plans the focus will be on the ways in which NAPAs can be designed to ensure that the vulnerable won't be further disadvantaged, and the ways in which adaptation plans actively and implicitly address issues of social justice and injustice.

Understanding Climate justice

Climate justice is both an evolution and subset of environmental justice. It has been argued that it has in many ways evolved from the academic, activist and NGO conceptions of environmental justice (Schlosberg and Collins 2014). Moreover, both environmental justice and climate justice overlap with broader issues of social justice. Despite the commonalities between environmental and climate justice, in order to reflect the immense challenge of climate change and the salience of climate change on the political agenda, the term climate justice can be employed in a distinctive manner. Indeed, climate justice can be seen as the prominent environmental justice issue of the Anthropocene.

Climate justice and adaptation

Climate justice in adaptation is present at various scales. At an international level, issues of justice in adaptation relates to the fair allocation of adaptation assistance, based on need and a lack of historical responsibility. At an intranational level, justice in adaptation assistance is concerned with supporting the most vulnerable with the least adaptive capacity. My central concern is with the ways in which broad concerns of climate justice at the international level are enacted at national and intranational levels. This is not a uniform or simple process since research has shown that there is the potential to either exacerbate or alleviate disadvantages faced by the most vulnerable in the implementation of adaptation measures. Climate justice in adaptation should ensure the most vulnerable are not further disadvantaged by

climate change. The two concepts of justice that will be explored in this paper are distributive justice and procedural justice. In doing so, another important concept of justice, that of recognition will be considered a subset of procedural justice.

Distributive justice

The concept of distributive justice is a key concept of justice. It is concerned with the just allocation of benefits and harms throughout society. This paper adopts a needs based definition of distributive justice. In other words, for an allocation to be considered just it must be based on vulnerability and need. The distributive aspects of adaptation are largely viewed around fair allocation of adaptation funding and efforts. Decision making for the allocation of adaptation funding involves various factors and considerations. How can adaptation assistance be fairly or justly allocated? However, even determining vulnerability can be fraught with value judgements that may or may not be considered fair.

A commonly accepted understanding of vulnerability is described as being composed of “exposure, sensitivity and adaptive capacity” (Smit and Wandel 2006: 286). Consequently, vulnerability is not simply a result of exposure, but is also a product of adaptive capacity. In other words, a lack of adaptive capacity increases vulnerability. The IPCC defines adaptive capacity as “the ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences” (IPCC 2007: 21). Thus, cases of high exposure and high adaptive capacity are less vulnerable and less needy of assistance than cases of high exposure and low adaptive capacity. Climate change increases exposure to climatic and environmental hazards, worsening vulnerability and exacerbating existing problems, challenges and development efforts.

As adaptation is a spatially complex problem, justice in adaptation funding can be considered from the international down to the local level. The spatial aspects of distributive justice can be broadly categorised as international and intranational. At the international level, distributive justice is important due to differing inequalities and vulnerabilities between countries. The UNFCCC recognises these differences and created NAPAs in order to support least developed countries. The focus of NAPAs on LDCs supports distributive justice at the international level, as they give assistance to the most vulnerable countries. Despite distributive justice at an international level, this may not carry through to the intranational level. It does not prevent the distribution of adaptation assistance and prioritisation from being unfair at the intranational level.

Vulnerability to climate change occurs at the intersection of physical and social vulnerability. Vulnerability is not evenly distributed within vulnerable countries or even within vulnerable communities. Some communities may be considered to have a high physical vulnerability to the impacts of climate change, but if they also have a high adaptive capacity they should be considered less worthy of adaptation assistance than communities that have a moderate physical vulnerability but less adaptive capacity. Trying to assess levels of vulnerability is equally complicated when considering an area with a small population but high vulnerability. Should judgements regarding adaptation assistance take into consideration the number of people who will benefit? An approach that is based on the number of people

affected is in danger of leaving the most vulnerable without any assistance. Thus, determining distribution of adaptation need and assistance is not as straightforward as simply identifying the areas that are most physically vulnerable to climate change. It involves a complex process of decision-making, and value judgements, and therefore is open to creating injustices. In assessing the extent to which NAPAs fulfil the criteria of distributive justice, it is necessary to acknowledge the complexities involved in determining how adaptation assistance and priorities should be distributed.

