REDD+ Unravelled: A discursive analysis of neoliberal forest conservation efforts in Guyana and Suriname

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Abstract

Recently, the Reducing Emissions from Deforestation and forest Degradation (REDD+) initiative has been stalling in its progress. Touted as key to halting one-fifth of the world's carbon emissions, REDD+ quickly rose to become the most accepted effort to integrate the carbon sequestration potential of tropical forests in the developing world into the global effort to govern climatic change. The mechanism seeks to incentivize conservation of tropical forests by providing payments for their conservation and sustainable use. In this dissertation, I put forward reasons for this recent slowdown, asserting that as the policy engages with the social use of the forests, it encounters a politics of intractability not evident in its mostly technical conception.

Commencing with a post-structural genealogy of extractivist ethic in the postcolonial states of Guyana and Suriname, I outline the social context of natural resource use with which REDD+ engages. Given the peculiar circumstances of these two countries including densely populated coasts and sparsely populated, extensive forest areas, REDD+ would be expected to encounter a relatively unhindered path. However, its preparation and implementation has been fraught with challenges. Reflecting on the global development narrative, the dominant neoliberal frame and the effort to govern climate change, I question the ability of REDD+ to meet its stated aims, while bringing into focus its associated instrument effects, that which it also does but does not explicitly claim. Drawing on the theoretical framework of political ecology, a discursive analytical approach, and a multi-sited ethnography of REDD+ implementation, I show how this intervention represents different technologies of government that contribute to shaping societies, especially forest dependent groups, into actors amenable to neoliberal governance. Further, the lens of governmentality and a focus on the subject being governed, allows us to move past understanding REDD+ as just an expression of neoliberal governmentality, but as supported by various governmentalities in implementation.

In Guyana, REDD+ provides an economic incentive for forest conservation but has failed to challenge the dominance of resource extractive industries. However, it has succeeded at making activities taking place in the forests more legible to governments and other actors geographically situated outside of the forests. Within Suriname, REDD+ is seen by policy makers as an avenue through which age old land rights issues could be pacified, while forested communities demand their explicit remedy and improved development outcomes. In both countries, REDD+ continues in the tradition of extracting actual or 'fictitious' value from the forests to support ever elusive development objectives while reigniting historical conflicts on land use. REDD+ contributes to this neoliberalization of development interventions and shifts in human interactions with nature in these localities, even in the communities of those groups frequently lauded as protectors of or dependent on the natural environment. Through technological reliance, REDD+ has facilitated increasing legibility of the forests while crowding out opportunities for meaningful change in addressing the drivers of deforestation and the concomitant reduction in the forests' capacity for carbon sequestration.

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List of Acronyms

ADF	Amerindian Development Fund
APA	Amerindian People's Association
ASA	Association of Saramaka Authorities
CARICOM	Caribbean Community
CCCCC	Caribbean Community Climate Change Centre
CCD	Climate Compatible Development
CDM	Clean Development Mechanism
CDP	Community Development Plans
CI	Conservation International
CI-G	Conservation International Guyana
CI-S	Conservation International Suriname
C-MRV	Community Monitoring, Reporting and Verification
EPA	Environmental Protection Agency
EU	European Union
EVN	Economic Value to the Nation
FCMU	National Plan for Forest Cover Monitoring
FCPF	Forest Carbon Partnership Facility
FIRR	Finance Internal Rate of Return
FPIC	Free, Prior and Informed Consent
GCP	Global Canopy Programme
GDP	Gross Domestic Product
GFC	Guyana Forestry Commission
GGDMA	Guyana Gold and Diamond Miners Association
GGMC	Guyana Geology and Mines Commission

GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GLSC	Guyana Lands and Surveys Commission
GPS	Global Positioning System
GRIF	Guyana REDD+ Investment Fund
GSF	Guiana Shield Facility
HFLD	Highly Forested, Low Deforestation
HKV	Houtkapvergunning (Community Forest Cutting Rights Suriname)
IACHR	Inter-American Commission on Human Rights
IADB	Inter-American Development Bank
IMF	International Monetary Fund
IPCC	Inter-Governmental Panel on Climate Change
LCDS	Low Carbon Development Strategy
LULUCF	Land use, Land use change and Forestry
MoAA	Ministry of Amerindian Affairs
MoNRE	Ministry of Natural Resources and the Environment
MoRD	Ministry of Regional Development
MoU	Memorandum of Understanding
MRV	Monitoring, Reporting and Verification
MRVS	Monitoring, Reporting and Verification System
NCS	National Competitiveness Strategy
NDP	National Democratic Party
NDS	National Development Strategy
NFPS	National Forest Policy Statement
NGO	Non-Governmental Organisations
NIMOS	National Institute for Environment and Development

NLUP	National Land Use Plan
NORAD	Norwegian Agency for Development Cooperation
NRDDB	North Rupununi District Development Board
OCC	Office of Climate Change
ODA	Overseas Development Assistance
OGS	Ordening Goudsector (Commission for the Structuring of the Gold Sector)
OIP	Office of Indigenous People
OP	Office of the President
PES	Payments for Ecosystem Services
PhD	Doctor of Philosophy
PNC	People's National Congress
PPP	People's Progressive Party
PRSP	Poverty Reduction Strategy Paper
R-PP	Readiness Preparation Proposal
REDD	Reducing Emissions from Deforestation and forest Degradation
REDD+	Reducing Emissions from Deforestation and forest Degradation plus Improvement in carbon stocks
SBB	Stichting Bosbeheer en Bostoezicht (Foundation for Forest Management and Production Control)
UK-DfID	United Kingdom Department for International Development
UNDP	United Nations Development Program
UNDP- G	United Nations Development Program Guyana
UNDP- S	United Nations Development Program Suriname
UNFCCC	United Nations Framework Convention for Climate Change

USD	United States Dollars
VIDS	De Vereniging van Inheemse Dorpshoofden in Suriname (Association of Village Leaders)
WB	World Bank
WWF	World Wildlife Fund

Introduction

The Development and Climate Change Paradox

In January 2005, Guyana, a small country with 87% forest cover (Guyana Forestry Commission 2011) on the coast of South America, experienced a natural disaster. Torrential rain caused the inundation of the coast-land[1] on which the vast majority[2] of its three-quarter million (Bureau of Statistics Guyana 2012) people reside. During the rainy periods of May-June, and December-January, heavy rains and floods are the norm but the rains of January 2005 were exceptional. January was expected to bring an average of 7.3 inches of rainfall (Guyana Information Agency 2005) but in 2005, fifty-two inches of rain fell, with one exceptional night unleashing the precipitation expected for the entire month (Guyana Information Agency 2005). Extreme flooding ensued. Complications in the country's water management system did little to ameliorate the situation and the flood water remained stagnant for almost two weeks. Eventually, some relief came in the form of government interventions, donor assistance and cooperation from the private sector. After a few days of chaos, in which most economic life ground to a halt, the water receded.

I witnessed first-hand some of the disastrous effects of the flood as people who were able, moved their belongings to higher levels, storing them on tables or on the tops of refrigerators, hoping that the water would recede. For days, it did not. Agriculture was devastated due to the death of animals and crops, an additional vulnerability since the coast-land is the most fertile land, and hence, the centre of the agricultural industry in Guyana. Schools were shut and offices closed as the water levels rose some one hundred and seventy centimetres. Thirty-three people are known to have died from conditions related to the flood, with forty-nine hospitalised at the

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[1] Guyana's coastland is approximately 1.4 m below mean high tide level of the sea (Government of Guyana, 2013)

[2] Ninety percent of Guyana's population resides on the coast (Unknown, 2002).

time (Unknown 2005). The provision of clean water was a priority, and health concerns grew due to an increase in the incidence of leptospirosis which made a number of affected persons ill, and claimed the lives of some others (PAHO 2005). Based on its geographic vulnerability of having a coast below the level of the sea, Guyanese had become used to flooding, a circumstance reflected in the fact that many of its traditional family homes on the coast were built on stilts. Flooding was an especially inconvenient but expected part of life on the coast-land. However, this particular episode was well outside of the levels of inundation known in Guyana.

As with any isolated extreme weather event, it is difficult to directly connect its intensity or emergence to global climate change. However, the experience of the 2005 floods brought to the forefront of the public's imagination the question of the country's capacity for dealing with such events, which are likely to increase as the effects of global warming and climate change become more apparent (Government of Guyana 2012). Climate change, as one of the world's most urgent challenges, refers to changes taking place in the Earth's climate due to the effects of global warming (Harris 2009) resulting from the concentration of greenhouse gases in the atmosphere due largely to human activity (Pachauri and Reisinger 2007). Climate change presents an urgent global challenge placing ecosystems, economies and societies at grave risk especially those societies that have done the least to contribute to its emergence (Stern 2007).

With this in mind, Guyana faces a vexing issue. In addition to widespread damage to the population's health, infrastructure and the economy, the 2005 floods had the less tangible effect of highlighting the vulnerability of some groups in society in comparison to others (Unknown, 2005). Wealthier households have reserves of water and inbuilt infrastructure that make possible water storage in case of events like this one. Poorer households, usually resident in

dilapidated houses with little clean water reserves were ill-prepared for these eventualities, and as such, bore the brunt of the negative health effects. Concern for the lack of preparation, in terms of infrastructure and resources for disaster response, fuelled questions of the level of development necessary for averting such crises in the future. Questions of development, which have persistently defined independent Guyana's policy focus, were again brought to the forefront of the national attention as a means of enhancing the country's preparation for climatic events.

Seeing the forests for the coast

While the effects of the 2005 floods in Guyana draw attention to the coastal economic centre of the country, the emergent national dialogue on readiness for climate change led by state officials centred there had serious implications for the remainder of the country, particularly its highly-forested interior. The Reducing Emissions from Deforestation and forest Degradation (REDD+) became the centre piece for a new model of development in these two countries, one that would marry development, economic growth and climate change concerns. Recently, however, the global REDD+ initiative has been stalling in its effort to incentivize forest conservation (Angelsen 2016). In this dissertation, I put forward reasons for this recent slowdown, asserting that as the policy engages with the social[3] use of the forests, it encounters a politics of intractability not evident in its mostly technical conception.

Floods and vulnerability to climate and weather related events are definable characteristics of

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[3] In noting that it is possible to have alternative conceptions of the word society, Walby (2003) explained that the typical sociological conception of society usually involves the coincidence of economy, polity and culture. As is used in this dissertation, the term society, and the social, refers to this convergence in the nation state boundaries of Guyana and Suriname. Occasionally too, it is used to refer to the public sphere, that is outside the realm of private or governmental.

life on the low-lying coasts of Guyana and Suriname. The peculiarities of Guyana and Suriname, in relation to the effort to address the problem climate change, are rooted in the fact that they are covered by Amazon forests giving them scope to contribute to global mitigation efforts, while remaining highly vulnerable to climate change. Given the focus of REDD+ on tropical rainforests because of the large amounts of carbon sequestered in their mass, countries like Guyana and Suriname, are significant to the global effort to halt deforestation.

The win-win logic of market fixes

REDD+ is intended to present a market-based effort at conserving the world's tropical rainforests by providing payments for avoiding deforestation or forest degradation activities. Market-based conservation efforts around the globe are often made more palatable for stakeholders through their framing as 'win-win'[4] solutions, a framing that belies the inherent trade-offs to other land or resource use practices (Phelps, Friess, and Webb 2012; Cavanagh and Benjaminsen 2014; Brockington and Duffy 2010; Duffy 2015; Wanner 2015). Almost four years after the 2005 floods, Guyana's then President Bharrat Jagdeo, who had led the country through the disaster response, introduced REDD+ as central to his plan to have the country compensated for the preservation of its portion of the Amazon rain forests which covered most of its non-coastal territory, by pointing to the vulnerability of Guyana's coast to sea level rise, flooding and other effects of climate change.

