

REDD+ Governance in Papua New Guinea

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Abstract

In the current political economy which seeks to commodify nature and market its services, market-based mitigation measures, like the Reducing Emissions from Deforestation and Forest Degradation (REDD+) program, have become prominent strategies to address climate change. The REDD+ program places an economic value on the carbon stored in forests and offers incentives for developing countries to reduce their emissions from deforestation and forest degradation. REDD+ has been promoted as an effective and cost-efficient solution to climate change that has additional benefits for conservation, economic development and poverty alleviation. However, the development of REDD+ in Papua New Guinea (PNG) highlights some of the governance challenges and inequalities that can arise from market-based mitigation measures. This paper will use a politics of scale perspective to critically analyse the governance of REDD+ in PNG and the inequalities that can emerge from such projects. It will be argued that REDD+ acts as a form of global climate governance which is implemented on a national scale but has the greatest impact on local communities implicated in REDD+ projects. This paper will investigate the April-Salumei Sustainable Forest Management Project, PNG's first pilot REDD+ project, to illustrate how the current governance system prioritises global mitigation benefits and national economic interests over local livelihoods. While good governance has been identified as a foundational pillar for the success of REDD+, the current governance system has a number of weaknesses that may threaten the legitimacy and effectiveness of REDD+ efforts. A politics of scale perspective allows us to examine the governance challenges and inequalities generated by the REDD+ program in PNG. REDD+ offers an important development opportunity for PNG, but significant governance and equity issues still need to be overcome.

1. Introduction

In the current political economy, markets in environmental services are becoming the dominant approach to protecting and managing the environment (Liverman 2004: 735). The commodification of nature is increasing with the emergence of payments and incentives for ecosystem services (Minang and Van Noordwijk 2014: 677). The REDD+ program is a prominent example of this trend towards market based environmental management. REDD+¹ was first proposed to the United Nations Framework Convention on Climate Change (UNFCCC) at COP11 in 2005 by PNG and Costa Rica, on behalf of the Coalition for Rainforest Nations, as an initiative for developing countries to reduce emissions from deforestation and forest degradation. REDD+ places an economic value on the carbon stored in forests and offers incentives for developing countries to reduce emissions through avoided deforestation (UN-REDD Programme 2009). As deforestation and forest degradation contribute to approximately 18 percent of global greenhouse gas emissions, REDD+ is seen as an effective and cost-efficient way to mitigate climate change and improve forest governance (Stern 2006: 537; Katerere 2010: 3). In addition to mitigation and conservation benefits, REDD+ is promoted as a strategy for community development and poverty alleviation in developing countries. After being accepted by the UNFCCC at COP13 in 2007,

¹This acronym has changed several times since the program was originally proposed as 'Reducing Emissions from Deforestation' (RED) (Pistorius 2012: 638). This paper will use the acronym REDD+ to acknowledge the variety of forest-based mitigation approaches that now fall under the REDD+ banner.

REDD+ has evolved to include conservation, sustainable forest management and carbon stock enhancement projects. To help countries establish the required infrastructure for REDD+, an international REDD+ Readiness process has been developed. The UN-REDD Programme and the World Bank Forest Carbon Partnership Facility (FCPF) are the two main multilateral programs for REDD+ (Minang and Van Noordwijk 2014: 678). Under these programs, REDD+ strategies are developed and implemented on a national level and payments are made for verified emission reductions. While the REDD+ mechanism is still being developed under the UNFCCC, REDD+ readiness activities are already being undertaken in a number of developing countries, including PNG.

This paper will examine the governance of the REDD+ program in PNG. Within the international climate change negotiations, PNG has been a proponent of REDD+ and has been selected as one of the pilot countries of the UN-REDD Programme. The PNG government have adopted a national approach to REDD+ which is co-ordinated through the Office of Climate Change and Development (OCCD) and the PNG Forest Authority (PNGFA). Since 2011, the UN-REDD Programme in PNG has involved stakeholder engagement, capacity building and the development of technical elements to implement REDD+ activities. Meanwhile, REDD+ demonstration activities, like the April-Salumai Sustainable Forest Management Project, have been undertaken with the support of international project developers. However, the growth of REDD+ in PNG has generated some controversy. The REDD+ policy process and pilot projects have been criticised for lacking transparency and local input (Babon and Gowae 2013: 31). Furthermore, there have been reports of governance issues, corruption and impropriety at the national level (Babon, McIntyre and Sofe 2012). As such, this paper aims to answer the following research question:

“From a politics of scale perspective, what inequalities are produced by the current governance system of REDD+ in Papua New Guinea?”

In order to answer this question, this paper will identify the governance structures that operate within the REDD+ program in PNG and then apply a politics of scale framework to critically analyse the inequalities produced by such projects. In political geography, the term ‘politics of scale’ relates to debates around the socially and politically constructed nature of scale. A politics of scale has emerged to contest the traditional view of scale as a hierarchy between the global, national and local levels (Delaney and Leitner 1997: 93). As such, a politics of scale perspective can be used to evaluate the inequalities that are produced by market based mitigation mechanisms, like REDD+, which operate across scales.

This paper will begin with a literature review of the politics of scale and the governance of REDD+. Gaps in the literature will be identified to highlight how this paper contributes to the broader debates around market based mitigation measures. The third chapter will explain the methodology used to answer the research question and introduce the case study of the April-Salumai Sustainable Forest Management Project that will be used throughout this paper. The following chapter will explore the context of REDD+ in PNG, in particular, the existing economic conditions, governance challenges and inequalities. Subsequently, the rise of REDD+ in PNG will be detailed from its inception at the UNFCCC to the development of pilot projects. Finally, a politics of scale framework will be used to critically analyse the governance of REDD+ in PNG and the inequalities that have been generated between different scales. Overall, this paper will problematise the construction of scale that underpins the current governance system of REDD+ in PNG.

2. Literature Review

This literature review will introduce some of the debates surrounding the politics of scale and the governance of REDD+. Drawing on the large body of literature from the political geography discipline, this chapter will discuss the social and political construction of scale; specifically, how scale has been constructed in relation to environmental governance. Subsequently, this literature review will explain how REDD+ has been established as a form of global climate governance that is coordinated at the national level. Critiques of these scales of governance will be developed to provide a foundation for the arguments made in this paper. Finally, this chapter will identify gaps in the literature around the politics of scale and the governance of REDD+. It is hoped that this paper will make a contribution to the literature on REDD+ by presenting a politics of scale analysis of the REDD+ program in PNG.

2.1 Politics of Scale

In political geography, the concept of scale has become central to contemporary environmental and economic debates. While the term scale is understood in different ways across different academic disciplines, in political geography the term 'scale' typically refers to a spatial level of analysis, representation, reference or articulation (Grady 2010: 328). A 'politics of scale' has developed to contest the traditional view of scale as a hierarchy between the global, national and local levels (Delaney and Leitner 1997: 93). This contestation has emerged in response to globalization, growing networks of global governance and new transnational threats, such as climate change (Fraser 2009: 5). In particular, the term 'politics of scale' has gained purchase within the context of globalization and calls for socially just and economically sustainable alternatives to neoliberalism (Grady 2010: 329). This literature points to the importance of examining how scale is constructed and how certain scales of governance become dominant.