Procedural justice

Procedural justice is concerned with ensuring decision-making is undertaken in a fair, inclusive and transparent manner. Outcomes of distributive justice are influenced by what factors are considered, and who is involved, participates, or is absent, from the decision-making process. Procedural justice differs from distributive justice in that it focuses on process rather than outcomes. Nevertheless, the process has a substantive influence on the outcomes, that is to say that procedural justice influences the distributive justice of adaptation decisions. As Paavola and Adger (2006: 597) state "...adaptive responses are chosen by using particular decision-making procedures, which have implications for procedural justice... That is, all adaptation decisions (including omissions to act) have justice implications, both distributive and procedural".

Procedural justice is an important consideration at all scales of governance. This paper analyses the procedural justice aspects of the NAPA preparation process. It begins from an understanding that procedural justice at the international level (through the UNFCCC) is not necessarily replicated at an intranational level. That is, even if a nation-state has achieved just participation in decision-making at the international level (which is unlikely, but is another issue in itself), it does not follow that such decisions affect all its citizens impartially. Nation-states do not represent the voices or interests of their citizens equally or fairly. Unfortunately, it is often the most vulnerable who are excluded from representation. This highlights the need for vulnerable communities to be actively consulted in decision-making processes. As Paavola and Adger (2006: 595) state "...national governments do not protect the interests of all their citizens equally—the most vulnerable people often have the least voice. This underlines the importance of fair processes which recognize and enable the participation of affected communities in planning and decisions regarding collective adaptation measures."

Procedural justice at the intranational scale is therefore an essential component of climate justice. Participation in decision-making is needed for procedural justice from the international to the local level. When considering what constitutes fair participation, it is important to consider the notion that equal access to participation may not in itself be fair. Poor and vulnerable members of society have less means to travel to centres of governance to take part in decision-making. So, although the opportunity to participate may be open to all, in practice it can be exclusive and restrictive to certain sections of society. Vulnerable and marginalised groups may not feel welcome and may not be fully cognisant with the bureaucracies involved thus making it difficult for them to participate and make their voice heard. Indeed, they may even be suspicious of the process, especially if they have had unsuccessful experiences with participation in the past. Thus, in order to work

towards procedural justice, it is important that efforts are made to include groups who are: particularly vulnerable to climate change, are in particular need of adaptation assistance, who may not have ready access to traditional forms of participation and whose voice often goes unheard. It is important that the most vulnerable and those most affected by decisions being made are included and heard in the decision-making process in a meaningful way.

There are numerous challenges to achieving meaningful procedural justice. For example, effective procedural justice can be resource and time intensive, and involve many different groups with competing and complex interests. Nevertheless, procedural justice is essential for climate justice, in order to avoid compounding injustices and further excluding already vulnerable and marginalised groups.

Recognition is another concept of justice, which is necessary for procedural justice. Recognition can be considered a component of climate justice that is often overlooked (Schlosberg 2012). For the purposes of this paper, recognition is considered as a key aspect and prerequisite of procedural justice. Recognition is required before meaningful participation can take place. A lack of recognition excludes groups or individuals from participation, meaning their concerns are not heard or considered, an issue of procedural justice, which then leads to issues of distributive justice.

Justice Considerations in NAPAs

In one sense climate justice is central to the creation and implementation of NAPAs. First, the creation of NAPAs is a response to distributive justice issues at the international level. They reflect awareness of both historical responsibility for climate change and the inability of LDCs to finance and implement adequate adaptation measures. Second, the guidelines for the creation of NAPAs at the country level address both distributive and procedural justice issues. Given the climate justice considerations in both the inception and preparation of NAPAs, it is important to consider whether NAPAs are a good instrument with which to promote climate justice. This paper examines the ability of NAPAs to promote climate justice as an instrument at an intranational scale rather than at the international level.