In order to gain funding for the address of what the President called "development challenges" (Office of the President, Republic of Guyana 2008, 1), a then radical proposal was made. President Jagdeo, a trained economist, offered the services of Guyana's forests to the global

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[4] 'Win-win' solutions are often referred to as multiple win or even triple win solutions.

community in an effort to remedy a 'market failure' that allowed the world to benefit from the

climate services of the forests without paying for it. The proposed solution was that Guyana

should be compensated by global actors for the work of its forests, presenting the option of

simultaneous development and environmental protection. President Jagdeo, in one of the first

policy formulations of Guyana's effort to gain compensation for the preservation of the forests,

positioned his argument in global terms, expressing himself in a measured and calculated way.

This form of calculated expression, which has come to be central in the operationalisation of

REDD+ in both Guyana and Suriname, is evident in his statement that:

> … solutions to deforestation are possible. They can be delivered quickly and cost effectively,
> and have the potential to transform the economic prospects of some of the poorest countries in
> the world (Office of the President, Republic of Guyana 2008).

The then President set out to achieve the interest and buy-in from actors in the international

arena by highlighting the activities that take place in the country's forests that lead to

deforestation while drawing on the now oft-heard narrative of forests being worth more alive

than dead, the embodiment of a market failure that must be corrected. In the policy paper

outlining his position, he explained that the aim was to:

> …assist those working within the UNFCCC (United Nations Framework Convention for
> Climate Change) process to deliver these solutions. It is built on the premise that much
> deforestation happens because individuals, communities and countries pursue legitimate
> economic activities – such as selling timber or earning money and creating jobs in agriculture.
> The world economy values these activities. It does not value most of the services that forests
> provide when trees are kept alive, including the avoidance of greenhouse gas emissions.
> Correcting this market failure is the only long-term solution to deforestation (Office of the
> President, Republic of Guyana 2008).

While portraying the world economy as an autonomous actor valuing and subsuming all aspects

of the global environment, President Jagdeo sought to confirm that the forests in Guyana were

not being held hostage. However, despite his explicit emphasis that the aim of this initiative

was to reduce deforestation, he pointed out that Guyana was in fact contributing very little to

deforestation. Despite this, he proffered that Guyana should be able to access funding to

facilitate its development. Here, it became clear that actual deforestation rates in Guyana were insufficient to warrant payments to remedy this perceived market failure. As such, the threat of deforestation based on the needs of the country became the basis of problematizing deforestation showing awareness of the fact that while Guyana did not at that time cause high levels of deforestation, it could in order to gain development finance.

Curiously, while highlighting the need for a national conversation on the means of making progress towards REDD+, he stated that "As negotiators within the UNFCCC process know all too well, the achievement of climate change goals can often fall victim to seemingly intractable issues" (Office of the President, Republic of Guyana 2008). He then outlined his hope for progress proceeding from the incentives outlined in the paper.

The Politics of Intractability
The idea of creating incentives for avoiding deforestation, as espoused by Guyana's former President, is an iconic representation of a certain set of assumptions of the relationship between markets and nature. It represents the conservation of forests as a charitable or irrational deal, which should be superseded by rational, calculated decisions. Further, it is characterised by an image of an actor who has the potential of cutting trees and the power to choose between an array of options, like the variety of food options at an all-you-can-eat buffet, except that the aim of this process of creating incentives is that this actor will opt for the non-deforesting option which should ideally be long-lasting, satisfying and furthering the global good.

This focus on the creation of incentives in the aim of reducing deforestation assumes also that it is possible to provide incentives to actors who deforest or could eventually do so, and it charges said actor with the responsibility of being the causal factor in the chain of activities

that result in deforestation. It is grounded in a strongly economic and rationalist approach to decision-making, and in cases where the incentive is financial, as is usually the case in REDD+, it assumes or ignores the origin of the financial source provided, as long as the consequence of the arrangement, the protection of a particular demarcated area of forests, is reached. It subsumes environmental and developmental aims under the umbrella of the managerial structure provided by the market while assuming, certainly in the cases of both Guyana and Suriname, that these aims can be reached simultaneously, sidestepping the inherent trade-off between the two goals. Much like the global discussion on sustainable development, which Wanner (2015) describes as the "'sustainable development' of capitalism rather than ecological sustainability" (Wanner 2015, 35), the idea of financial incentives for the protection of forests ignores the glaring and palpable tensions and inherent trade-offs between considerations of the environment and development. It is the unfolding of this tension and the conflict between actors related to the REDD+ mechanism in both countries that forms the core focus of this dissertation.

Although President Jagdeo managed to gain some compensation for the conservation of Guyana's forests through the signing of the Guyana-Norway REDD+ agreement in 2009, it was woeful 11.6% of the amount the plan had attributed to the opportunity costs of not exploiting Guyana's forests. This and related intractable issues still managed to define the country's effort to achieve compensation for standing forests. Clearly then, the act of recognizing and verbalizing the emergence of possible future 'intractable issues' is insufficient for making a policy intervention less unmanageable. This politics of intractability, so to speak, were to later surface in neighbouring Suriname, another small forested country with geographical and historical circumstances remarkably similar to those of Guyana.

Ecosystem vulnerabilities in neighbouring Suriname

In Suriname, Guyana's neighbour to the East, 90% of the territory is covered by Amazonian forests (Haden *et al* 1999), and the majority of its 530000 (Algemeen Bureau Voor de Statistiek 2017) population resides on the coast which, like that of Guyana, is also very vulnerable to climate change. In May, 2006, Suriname was hit by torrential rains that conversely affected the forested areas of the country more drastically than the coast. Several major rivers of Suriname rose quickly and submerged surrounding areas. Some 22000 people were displaced in the flood and two-thirds of subsistence livestock and household goods was destroyed (Green 2006). In addition, approximately 60% of the population along the Tapahoni river in Suriname, was displaced (Graham 2006). Similar to the situation previously discussed in Guyana, while heavy rainfall had become a regular consideration of life in Suriname, the rainfall of May 2006 was uncommon, necessitating the collective efforts of the Surinamese government and donor agencies (Green 2006).

Suriname is now also pursuing a national REDD+ initiative, having joined the global effort led by the World Bank and the United Nations REDD+ Programme (UN-REDD+) in 2009. While its entrance to the realm of avoided deforestation through incentives was not as dramatic as that of Guyana's, their process of pursuing the implementation of REDD+ also unearthed a number of intractable issues that highlight the difficulties of instituting this market-based conservation logic. Central amongst the issues faced by Suriname was the resistance of the indigenous and tribal communities who live in the forests who felt that they had not been adequately consulted about this decision. The need for their consultation is an important consideration given the intimate relationship of indigenous groups with the forests, having served as stewards over these areas for generations.

Research Aims and Questions

My observation of these events, especially the confluence of concerns for climate change, development, conservation and markets introduced above, led me to ask the following questions that guide this research project:

1. To what extent does REDD+ offer a viable option for meeting conservation and development outcomes in Guyana and Suriname?

2. How do interpretations of REDD+ interact with pre-existing subjectivities and conceptions of the self in Guyana and Suriname?

3. How does REDD+ shape the societies of Guyana and Suriname outside of its stated aim?

In this dissertation, I seek to interrogate whether REDD+ meets its 'win-win' aim of improving development and conservation in both countries. This is complemented by my focus on the historical circumstances which I deem relevant to the lived experiences of the people in Guyana and Suriname, especially those likely to be most affected by the mechanism's implementation. I examine also how REDD+ is interpreted by different actors related to its implementation, and how it interacts with different pre-existing conceptions of the self of those most affected by it.

This is carried out within the theoretical framework of political ecology which accommodates discussions of the conflictive and constantly negotiated relationship between society and the environment (Bryant 1992). I use the literature on governmentality, explained in the subsequent chapter, to analyse REDD+ as a governing mechanism, drawing on different technologies of government to contribute to shaping both societies, especially forest dependent groups, into neoliberal actors. First, though, it is necessary that I continue to contextualise the issues I interrogate.

Climate change and the Caribbean

Guyana and Suriname are part of the Caribbean region which was created politically five centuries ago to fuel the rise of capitalism in the Western world through the amalgamation and exploitation of large numbers of people from around the globe (Knight 1990). Within the past fifty years, these countries gained independence and have sought to improve their prospects and viability through development.

The Caribbean region, however, presents an interesting set of vulnerabilities including physical ones to climate change. Among these physical vulnerabilities are risks to the ecosystems, economies and societies which comprise the region, a harsh reality since these societies have done little to contribute to the emergence of the climate change (Stern 2007). More broadly though, the people of the Caribbean have always been caught up in the affairs of the wider world (Mintz 1985) being used as a source for raw materials (Knight 1990; Moore 2000) for different external industry. Its colonialism differs from other forms around the globe in the length and depth of its subjugation, the majority being colonised for almost five centuries (Mintz 1985). These experiences lay the ground work for the Caribbean's distinctive character and subsequent view of the world[5].

After considering the current planned mitigation efforts around the globe, the Intergovernmental Panel on Climate Change (IPCC) surmised that there is likely to be an increase in global temperatures of between 1.4 to 5.8 degrees Celsius this century, depending on the success of human interventions in limiting the rise of greenhouse gases (Pachauri and Reisinger 2007). This phenomenon will have dramatic effects around the globe with more

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[5] The Caribbean's homogeneity lies in its nexus nestled between the forces of imperial imposition and popular response, while its internal heterogeneity lies in the multiplicity of ways through which this imposition settled in the different contexts of constituent Caribbean states (Mintz, 1989).

pronounced effects on the small island and low lying coastal states comprising the Caribbean. Some of these states, including Guyana and Suriname, coordinate aspects of their administration through the regional integrating body of the Caribbean Community (CARICOM). CARICOM seeks to formalize cooperation between Caribbean states which are microstates both in population size and, most often, geography. The Community[6] is based on the shared experience of "Caribbean-ness" which is derived from the colonial pasts, subjugation, and forced creation of the societies by external forces[7].

Global climate change presents a significant threat to the viability of CARICOM's member states which are vulnerable to coastal erosion due to climate change and sea level rise (Caribbean Community Climate Change Centre 2009). These effects are predicted to be multiplied by increasing human-induced pressures on coastal areas (Pachauri and Reisinger 2007). Flooding is anticipated to be a consistent threat due to sea level rise which is expected to affect the densely populated, low-lying areas, "exacerbat(ing) inundation, storm surge, erosion and other coastal hazards, thus threatening vital infrastructure, settlements and facilities that support the livelihood of island communities" (Pachauri and Reisinger 2007, 28).

As flooding in Guyana and Suriname demonstrate, extreme weather events have had a devastating impact on the Caribbean region in recent years. During the period of 1995 and 2000, the region experienced the highest level of hurricane activity, including tropical storms and flooding, amounting to a loss of between US$700 million and US$3.3 billion. Delays in

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[6] CARICOM comprises fifteen (15) member states including Antigua and Barbuda, the Bahamas, Grenada, Guyana, Trinidad and Tobago, Barbados, St. Lucia, St. Vincent and the Grenadines, Dominica, Belize, Haiti, Jamaica, Montserrat, St. Kitts and Nevis and Suriname; and five associate members including Turks and Caicos, Bermuda, Anguilla, Cayman Islands and the British Virgin Islands.

[7] The member states of the Community differ in their levels of development, population sizes, geographical characteristics, experiences with colonialism, economic prospects and respective external relationships.

responding to climate change will result in increases in the costs associated with this response (Caribbean Community Climate Change Centre 2009). Climate change therefore presents a grave threat to the economies, societies and overall survival of CARICOM countries.

Geographically and ecologically, Guyana and Suriname are part of the Guiana Shield (D. S. Hammond 2005). Their politics, histories and culture are also related to their existence within the geographical space defined by the Precambrian rock on which they were established. Their names also reflect their categorisation and colonial histories as part of the Guianas, with Guyana being known previously as British Guiana, and Suriname being referred to as Dutch Guiana. The histories and relations of these countries with each other and their colonial powers, are described in greater detail in Chapter 3. For now, I seek to highlight that Suriname and Guyana, along with their French Guiana counterpart which is still politically a part of France, are completely within the Guiana Shield, along with ecologically associated parts of Brazil, Colombia and Venezuela.