The construction of scale is a complex and multifaceted process that is influenced by power and politics. In political geography, it is increasingly accepted that scale is socially produced rather than ontologically pre-given (Bulkeley 2005; Delaney and Leitner 1997; Kurtz 2003; Towers 2010). Conventional scalar classifications have been constructed in a way which makes them seem static, discrete and hierarchical, but a politics of scale perspective recognises the dynamic, interrelated and constructed nature of scale (Grady 2010: 328). The contention is that scale is continually produced "through everyday habits, routines, practices, negotiations, experiments, conflicts and struggles" (Brenner 2001: 606). As scale is produced through social, economic and political processes, questions of scale cannot be viewed as distinct from the politics that frame and reproduce them (Grady 2010: 328-330). Therefore, the question is not about how scale affects social processes, but how actors make and employ scalar claims and how scalar language configures and reconfigures power relations (Grady 2010: 329). Actors experience, advocate, articulate, construct and contest various positions through scalar language; so the construction of scale can be understood as a means of inclusion, exclusion and legitimation (Kurtz 2003: 887; Grady 2010: 330). Consequently, it is important to recognise the uneven resources of power, money, information and time which are available to different social actors when they seek to validate a particular construction of scale (Herod and Wright 2002: 11). From a politics of scale perspective, scale can be seen as a tool of prioritisation and framing that gives primacy and legitimacy to certain perspectives, activities and forms of governance.

As scale is socially and politically constructed, it is important to examine how scale features in debates around environmental governance. In response to contemporary environmental problems, like climate change, global forms of environmental governance are becoming

dominant. For example, global scale climate governance is enshrined through institutions such as the UNFCCC, World Bank and IPCC (Fisher 2012: 5). While the international climate regime promotes global climate governance, the national scale still plays a significant role in managing environmental issues. To a large extent, the national scale is seen as the most appropriate for understanding environmental problems and developing solutions (Agnew 1994: 53). This state-centric framing of environmental governance has been naturalised in global climate change negotiations where states are seen as central actors and programs are developed at the national scale. However, this privileging of global and national scale climate governance obscures the importance of the local scale (Wilbanks and Kates 1999: 608). The impacts of climate change are felt most at the local level so it is necessary to evaluate the effectiveness and appropriateness of global and national scale environmental governance.

2.2 Scales of REDD+ Governance

The dominance of global and national scale environmental governance validates and legitimises certain political and economic solutions to climate change, like REDD+ (Paterson and Stripple 2007: 150; Thompson, Baruah and Carr 2011: 100). REDD+ can be seen as a form of global environmental governance that is implemented at the national scale and involves multiple actors, interests and activities across scales (Corbera and Schroeder 2010: 89-90). Principally, REDD+ environmental governance involves a set of social norms and political assumptions that attempt to steer societies towards collective decisions about the use and management of forest resources (Thompson, Baruah and Carr 2011: 100). As deforestation and forest degradation make a significant contribution to greenhouse gas emissions, REDD+ has become one of the most important environmental governance mechanisms in the international climate regime and is promoted as an effective and efficient way to manage climate change (Lederer 2012: 107). However, there are some criticisms of the governance of REDD+ at the global and national scales.

As a form of global climate governance, REDD+ is commonly criticised for being implemented through top-down approaches (Angelsen et al 2012: 106). Under the UNFCCC, the implementation of REDD+ is overseen through international organisations, such as the UN-REDD Programme and the World Bank's Forest Carbon Partnership Facility.² The international climate regime, led by the UNFCCC, dictates who participates in REDD+ and to what extent, which reinforces the top-down structure of governance in climate change mitigation efforts (Thompson, Baruah and Carr 2011: 104). For instance, the UN-REDD Programme is controlled by a board of representatives from partner countries, donors, civil society, indigenous groups and UN agencies. However, this highly structured governance mechanism excludes other groups who may be significantly impacted by the REDD+ program, namely forest dependent communities (Thompson, Baruah, Carr 2011: 107). In this way, global scale REDD+ governance limits the range of participants and perspectives that can be incorporated into climate change mitigation efforts. As the global climate governance system is not structured in a way that gives official voice to non-state actors, REDD+ could result in negative outcomes for forest dependent communities (Okereke and Dooley 2010: 93). Furthermore, it is difficult to ensure that the REDD+ governance system put in place by the UNFCCC will provide co-benefits to local communities through poverty reduction and sustainable development (Angelsen 2008: 118). Consequently, the global governance of REDD+ is in tension with the local scale and the rights of communities implicated in such projects.

² The World Bank has been criticised for its active role in REDD+ due to its long history of involvement in the forestry sector (Lederer 2012: 108).

While REDD+ operates as a form of global climate governance, the national scale also plays a significant role in the governance of REDD+. There have been debates around which geographical scale³ REDD+ should be implemented at, but a strong national level focus has become central to the REDD+ process which aims to shift from project based conservation to nationally led forest conservation (Korhonen-Kurki et al 2014: 168). Under the UN-REDD and FCPF programs, for example, REDD+ is coordinated through national level policies and governance structures. This national level approach has become dominant because it allows a broad set of policies to be developed and addresses the issue of domestic leakage of emissions (Angelsen et al 2008). However, the governance of REDD+ at the national scale can be problematic in developing countries where the state may not have the capacity or legitimacy to implement such initiatives⁴ (Thompson, Baruah and Carr 2011: 105). Moreover, there are concerns about implementing REDD+ on a national scale in developing countries with poor governance, low transparency and corruption (Melick 2010: 359). Considering this trend towards the global and national governance of REDD+, it is important to question what inequalities may emerge from REDD+ programs at different scales.

2.3 Gaps in the Literature

To a large extent, the literature on REDD+ has focused on the technical and institutional elements surrounding REDD+ rather than issues of governance and inequality. The majority of studies on REDD+ have centred on technical issues associated with carbon accounting, like monitoring, reporting and verifying (MRV) emissions reductions (Brown and Corbera 2003: 42). While most of the literature has focused on the effectiveness and efficiency of REDD+ in reducing emissions, some work has been done on the equity dimensions of such projects (Corbera, Brown and Adger 2007; Hiraldo and Tanner 2011). Excluding some normative discussions on the governance and implementation of REDD+ (Corbera and Schroeder 2010; Lederer 2012), there is a significant gap in the literature around how the governance of REDD+ actually functions on the ground and what impacts the governance structures have on communities. From an institutional perspective, discussions around the governance of REDD+ have centred on the global and national governance structures, rather than the interface between international organisations, national governments and local communities (Brown and Corbera 2003: 42). In PNG, for example, there is a gap in the REDD+ literature related to the link between provinces and national agencies in the facilitation of REDD+ at the local level (Forest Carbon Partnership Facility 2012: 19). Therefore, more work needs to be done on the inequalities that may be produced by the governance systems of REDD+ at different scales.

Within the broader literature on market-based mitigation measures, there has been some work on the politics of scale and governance. O'Lear's (2010: 38) analysis of Carbon Development Mechanism (CDM) projects highlights the importance of considering the local scale when analysing mitigation initiatives from the international climate regime. While CDM programs are legitimised on the global scale as an effective way to reduce carbon emissions, indigenous communities at the local scale see the CDM agenda as undermining, excluding and marginalising their rights and interests (O'Lear 2010: 38). There are doubts about the ability of such initiatives to incorporate local socio-ecological contexts into the design, governance

³ In particular, this debate has centred on whether REDD+ should be implemented through a national, sub-national or a nested approach, which combines both scales of governance. See Angelsen et al 2008 and Angelsen 2008 for discussion.