NAPAs were established at the 2001 Marrakesh UNFCCC Conference of the Parties (COP7) (UNFCCC 2002: FCCC/CP/2001/13/Add.4 Decision 28/CP.7), in recognition of the unique circumstances and low adaptive capacity of least developed countries. LDCs are a UN classification of countries meeting specific development criteria (UN-OHRLLS 2014). The purpose of NAPAs is to be a means for LDCs to identify and communicate their urgent adaptation needs. Financial and technical support was made available for the preparation of the plans and a funding avenue for adaptation activities was established. NAPAs and their associated processes are a form of adaptation governance in the global climate regime. The proliferation of NAPAs has been successful, with all eligible LDCs having prepared a NAPA, 49 in total (including some countries who have since graduated from the LDC classification).

The UNFCCC provided guidelines for the preparation of NAPAs (2002: annex to Decision 28/CP.7), which were developed upon by the Least Developed Countries Expert Group (LEG), who produced the more detailed Annotated Guidelines (LEG 2002). Before examining the justice considerations in the NAPAs themselves, it is

important to consider how the guidelines themselves embody issues of justice through first examining the justice considerations in the NAPA Annotated Guidelines, and secondly, inspecting the NAPAs themselves. The analysis that follows is similar to that undertaken by Huq and Khan (2006) in their study of the implementation of the Bangladesh NAPA.

The Annotated Guidelines outline the objective and characteristics of NAPAs, their guiding elements, the preparation process and the structure of the final document. The guidelines provide a methodology to achieve the key goals of NAPAs, through the identification of adaptation activity priorities. The Annotated Guidelines clearly outline the goals, requirements, content and process of NAPAs. The direction they provide contributes to the efficiency NAPAs as a governance instrument. The lack of ambiguity supplied by the guidelines also supports the strength equity of the instrument – all countries involved are aware of what is expected and the process that can be followed to meet these objectives.

Distributive justice aspects

The rationale for the inception of NAPAs “rests on the low adaptive capacity of LDCs, which renders them in need of immediate and urgent support to start adapting to current and projected adverse effects of climate change” (Least Developed Countries Expert Group 2002: 1). This rationale is supportive of the goals of climate justice on an international scale, to assist those most vulnerable countries to climate change. In working toward larger goals of climate justice, it is also important that distributive justice is considered by NAPAs at the intranational level. The annotations by the LEG highlight the fact that the poor in LDCs are the most vulnerable members of society, and as such require particular attention. The vulnerability of the poor is a recurrent theme in the Guidelines, which indicates a consideration of distributive justice. In order to achieve climate justice, it is essential that adaptation assistance doesn't follow existing distributions of inequity, but actively aims to redress them, for instance by focusing on distributions to the poor. While distributive justice is an important consideration in NAPAs, it is less visible than issues of procedural justice, which are more overtly discussed, as outlined below.

Procedural justice aspects

Procedural aspects of adaptation planning influence distributive justice outcomes. Considerations of procedural justice are plentiful in the NAPA Guidelines. *The NAPA Preparation Process, as outlined in the Guidelines, is important in understanding a commitment to procedural justice.* The process followed affects the equity and legitimacy of NAPAs as a governance instrument, and the justice considerations they embody. The guiding elements for NAPA preparation involve a participatory multidisciplinary approach, including voices from the bottom-up, synergies with existing plans, policies and strategies, sustainable development, gender equity, country-driven, integrity in environmental management, cost-effective, simple and flexible to national context (LEG 2002: 2-3). The guidelines recognise the knowledge of community level practitioners and of traditional knowledge, and recommend the inclusion and consultation with such stakeholders in the process. This participatory approach plays a role in procedural justice and encourages equity within the preparation process.

Given the local experience of climate impacts, it is necessary for adaptation planning to take into account context and local knowledge. NAPAs are country specific and the guidelines acknowledge that certain elements of the NAPA guidelines will depend on a national context. As such, they encourage using criteria, methods and projects that are relevant for a particular country. The guidelines allow room for customising by stating that “[t]he guidelines are not intended to be prescriptive” (LEG 2002: 7). While the guidelines are somewhat detailed, the importance of country specific content certainly allows leeway for tailoring to a national context. Context is imperative for climate justice, in order to identify who is most vulnerable, and who should be recognized.