The Guiana Shield[8] is covered by approximately quarter of the world's remaining tropical rainforest, most which is in pristine condition (Guyana Shield Facility 2012). It is ecologically valuable since it stores approximately 10-15% of global fresh water supply and 50 billion tons of carbon (Guyana Shield Facility 2012). While Guyana and Suriname remain two of the countries with the highest rates of forest cover in the world, deforestation has been problematised as an area to be remedied through technological, financial and societal interventions. Throughout the wider Guiana Shield, biodiversity, water resources, human

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[88] This ecological and geographical cohesiveness is challenged by the political delineations across the area with most the Shield attributed to Brazil within four administrative states that fall entirely within the boundaries of the Shield (Hammond, 2005), a consideration that has implications for the overall management of the natural resources of the Guiana Shield, of which Guyana and Suriname are completely encapsulated.

inhabitants and natural resources are increasingly under threat, driven mostly by external demands that fuel the extraction of gold, lumber and other natural resources (Guyana Shield Facility 2012). The most significant threats include deforestation, mining, water pollution and the social and health effects of these activities (Guyana Shield Facility 2012).

The Deforestation Problem

Proponents of REDD+ seek to incentivise the address of activities that have been identified as drivers of deforestation. These are gold mining, unsustainable forestry practices, foreign investment and large-scale infrastructure projects. I approach this discussion with little consideration for the political boundaries between the two countries and the mechanisms of statecraft, focusing instead on the commonality of the experience across both countries. I begin with the least unwieldy of these contributing factors: unsustainable forestry practices.

Unsustainable Forestry Practices and Foreign Investment

Forestry activities are said to account for a significant portion of deforestation and forest degradation in both Guyana and Suriname. Both countries have very stringent forest monitoring guidelines that restrict where trees can be harvested, the way this should be done, the establishment of buffer zones and no-go areas. These regulations prescribe how the forests should be utilised, lest the code breaker suffer a penalty. However, there are claims within both countries that these guidelines are not being respected, especially regarding Asian companies that have been identified by forest communities as responsible for some of the largest infractions. Even though owning timber concessions in Suriname is not allowed for them, these companies have been able to buy the concessions of others operating there (Ellis 2012).

Infrastructure and Accessibility

Another significant source of deforestation in Guyana and Suriname involves infrastructure and accessibility, especially related to road building. Foreign companies play a significant role in this industry as exemplified by the role of Chinese companies in infrastructure projects within Suriname, the award of some of which was highly contentious and allegedly corrupt. Biodiversity within the forests is also under threat due to the opening of the forests and increased accessibility which has seen the rise of hunting for sport and recreation within the forests. Currently a trail through the forest exists which facilitates the movement of people and machinery from the Southern coast of Guyana, to the North of the country and on to Brazil. This road is currently a dirt road but there are plans on stream to have it paved. While heavily debated by policy makers and forested communities in Guyana, I note here that the environmental damage will be significant since forest clearance would be necessary and we could expect forest degradation and recession of the forests cover along the trail, and an increase in the influx of persons interested in carrying out extractive activities. Hence, infrastructure presents a significant challenge to forest conservation efforts in both countries.

Gold Mining

Gold mining forms one of the most polarising issues in both countries, representing the source of most deforestation. Perhaps due to its importance as an economic activity and income earner in both countries, it is an area of rife contestation around which different actors have widely conflicting interpretations and interests. Over the past few years, gold mining activities have increased dramatically, largely in response to the record gold prices between 2011 and 2013. These two countries are no strangers to mining since bauxite mining has taken place within their borders since the early 1800s, with some communities that developed around bauxite

mining camps continuing to exist today. However, in recent years, gold mining has become the income earner of choice bringing in hundreds of millions of USD in revenue yearly to the Guyana Government, and increasing revenue amounts due to new institutional mechanisms in Suriname[9] that seek to streamline what was previously a large unregulated mining sector there.

Originally, in Guyana, small scale or artisanal mining was carried out by pork-knockers, African descendants who travelled to the interior locations of the forests with a bag of rice on their backs, a barrel of pork, and equipment to hunt for 'wild meat' to survive, and a shovel. He would camp in the interior and mine at a very small scale (Colchester *et al* 1997). As the prices for machinery became more within the reach of these miners, they started to use mechanised methods of extracting gold, which facilitated the digging of bigger holes, and the felling of more trees. Mining became a very lucrative enterprise and Guyana's economy is increasingly dependent on it. The provision of equipment and the servicing of that equipment have become income earners for a large segment of the population. There has been a shift from a focus on agriculture to one that encourages mining as the country's largest foreign exchange earner.

Gold mining presents a major challenge to forest conservation efforts in both countries due to the use of more effective machinery by gold miners and the relative ease of movement in the starting up of operations. Gold mining is managed in Guyana by the Guyana Geology and Mines Commission (GGMC) and according to the laws on mining in Guyana, permits must be given out in order to commence mining in Guyana. However, this is not always the case due to the ease with which mobile dredges could be set up and the large and covert influx of Brazilian

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[9] Estimations of revenue from gold mining to the Surinamese government are unavailable due to unclear accounting practices

miners to the country's interior who do not always follow the legal channels.

Figure 1 - Small Scale Miners in Mahdia (Collins 2014)

Within neighbouring Suriname, gold mining is the strong-hold of Brazilian migrants, and maroons, the descendants of enslaved Africans who escaped the slave plantations and set up communities in the forests. The Government there sees small-scale gold mining as very damaging to the environment, and even though it yields revenues far greater than large or medium scale gold mining, these revenues seldom come to the government due to poor regulation and the 'lawlessness' of the endeavour. However, since 2010, the Gold Sector Planning Commission (OGS in Dutch) is attempting to create order in this area by working with some 20,000-30,000 illegal gold miners to streamline them and bring them into the country's formal systems. Nevertheless, due to the wide scale and long period of uncontrolled gold mining in the country, significant amounts of forests have been removed or degraded through these activities.

Finding a solution through REDD+

With the climate change and development paradox in mind, referring to the seeming need for these countries to choose between development through economic growth and forest conservation, REDD+ has been posited as a solution. This is because forests, often referred to as the lungs of the earth due to their ability to absorb carbon from the atmosphere, play an important role in stabilizing the earth's climate. Deforestation and forest degradation represent a significant source of global greenhouse gas emissions estimated at 17% of global greenhouse gas emissions (Bernstein *et al*. 2007). This recognition has spurred the international community to devise methods to protect the forests in the hope of ensuring that carbon remains trapped within the world's remaining forests reducing global carbon emissions and mitigating some of the effects of climate change.

In 1997, as part of the global effort to combat climate change, the Kyoto protocol was established as a commitment taken by Annex I countries (37 industrialised countries and the European Community) for the reduction of greenhouse gases at 5% below 1990 emissions levels over the period spanning 2008 to 2012. There were no obligations on Non-Annex I non-countries, which largely comprises developing countries (Cenamo *et al*. 2009). To provide flexible mechanisms through which Annex I countries could reduce their responsibility for greenhouse gas emissions, the Clean Development Mechanism (CDM) was created as part of the Kyoto Protocol in 1997 to allow these countries to reduce their emissions outside of their borders through the voluntary projects they execute in developing countries. The carbon market grew out of this idea. The CDM achieved deals with afforestation and reforestation but did not compensate the conservation of standing forests (Cenamo *et al*. 2009).

Forests, which were always seen as controversial within climate negotiations, were largely left out of the debate based on the many methodological difficulties and uncertainties that would

encroach on the development aspirations of forested countries (Cenamo *et al.* 2009). The difficulties associated with including carbon offsets from land use, land change and forestry (then referred to as LULUCF) included measuring, reporting and verifying the reductions. Improvements in technology and methods of assessment, such as improved remote sensing technologies, have allayed some of these concerns in the implementation of REDD+ (Wertz-Kanounnikoff *et al.* 2008). Reducing Emissions from Deforestation and Forest Degradation (REDD with emphasis on absence of '+') was initially formulated to provide payments for the work of standing forests. It has changed from its original conception and now intends to compensate both efforts to prevent emissions and to increase the removal of carbon from the atmosphere (Aipp and Iwgia 2012). The 'plus' in REDD+ was subsequently added to represent the potential of the mechanism to aid conservation efforts and the enhancement of carbon stocks (Parker *et al.* 2008). The 2010 Cancun agreement reflected this progress on the thinking behind REDD by broadening the scope of REDD and addressing the criticism that the original concept offered safeguards only for those forests that were at immediate risk of destruction while ignoring those that had been studiously conserved and protected for years. The Cancun agreement also featured environmental and social safeguards geared towards forest conservation and respect for the rights of indigenous communities and traditional knowledge so that countries participating in REDD+ must ensure that social and environmental safeguards are addressed in their national strategies (Aipp and Iwgia 2012).

The REDD+ mechanism has not been lauded by all. Numerous concerns about the initiative have been voiced relating to issues such as its effect on the indigenous populations who reside within the forests (Bradley 2012), land tenure and legal issues (Naughton-Treves and Day 2012), the ability of REDD+ countries to transparently manage large influxes of cash and measurement practices (Forsyth 2009). Moreover, REDD+ countries are entirely developing

countries, a categorisation that suggests that the need to develop, however defined, is paramount in their affairs.

An international consensus on the implementation of REDD+, which was eventually included in the Paris climate agreement adopted in 2015, was previously stalled due to concerns over Financing, Scale and Baseline (Cenamo *et al*. 2009). Concerns about financing have seen the proposal of the following options: Public Funding in addition to Official Development Assistance (ODA); Proposals related to the market mechanism similar to the CDM; and a combined approach where the initial expenditure is provided for through public funds with a later switch to market mechanism (Cenamo *et al*. 2009). Regarding scale, there are proposals for national REDD+ schemes with the advantage of avoiding leakage within borders and easier monitoring; and sub-national REDD+ schemes which posit that only through the carbon market can the necessary financial resources be gathered, adding that the methodological issues associated with leakage can be overcome and that smaller subnational projects could be more efficient generating experiences which could then be implemented at the national scale (Cenamo *et al*. 2009). Thus far, REDD+ has been conceptualised and implemented at both levels with lessons to be learnt from REDD+ experiences at a variety of scales.

Finally, there exists a seemingly inflexible debate on the best method through which national reference levels of deforestation (baselines) should be set forming the measurement against which progress would be calculated. The two options are historical deforestation rates and projected deforestation rates with the former being based on an average rate of deforestation in the past of the area implementing REDD+ activities; and the latter being based on a simulation or projection of the likelihood of deforestation in the future based on socioeconomic pressures such as population growth (Cenamo *et al*. 2009).

Referring in part to the circumstances of Guyana and Suriname as highly forested with low historic rates of deforestation, Cenamo (2009) explains that:

> …if the devised mechanism only benefits countries with large historic rates of deforestation, the result could be the opposite, creating an incentive for those who deforested most. Besides this, the adoption of a historical baseline for countries like in the Congo basin or Guiana, with large forest cover and a history of low rates of deforestation, could fail to reflect a possible scenario of pressure over their forests in the future. The fact that historical deforestation rates were low does not necessarily imply that these forests will continue to be preserved. Thus, it is fundamental to structure a mechanism which allows to reward countries that have decreased their deforestation rates and those who have conserved their forests (Cenamo *et al*. 2009, 16).

In addition to these main areas of contention within REDD+ debates, Peskett (2008) *et al* add the following: Framework and Liability. Within the former, Peskett refers to whether REDD+ should remain a consideration within the UNFCCC framework or should be a standalone agreement outside of existing carbon markets, or even outside of the UN conventions on climate change. Regarding liability, Peskett (2008) states that REDD+ projects are subject to many risks such as fire and conflict. As such, questions remain about when payments should be made, whether upon verification of emissions reductions or perhaps having reserves of credits held to insure against potential losses (Peskett *et al*. 2008).