⁴ In PNG, for example, national policies which attempt to dictate actions at the sub-national scale have been largely unsuccessful. If there is not a strong sense of local ownership of policy initiatives in PNG, programs are unlikely to succeed (May 2009: 5).

and implementation of projects in order to ensure equitable decision making and outcomes across scales (Corbera, Brown and Adger 2007: 588). Similarly, Mathur's (et al 2013) work on 'multi-level climate justice' provides an important framework to examine issues of scale in carbon-market projects. Mathur's (et al 2013: 42) study of local community experiences in CDM and REDD+ projects explores how the burdens and benefits of climate mitigation are shared across scales and how local communities are positioned in such projects. These studies have made some progress in assessing market-based mitigation from a politics of scale perspective, but more focus needs to be placed on how these programs are governed and whether the scale of governance generates any tensions. This paper aims to contribute to the literature by investigating the governance of REDD+ in PNG and critically analysing the inequalities produced by such programs from a politics of scale perspective.

3. Methodology

The last chapter introduced some of the debates around the politics of scale and the governance of REDD+. Building on this discussion, this chapter will outline the methodology used in this paper. This research has involved extensive desktop research on the REDD+ program in PNG as well as informal conversations and semi-structured interviews with local stakeholders involved in REDD+ pilot projects. As it was out of the scope of this paper to conduct intensive fieldwork with communities implicated in REDD+ projects, this research does not aim to make any broad generalisations about the experiences of local communities. Instead, this research should be treated as a starting point to discuss the governance of REDD+ in PNG and more research should be conducted into how the current governance structures impact on local communities. This section will describe the ontological and epistemological position of the research and the analytical framework and data sources used. In addition, this section will introduce the case study of the April-Salumei Sustainable Forest Management Project that will be used in this paper. Overall, this methodology chapter will explain how a 'politics of scale perspective' has been operationalised to answer the research question.

3.1 Ontological and Epistemological Position

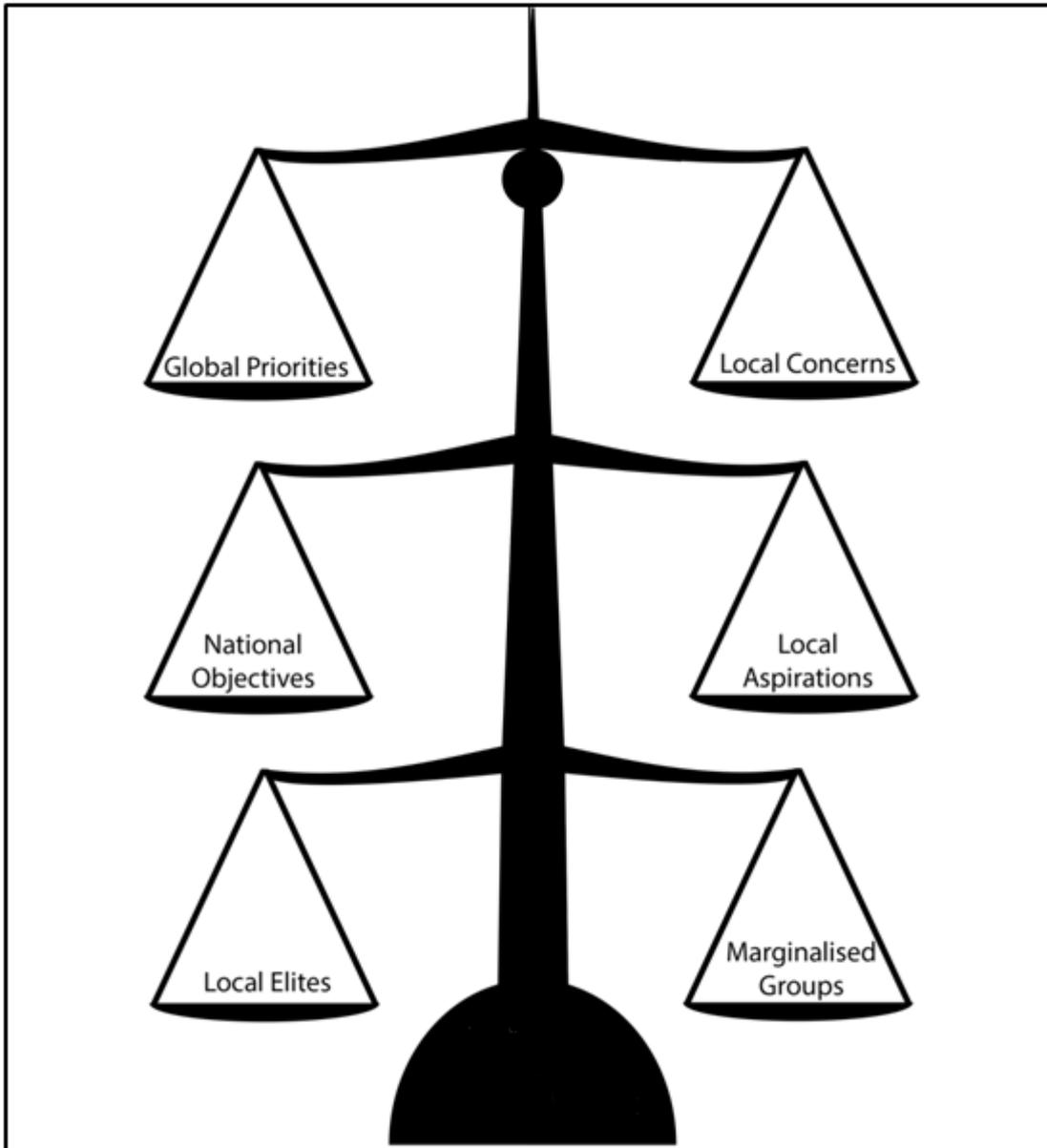
This paper is underpinned by an interpretivist ontology that recognises the subjective nature of reality. This study draws heavily from the political geography literature which views the construction of scale as a social and political process that is reflective of power relationships and ideologies (Delaney and Leitner 1997: 96). If scale is conceptualised as socially and politically constructed, it can also be contested (Bulkeley 2005: 883). As such, the ontological and epistemological position adopted in this research allows for a critique of the dominant construction of scale in the governance of REDD+. Interpretivism contends that the world is socially constructed so social phenomena cannot be understood independently of our interpretations of them (Furlong and Marsh 2010: 199). By employing an interpretivist ontology, this paper will challenge the notion that scale is a pre-given and fixed hierarchy of bounded spaces (Delaney and Leitner 1997: 93). In particular, an interpretivist approach helps to illustrate how the construction of scale can be used to prioritise and legitimise certain forms of governance while obscuring and marginalising other voices. The ontological and epistemological position of this research has significant consequences for the methods and data sources that will be used in this investigation.

3.2 Analytical Framework

Given that this research is underpinned by an interpretivist ontology and epistemology, the analytical framework developed in this paper demonstrates how the social and political construction of scale can prioritize or marginalize certain interests and produce inequalities. In order to identify the inequalities produced by the current governance structures of REDD+ in PNG, this research develops a 'politics of scale' framework. This analytical framework builds on Mathur's (et al 2013) 'axes of community justice'⁵ and identifies three investigative axes along which inequalities at different scalar levels can be analysed. These axes are proposed as a way to examine where and how actors, interests and perspectives may be in competition with each other. The diagram below illustrates the 'politics of scale' framework that will be employed in this research.

⁵ In Mathur's (et al 2013) original work, a fourth axis of community justice, business versus community interests, is deployed. While the private sector does play a significant role in the REDD+ program in PNG, this study is primarily concerned with understanding how different scales of governance operate and whether this contributes to inequality.