The first step in NAPA preparation is establishing a NAPA team. NAPAs are prepared by nationally appointed, multidisciplinary teams. The team is generally led by an agency nominated by the “national climate change focal point” (LEG 2002: 3). Other members include representatives from other government agencies, civil society and stakeholder groups. It is stated that the members of the NAPA team should be considered for how they reflect equity concern, for instance whether they represent a diverse range of society. The core NAPA team works in conjunction with a multidisciplinary, and the participatory nature of the NAPA preparation is emphasised by the LEG who state that the multidisciplinary team “should include a social scientist familiar with participatory methods” (2002: 3).

The NAPA team synthesises relevant pre-existing research, strategies, assessments, consultations and frameworks; and prepares a vulnerability assessment including current and future climate hazards and risks. The next stage undertaken is that of a public consultation exercise with a focus of determining prospective adaptation activities. The LEG note that adaptation activities included in the NAPA should relate to identified vulnerabilities, and should be the result of extensive stakeholder consultation (LEG 2002: 8). And these between adaptation activities and risks are to be reviewed through public consultation. Once the adaptation projects have been determined and ranked, project profiles are developed before submitting the NAPA document to the UNFCCC Secretariat.

The requirement to outline the preparation process and team is reflective of the NAPA preparation guiding principles of transparency, inclusivity and participation. A link between distributive justice and procedural justice is highlighted in Appendix B of the guidelines, ‘Mainstreaming NAPAs: Integrating adaptation to climate change into national development plans,’ which argues that it is essential that adaptation takes place in synergy with existing development goals given the possibility of climate change drawing focus and resources away from poverty reduction and development and intensifying existing inequalities (LEG 2002: 20). The guidelines also recognise the importance and value of local level consultation, particularly of the poor, as climate impacts and adaptation will be experienced and implemented at the local level. The LEG explains that “[e]ffectively facilitating the participation of the poor into NAPA consultations can also support the broader development objective of empowering these groups” (LEG 2002: 24). This is a valuable consideration for both procedural justice and recognition.

Two further issues of relevance to procedural justice are prioritisation and gender equality. The guidelines recognise that the type of prioritisation analysis undertaken,

that is, cost benefit analysis, cost effectiveness analysis or multi-criteria analysis has implications for social inclusiveness. The importance of including women in consultations is contextualised as below:

Climate change will have different impacts on men and women, and in most cases, the adverse effects of climate change disproportionately affect women. For example, with increasing drought it is women who have to walk longer distances to collect water. Women are often the main repositories of vital local and traditional knowledge, and they need to be recognized as key stakeholders in the consultations and in decision-making (LEG 2002: 3).

This recognition of gender equality in NAPAs is significant for procedural justice and will impact upon the distributive justice outcomes of NAPAs.

Small Island Developing States, NAPAs and Climate Justice

In this section I examine the NAPAs created by Kiribati, Samoa, Solomon Islands, Timor-Leste, Tuvalu, and Vanuatu. These six Pacific Region countries were chosen partly because of Australia's geographic proximity and associated influence in the Pacific, and partly because SIDS located in the Pacific are particularly vulnerable to the effects of climate change, primarily due to sea level rise, extreme weather events, development challenges and low adaptive capacity (Nurse *et al.* 2014). SIDS have also been particularly vocal in the campaign for climate justice, largely through the Alliance of Small Island States (AOSIS2015). Given the heightened vulnerability to climate change and involvement in climate justice campaigns, it is interesting to examine how these concerns carry through to intranational climate justice in adaptation planning. All NAPAs submitted to the UNFCCC are publicly available on the internet in PDF format (UNFCCC 2014), hence obtaining the documents for analysis was a straightforward process.

The analysis below is at a preliminary stage, and utilised two research methods. The four NAPAs were analysed using a qualitative content analysis technique. This analysis was further refined through thematic textual analysis. Content analysis can be described as "the process of organizing information into categories related to the central questions of the research" (Bowen 2009: 32). This application of content analysis organises the content of NAPAs by using categories of justice considerations. The process of examining justice considerations of NAPAs will be useful both in what they address and what they neglect. Content analysis is appropriate given that a predefined framework of justice can be used in analysis. This ethos fits with how Krippendorff describes content analysts:

Content analysts are rarely interested in what is said literally, by dictionary definition or according to a standard reader, if such a person exists. Content analysts are as interested in what is not said as they are in what is said—that is, they are interested in what texts reveal about phenomena not spoken of, such as ideological commitments or ethnic prejudices that are manifest in influences, consequences, and uses that may well go unrecognized by individual readers (2013: 360).