There is also the concern of capacity building since some countries cannot afford to pay for capacity building and the technical know-how needed for REDD+ implementation (Makhado *et al*. 2011). This begs the question of what level of development is seen as necessary for the implementation of REDD+ since countries need to develop capacity for involvement in REDD+ by finding funding sources to aid in REDD+ planning and by involving all stakeholders in the determination of REDD+ activities (Makhado *et al*. 2011). In previous research, I questioned whether the concept of REDD+ and more specifically, the Guyana-Norway agreement, was socially just. This was based on my concerns that the idea that industrialised countries were limiting activities of developing countries and hampering their development potential, instead of cutting their own emissions within their borders, was a faulty

one. I concluded that the agreement, and REDD+ overall, should address the following social justice concerns: the vulnerabilities of local communities; the ability of the agreement to meet its substantive goals; the use of market value as the principle of distribution for the preservation of critical natural capital; and international justice and the failings of the global fight against climate change (Collins, Y Ariadne 2011).

REDD+ efforts in Guyana and Suriname

In 2009, the President of Guyana offered the services of its forests to the world through its Low Carbon Development Strategy (LCDS) in an effort to find funding for development along a low carbon pathway which would see Guyana developing economically while emitting minimal levels of greenhouse gases. The LCDS sought to assign an economic cost to ecological services provided by Guyana's rainforests to the world. This economic value to the world (EVW) was estimated at 40 billion United States Dollars (USD) per year. However, the economic value of the forests to the nation (EVN) was estimated at the much lower value of 580 million USD per year representing the income Guyana would gain should it exploit the natural resources in its forests (Office of the President, Republic of Guyana 2013). Through the LCDS, Guyana committed to preserving its forests on the condition that the international community funds this initiative at a monetary value higher than the EVN. In that way, Guyana, operating rationally, would be motivated to preserve its forests (Office of the President, Guyana 2010). The reliance on rationality was underscored in the LCDS document, and it forms a core consideration for the arguments made in this dissertation which focus on the shaping of societies along the lines of the imagined, rational actor known in discussions about neoliberalism as '*homo economicus*'.

On November 09th 2009, Guyana signed a MOU with Norway representing thus far the only

affirmative response to Guyana's offer, outside of preparation efforts led by the World Bank and the UNFCCC. This agreement was intended to provide the world with a working example of how the developed and developing world can work together to preserve the world's remaining rainforests in the fight against climate change (Office of the President, Guyana 2010). Norway committed to providing up to 250 million USD to Guyana over a five-year period to ensure the conservation of Guyana's forests while facilitating Guyana's economic development along a low carbon development pathway. This would see Guyana investing in low carbon technologies and "high-potential low-carbon sectors, such as fruits and vegetables, aquaculture, business process outsourcing and ecotourism" (Office of the President, Guyana 2010, 9).

However, some concerns have been raised about the consequences of this strategy for Guyana's development. These include the financing gap between the value of the forests Guyana was desirous of attaining and the value of Norway's commitment which has not been filled by other states in the international community; the governance challenges and the associated need for transparency in the execution of the agreement. The agreement went ahead, however, seeming from all appearances that Norway was able to incentivize the protection of Guyana's forests at a cost much lower than that for which its services were valued by the Government of Guyana.

Meanwhile, the then President, Bharrat Jagdeo, has been lauded by the international community, receiving the title of 'Champion of the Earth' by the United Nations Environment Program in 2010 based on his staunch advocacy for preserving the rainforests through financial incentives. He was designated a Hero of the Environment by Time magazine in 2008 for his offer of the services of Guyana's forests to store the globe's carbon in return for financial compensation. He has served on several commissions globally aimed at assisting in the

sustainable development of small-island and climate vulnerable states, and has even received honorary doctorates for his efforts from several universities.[10]

A year after its signing, though, the seemingly breakthrough agreement that was meant to serve as a model for REDD+ around the world, began to encounter political stresses as Jagdeo became increasingly frustrated with the World Bank's delay in providing the funds Norway had deposited for the payment for the services provided by Guyana's forests. Jagdeo lamented the fact that audits and verification efforts were delaying the funds for which the country had justifiably earned. Guyana's troubles led the Government to switch funding conduits from that of the World Bank, to the Inter-American Development Bank (IADB) which subjected the country to a whole new host of regulations and protocol. It is here that the seemingly cut and dry agreement for remuneration of forest services began to break down demonstrating that the apparent simplicity of the model of the Guyana-Norway agreement belied the depth of the complexity and the herculean effort needed to get REDD+ up and running. Meanwhile, Guyana's REDD+ activities were being spearheaded by a multi-stakeholder steering committee with the implementing agency of REDD+ in Guyana being the Guyana Forestry Commission (GFC).

Only forest conserved and managed by the state has been allocated for REDD+ activities. Indigenous groups, referred to as Amerindians in both countries, who have control over the forests within which they reside (in the case of Guyana) have the option of opting into the REDD+ mechanism and being remunerated for the services of their forests. The United Nations Development Program in Suriname (UNDP-S) has been selected as the implementing agency

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[10] He has received some five doctorates from Trent University (Canada) in 2013, University of Central Lancashire (UK) in 2012; University of Delhi (India) in 2012, DY Patil University (India.) in 2011 and from People's Friendship University of Russia (2010) where he had also completed his Master's Degree (GINA, 2013).

of REDD+ in the country with their project document signed in March, 2014. REDD+, while being formally adopted into the United Nations mechanisms for addressing climate change through the Paris agreement in 2015, remains a loose amalgam of efforts at identifying funding sources, testing REDD+ principles in different localities around the globe, and for preparing candidate countries for its implementation. As currently constituted, it is a collection of discourses and practices inclusive of fragmented efforts in Guyana and Suriname, and other countries around the globe.

The merits of a two-country analysis

A simultaneous examination of REDD+ in Guyana and Suriname allows for the identification of mutual challenges and discourses, reflected to different degrees in both countries. Further, it permits an analysis of REDD+ irrespective of state boundaries, imbuing REDD+ with the properties of government, seeking to influence a variety of actors including that of sovereign state governments. Through this multi-state analysis, I am able to problematize state formation and territorial boundaries of forests and forest people, while reflecting on the different and connected ways through which the policy intervention of REDD+ settles differently in similar societal contexts.

Further, I am able to reflect on two cases of neoliberalization being pursued simultaneously. As Castree (2010) described, the constitution of neoliberalism, a key consideration of this thesis, will differ between places reconfiguring themselves to the subjectivities brought about by the relevant discourses and bringing about some change based on the subjects its constitution encounters. Focusing on how REDD+ is interpreted and reinterpreted on the ground of two countries presents a comparative approach from which stronger, more robust conclusions can be drawn. As Castree (2010) points out, "Thus far, there has been virtually no

attempt made to investigate two or more cases of the neoliberalization of nature simultaneously" (Castree 2010, 9.34), an attempt that would allow for some reflection on what different varieties of neoliberalism look like. He suggests that this could take the form of "two or more situations where the same translocal (or transnational) policy measures have been implemented; or … two or more cases of *sui generis* environmental policy that appear to be ostensibly similar—or very different—cases of neoliberal reform" (Castree 2010, 34). Therefore, this case of a single policy intervention, that is REDD+, serving as an effort to neoliberalize nature, demonstrated in two countries in a way that explores both their similarities and differences, provides insight into the variegated manifestations of neoliberalism, challenging hegemonic interpretations and showing the different contexts to which it must adapt; diverse manifestations that emerge to facilitate operation within these contexts; and how even with its incomplete adoption, it impacts the subjects who internalise it differently.

I focus on these two culturally and historically, yet South American and forested, Caribbean countries in this project in a complementary manner, recognizing their shared vulnerability, geographic connectedness, and common historical circumstances. Given the different experiences and circumstances of Guyana and Suriname, the results of the mechanism's implementation are likely to be uneven and indeed constitutively impure, resulting in environmental improvement where the incentives are feasible, and completely ignored where the complicated subjectivities make them impractical or simply, unwanted. However, the two-country analysis is not intended to reflect upon which country is better able to accommodate REDD+, or which is better at implementing it. Considering the similar histories of the two neighbouring countries; the overlapping colonial experience in terms of Guyana's long history with the Dutch, and Suriname's long history with the British; their continued fight over territory as manifested in their claims over the Corentyne region; the similar nature of the threats to their

forests; their low levels of deforestation; the separation of their forested interiors from the densely populated coasts; the similar circumstances of their development; their ethnic make-up; their vulnerability to climate change; their membership of CARICOM among other things; the circumstances of these two countries are, to say the least, similar in relation to each other; and in their difference from the rest of the Caribbean and from South America. Without delving too much into these histories here, I seek merely to highlight that though different, the fortunes of these two countries are connected in their origins.

Contribution to Knowledge

Research on REDD+ tends to fall within the larger debate on Payments for Ecosystem Services (PES), an area which could be roughly divided into two camps: discussions on the effectiveness of PES, seeking to evaluate its potential and improve its outcomes (Farley and Costanza 2010; Jack, Kousky, and Sims 2008; Bulte *et al*. 2008; Daily and Matson 2008; Engel, Pagiola, and Wunder 2008; Culas 2012); and critiques of PES and market-oriented approaches to managing nature (Fletcher and Breitling 2012; Igoe and Brockington 2007; Fletcher *et al*. 2016; Dempsey and Suarez 2016; Brockington 2011). Outside of these substantial debates, REDD+ has been the focus of analysis in terms of the processes of policy formulation (den Besten, Arts, and Verkooijen 2014)) and related matters. While the logic of REDD+ and the broader PES effort has been interrogated deeply, with societal contexts being factored into the considerations of policy barriers and challenges in discussions on land tenure (Corbera and Schroeder 2011; Lyster 2011; Angelsen *et al*. 2012), the tendency has been to address the histories of REDD+ countries as a contextual factor rather than as a continued lived reality resisting the process of preparation for and implementation of REDD+. Academic attention to REDD+ has grown tremendously in the decade of its existence. Mbatu (2016) conducted a review of the literature on REDD+ and identified several gaps in the literature, notably the sparse attention paid to

REDD+ participating countries outside of Indonesia, Brazil and Tanzania (Mbatu 2016). While, as noted elsewhere, the focus of my research does not fall within the scope of making REDD+ better, but seeks to question its efficacy within specific societal contexts, I assert that this is another aspect of contribution of my work. That is, it contributes to the spatial geographic coverage of knowledge and academic research on REDD+ in two grossly under-researched areas of the world.

My dissertation adds a multi-sited ethnography to the effort of analysing REDD+. I do not focus on a specific set of actors and argue for their automatic inclusion but take a holistic approach to interrogating the efforts to implement REDD+ on the ground. To the best of my knowledge, such a systematic analysis of REDD+ has not been carried out. In this dissertation, I reengage with the histories of these countries, particularly considerations of land and forest use, through the lens of Foucault's governmentality (Fletcher 2010). Further, I present a multilevel analysis that does not just focus on communities, but on the variety of interpretations from stakeholders making my methods and geographical scope a useful contribution to discussion on REDD+. My research allows us to move past the understanding REDD+ as an expression of neoliberal governmentality, allowing for engagement with the supporting forms of governmentality that make REDD+ possible not just at the international level, but at the ground level through a diversity of actors. It allows us to reflect on REDD+ as an amalgamation of governmentalities when looked at through a genealogy of extraction in marginalised states.

While this dissertation falls squarely within the category of those critiquing market approaches to managing nature, I seek to add to the effort of analysing the political effects and implementation potential of REDD+ by interrogating it on the basis of its logic, its effects on the subject and the wider politics of intractability. I interrogate how REDD+ affects or changes

entrenched, historical modes of using the forest in both countries, by concentrating on the individual and groups most affected by its implementation, those residing in and using the forests it seeks to manage. I take a historical approach to understanding the societal tapestry of these two marginal and often overlooked countries, to show how interventions like REDD+ govern, being continuously reinterpreted by different actors and politicised through implementation.