Figure 1: Politics of Scale Framework



This framework will be applied to the REDD+ program in PNG, specifically the April-Salumei Sustainable Forest Management Project, to identify and examine the inequalities that are produced between and within different scales. In examining global priorities versus local concerns, this paper will consider the inequalities produced by the global scale governance of REDD+ in PNG. Along this axis, the impact of global managerial priorities on local participation in decision making will be investigated. Similarly, the national level governance of REDD+ will be critiqued by examining possible inequalities between national objectives and local aspirations. The degree of community participation in national REDD+ policy development will be assessed under this axis. The last axis will consider how the global and national governance of REDD+ in PNG may overshadow equity concerns at the local scale. Within communities, inequalities between local elites and marginalised groups will be examined. This analytical framework exposes how inequalities can emerge between and within different scales due to the prioritization of certain scales of governance.

3.3 Data Sources

A range of primary and secondary data has been used in this research, including both qualitative and quantitative sources. Due to the scope of this research project, extensive fieldwork could not be conducted with all communities involved in the REDD+ program in PNG. To compensate, I draw on other sources, including primary documents, ethnographic case studies and quotes from customary landowners. Leggett and Lovell's (2012) ethnographic research with communities involved in the April-Salumei REDD+ project has been an important resource for this study as it offers a number of insights into the problems faced by local communities implicated in market-based mitigation measures. Primary sources, in the form of government reports, policy statements and project design documents have been invaluable to this study. Specifically, this research has critically examined the following policies and documents:

- UN Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries Joint Programme Document (2010)
- National REDD+ Project Guidelines (2012)
- Forest and Climate Change Framework for Action 2009-2015
- Project Design Document: April Salumei (2011)

In addition to these policy documents, popular and grey literature, including newspaper articles, blog posts and reports from NGOs and research institutes, has been used judiciously. While qualitative sources have formed the basis of this study, quantitative data – namely statistics on economic performance and population demographics like health, education and income – has been used to develop an understanding of the inequalities that exist in PNG and how they might be compounded by the REDD+ program. Quantitative and qualitative data have been used collaboratively to provide both an empirical basis for analysis and to access the experiences and views of local communities within the interpretivist framework of this research.

3.3 Case Study

This paper will develop a case study of the April-Salumei Sustainable Forest Management Project to explore how the global and national governance of REDD+ operates at the local level. As PNG's first pilot REDD+ project, the April-Salumei region is being used as a demonstration site for future REDD+ activities in the country. Initiated in 2009⁶, the April-Salumei REDD+ project in the East Sepik province encompasses 521,000 hectares of rainforest in the Hunstein Range which were previously identified for logging under an existing Forest Management Area (FMA) acquired by the PNGFA in 1996.⁷ The area is home to around 20,000 indigenous people and owned by 160 clan groups which comprise 163 Incorporated Land Groups (ILGs). At least ninety villages are located in the area and a number of forest dependent societies are also present (Pacific Forest Alliance 2012b). Almost a third of the 800 languages in PNG are found in the Sepik region which highlights the linguistic and cultural diversity in the area (Hooper et al 2011: 40). The communities in the April-Salumei area are considered among the most disadvantaged and least developed in PNG with low incomes, lack of basic government services and poor education and health

⁶ Initially, the April-Salumei area was identified by former Prime Minister Michael Somare who wrote to the then Office of Climate Change and Environmental Sustainability (OCCES) to request that the region become a pilot site for REDD+ (Pacific Forest Alliance 2012a).

⁷ While the REDD+ project border has been mapped according to the existing FMA, it is important to note that the April-Salumei area is not a discrete zone that can be easily mapped. In line with PNG's complex land tenure system, the boundaries of this area are open to negotiation over space and time (Leggett and Lovell 2012: 125).

facilities (Hooper et al 2011: 40). Due to the remoteness of villages and the inaccessibility of markets, people rely heavily on subsistence agriculture, including hunting, gathering and shifting cultivation (Leggett and Lovell 2012: 21). Therefore, the opportunities for community development and poverty alleviation promised by the REDD+ program are significant for the communities in the April-Salumei area.

The April-Salumei Sustainable Forest Management Project aims to reduce greenhouse gas emissions through avoided deforestation, contribute to conservation and biodiversity protection and provide a source of income for customary landowners. As a demonstration site for the UN-REDD Programme, this project is being used to test land acquisition processes; measurement, reporting and verification (MRV) methodologies; free, prior, and informed consent (FPIC) procedures; benefit distribution and sharing; and REDD+ project guidelines. The project is being developed and implemented by an international company, Rainforest Project Management, which operates under the Pacific Forest Alliance. In 2011, the project was validated by Scientific Certification Systems against the Climate Community and Biodiversity project design standards and has also been approved by the Verified Carbon Standard⁸ (Pacific Forest Alliance 2013: 2). As the first pilot project of the REDD+ program, the April-Salumei Sustainable Forest Management Project does provide an important case study for the governance of REDD+ in PNG. In the following chapters, the April-Salumei project will be used to highlight the inequalities that have been generated by the governance of the REDD+ program in PNG.

⁸ The validation process of the April-Salumei REDD+ project has been criticised because the project design document did not provide information on how consent was obtained from the 163 landholding groups. Furthermore, the information on the social and cultural issues in the region has been critiqued for using old ethnographic overviews that provide little understanding of the current social challenges, particularly tensions over land tenure (Brown 2013: 153).

4. *Context of REDD+ in Papua New Guinea*

Before analysing the inequalities produced by the governance system of REDD+ in PNG, this paper will lay out the economic, political and social context in PNG. In order to examine the impact of the REDD+ program, it is first important to understand the context in which this mitigation mechanism has developed in PNG. While the country possesses significant resource wealth, development in PNG has been slow and rising inequality is an issue. Weak governance also limits development opportunities in the country. This chapter will provide some background on PNG and the factors that influence the development of REDD+.

From an economic perspective, PNG has a dual economy with a small formal industrialised sector and a much larger informal sector (Asian Development Bank 2012a: 7). PNG's economy is dominated by primary production; agriculture, forestry, fisheries, gas and mining contribute to 63.4 percent of the country's GDP (National Department of Planning and Monitoring 2010: 11). Due to its natural wealth, PNG has a rapidly expanding economy that centres on mining and resource exploitation (Batten 2012: 1). Despite this macroeconomic growth, less than five percent of the population (approximately ten percent of the working age population) are able to earn a wage in the formal economy (Batten 2012: 2). Furthermore, 87 percent of livelihoods still depend on subsistence agriculture (Leggett and Lovell 2012: 116). While primary production is the dominant source of revenue in PNG, carbon financing is an emerging arena for economic growth. Between 2010-2012 PNG received \$4.9 million in climate finance related grants and a total of \$33 million has been committed since 2010, most of which is dedicated to REDD+ mitigation projects (Prizzon 2014: 15). Nevertheless, PNG relies heavily on natural resource revenue for socio-economic development, but enormous disparity remains in the distribution of national wealth and service provision (Babon and Gowae 2013: 7).

With a population of seven million people, PNG is characterised by low levels of development and significant inequality. In 2012, PNG was classified in the low human development category and ranked 156 out of 187 countries in Human Development Index (HDI) measurements (UNDP 2013). While HDI rankings can mask inequality, the Asian Development Bank (2012a: 16) reports that PNG faces the highest level of inequality in Asia and the Pacific. The Papua New Guinea Vision 2050 Report (National Planning Committee 2010) acknowledges the persistent socioeconomic inequalities that exist in the country, namely disparities in income, wealth and employment opportunities. It states that 53 percent of the population live below the national poverty line and 55 percent remain illiterate (National Planning Committee 2010: 22). Furthermore, significant gender inequalities remain a problem; literacy rates among women are lower than men and high rates of domestic violence are prevalent across the country (Asian Development Bank 2012a; US Department of State 2013). These disparities are concerning because high levels of inequality can lessen the impact of economic growth on poverty reduction and may undermine the basis of growth itself (Asian Development Bank 2012b: 4). Therefore, the PNG government's main challenge in the next decade is to improve the inclusiveness of economic growth (Batten 2012: 3).