Justice is a phenomenon that is not directly spoken of in NAPAs, thus employing content analysis is a way of uncovering the justice considerations of NAPAs.

The first step of the content analysis began with a text search using computer-assisted qualitative data analysis software (CAQDAS). This employed the text

search function, including stemmed words, in NVivo 11. One of the challenges of doing this type of content analysis using a justice framework is that these terms are not discussed explicitly. The selection of search terms was based on both an inductive and deductive approach. Deductively, search terms were based upon the concepts of distributive justice and procedural justice defined above, the themes of justice identified in the NAPA annotated guidelines. Inductively, these terms or concepts were searched for in a subset of the NAPAs to confirm the terms determined and to add ways of expressing the terms as described in the NAPAs.

The text search results are a way to compare how the NAPAs contrast in their use of particular signifiers of justice. The results from this stage of analysis were somewhat constrained, as many of the search terms relating to issues of justice can have multiple meanings or can be context dependent. The text search was particularly useful for identifying words that did not return any results, or few results than expected. That's not to say these concepts were not addressed at all, they could have been addressed using different language or wording. The content analysis can't be taken at face value since it doesn't give a comprehensive representation of the justice considerations in the NAPAs. Despite its limitations, this stage was a useful starting point for identifying the location of certain key words and phrases. In order to compensate for these limitations a thematic textual analysis, was performed on the NAPAs to elicit a more nuanced and refined understanding of the justice considerations they contain.

Issues of distributive justice in NAPAs

The distributive justice search terms used in the text search included the following 14 terms:

Vulnerable, Inequitable, Inequalities/inequality, Disparity, Disproportionate, Parity, Equity, Equitable, Justice, Common But Differentiated Responsibilities, Poor, Poorer, Poorest, Poverty, Rights, Affordable, Public asset, "Food insecurity", "Food security", Socio-economic, Resettle, Compensation, Prioritise, Prioritize, Future, Future generations, "Generations"*, Livelihood, Wellbeing, Subsistence

The terms with the strongest result, the five most often identified were: vulnerable (470), livelihood (153), "food security" (124), future (106), prioritise (98). All of these terms appeared in each NAPAs searched. However, the raw, unrefined results of the text search present a skewed view of a process that is more discursive. For instance, 'vulnerable' returned the most results, but many of these instances related to physical or environmental vulnerabilities, rather than human vulnerability. Another example of this is the word 'poor.' Though the NAPA guidelines discuss the need for 'pro-poor' strategies, most instances of the word 'poor' related to poor water quality, conditions, soil quality etc. However the 'pro-poor' theme was better captured with the search for 'poverty,' which most frequently referred to 'poverty reduction.' Weak or nil results were more insightful than the strong results. The following terms returned no results: Inequitable, Parity, Public asset. Weak or limited results were returned for: Inequalities/inequality (3), Disparity (1), Disproportionate (4), Equity (4), Equitable (1), Justice (2), Common But Differentiated Responsibilities (1), Future generations (3), Generations (7). The text search was most useful for identifying terms with narrower applications such as 'inequalities' (three results from one NAPA), 'disparity' (one result), which had far fewer instances. The terms

'subsistence' and 'livelihood' were used throughout all the NAPAs examined 153 times. This reflects a concern of distributive justice, as impacts on subsistence and livelihoods will impact the most vulnerable and poor, at local or individual scales.

From the perspective of NAPAs examined by text search, this analysis indicated there is a limited description of issues of distributive justice. However, a closer examination of the themes embedded in the terms provides for a more nuanced reading of distributive justice concerns within NAPAs. For instance, the Samoa NAPA shows a clear commitment to justice from the foreword:

By adopting an integrated approach, all the relevant stakeholders (both in government and non-government organizations) have been able to work hand in hand to ensure that those whose livelihoods are most vulnerable to adverse impacts of climate change impart the urgency and immediacy of the adaptation needs (Samoa 2005: 2)

The text search element of the content analysis was limited in its ability to identify issues of distributive justice, and the absence of certain terms was more telling than the terms with strong results. Continued in depth analysis will yield a better understanding of the considerations of distributive justice embedded in NAPAs.