Chapter Overview

This dissertation comprises seven chapters, the first of which builds on some of the concepts introduced here and establishes the theoretical grounding for my project. The second chapter details the methods I used in developing it. The third chapter outlines the existence of racialized subjects in Guyana and Suriname rooted in the colonial experience. The recent period of independence of both countries (50 years in the case of Guyana, and 42 in Suriname) necessitates an exploration of the societal relations with the forests established in the colonial period. In this chapter, I present a genealogy as a 'history of the present' (Foucault 1980) which discusses the histories and development trajectories of Guyana and Suriname as sites that contributed to the capitalisation of Europe with the specific aim of pinpointing unequal power relations and their continued effects in modern day Guyana and Suriname. It serves to elucidate the societal fabric with which REDD+ and other interventions interact.

In the fourth chapter, I provide an overview of the operationalisation of REDD+ in these two countries, asserting that they are constituted by three locally relevant discourses: the technical, development and social justice discourses. I introduce the idea of REDD+ as a means of shaping these societies along the lines of the neoliberal subject referred to in the academic literature as *homo economicus*. In this chapter, I posit that these discourses influence how

different actors relate to the REDD+ mechanism and interpret its aims. I explore the politics of intractability around REDD+ implementation by illustrating how the technical, neatly collated images presented of REDD+ in policy documents mask the highly-politicised nature of the endeavour in both countries demonstrated through the interaction, contestation and overlap of these different discourses. The chasm between the different discourses is pointed out through the distillation of these discourses into imagined ideal type subjectivities. This effort is an important translation of the mechanism of REDD+ into the societies of Guyana and Suriname. Discourses are used here as a means through which meaning is constructed and different interpretations of REDD+ are expressed, resisted and shaped.

In the fifth chapter, I describe the technical discourse which represents an overwhelmingly techno-scientific approach to managing the forests of Guyana and Suriname. It is here that I explore deeply the instrument effects (Ferguson 1990) of REDD+ monitoring systems in these two countries. Characterised by the establishment of Monitoring, Reporting and Verification (MRV) systems and backed by the power of Western science and finance, the technical discourse has dominated the field of REDD+ influencing the forest management techniques of these countries, and increasing the ordering and legibility of the forests. The technical discourse also contributes to a reinterpretation of forests from social use values to suitable primarily for the sequestration of carbon. This chapter is significant for establishing the core aims of REDD+ and the scientific aims it purports.

Recalling my assertion that the existence of the modern-day states of Guyana and Suriname is owed largely to their historical creation as stores of value to be exploited, I argue in the sixth chapter that their role in the neoliberal paradigm has shifted from a dominance of agricultural exports to former colonizers to one characterised by the extraction of natural resources for

export, and now, through REDD+, as stores of forest carbon for the global good. I show how the discourse of development which has always had an economic growth focus, is being further imbued with neoliberal ideals, demonstrating how different actors employ and deploy techniques and policies that envision forests, societies and local communities in a certain way, while shaping them into a form amenable to market concerns and facilitative of the process of neoliberalization. This chapter is significant for showing how REDD+ reflects only a superficial change in the development ideal which is known to have contributed to the emergence of the grave environmental challenges facing us today.

In the subsequent chapter, I argue that REDD+ depicts a subject responsive to economic incentives and detail the fragmented nature of the subjectivities shaped in part by the social justice discourse to demonstrate the different ways the REDD+ intervention, along with a myriad of other factors, govern the subject, settling in an uneven and fragmented way. The subject embodied by social justice discourse differs most from that of *homo economicus* which is compatible with the technical, and it is this difference, and their imposition on the historically-rooted racialized subject that forms the core of this chapter. I detail also the fragmented subjectivities evident in actors related to REDD+ implementation in Guyana and Suriname, focusing mostly on those of local communities directly affected by extractive industries and REDD+ implementation, complemented by a focus on how these groups use REDD+ preparation and implementation as a platform for seeking development and the establishment of new or clearer land tenure systems. The arguments presented in this chapter are significant for their explanation of how REDD+ functions as just one added consideration which does not meaningfully change their day-to-day perceptions of life and their interaction with the environment.

I conclude by tying together the different discourses, subjectivities and their complex interactions identified throughout the dissertation, connecting these considerations to the aims of REDD+ to present a nuanced portrayal of how REDD+ seeks to govern the forests of Guyana and Suriname. In Guyana, REDD+ provides an economic incentive for forest conservation but has failed to challenge the dominance of resource extractive industries. However, it has succeeded at making activities taking place in the forests more legible to governments and other actors geographically situated outside of the forests. Within Suriname, REDD+ is seen by policy makers as an avenue through which age old land rights issues could be pacified, while forested communities demand their explicit remedy and improved development. In both countries, REDD+ continues in the tradition of extracting actual or 'fictitious' value from the forests to support ever elusive development objectives while reigniting historical conflicts on land use. It contributes to this neoliberalization of development interventions and shifts in human interactions with nature in these localities, even in the communities of those groups frequently lauded as protectors of or dependent on the natural environment. Through technological reliance, REDD+ has facilitated increasing legibility of the forests while crowding out opportunities for meaningful change in addressing the drivers of deforestation and the concomitant reduction in the forests' capacity for carbon sequestration. Finally, I reconnect these events and processes to the broader neoliberal trend of managing nature while contributing to discussions on the productive relationships of power, continuing in the critique of the global development discourse (Escobar 1995) and demonstrating how neoliberal means of managing nature serve to shape societies in the global South in ways amenable to capital expansion.

Chapter 1 – Theoretical and Conceptual Framework

Introducing a Political Ecology of REDD+

Political ecology, my theoretical framework of choice, is accommodating of discussions on the relationship between the international political economy and the environment with which it interacts (Bryant 1992). Political ecology has its origins in the effort to address the perception dominant within radical development geography that the majority of environmental research paid inadequate attention to the political economy and its negative effects on the environment. It also incorporates the concerns of ecological anthropology through which researchers sought to understand environmental challenges by exploring the interaction between culture and the environment (Bryant 1998).

The rationale behind my selection of political ecology as a theoretical frame is reflected most strongly in Adger's interpretation of the approach as focused on tracing the origin of narratives related to the environment, highlighting especially those related to the environment while identifying the relationships of power supporting them. Adger (2001) posits that political ecology also asserts the consequences of these power relations over narratives for economic and social development, focusing on those that have the potential to constrain self-determination (Adger *et al*. 2001). Adger's emphasis on the tracing of narratives and the identification of power relations is especially pertinent for my discursive approach to interrogating the process of REDD+ preparation and implementation in Guyana and Suriname, particularly in tracing the narratives related to the environment. This demands that attention be paid to the colonial periods of these two countries which continue to be evident in the social, political and economic organisation of these two countries.

Recognizing the colonial pasts

An engagement with the academic literature on post-colonialism does two things: as previously mentioned, it supports my effort to trace power relations embedded in narratives related to the environment in Guyana and Suriname; and it allows me to theoretically embed my arguments that the colonial pasts continue to structure these two societies through its embodiment in the subject I see as persistently resisting REDD+ implementation in these two countries. 'Posts' as an antecedent to a particular school of thought represent a movement past the ideas established in the area it precedes. As Hall interviewed by Grossberg (1986) points out, this movement past the reference point (in this case, the colonial), does not signify a complete abandonment of the ideas established within this body of work, but instead establishes that reference point as the point of departure (Grossberg 1986) in continuing reformed, but related, discussions. In the case of post-colonialism, as (Rattansi 1997) points out, the focus is both a historical period and a type of theorisation and analysis.

In the case of theorisation, 'colonialism' is taken to represent the literature and conceptualisation that emerged within the colonial period characterised by binary representations between the colonizer and the colonised (Rattansi 1997; Prakash 1990). Post-colonialism focuses on the multiplicity of identities held by individuals according to particular circumstances (Simon 2006) in an effort to rethink Eurocentric philosophy and histography (Chari and Verdery 2009). Post-colonialism was not an immediate response to the demise of colonialism, but instead a reflective critical endeavour that sought out colonialisms' continued presence in the work of national elites post-independence (Chari and Verdery 2009). It also sought to identify the colonial effect on ideas of nationalism, knowledge, democracy and other areas of society in the now independent states. Similarly, post-colonialism, as I use it here, takes the colonial period as the point of departure, cementing the foundation for an analysis of

how the relations established in the colonial period continue to be manifested in human and political economic relations with the natural environment of Guyana and Suriname.

Post-colonialism was, to some extent, a reflection of criticisms of Marxist approaches of analysing society, and of various expressions of nationalism (Chari and Verdery 2009). Chari (2009) states that, "A signal achievement of postcolonial studies has been to explain how colonial power worked through forms of difference that were produced in part through colonial encounters and through representations of 'self' and 'other,' with lasting practical effects" (Chari and Verdery 2009, 25). Marxist approaches to the post-colonial endeavour are credited with grounding theoretically the first steps towards taking apart the cohesive representations through which society was defined in the colonial era that blurred out internal diversity (Prakash 1990). This observation draws attention to the tension between structural, more rigid interpretations of the post-colonial that are often rooted in Marxist analysis focused on class, and the more flexible post-structural approach credited with pushing past the binaries that were traditionally used to break apart the colonial interaction (for example, colonizer vs. colonised). This tension between structural Marxism and post-structural approaches is discussed later, but it runs as a continuous undercurrent through most the academic literature on which this I draw in this dissertation.

I use post-colonialism here both as a period since independence, and as a point of departure in the recognition that the colonial experience continues to impact the present through continued subjectivities. This use has merit in this specific analysis of Guyana and Suriname since the narrowness of their circumstance (in terms of limited time since independence vis-à-vis the depth of their colonial experience; and their virtual creation through the colonial encounter) allows for a freer engagement with the colonial period and its continued impression on the

modern societies. The value of the term 'post-colonial' seems to decline in tandem with the width of its applicability (Shohat 1992) and given the focus of my research on these two related cases, it adds value to my interrogation of representatives of the self and other in relation to the colonial encounter (Chari and Verdery 2009). Further, it connects the colonial encounter to narratives on the environment as per the mandate of tracing power relations within political ecology (Adger *et al*. 2001).

Tools of post-structural analysis

My focus on the subject governed through REDD+ implementation, along with differently manifested interpretations of the self as a legacy of the colonial encounter and continuing governing interventions, fit well with my analysis of REDD+ as a manifestation of neoliberal governmentality and my demonstration of how it draws on different technologies of government shaping societies into neoliberal actors. This is largely accomplished through an analytic of governmentality and associated theories of subject formation, discourse and discursive analytical approaches.

Governmentality

Increasingly, literature under the political ecology umbrella has been drawing on the post-structural thinkers to ground their claims (McElwee 2016; Li 2007; Agrawal 2005; Fletcher 2010) and applying the governmentality framework to conservation and development discussions. Considering that climate change itself was rendered governable through neoliberal governmentality (Oels 2005), I examine deforestation, one aspect of the human-nature relationship that has been increasingly subsumed under the climate change umbrella, through the lens of neoliberal governmentality, one of Michel Foucault's categorisations of governmentality which he explains as 'conduct of conduct' (Foucault 2008). A neoliberal

governmentality "seeks merely to create external incentive structures within which individuals, understood as self-interested rational actors, can be motivated to exhibit appropriate behaviours through manipulation of incentives" (Fletcher 2010, 173). In order to determine the likelihood of REDD+ meeting its stated aims in Guyana and Suriname, and to ascertain that which it does but does not claim, I imbue the mechanism itself with the characteristics of governing, an approach that diminishes the boundaries and governing techniques of government and the state, recasting these sovereign (Foucault 2008) manifestations as governable too (Methmann 2011).