Overcoming inequality and achieving sustainable development is particularly difficult in PNG due to weak governance and corruption. PNG's multi-parliamentary democracy blends Western-style systems of government with pre-existing traditional political structures which come together in a three-tier governance system operating at the national, provincial and district level⁹ (Secretariat of the Pacific Regional Environment Programme 2012: 7). While

⁹ It is important to note the history of colonialism in PNG and its impact on the political system. Before reaching independence in 1975, PNG endured three successive colonial states from the late nineteenth century (Lipset

PNG has a complex political system and comprehensive laws and institutions, low levels of government effectiveness and weak control of corruption undermine economic activity, the delivery of public services and the credibility of the state (Asian Development Bank 2012a). Corruption remains a significant problem in PNG and the country currently ranks 144 out of 177 on the global corruption index (Transparency International 2014). Despite a decline in the number of corruption related cases in recent years, the community and private sector perceive that corruption is rising in PNG (Asian Development Bank 2012a). These economic and political factors provide an important background to the development of REDD+ in PNG.

To a large extent, PNG has become a proponent of REDD+ because of its large forestry resources and high rates of deforestation and forest degradation. PNG has the third largest tract of intact tropical rainforest in the world and it is estimated that forest covers 71 percent of the country (Babon and Gowae 2013: 1). Nevertheless, the country has the second highest proportion of greenhouse gas emissions from land use, land use change and forestry (LULUCF) in the world (Greenpeace 2011). While there have been debates about the causes of deforestation in PNG, logging and subsistence agriculture are identified as the main drivers with minor contributions from forest fires, agroforestry, agriculture and mining (Shearman et al 2009; Filer et al 2009). The forestry sector in PNG is controlled by a small group of foreign owned companies and has been criticised for unsustainable practices, illegal logging, corruption and poor governance (Babon and Gowae 2013: 6). REDD+ provides a more sustainable alternative to logging, but faces the same governance challenges as other sectors in PNG.

Despite the current governance issues in the forestry sector, PNG has been lauded as an ideal site for the development of REDD+ because of its strong customary land tenure system. In PNG, 97 percent of the land and almost all of the forests are owned by customary landowners (Babon, McIntyre and Sofe 2012: 3; Angelsen et al 2012: 157). Customary land tenure is established through kinship systems and vested communally in clan, tribe or extended family groups where land is inherited through lineage and boundaries are ascertained through memories (Scheyvens 2012). In PNG there are over 800 language groups and ethnic communities each with their own relationship to the forest and natural environment (Office of Climate Change and Development 2011). Moreover, 80 percent of the population live in rural areas where traditional farming and hunting are still dominant (Laurance et al 2012: 36; Scheyvens 2012: 3). In PNG, the importance of land goes beyond its economic value as land has spiritual and cultural importance and provides a form of social security (Boge 2013; Koian 2010: 27). Many villages are still governed by traditional cultural norms, like reciprocity and patronage systems within kinship and language groups; but these cultural values can be conducive to corruption in contemporary circumstances (Babon and Gowae 2013: 8). The customary land tenure system and cultural practices in PNG provide an important background to understanding the inequalities that may be produced by the REDD+ program. This chapter has provided a brief introduction to the economic, political, social, environmental and cultural factors that underlie the development of REDD+ in PNG, which will be discussed further in the next chapter.

2013: 148). While village politics in Melanesia has been characterised as egalitarian, inclusive and participatory, colonialism has transformed the traditional political, economic and resource management systems in PNG (Barnett and Campbell 2010).

5. *The Rise of REDD+ in Papua New Guinea*

The last chapter described the context behind the development of REDD+ in PNG. In light of the background provided in the last section, this chapter will outline the rise of REDD+ in PNG and discuss the development of the policies and institutions that govern this market based mitigation measure. A number of multilateral programs, international companies and national agencies play a role in the development of REDD+ in PNG. In order to critically examine the inequalities produced by the REDD+ program in PNG, it is important to understand how this mechanism has developed and how it is governed. As such, the information presented in this chapter will provide a foundation for the politics of scale analysis of the governance of REDD+ in PNG in the next chapter.

Since 2005, when PNG and Costa Rica introduced the idea of ‘Reducing Emissions from Deforestation in Developing Countries’ to the UNFCCC, PNG has been a proponent of REDD+ at the international level. PNG’s Special Envoy and Ambassador on Climate Change, Kevin Conrad is credited for launching REDD+ at the UNFCCC. Government representatives have played an active role in advancing the REDD+ agenda through the UNFCCC and PNG has also committed to climate change mitigation action on a national scale (Filer and Wood 2012: 668; McLachlan-Carr et al 2010: 4). After the UNFCCC agreed to support REDD+ approaches to climate change mitigation in 2007, PNG began to develop institutional frameworks to implement these programs on a state level (Melick 2010: 359). In 2008, the UN-REDD Programme was set up and PNG was selected as one of the pilot countries. However, the development of the REDD+ program in PNG has not been without controversy.

After the REDD+ program received support in the international climate change arena, private developers and carbon traders were involved in questionable deals with local communities in PNG. The government established the Office of Climate Change and Environment Sustainability (OCCES) to steer the national REDD+ program. However, the OCCES was accused of corruption and pre-emptively selling carbon credits before national legislation was in place (Pearse 2012: 194; Pettit 2011: 96). Between 2008 and 2009, media reports about so called ‘carbon cowboys’ swindling customary landowners surfaced and threatened the reputation of the new OCCES and the PNG government (Babon, McIntyre and Sofe 2012: 7; Filer 2011). Subsequently, the government took steps to counter the unregulated development of REDD+ in PNG.

In response to this controversy, the OCCES was abolished and replaced with the Office of Climate Change and Development (OCCD) in 2010. In addition, international consultancy firm McKinsey and Co were hired by the government to draft a national climate change and REDD+ strategy (Babon and Gowae 2013: 27). McKinsey and Co produced the national Climate Compatible Development Strategy, an Interim Action Plan and a set of REDD+ Project Guidelines (Dus 2012) and contributed to the UN-REDD National Programme Document (Filer 2011). However, the move to engage a foreign consultancy firm to develop the national REDD+ strategy has been criticised for undermining national ownership and limiting the participation of local stakeholders in the policy process (Babon and Gowae 2013: 29; Greenpeace 2011).

After the development of the national REDD+ strategy and framework, the program has been implemented in three phases. Firstly, readiness activities – such as the development of MRV systems, organisational capabilities and project safeguards – were undertaken between 2009 and 2013. This phase was followed by the first REDD+ pilot projects and other demonstration

activities initiated by NGOs.¹⁰ A number of REDD+ readiness activities have taken place in PNG with varying degrees of success and controversy. In addition to the April-Salumei Sustainable Forest Management Project, the PNG government has been involved in pilot projects in other provinces, including the Kamula Doso Improved Forest Management Project in the Western Province (Pearse 2012: 194). However, the Kamula Doso project has been terminated by local landowners who claim they were ‘misinformed’ by the CEO of Nupan Trading, Kirk Roberts,¹¹ and the PNGFA is now pursuing the development of agro-forestry projects in the area (Forestry and Development 2011). The collapse of the Kamula Doso REDD+ project occurred because, ‘Grand commitments to conserve forests, whilst delivering economic and social outcomes, through REDD-related scheme have failed to deliver clear economic benefits to local communities.’ (Forestry and Development 2011). As the Kamula Doso pilot project demonstrates, local communities are essential to the success of REDD+, but it is difficult to balance their interests with other project goals.