Issues of procedural justice embedded in the NAPA reports

The NAPA guidelines clearly address issues of procedural justice. This emphasis is reflected in a clearer representation of procedural justice concerns in the NAPAs examined. Search terms used as representations of procedural justice considerations included:

Participation, Meet, Gender, Women, Indigenous, Representative, Stakeholder, Consultation, Ownership, Community, Awareness, Institutional, Young, Youth, Children, Old, Elderly, Sick, Unwell, Democracy/ democratic, Language, Survey, Ethnic, Local

Search terms relating to recognition, which were not captured under procedural justice terms, were: Traditional, Knowledge, Values, Culture. The terms with the strongest results were: community (910), awareness (315), consultation (248), local (220) and institutional (202), which all appeared in each NAPA searched. Given the focus of the NAPA guidelines on procedural justice, and requirement to detail procedures, it is not surprising that these terms yielded higher returns than those for distributive justice. Terms that yielded no results were: sick, unwell, democracy/democratic. A weak result was obtained for the terms: Indigenous (6 instances in 3 NAPAs), Language (2 instances in 2 NAPAs), Ethnic (3 instances in 1 NAPA). The lack of reference to language was surprising given the strong results for awareness and consultation, and the importance of such initiatives taking place in a language accessible for participants. One other reference to language was described in the Tuvalu NAPA, which described the creation of "[a]n awareness booklet in the local vernacular" (Tuvalu 2007: 35). Upon closer inspection, the results of the term Indigenous were even weaker, with only one of these references being to Indigenous people, "to maximize the economic returns and other benefits from the exploitation of marine resources to the people of Vanuatu, particularly the indigenous population" (Republic of Vanuatu 2007: 44). Other references were to indigenous species. These examples emphasises the need for a closer reading of the NAPAs to

reveal a more in depth understanding of the procedural justice considerations of the NAPAs.

A close textual reading identified the different ways considerations of procedural justice are present in NAPAs. Interestingly, the type of language used varied between NAPAs, despite the fact they are all working within the language of the NAPA guidelines. An overview of how the different NAPAs present themes around consultation, gender and recognition is given below.

While all six NAPAs mention consultation, there is an inconsistent lack of detail given describing what the consultation entailed. A national consultation could consist of speaking to one representative from each region in the country or speaking to various representatives from a cross section of communities. While most of the NAPAs make an effort to be participatory in nature and include consultations, as directed by the NAPA guidelines, their descriptions are not uniformly comprehensive. References to consultations are frequently vague, and are not explicit in their account of how consultation was operationalised or how many people were consulted.

The close textual analysis identified how each NAPA conducted its consultation process. A quantification of the number of participants was often given, either as a number of individuals who were consulted or the number of villages consulted. The level of detail given about the consultation varied significantly, from a named list of those consulted (Timor-Leste), to vague descriptions of the consultation process. A description on the number of participants involved in the consultation process is given in Table 1 below.

Table 1: Descriptions of consultation participants

| Country | Number of representatives | Number of villages/districts represented | Details |
|-----------------|--|---|---|
| Kiribati | Not quantified | Two island groups | “Two series of national consultations were held in 2003, one for the Gilbert group, and the second for the Line Islands group” (Republic of Kiribati 2007: 32) |
| Samoa | More than 500 | 299 villages | Four day workshops (Samoa 2005: 62) |
| Solomon Islands | 1000-3000 | 33 | Focus group meetings (Solomon Islands 2008: 62) |
| Timor-Leste | 214 District representatives 89 Government representatives 58 Donor, NGO, UN representatives | 5 districts | The names of participants and who they represent are listed in Annex 3 (Democratic Republic of Timor Leste 2010: 74-82) |
| Tuvalu | Not quantified | 9 island communities (all islands) | Nature of consultation was not detailed (Tuvalu 2007: 12-13) |
| Vanuatu | Not quantified | 6 provinces | “Following provincial consultations via three national conferences, visits were undertaken to the six provinces to ascertain information on vulnerabilities that were presented during the consultations” (Republic of Vanuatu 2007: 9) |

It is important that the value and use of traditional knowledge and practices is recognised in adaptation planning. Societies have a long history of adapting to climatic changes, and it is important to recognise this knowledge and understanding. Traditional knowledge and practices can inform and be incorporated into adaptation practices. Traditional knowledge was acknowledged or referenced in all of the NAPAs examined to varying degrees. The resilience supported by traditional practices was pronounced in the Kiribati NAPA; along with the caveat that the impact of climate change could mean that these practices may no longer be sufficient on their own (Republic of Kiribati 2007: 20, 27). The Solomon Islands NAPA laments the decline of using traditional practices, such as early warning systems, explaining “The underlying factor here is that western influences have actually impacted on the transfer of this useful knowledge from generations to generations” (Solomon Islands 2008: 41-42).