Foucault sees the subject in neoliberalism as someone manageable who responds systematically to modifications artificially introduced into the environment (Fletcher 2010). He postulated that advanced liberal governments saw their populations as a pool of resources that it could govern in such a way that it would be motivated to self-optimize using the market within which subjects are motivated to compete (Oels 2005). REDD+ would then, according to this logic, present an extension of this neoliberal mode of governance to the global South, with its proponents either assuming the existence of societies amenable to this extension, or intending to actively shape societies in this way.

This process of naturalizing technological approaches and of shaping the populations of Guyana and Suriname into an image more amenable to REDD+ and neoliberal ways of governing is explored through governmentality, which is characterised by the way that governments effect changes in their populations through the shaping of options. Distinct from governing through discipline, neoliberal governmentality features governing from a distance where populations are not necessarily aware of how their behaviour is being conducted. Governmentality is deployed as a means through which government could achieve some form of improvement in their populations through this manipulation in their behaviour.

Li (2007) notes that governmentality is usually an assemblage of existing mechanisms drawing on different types of knowledge, judgments and ways of doing things to bring about the desired change (Li 2007). This understanding of government as assemblages allows us to consider the role of different interests in achieving the desired aim including NGOs, civil society, different arms of government, all with different and often competing visions and methods. The use of governmentality as an approach allows for an alternative to the idea of power as monolithic, oppressive and flowing from top to bottom, but it asks how different knowledges became dominant and how certain areas became imbued with power. It challenges the automaticity with which states and governments are imbued with the capacity to govern, and allows for an interrogation of how certain issues come to be governed and governable in the first place.

Li (2007) proposes four different limits to governmental power that play a role in my understanding of power which are relevant for exploring why certain actions are not taken around environmental management in these two countries. The first limit is based on the assertion that governmental power is not conceived of as totalizing since the one being governed should retain the possibility of acting. Secondly, governmental intervention has an inherent limit in that it is not the sole characteristic in determining outcomes. She gives the examples of epidemics, terrain and other unpredictable things, and points out that even in relation to men, there is some inherent unpredictability and issues such as social relations and history cannot be erased or made to conform to the particular governmental intervention. The third limit stems from the recognition that governmental interventions should not regulate social interactions in a totalizing manner but should instead intervene as little as necessary to achieve the desired outcome, since intervention itself stimulates certain associated effects. The fourth limit is associated with the effort to transform issues that would otherwise be political, transforming them into technical areas of efficiency and sustainability. This transformation will

never be complete and as such, it embodies the fourth limitation of governmental interventions (Li 2007).

I draw on several different strains of governmentality, or ''environmentality'' when applied or environmental governance (Agrawal 2005; Fletcher 2010), in making the claim that REDD+ as an expression of neoliberal governmentality is supported by different governmentalities. These include the neoliberal form just introduced, along with sovereign governmentality which functions through the imposition of formal rules and regulations; disciplinary governmentality which seeks to influence behaviour through the internalisation of norms and values; and biopower (Fletcher 2010) which makes claims on influencing behaviour by appealing to a natural order of things (Fletcher and Breitling 2012). Sovereign, neoliberal and disciplinary governmentalities are operationalised through calculation and rationality, for example, through a reliance on censuses or statistics (Fletcher 2010). However, biopower is centred on "the 'art of government according to truth', that is, 'the truth of religious texts, of revelation, and of the order of the world'" (Foucault 2008, 311). In governing through biopower, claims about the fundamental nature of life hold sway (Fletcher 2010).

These governmentalities overlap, compete and act together depending on the circumstance (Fletcher and Breitling 2012). Methmann (2011) shows how governmentality could be applied to global environmental governance by operating at several spatial and political levels, serving various purposes other than its stated intention (Methmann 2011). Just as the state has been governmentalised, that is, imbued with the capacity to govern, it could be argued that globalisation and deepening of international relations leads to a governmentalisation of world politics, in an overlapping and connected interpretation of space which undermine national boundaries (Methmann 2011).

Ferguson and Gupta (2002) too support my removal of the state as the central actor imbued with the capacity to govern in their assertion that when we remove a hierarchical approach to seeing states at the apex, with NGOs and civil society below that, and the local circumstances somewhere even further below; we can ethnographically interrogate how these different organisations function in relation to each other. In the neoliberal globalised world, the limits of state reach are more perceptible, along with the disjuncture between scalar and state thinking (Ferguson and Gupta 2002). Hence, in thinking of how state power and reach is produced through governmentality, we are better able to investigate the production of and relationships between different modes of governing, both hierarchically and across spaces (Ferguson and Gupta 2002). Methmann (2011) complements this circumvention of the hierarchically and well-defined state with his assertion that since Foucault argued that population was discovered through technologies such as the census and statistics, there should be no automatic reason for avoiding the way government (not necessarily the state) may govern other areas, as shown for example by the work of Agrawal (2005) in the governing of the forests. This is especially pertinent for my cross-border analysis of REDD+.

Governmentality at the global level does not imagine the infusion of one sovereign body with the properties of government, but it contributes to the analysis of the interconnected nature of government, considering different actors operating at different scales, and at various spatial levels (Methmann 2011). These are particularly pertinent insights when considering the process of governing the populations of Guyana and Suriname through the mechanism of REDD+. As detailed by Dean (2009), a study of the art of government is concerned with regimes which are aimed at generating truth and knowledge that encompass certain practices and rationalities as part of their effort at reform of that which has been identified as the population (Dean 2009).

Dean (2009) explains that it is necessary to ask what has led to the emergence of a particular regime of governing and to examine the "characteristic techniques, instrumentalities and mechanisms through which such practices operate, by which they attempt to realize their goals and through which they have a range of effects" (Dean 2009, p.31). These regimes draw on and generate different forms of knowledge and point to the objects of these practices. Attempts to analyse them require that we ask how certain practices, in this case deforestation, are called into question (Dean 2009). Thus, an analysis based on governmentality requires at least four dimensions: the identification of different forms of visibility; the pinpointing of specific ways of expression, thinking and questioning; the tracing of different ways of acting or directing, drawing on expertise through certain practices, mechanisms and technologies; and finally, the shaping of the subject or other actors (Dean 2009).

Subject formation

Subject formation, however, is itself a complex process since people react to the effort to govern them in widely different ways. Given my effort to understand how REDD+ interacts with pre-existing conceptions of the self, it is useful that I highlight that the recognition that effort to govern people is never a straightforward interaction between governed and governing, but is "…a versatile equilibrium, with complementarity and conflicts between techniques which assure coercion and processes through which the self is constructed or modified by himself" (Foucault 1993, 203-204). REDD+ also functions as "…a political project that endeavours to create a social reality that it suggests already exists" (Lemke 2001, 203). "Neo-liberalism is a political rationality that tries to render the social domain economic and to link a reduction in (welfare) state services and security systems to the increasing call for 'personal responsibility' and 'self-care'" (Lemke 2001, 203). In Suriname and Guyana, the call for 'self-

care' is not overt but is implied through the representation of forested communities as deficient and in need of being shaped into self-sufficient beings who can manage their own economic affairs. Interventions into these communities often facilitate a double-duty role of capitalist relations, extracting the valued aspects of the natural environment while shaping the communities into subjects amenable to the expansion of market demands.

Also challenging Marxist categorisations of society, Agrawal (2005) points out that the relationships of the government to those being governed are not directly determined by the easily identifiable subjectivities such as caste and gender (Agrawal 2005). He argues that to understand a shift in behaviour, one should consider the politics, institutions and subjectivities. He further explains that government is made possible due to the conceptualisation of the state and society as different and separate entities, and that individual beings comprise the social. He states that

> technologies of government may be characterised as being founded on some combination of knowledges, regulations based upon these knowledges, and practices that regulations seek to govern. But institutionalization of new strategies of power and regulation is also accompanied by changes in conceptions of the self (Agrawal 2005, 220).

These considerations of governmentality and resistance are important, since as Schroeder *et al* explain, REDD+ as a new system of environmental governance is embroiled in social justice issues and for it to be successful, it must transform the myriad of existing ways through which people have sought to govern forests, which was previously based on a lot more than carbon (Schroeder and McDermott 2014). It is this transformation that is the focus of this research project.

Conceptual Frame

Political Ecology of REDD+
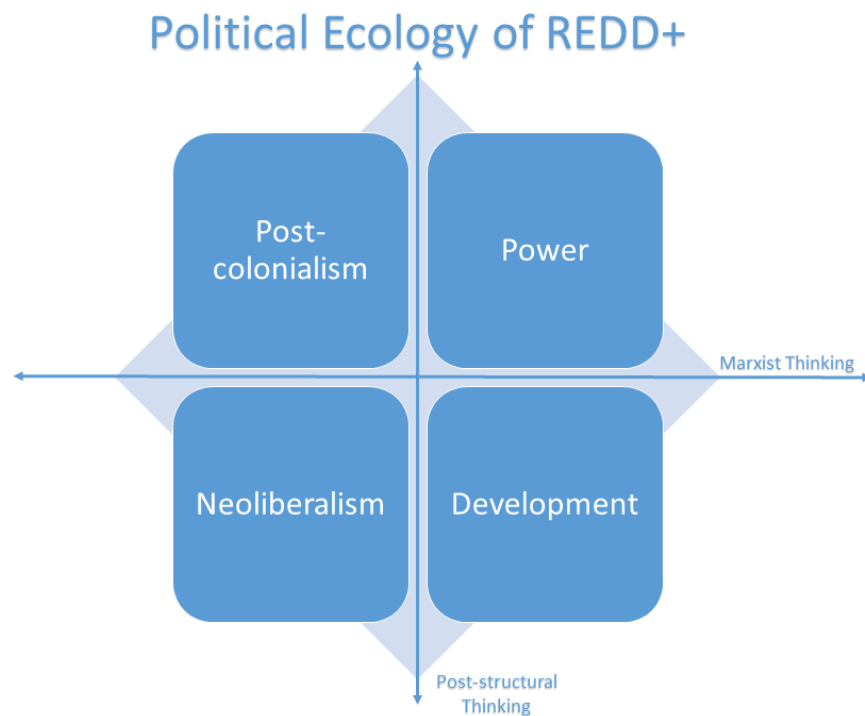
Figure 2 - Theoretical and Conceptual Frame

In pursuit of Development

Still within the theoretical framework of political ecology, I draw on and seek to contribute to other bodies of work introduced here. In addition to the previously sketched out area of post-colonialism, I engage with critical approaches to development (Escobar 1995; Ferguson 1990; Herath 2009; Li 1999). The idea of development as an absolute goal in Guyana and Suriname is problematised in this dissertation, and development, when engaged with, is also viewed with an eye on what is legitimised by its pursuit.

In line with theorists who have critiqued development (Escobar 1995; Ferguson 1990; Herath 2009; Li 1999), I approach my investigation into the win-win logic of REDD+ and the

intractable issues challenging its progress *sans* acceptance that development is an absolute goal for these countries. On the contrary, the global development discourse has served to legitimise continued exploitative interventions in countries around the globe for decades. Many an intervention into the affairs of countries around the world have been justified on the grounds of the need to combat poverty or to assist in the development aspirations of that country. Climate change adaptation, of which REDD+ is a part, is also seen as the latest incarnation of development thinking (Ireland and McKinnon 2013) with the ideal of development being understood in different ways by policy makers and the parties affected by REDD+ implementation. These interpretations may differ widely leading to widespread dissatisfaction when expectations are not met (West 2006; Li 1999).

A few key ideas related to the development debate are central to the arguments I develop in this dissertation. The first is the global development apparatus' focus on economic development in poor countries, often shaped by the image of the West (Escobar 1995). Second is development's often anti-political nature as described by Ferguson who details a situation where countries are portrayed by development agencies in a manner that makes the country ripe for development intervention, obscuring the more salient power struggles that bring about perceived societal ills. More simply, actors in development apparatus perpetuate their role by representing countries in policy documents and situation reports for example, in a manner that makes that country amenable to its intervention. These plans are liable to ignore the larger power structures that put countries and communities into disadvantaged positions, especially that of their colonial pasts. Specific development plans and outcomes then never materialize because those larger power structures continue to intervene (Ferguson 1990). Ferguson describes what he calls the anti-politics machine where poverty is often described by development organisations as a technical problem with development being presented as the

solution, leading to the depoliticization of politics. The visibility of development projects can act as a cover for the deepening and enlargement of state bureaucracy and power, under the guise of technical interventions presented neutrally and devoid of political considerations (Ferguson 1994).