Nevertheless, the current phase of REDD+ development in PNG involves the expansion of REDD+ activities based on these pilot projects. This chapter has outlined the history of REDD+ in PNG and noted some of the governance challenges surrounding the program. These issues will be analysed through a politics of scale framework in the following chapter.

¹⁰ For example, the Nature Conservancy is undertaking a REDD+ pilot project in the Adelbert Mountains and the Wildlife Conservation Society is implementing a Village REDD+ project in Manus (Scheyvens 2012: 30).

¹¹ In 2009, Kirk Roberts drew media scrutiny for allegedly issuing fake forest carbon certificates from the OCCES for the Kamula Doso project (Forestry and Development 2011).

6. *Politics of Scale Analysis*

The last chapter described the rise of REDD+ in PNG and identified some of the governance issues and controversies surrounding the development of this market based mitigation measure. Building on this discussion, this chapter will use the politics of scale framework introduced in the methodology chapter to identify the inequalities produced by the current governance system of REDD+ in PNG. By recognising the socially and politically constructed nature of scale, this section will examine how certain scales of REDD+ governance have become dominant and question the inequalities that may emerge from these governance structures. Specifically, this chapter will examine the global governance of REDD+ in PNG and how global priorities and local aspirations have been balanced. Likewise, the national governance of REDD+ in PNG will be critiqued and inequalities between national objectives and local concerns will be identified. At the local scale, the impacts of the current governance structures of REDD+ will be examined and inequalities between local elites and marginalised groups will be investigated. Throughout this chapter, the April-Salumei Sustainable Forest Management Project will be used as a case study to highlight how the governance of REDD+ impacts on local communities. This analysis will identify the inequalities that need to be overcome in order for the REDD+ program to be an equitable and effective strategy for development in PNG.

6.1 *Global Priorities versus Local Concerns*

At the global scale, REDD+ is governed by the international climate regime and has been developed through the UNFCCC process. As such, REDD+ is dependent on the infrastructure established by the UNFCCC and is constrained by international negotiations and donors (Buss et al 2013: 3). The UN-REDD Programme and the FCPF have been established at the global scale to govern the implementation of REDD+ readiness activities. As a pilot country of the UN-REDD Programme, PNG must conform to the requirements of the international climate regime. According to the 'PNG Forest and Climate Change Framework Action Plan 2008-2015', the UNFCCC negotiations in Bali in 2007 and the subsequent Bali Road Map provide the broad framework for the development of REDD+ in PNG (PNGFA 2008: 4). The 'PNG UN-REDD National Programme Document' also highlights how the global governance of REDD+ shapes national policy directions and decisions (Pettit 2011: 97). Therefore, REDD+ activities in PNG operate within the global governance system established by the international climate regime through the UNFCCC and programs like UN-REDD.

However, the global scale governance of REDD+ in PNG can be critiqued from a politics of scale perspective for marginalising local participation in the governance process. To a large extent, the global managerial priorities of the international climate regime exclude local voices and perspectives (Mathur et al 2013: 45). Even though local communities play a crucial role in the success of REDD+ projects, international negotiations offer limited opportunities for customary landowners to participate in decision making and policy development. In some cases, they are actively excluded from negotiations. For example, during the 2010 UN climate change talks in Tianjin the PNG negotiating team were criticised for stifling efforts to bring small landowners and indigenous groups into the negotiations (Zwick 2010). Evidently, the global governance structures of the REDD+ program do not foster the participation of customary landowners which contributes to tensions between the global and local scale.

The dominance of the global scale in the governance of REDD+ in PNG has contributed to significant imbalances between global priorities and local concerns in the implementation of such projects. The emphasis placed on global mitigation benefits and carbon accounting and valuation has come at the expense of community engagement. As such, the development of

REDD+ pilot projects in PNG has occurred with virtually no involvement or understanding from most of the forest communities (Melick 2010: 359). While the mitigation benefits of REDD+ projects are largely global, the cost of conservation is incurred by forest dwelling communities who must forego certain land use practices, development and resource exploitation (Blom, Sunderland and Murdiyarto 2010: 166). The international climate regime is mainly focused on the mitigation benefits of REDD+, but local communities implicated in such projects are concerned about how their livelihoods and access to land will be affected.

This inequality between the global and local scales is exemplified in the April-Salumei Sustainable Forest Management Project where the global governance structures of REDD+ have prioritised global emission reductions over local concerns about livelihoods and land use. To a large extent, the April-Salumei pilot project has focused on developing the technical and instrumental processes of REDD+ in PNG and achieving validation and certification to commodify carbon¹² (Hooper et al 2011). However, this focus on global mitigation priorities has resulted in a lack of consideration for the practical implications of the project on the livelihoods of forest communities (Leggett and Lovell 2012: 118). As the REDD+ program prohibits certain forest activities and resource uses that produce greenhouse gas emissions, REDD+ projects can have a significant impact on forest dependent communities. In the April-Salumei region, where a large proportion of the population depend on subsistence agriculture, restricting access to land and resources poses a threat to local livelihoods as people rely on the forest to meet their basic needs and do not have alternatives to subsistence agriculture (Scheyvens 2012: 7; Hooper et al 2011: 57). Customary landowners are concerned about which areas they will be able to access for their subsistence practices and cultural traditions. A prominent landowner from the Malu village in the project vicinity asks:

How do we know which areas are assigned to hunting and gathering of food, medicine, housing materials, canoe, tools? ... The REDD proposal is dangerously designed to lock up forest and land which by right is owned by the people in the area and they should not be restricted to make any decisions about how and what their future obligations and rights of their land should be (Golman 2010).

Through the social and political construction of scale, the international climate regime has promoted the global governance of the REDD+ program. However, this global approach to managing REDD+ through the UNFCCC and programmes like UN-REDD excludes local participation in the development of such mechanisms. In the case of PNG, the global governance of REDD+ has meant that international mitigation priorities overshadow local concerns and threaten local livelihoods. The April-Salumei case study illustrates this inequality as the REDD+ project has placed emphasis on verifying and valuing carbon emission reductions, rather than engaging with communities. In this way, the governance of REDD+ in PNG produces significant inequalities between the global and local scales.

6.2 National Objectives versus Local Aspirations

In addition to this global scale governance, REDD+ in PNG is governed on the national level through government agencies and policies. As states are treated as the vehicle for global climate governance, the national scale is legitimised as the appropriate level for mitigation measures like REDD+ to be implemented. While a national approach to REDD+ improves

¹² For example, the project design document for the April-Salumei REDD+ pilot project heavily focused on establishing baseline projections for the carbon stored in forests and rates of deforestation and forest degradation. Developing MRV systems has also been a central focus of the April-Salumei project and emphasis has been placed on measuring changes in carbon stocks and mitigating the double-counting and leakage of emissions reductions (Hooper et al 2011).

the effectiveness and cost-efficiency of emission reductions, national objectives and local aspirations rarely coincide (Angelsen 2008: 36). Nevertheless, in PNG the OCCD is the Designated National Authority on carbon trading under the UNFCCC and is responsible for the development of REDD+ related policies. Meanwhile, the PNGFA is in charge of driving REDD+ policy on the ground and providing technical support to facilitate pilot projects (Forest Carbon Partnership Facility 2012). These agencies have published a number of policies and guidelines that govern the development of REDD+ in PNG. However, the rise of REDD+ in PNG has been marked by controversy and there are questions about whether the state has the capacity or legitimacy to effectively govern REDD+.