Traditional practices influenced some of the decision making in the NAPA process. Nevertheless this intersects with issues of gender equality, one of the guiding elements of the NAPA process, as described by the Timor-Leste NAPA:

“Addressing gender equality – there was much debate on the inclusion of this criterion. Participants spent a great deal of time discussing the unequal opportunities that existed for women in becoming involved in public activity due to the traditional patriarchal culture in Timor-Leste. They also recalled that throughout the NAPA process, women had been consistently identified as one of the most vulnerable groups. For this reason, the group felt that activities which made a contribution to gender equality should be prioritized.” (2010: 41)

The Tuvalu NAPA used *Falekaupule*, “traditional assembly (local government) on each island” (Tuvalu 2007: 9), for consultation processes. However, “[t]he consultation also requested island *Falekaupule*’s where women’s voice is not heard in decision making to allow women’s views during discussions for gender balance purposes” (Tuvalu 2007: 33). It is imperative for procedural justice that women are given a voice in the consultation processes, as in many cases women are already vulnerable and bear brunt of climate change related impacts (Nurse-Bray 2015; Terry 2009). The degree to which considerations of gender equality varied between NAPAs, ranging between two (Vanuatu) and 14 (Solomon Islands) references to women, and zero (Kiribati and Vanuatu) to nine (Timor-Leste) references to gender. Thus the consideration given to women and gender in NAPAs is in some cases perfunctory.

Conclusions

NAPAs can be considered as a governance mechanism working towards broader goals of international climate justice. They also have the potential to promote or undermine intranational climate justice, through distributive justice and procedural justice considerations.

Upon a close textual reading, NAPAs within SIDS appear more interested in procedural justice than distributive justice, which is also reflected in the guidelines. It's unclear at this stage if this experience is replicated in other NAPAs. Though all the NAPAs examined were following the same guidelines, with implicit commitments to justice, they differ in their focus, the language used, the level of participation, and importantly the way these components were communicated and emphasised. In addition, though these Pacific SIDS face similar geography and challenges due to climate change, physical vulnerabilities and development, the way their NAPAs embodied issues of justice varied.

While the NAPA documents themselves are somewhat abstracted from the practices that take place in reality, this analysis indicates that their potential to promote climate justice is present but limited. Though all the NAPAs examined followed the same guidelines, the degree to which justice commitments are expressed in the reports varies. This proves a tricky governance conundrum, which walks a tightrope of legitimacy. On the one hand, it is important for legitimacy and effectiveness that adaptation plans are nationally driven. On the other hand, this can result in a narrowing of agendas and exclusion of some sectors of society. As the need for adaptation increases throughout the Anthropocene, ensuring that adaptation takes place in a fair and just way will be an ongoing challenge.

References

- Adger, W. N., J. Paavola, S. Huq and M. J. Mace (ed.) (2006) *Fairness in adaptation to climate change*. Cambridge, Massachusetts: MIT Press.
- Alliance of Small Island States (2017) 'Alliance of Small Island States.' Accessed 13 April 2017. <http://aosis.org>.
- Barrett, S. (2013) 'Local level climate justice? Adaptation finance and vulnerability reduction', *Global Environmental Change*, 23 (6): 1819-1829.
- (2014) 'Subnational Climate Justice? Adaptation Finance Distribution and Climate Vulnerability', *World Development*, 58 (0): 130-142.
- Biermann, F., M. M. Betsill, S. C. Vieira, J. Gupta, N. Kanie, L. Lebel, D. Liverman, et al. (2010) 'Navigating the anthropocene: the Earth System Governance Project strategy paper', *Current Opinion in Environmental Sustainability*, 2 (3): 202-208.
- Bowen, G. A. (2009) 'Document Analysis as a Qualitative Research Method', *Qualitative Research Journal*, 9 (2): 27-40.
- Democratic Republic of Timor Leste (2010) 'National Adaptation Programme of Action (NAPA) on Climate Change'.
- Harden, C. P., A. Chin, M. R. English, R. Fu, K. A. Galvin, A. K. Gerlak, P. F. McDowell, et al. (2014) 'Understanding human-landscape interactions in the "Anthropocene"', *Environmental Management*, 53 (1): 4-13.
- Huq, S. and M. R. Khan (2006) 'Equity in national adaptation programs of action (NAPAs): the case of Bangladesh' In *Fairness in adaptation to climate change*, in Adger, W. N., J. Paavola, S. Huq and M. J. Mace (ed.), Cambridge, Massachusetts: MIT Press.