Thirdly, but relatedly, I draw on understandings that highlight that the real-world effects of development often side-line intractable issues deemed to be often out of the control or interest of development planners. As Li (2007) points out, the affairs of poorer countries are often justified in terms of their need to attain developed status and these interventions are usually couched in neutral and apolitical terms, or 'rendered technical', a process through which "… an area of intervention must be bound, mapped, characterised and documented; the relevant forces and relations must be identified; and a narrative must be devised connecting the proposed intervention to the problem it will solve" (Li 2007, 126). REDD+ facilitates a similar demarcation of deforestation as an area for intervention in Guyana and Suriname.

Relatedly, McElwee (2016) uses the governmentality literature plus actor network theory to include the transformative capacity of trees and nature, to introduce the idea of environmental rule. She says definitively that environmental rule:

> occurs when states, organisations, or individuals use environmental or ecological reasons as justification for what is really a concern with social planning, and thereby intervene in such disparate areas as land ownership, population settlement, labour availability, or markets… What is unique about environmental rule is that while the justification for intervention is to 'improve' or 'protect' the environment itself, in reality, underlying improvements to people or society are envisioned (McElwee 2016, p. 5).

Her breakdown of problematisation (or rendering technical) is useful here too. She explained that this process requires three things: nature "must be defined as an object of intervention" (with controversy and contestation blurred out); the environments must be visualised (usually through maps establishing authority); and processes of change in these environments must be

named (for example, through deforestation) while other changes are ignored (McElwee 2016).

Finally, I draw on insights provided by Mosse (2005) who also focuses on the real-world effects of development in his account of work he conducted on a British funded development project in India. Highlighting the conflicting interpretations perceptible from the outset in the formation of the project document and the different ways these interpretations were implemented by different actors with different social positionings in relation to the project, he writes that "… it is necessary to appreciate the fragility and uncertainty of meaning in development practice, the hidden contradictions and the unreliability of judgments; the fact, ultimately, that 'development success' is not objectively verifiable but socially produced" (Mosse 2005, 171-172). By drawing on these insights of an open-ended nature of the development apparatus which allows for different interpretations to be posited as a success, I reflect too on the development dimensions of REDD+ preparation and implementation in Guyana and Suriname.

Permeating power

A third salient body of work underpinning this research is that of power, the relations of which act as ever present undercurrents shaping outcomes, facilitating the spread of ideas and being, in turn, consolidated through their uptake. Foucault's (1980) view of power as not simply one actor imbued with power dominating another, but as constituted, constitutive, complex and productive (Foucault, 1980), forms the most all-encompassing view of power. Foucault (1980) states that power should be studied at its extreme points since it cannot be localised or sedimented and instead creates real effects through subjectification. He states that we should "try to discover how it is that subjects are gradually, progressively, really and materially constituted through a multiplicity of organisms, forces, energies, materials, desires, thoughts

etc." (Foucault 1980, 96). For Foucault, power is always in relation to something rather than wielded over another. It is ascendant and does not reflect a duality between ruler and subject. What matters instead is the system supporting this duality. Power is exercised towards specific aims but this does not mean that it originates from a specific agent. Resistance accompanies power but is not external to it. There is no escaping power which depends on a number of points of resistance, present throughout its network (Foucault 1990).

This understanding of power provides the most accommodating approach for the analysis of neoliberal conservation, development projects and climate change drawing on the analytics of governmentality since it does not give a priori primacy to the structural aspects (Jessop 2006) of the capitalist system within which REDD+ operates. Power conceptualised in this way allows me the flexibility to examine its effects on the ground without attributing these effects to one particular source or organisation seen as imbued with a more restrictive view of power and acting in direct authority or contravention to another actor. It provides me with the space to reflect upon multiple agents acting in, at times, contradictory ways, on the specific area problematised as deforestation. This is not to say that structure does not exist, and that it does not influence; but it is an effort to prioritise subjectivities and local perspectives over structural interpretations.

The dollars and cents of climate change - PES and REDD+
Fourthly, my interrogation of REDD+ in Guyana and Suriname is grounded by the wider theoretical discussion on PES and neoliberal methods of conservation, of which REDD+ is a part. In the global discussion on climate change, considerations of development as a means of preparing for the phenomenon's effects, and power, in terms of who is able to fund and enable this development, act as ever present undercurrents shaping outcomes. Increasingly, these

discussions have been framed as an economic issue (Stern 2007) rendering it a challenge to be addressed through cost-effective solutions based in technology (Oels 2005). REDD+ represents one such globally concerted effort to address climate change through cost-effective solutions in developing countries, by first identifying it as a problem to be addressed through intervention and remedy.

REDD+ represents a global trend towards fixing what is seen by President Jagdeo, discussed in the introduction, as a market failure. This trend towards financially attributing a value to the work of the environment has been pursued in recent years by several authors contributing to discussions on PES (Wunder 2007; Farley and Costanza 2010). This view of REDD+ is characterised by the idea that climate change and greenhouse gas emissions emerged because prices inaccurately reflect the true cost of producing and using fossil fuels and overusing natural resources, depicting these considerations as market externalities. The appropriate response, therefore, is to fix and regulate the market by putting prices on environmental services.

Critiques of mechanisms like REDD, and the wider PES are, to a large extent, embodied by the literature on neoliberal conservation. Neoliberal conservation is a new form of marrying conventionally damaging market activities with the goal of environmental conservation, presenting a situation where that which was previously identified as the problem (market activities) is now posited as the solution for its ills (environmental degradation) (Fletcher 2013). Fletcher explains that this is reminiscent of 'fictitious conservation', a concept adopted from (Büscher 2010) drawing on (Polanyi 2005), where value is derived from ideas of what resources are worth based on speculations on their future viability. Thus, the predicted and ongoing misfortunes of climate change are being used to generate income and to extend the

reaches of global capital (Fletcher and Breitling 2012).

Fletcher's description of the carbon market and its effects on commodifying new markets, privatizing emissions displacing state regulation (Fletcher and Breitling 2012) along with capitalizing on the emergence of the crisis of climate change, highlights the downsides of the carbon market. He clearly pinpoints the connection between neoliberalism and nature and draws attention to the ills and failings of neoliberalized nature which effectively serves to reward, especially in the case of carbon trading, the companies that played a steering role in the emergence of the challenge of climate change in the first place. Fletcher points out that REDD+ is another such manifestation of neoliberalized nature which continues in the vein of expanding the reach of capital through the financialisation of conserved nature (Fletcher and Breitling 2012; Fletcher and Breitling 2012).

Through these contributions and more, the idea of neoliberal conservation arose to question and interrogate the use of market methods to manage nature while engaging with questions of development and power. This body of work proceeds from the recognition that the global conservation movement has been constantly shifting, moving from the fortress conservation model to a more community based conservation focus. Both these approaches, along with integrated conservation and development projects, have been thoroughly critiqued over the past few decades. Conservation is being reinvented in the neoliberal age, taking on forms such as "ecotourism, payments for ecosystem services and biodiversity derivatives" (Büscher, Dressler, and Fletcher 2014, 3) along with other aspects of financial and technological instruments. Public funding for conservation is reducing and organisation are turning to the market to fund their activities. It has become necessary to understand how neoliberal conservation is reshaping human-nature relations (Büscher, Dressler, and Fletcher 2014). As

Igoe and Brockington (2007) describe, neoliberal conservation is put forward by its proponents as a solution to several societal ills, suggesting that it could increase democracy, protect rural communities and facilitate the development of green businesses, guarantee property rights and so on (Igoe and Brockington 2007).

Neoliberal conservation facilitates the expansion of capitalist activities since capitalism and neoliberalism are intimately connected. Capitalism, however, functions as a precursor to neoliberal ideology, governmentality or practices (Büscher, Dressler, and Fletcher 2014, 4). Capitalism and neoliberalism are similar in that they both draw on and necessitate the principles of commodification, market discipline, competition and financialisation, but they are essentially different waves of this manifestation (Büscher, Dressler, and Fletcher 2014, 4). Put simply, capitalism had its origins in the 16th and 17th century Europe and it is characterised by a particular mode of production that necessitates growth in private profit and the accumulation of capital. Neoliberalism on the other hand, commenced in the 1970s and it represents the effort to model social relations and public affairs on the discipline of capitalism (Büscher, Dressler, and Fletcher 2014). As such, capitalism has had a long-standing relationship with nature. One could say that neoliberalism's engagement with nature has roots in this previous relationship.

Market based conservation is often challenged by the context it seeks to influence. As outlined in the introduction of this dissertation, an engagement with the social context, as opposed to a focus on how to improve the intervention itself, is central to my work. McAfee and Shapiro (2010), in their analysis of PES programmes in Mexico, draw attention to some of the issues I see as central to my analysis of REDD+ in Guyana and Suriname. They argue that social contexts act as a barrier to the successful implementation of usually Northern conservation

ideas that see the relationship between the market, the economy and the rest of society in the South, differently than seen in the South. These interventions, although presented as market-based, often clash with antipoverty goals and the histories and practices of the development-state legacy. They highlight that PES in Mexico is premised on an understanding of neoliberal environmental efforts that characterizes nature and society as separate. The conceptualisation of conservation policies in this way is then challenged by implementation when these goals clash with state plans and development goals (McAfee and Shapiro 2010). They explain that their case study shows the scale of the discursive and practical efforts that are necessary for enabling the commodification of environmental services. This requires "that nature, in the form of the functions of ecosystems, must be decontextualized ecologically and disembedded socially to create standardized, fungible units of value" (McAfee and Shapiro 2010, 580). They see these efforts to design PES along neoliberal lines as dependent on "an initial conceptual separation of nature and society, a process that is impossible in practice" (McAfee and Shapiro 2010, 580).

Towards neoliberal development

While not explicit from the framing of the climate change and development paradox outlined in the introduction, the idea of neoliberalism is fundamental to this research endeavour and is reflected upon throughout as the manifestation of the political economic system with which nature relates under the umbrella of political ecology. Neoliberalism began its rise to prominence in the sociological literature in the 1970s reflecting the international turn towards free markets (Mudge 2008). Larner describes neo-liberalism's more sociological conception of neoliberalism as an ideology. Drawing on the era of Tatcherism, a hugely influential period in the formation of neo-liberal thought, Larner explains that neo-liberalism is accommodating of different strains embodying a complex milieu of fragments of political leanings of a wide

variety of interest groups, instead of a straight-forward and coherent philosophy being consistently pursued (Larner 2000). Neoliberalism is characterised by market centrality, an origin in Anglo-American traditions, and a shift in the role of the nation-state and their functioning in the post-world war II nation-state (Mudge 2008). It holds superior individualised, market-based competition which is deemed to be superior to other social realms.

Neoliberalism is seen as a hegemonic idea to some authors and as featuring the globalisation of capital (Mudge 2008). Others explicitly subscribe to Foucauldian thinking in referring to neoliberalism as a new form of governmentality (Larner 2003; Read 2009) which seeks to explain how the 'hegemonic' idea of neoliberalism becomes inscribed in everyday practices. This is facilitated through the active work of the state which must put in place the conditions for managing the market against the possibility of monopolies and other market distorting behaviours (Read, 2009). Therefore, contrary to popular belief that neoliberalism implies non-intervention, competition requires that the state intervenes in setting up and regulating the market, but not in the economic activity of the market itself (Read 2009; Fletcher 2010). In essence, neoliberalism is characterised as asserting that human wellbeing is best served by maximizing individual and entrepreneurial freedoms through a system which prioritises property rights, unfettered market access and trade. The role of the state here is to set up the conditions required for the operation of this market but to stay out of the market's operation and effects (Harvey 2006).