In particular, there have been concerns about the integrity and transparency of the former OCCES and the PNGFA. As previously discussed, the OCCES was replaced with the OCCD after allegations of corruption and the pre-emptive sale of carbon credits emerged. It was claimed that carbon brokers made an US\$8 million contribution to set up the OCCES, which was considered a bribe, and that the Executive Director of the OCCES, Dr. Theo Yasause, was implicated in selling carbon credits from an area of forest that had not been validated (Lang 2009). Similarly, there have been allegations of corruption among PNGFA departmental officers and questions as to whether the PNGFA is equipped to oversee REDD+ monitoring and enforcement activities (Babon and Gowae 2013). Moreover, it is unclear how the OCCD and PNGFA work together in the governance and implementation of the REDD+ program in PNG. The FCPF (2012: 11) have identified a number of governance challenges in the implementation of REDD+ projects in PNG as it is difficult to coordinate the different levels of government and ensure that national-level policy development reflects local level experiences

The PNG government has also been criticised for failing to include customary landowners in the development of the national REDD+ program. As the PNG government hired an international consultancy firm, McKinsey and Co, to develop a number of REDD+ policies and guidelines, there has been limited opportunity for local participation in the REDD+ policy process (Babon, McIntyre and Sofe 2012: 17). For example, an external review of PNG's proposal to the FCPF reveals that customary landowners, NGOs and the private sector were not involved in the drafting of the PNG REDD+ Readiness Plan (Babon 2011: 6). Likewise, the drafting process for the national REDD+ Guidelines has been criticised for lacking transparency and excluding local voices; the document was released over a Christmas holiday period so local landowners did not have time to provide input (Babon and Gowae 2013: 31). As such, the REDD+ policy process in PNG has been dominated by the national scale and failed to include local communities in the development of REDD+ strategies and guidelines.

National institutional arrangements and poor stakeholder engagement have also limited the ability of customary landowners to meaningfully participate in the REDD+ policy process (Babon, McIntyre and Sofe 2012: 15). While effective landowner consultation is considered a prerequisite for development projects on customary land (Bingeding 2011: 2-3), the OCCD and PNGFA have failed to effectively engage with stakeholders and raise awareness of REDD+ (Scheyvens 2012: 31). According to the REDD+ Readiness Preparation Proposal, the REDD+ consultation process has involved provincial and community consultations, school visits, radio talk back shows and meetings with specific implementation agencies (FCPF 2012: 25). However, Leggett and Lovell's (2012: 125) work reveals that communities implicated in the April-Salumei REDD+ project were not fully aware of the existence of the project and have a limited understanding of REDD+. This suggests that the consultation process has not effectively engaged with customary landowners. Therefore, the national

approach to REDD+ governance in PNG has failed to enable communities to participate in the policy process which contributes to inequalities between the national and local scales.

As local communities have been marginalised by the national governance of REDD+ in PNG, national objectives have been prioritised over local aspirations. In regards to the distribution of costs and benefits from the REDD+ program in PNG, there are tensions and trade-offs between the national government and local communities. In the case of the April-Salumei REDD+ project, the PNG government is expected to benefit from project revenue, increased investment, reduced spending in certain sectors, the development of physical infrastructure and promotion of national environmental objectives (Peskest 2011). In contrast, the burden of the REDD+ project will be placed on local communities in the April-Salumei area who must change their subsistence agricultural practices and may not receive any additional benefits (Leggett and Lovell 2012: 127). There is a danger that REDD+ projects in rural areas may not provide any financial or service additionality for communities outside what should already exist or be provided by the government. In the case of the April-Salumei project, there are no safeguards to protect landowner revenue and after the deduction of project development costs, communities may receive very little income from the project (Leggett and Lovell 2012: 127). From the government's perspective, REDD+ is a strategy for national economic development; as Theo Yasaue, former head of the OCCES, states "April-Salumei will deliver and open the eyes as the vehicle for future development" (Gridneff 2010). He adds, "In my view the April Salome REDD project process be it voluntary or market based would assist in the attainment of these national and international obligations that we have signed up to as a country." (Yasaue 2010: 2). In contrast, an indigenous landowner in PNG contests:

For the developed countries it is carbon, but for us it is life. Forest is life and so REDD should be seen from how the indigenous people and how the local communities will be affected because most of their life is dependent on that (Earth Peoples 2009).

Evidently, the national government and local communities have different priorities and interests in the REDD+ program. However, due to the dominance of the national scale in the governance of REDD+, national objectives have superseded local aspirations. Consequently, balancing national and local interests is a key governance challenge for the REDD+ program in PNG. As local communities have been largely excluded from the REDD+ policy process, it is difficult to overcome this inequality between the national and local scales. While local communities are most affected by REDD+ projects and the success of such initiatives is highly dependent on people living in the forests, they generally have the least say in how these projects are implemented and administered (Lederer 2012: 110). Hence, significant inequalities between the national and local scales need to be overcome if forest communities are expected to benefit from REDD+. Allegations of corruption and a lack of transparency in the government agencies responsible for REDD+ also force us to question whether the national scale is the appropriate level of governance for REDD+ in PNG.

6.3 Local Elites versus Marginalised Groups

As the governance of REDD+ is dominated by the global and national scales, inequalities at the local scale have been largely overlooked. The international climate regime has focused on establishing REDD+ as a form of global climate governance and the PNG government has concentrated on developing the national infrastructure and policies needed to govern the REDD+ program. At the local level, these global and national governance structures intersect as projects must conform to international climate standards and national REDD+ guidelines.

As such, international project developers have been employed to ensure that the pilot projects in PNG meet these standards and can be included under the REDD+ mechanism. However, little has been done to assess how these governance structures operate at the local scale and the practical implications on forest dependent communities (Leggett and Lovell 2012: 121). While the local scale is often presented as homogenous, there is a high degree of heterogeneity within communities and the development of REDD+ projects in PNG poses the risk of elite capture and the selective recognition and participation of groups at the local scale (Mathur et al 2013: 47). In order to challenge the dominant hierarchy of scale between the global, national and local levels, we need to examine not only inequalities between scales, but inequalities within scales as well. Therefore, more focus should be placed on the inequalities produced by REDD+ projects at the local scale.

Within communities, a potential source of inequality in the REDD+ program in PNG relates to land tenure. Defining land tenure, or more specifically carbon tenure, is important for forest dependent communities as this has crucial implications for clarifying the rights of ownership over carbon resources when they are being commodified as carbon offsets (Leggett and Lovell 2012: 119). Even though legal rights to land are recognised under the constitution in PNG, the legal ownership of carbon remains unclear (Leggett and Lovell 2012: 119). In particular, there is no clear policy or legislation to ensure the legal basis of REDD+ projects as the alienation of customary rights through the sale or lease of land is prohibited (Babon and Gowae 2013: 20; Amos 2013: 3). It is generally assumed that carbon rights in PNG will follow land tenure and be attributed to customary landowners, but customary land tenure makes it difficult to identify who owns forest carbon rights (Felicani-Robles 2013). When tenure is unclear, people may not be able to access benefits from REDD+ projects and may be excluded from participation (Angelsen et al 2012: 157). In this case, local elites may benefit from such projects while marginalised groups may be excluded.