- IPCC (2007) 'Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change'. Cambridge, UK,: Cambridge University Press.
- (ed.) (2014) *Climate Change 2014: Synthesis Report Summary for Policymakers: IPCC, Geneva, Switzerland.*
- Krippendorff, K. H. (2013) *Content Analysis - 3rd Edition : an Introduction to Its Methodology.* Thousand Oaks: SAGE Publications, Inc.
- Least Developed Countries Expert Group (2002) 'Annotated guidelines for the preparation of national adaptation programmes of action'.
- Nurse, L. A., R. F. McLean, J. Agard, L. P. Briguglio, V. Duvat-Magnan, N. Pelesikoti, E. Tompkins and A. Webb (2014) 'Small islands' In *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, in Barros, V. R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (ed.), Cambridge University Press: Cambridge, United Kingdom: 1613-1654.
- Nursey-Bray, M. (2015) 'Gender, Governance, and Climate Change Adaptation', *Handbook of Climate Change Adaptation* 1077-1090.
- Paavola, J. (2008) 'Science and social justice in the governance of adaptation to climate change', *Environmental Politics*, 17 (4): 644-659.
- Paavola, J. and W. N. Adger (2006) 'Fair adaptation to climate change', *Ecological Economics*, 56 (4): 594-609.
- Republic of Kiribati (2007) 'National Adaptation Program of Action (NAPA)'. Tarawa.
- Republic of Vanuatu (2007) 'National Adaptation Programme for Action (NAPA)'. Port Vila, Vanuatu.
- Samoa (2005) 'National Adaptation Programme of Action'.
- Schipper, E. L. F. (2006) 'Conceptual History of Adaptation in the UNFCCC Process', *Review of European Community & International Environmental Law*, 15 (1): 82-92.
- Schlosberg, D. (2012) 'Climate justice and capabilities: a framework for adaptation policy', *Ethics & International Affairs*, 26 (04): 445-461.
- Schlosberg, D. and L. B. Collins (2014) 'From environmental to climate justice: climate change and the discourse of environmental justice', *Wiley Interdisciplinary Reviews: Climate Change*, 5 (3): 359-374.
- Smit, B. and J. Wandel (2006) 'Adaptation, adaptive capacity and vulnerability', *Global Environmental Change*, 16 (3): 282-292.
- Solomon Islands (2008) 'Solomon Islands National Adaptation Programmes of Action'. Honiara.
- Terry, G. (2009) 'No climate justice without gender justice: an overview of the issues', *Gender & Development*, 17 (1): 5-18.
- Thomas, D. S. G. and C. Twyman (2005) 'Equity and justice in climate change adaptation amongst natural-resource-dependent societies', *Global Environmental Change*, 15 (2): 115-124.
- Tuvalu (2007) 'Tuvalu's National Adaptation Programme of Action'.

- UN-OHRLLS 'Website for the Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (OHRLLS) - Criteria for Identification and Graduation of LDCs.' Accessed 15/10/2014. <http://www.un.org/ohrls/>.
- United Nations Framework Convention on Climate Change (2002) 'Report of the Conference of the Parties on its Seventh Session, held at Marrakesh from 29 October to 10 November 2001'.
- (2014) 'NAPAs received by the secretariat.' Accessed 24/09/2014. http://unfccc.int/adaptation/workstreams/national_adaptation_programmes_of_action/items/4585.php.