The April-Salumei Sustainable Forest Management Project provides an example of how inequalities around land tenure may emerge from the REDD+ program in PNG. The project design document (Hooper et al 2011: 103) for the April-Salumei REDD+ project states that there is a low risk of landowner groups competing to get more for their areas and that unsettled land tenure or boundary disputes are not a problem in the April-Salumei district. However, customary landowners contradict this assessment and claim that the proposal does not adequately recognise or account for existing disputes over land tenure and landowner company representation (Golman 2010). Customary landowners in the April-Salumei area have expressed deep concerns that the REDD+ project will increase community conflict between groups trying to redefine land boundaries and maximise project benefits (Leggett and Lovell 2012: 126). Outsiders coming to the region and claiming distant kinship ties to gain access to project benefits is also a concern. Evidently, land and carbon tenure could become a source of inequality between local elites and marginalised groups.

Similarly, local communities have concerns about the distribution of project benefits from the REDD+ program in PNG and the ability of the national government to develop an equitable benefit distribution system. A number of discourses exist around REDD+ benefit sharing¹³ but the PNG government has typically adopted the position that a proportion of REDD+ benefits should be given to stakeholders who are essential for the facilitation and implementation of REDD+, including project developers and government agencies.

¹³ Different equity discourses around REDD+ benefit sharing propose that benefits should go to different groups, for example, communities with legal rights, low-emitting forest stewards, those incurring costs in the project or effective facilitators of implementation. See Thuy (et al 2013) and Luttrell (et al 2013) for discussion.

However, an indigenous leader from PNG explains, “Currently there is no benefit sharing mechanism in place that we are aware of. This needs to be developed” (Magun 2012). The PNG government faces a particular challenge in negotiating compensation that is equitable for customary landowners as the governance of REDD+ is dominated by the national and global scales (Hunt 2010: 80).

While national benefit sharing models are yet to be finalised, in the April-Salumei pilot REDD+ project the landowner company has signed an agreement with the project developer that gives 18 percent of revenue to the state government¹⁴ for projects outside the area, two percent to a climate emergency response fund and 80 percent to the April-Salumei Foundation, which will approve funding for community projects (Namah 2008). However, at the local scale, this benefit distribution system is open to elite capture as it requires landowners to submit formal applications to access funding.¹⁵ The April-Salumei REDD+ project has already generated inequalities at the local scale due to the appointment of a non-representative landowner company. The project developer has nominated Hunstein Range Holdings as the official landowner company, but this group never obtained permission to act as a representative for communities in the April-Salumei district and customary land owners are opposed to the company’s involvement in the project (Leggett and Lovell 2012: 126). Allegations of corruption also surround the landowner company and local communities have questioned the legality of agreements secured by Hunstein Range Holdings (Golman 2010). Peter Simbakua, one of the principle landowners in the project area, demonstrates the low regard for this company when he states “...it is important to know that Hunstein Range Holdings and deals it makes will always carry high degree of errors on landownership and forest accessibility rights” (Lang 2009). In relation to the distribution of project benefits at the local scale, significant inequalities between local elites and marginalised groups are likely to emerge from this REDD+ project.

From a politics of scale perspective, we can see how the dominance of the global and national scales in the governance of REDD+ has led to a prioritisation of certain objectives and interests at the expense of others. To a large extent, global mitigation priorities and national economic objectives have taken precedence over local concerns about livelihoods, land and carbon tenure and benefit distribution. At both the global and national scales, local communities have been excluded from policy processes and decision making around the development of REDD+ in PNG. As such, the distribution of benefits and burdens across scales is highly uneven. Local communities are not well positioned in the governance structures of REDD+ in PNG, which means that existing inequalities are being reinforced and forest dependent communities are being further marginalised by market based mitigation measures. For REDD+ to deliver real benefits to communities in PNG, the inequalities between the global, national and local scales need to be overcome. Hence, it is important for us to analyse the inequalities produced by the existing REDD+ governance structures and challenge the hierarchy of scale that places the global and national levels above the local scale.

¹⁴ Despite many customary landowners opposing the involvement of the government in carbon trading agreements, a large percentage of revenue from this project is slated to be paid directly to the PNG government (Howes 2009: 138; CarbonoWontok 2010; Bingeding 2011: 4).

¹⁵ Many communities in the April-Salumei region have low literacy rates, which means that a formal application process would be open to elite capture. Furthermore, women have lower rates of literacy than men so existing gender inequalities may be reinforced.

7. Conclusion

This paper has critically analysed the inequalities produced by the current governance system of REDD+ in PNG from a politics of scale perspective. By recognising that scale is socially and politically constructed, it is possible to examine how certain scales of governance become dominant and how specific interests and perspectives are privileged. In the case of REDD+, this market based mitigation measure has emerged from the international climate regime as a form of global climate governance that is coordinated at the national scale. To a large extent, the UNFCCC controls the development of REDD+ at the global scale and initiatives like the UN-REDD Programme and the FCPF have been established to facilitate the implementation of REDD+. This global scale governance of climate change has been criticised for being top down and excluding local communities from decision making. At the national scale, the REDD+ program in PNG is being coordinated through the OCCD and the PNGFA. Due to the weak governance and high rates of corruption in PNG, questions have been raised as to whether the national government has the capacity or legitimacy to govern REDD+. The PNG government has also been criticised for employing an international consultancy firm to develop a number of national REDD+ policies and guidelines and failing to engage with local communities.

The dominance of the global and national scales in the governance of REDD+ in PNG has led to the exclusion of local communities from policy and project decision making which has contributed to significant inequalities between different scales. By applying a politics of scale framework to analyse the REDD+ program in PNG, this paper has identified inequalities between and within scales. As the April-Salumei Sustainable Forest Management Project illustrates, the emphasis on global mitigation priorities has overshadowed local concerns around livelihoods and land use. Likewise, the REDD+ program in PNG has produced inequalities between national objectives and local aspirations. The national government is projected to benefit significantly from REDD+ while local communities carry the burden of changing their subsistence practices and may not receive any additional benefits from the project. At the global and national scales, issues of land and carbon tenure and benefit distribution have not been clarified which means inequalities may emerge at the local scale between elites and marginalised groups. Evidently, the current governance structure of REDD+ in PNG does not serve the interests of local communities.

In order for REDD+ to be effective and deliver real development benefits to communities in PNG, the inequalities produced by the current REDD+ governance system need to be overcome. Consequently, REDD+ requires an integrated approach which incorporates international, national and local governance (Angelsen et al 2012: 92). The global and national levels do play an important role in environmental governance, but the dominance of these scales in the REDD+ program marginalises local interests and perspectives. This is particularly problematic because forest dependent communities are most impacted by REDD+ projects and are essential to the success of such initiatives (Lederer 2012: 110). Therefore, global mitigation priorities, national economic objectives and local development goals need to be balanced. To achieve this, the global architecture for climate governance and national institutional arrangements must recognise and engage with local communities to enable them to participate equally in decision making and access benefits (Hiraldo and Tanner 2011: 49). This paper does not aim to make broad generalisations or recommendations about the REDD+ program, but instead opens up lines of questioning and provides an alternative way to analyse such projects. Ongoing engagement with the politics of scale provides useful insights into understanding the dynamics of environmental governance and mitigation measures, like REDD+.

REDD+ presents an important development opportunity for PNG. With its extensive forestry resources and customary land tenure system, PNG is well placed to participate in market-based mitigation measures, like REDD+. The REDD+ program offers a more sustainable alternative to deforestation and provides a way for customary landowners to pursue development while conserving the environment. However, in order for REDD+ to contribute to poverty alleviation and economic growth in PNG, a number of inequalities in the current governance system need to be addressed. Primarily, local communities need to be enabled to meaningfully participate in REDD+ and the benefits of such projects need to be equitably distributed between the global, national and local scales. This can only be achieved through good governance. Hence, it is important for us to understand the inequalities produced by the current governance system of REDD+ in PNG and assess them from a politics of scale perspective.

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