Useful in understanding how neoliberalism functions in diverse contexts around the globe is the idea of assemblages which focuses on how neoliberalism changes the relationship between the governing and governed bodies. Here, neoliberalism is described as enabled by the

"technologies, techniques, and practices that are appropriated selectively, that come into uncomfortable encounters with 'local' politics and cultures, and that are mobile and connective" (Clarke 2008, 138). Neoliberalism analysed in this manner shows how "transnational institutions, practices, agents, and 'traveling knowledges'" (Clarke 2008, 138) are reconstituted in new areas. In this sense, there is less of an imaginary of a neo-liberal core or wave of changes being directed outwards from the centre and a greater focus on the diversity of forms and manifestations of neoliberalism (Clarke 2008). Similarly, Jessop (2013) shows that neoliberalism is both cohesive and variegated (Jessop 2013). Tracing the core idea of neoliberalism, Jessop defines neoliberalism as a "political project that is justified on philosophical grounds and seeks to extend competitive market forces, consolidate a market-friendly constitution and promote individual freedom" (Jessop 2013, 70). He then presents different segments, so to speak, of neoliberalism differentially constituted in parts of the world to demonstrate its flexibility and incoherently manifested constitutions.

This approach to neoliberalism as adaptive to the peripheries in which it settles is explored in burgeoning literature which deals with neoliberalism and its connection to nature. Castree's (2010) approach to neoliberalism supports this notion. He states that the conceptualisation of neoliberalism as hegemonic ignores the reality that neoliberalism can be interpreted differently within its philosophic, program and policy domains. He goes further by stating that even within these different realms of neoliberalism, divisions exist. He notes that neoliberalism is differentiated in its manifestations around the globe and that its spread is uneven, existing in hybrid forms. To reflect the view of neoliberalism as on-going, Castree suggests the use of the term 'neoliberalization' instead of neoliberalism (Castree 2010), a term which is intermittently used in this dissertation. Brenner and Theodore (2002) argue that neoliberalism be understood as somewhat path-dependent in their exploration of what they see as "actually existing

neoliberalism" (Brenner and Theodore 2002, 349). They challenge the understanding of neoliberalism as diffuse, borderless, limitless and imbued with the capacity to be unleashed, and argue instead that neoliberal projects are culturally embedded in that they "have been produced within national, regional, and local contexts defined by the legacies of inherited institutional frameworks, policy regimes, regulatory practices, and political struggles" (Brenner and Theodore 2002, 349), an assertion which re-empowers the local and societal contexts in which these projects operate, connecting well with McAfee and Shapiro's (2010) earlier reflections on the manner in which societies challenge the imposition of market-based efforts at conservation.

For the purposes of this dissertation and drawing on the theoretical contributions outlined above, neoliberalism will be seen as the process through which growth in profit and the accumulation of capital are facilitated through the extension and entrenchment of the practices of commodification, financialisation, competition and market discipline. Therefore, I see neoliberalism as a facilitator of capitalist accumulation, drawing on Marxist insights into the function of capital. Neoliberalism also represents for me, a process through which commodities are identified and produced, aiding in a more fluid movement of capital, while instilling the values of competition and market discipline, factors embodied in *homo economicus*, an imagined neoliberal actor I make central in the dissertation. Given that Guyana and Suriname gained their independence from England and The Netherlands respectively after during the 1960s and 70s, a period which coincides with Mudge's identification as the period within which neoliberal thinking gained dominance, I deem it fair to ask how the rise of neoliberalism features in the structuring of the societies of these now independent countries.

Grounded in theoretical tensions

The discussions outlined above, and most of the literature I use, along with some of the findings of this dissertation seen later, can be roughly divided into Marxist and post-structural camps with Marxist approaches giving a more rigid approach to understanding societal relations with the economic base, and post-structuralism being more fluid in its approach. According to Fletcher, the difference between Marxist and post-structuralism rests on the fact that Marxists see economic relations as primary to understanding society and its belief that it is able to ascertain the real political agenda behind a particular theory as a means of identifying the truth of human nature (Fletcher 2013). Marxists take a structural approach to interrogating and explaining the political economic realities of the current global system.

Post-structuralism is often represented as opposed to traditional Marxism and seen as disagreeing with this structural approach and positing instead, a local and partial character of theory (Peters and Humes 2003). Marxists are seen as reliant on a macro-view of socio-historical change underpinned by the belief that the economic base determines, or to some extent, influences, the sociocultural superstructure (Peters and Humes 2003). Post-structuralists, on the other hand, are less reliant on the structure, focusing more on the social and political institutions and contexts which Marxists might otherwise relegate as an effect of the economic (Peters and Humes 2003). The difference in emphasis of these two schools of thought are reflected, to some degree, in the discussions on post-colonialism introduced above. The reader may recall Chari and Verdery's (2009) depiction of post-colonialism as a critique of Marxist approaches of analysing society, arguing that postcolonial studies focused on colonial interactions with the self and other (Chari and Verdery 2009). Prakash (1990), however, argued that the first step of moving past binaries and essentialisms of colonial representation was done through a Marxist interpretation of events which viewed societies through the lens of class which does not accurately represent the different intersections,

realities and complexities of Indian society. Post-structural thought and complementary disciplines were seen by Prakash as more useful (Prakash 1990).

The difference between post-structural thought and Marxism is also highlighted in their understandings of neoliberalism. Harvey (2005) points to neoliberalism's base appeal to human dignity and freedom which served as seductive ideals that broadened the conceptual apparatus of neoliberalism (Harvey 2005). By appealing to values, political figures were able to galvanize popular support against fascism and other centralised ideologies. Harvey's focus on particular actors choosing particular concepts of seduction to influence the masses, represents an interpretation of neoliberalism that differs in focus from the Foucauldian theoretical approach.

The post-structural epistemology from which Foucault proceeds has been critiqued specifically for this tension demonstrated by its disjunctures with Marxism, that is, Foucault's broad brush strokes in analysing the world depicted through discourse, rather than more individual, agent centric approaches (Hook 2005). Similar to Prakash's (1990) identification of the merits of post-structural approaches to interrogating postcolonial societies, I assert that while Marxism, and its theoretical concern with the alienation of labour and the movement of capital, is a useful approach to interrogating the emergence and effects of REDD+ in Guyana and Suriname given these country's history as lands aiding in the capitalisation of Europe (Mintz 1985), my focus on the subjectivities and interpretations of self in relation to the natural environment, is more fruitfully examined through post-structural means. Marxism offers a limited view of the complexity of the subject formation and identity in these societies, even though these identities are in fact deeply-entwined with relations to capital and the economic system. It would also limit somewhat my attribution to REDD+ the capacity to govern.

Given that the Marxist deconstruction of society was dominant in the past for understanding the colonial impact on societies such as Guyana and Suriname (Chari and Verdery 2009), my use of neoliberalism and focus on the subject actually allows for an analysis of the subject taking guidance from post-colonial thinking that draws on post structural analysis to move past Marxist categorisations, like that of gender and class. Recalling Chari and Verdery's (2009) recognition of postcolonialism's move to address the lasting effects of the colonial encounter on the society, I draw on the wider post-structural frame to trace the continued colonial legacy and its impact on land use and forest conservation discussions today.

Concluding thoughts

While the breakdown of the chapters of this dissertation has already been outlined in the introduction, I seek to recall briefly here now that the theoretical framework has been introduced, McElwee's breakdown of problematisation introduced earlier. Connecting the insights of Foucauldian governmentality with actor-network theory (Latour 1996), McElwee (2016) lays out a process she calls problematisation that is a useful complement to Li's (2007) process of rendering technical. McElwee (2016) states that the process of making certain aspects of society amenable to governing interventions requires several steps: that nature be "defined as an object of intervention" (McElwee 2016, 14); that the forests be visualised, usually through maps establishing authority; and that processes of change in these environments be named, while other changes are ignored (McElwee 2016). This process is to some extent mirrored in the flow of the analytical chapters that follow. I highlight, in Chapter 4, how the object of intervention, the forests and their surrounding communities, were claimed in the colonial period; with this demarcation of the area of intervention of REDD+ taking up this previously delineated space. I then critically engage with the technology of seeing, engaging with the discourse and its supporting knowledges through which forests are visualised

and made legible (Scott 1998). The application of these technologies of government to the people in these demarcated areas for intervention and the process of shaping them into subjects amenable to neoliberal governance follows this elaboration. I then focus on the subject, to highlight how these and continued interventions, result in fragmented subjects who do not bear any resemblance to the neoliberal subject imagined through REDD+. Together, these chapters reflect on the process of problematisation (McElwee 2016) and of rendering technical (Li 2007) without leaving behind considerations of the subject, as Agrawal (2005) points out, is often done.

Chapter 2 - Methods

As noted in the introduction, this investigation into REDD+ implementation and preparation in Guyana and Suriname was conducted using a comparative approach to two case studies. According to Yin (2003), a case study is an "empirical inquiry that investigates a contemporary phenomenon within its real-life context especially when the boundaries between the phenomenon and context are not clearly evident" (Yin 2003, 13). Qualitative methods of participant observation, documentary analysis, ethnographic field notes and interviewing via snowball sampling were used. My field research was executed over one calendar year which was shared between Guyana and Suriname, commencing in January, 2014.

Epistemological considerations

I use an interpretive epistemological approach which recognizes multiple interpretations of events through the acknowledgment that no indisputable and un-interpreted data exists (Yanow 2000). This is reflective of the situated character of knowledge and the acknowledgment that each researcher has partial knowledge that is objective only from his or her point of view (Haraway 1988).

Discourse analysis is particularly well-suited for this recognition of the situated nature of knowledge given its room for multiple understandings. As such, it is the analytical method of choice for this research project. Discourse is used here as "an ensemble of notions, ideas, concepts, and categorisations through which meaning is ascribed to social and physical phenomena, and that is produced in and reproduces in turn an identifiable set of practices" (Hajer 2009). This definition suggests that discourse gives meaning to the world around us and provides a way of understanding and making sense of that world. These understandings are

malleable, shifting and interpretive. According to Hajer, "Notions, ideas, concepts, and categorisations structure our language and create a pattern in a discussion among actors. Discourse analysis is the method of finding and illuminating that pattern, its mechanisms and its political effects" (Hajer 2009). This view of discourse analysis focuses on ideas, concepts and categorisations that are reproduced and transformed.

Hajer forms his approach to analysing discourse in politics using conclusions taken from Foucauldian and social-interactive discourse theory as a foundation. His argumentative approach combines focus on both the constitutive role of discourse and of the discoursing subjects. Social action is seen as emerging from human beings within the limitations of the social structures within which they reside. This reflects a constant reproduction of society resulting from the constant interaction between the two entities. Within this approach, language has productive power in that it may aid in the creation of new identities or a change in the perception of existing ones. Hajer's interpretation of discourse seems suitable for understanding the different ways in which REDD+ is constructed in society through "ideas, concepts and categorisations (Hajer 1997)". It is suitable for identifying and analysing the various practices, ideas and concepts that produce the "reality" of REDD+, such as increased technological monitoring of forests and the demarcation of state and indigenous land, and its associated conceptualisations of development.

My position as a researcher

Given my subjective and partial knowledge, I deem it wise to explain my position as a research in the field of REDD+ and development in Guyana and Suriname. Throughout this research project, I have engaged with numerous actors who interacted with me based on a wide cross-section of characteristics viewing me at different times, to both my advantage and

disadvantage, as an insider or outsider, compatriot or foe. In societies I describe as racialized, still reeling from their colonial pasts, it is important that I explain my position as a researcher. Given Haraway's assertion outlined above, I try as far as possible to be objective from my point of view as a young woman who grew up in the Caribbean, mainly Guyana, having resided there for more than 80% of her life. The remaining twenty, and most recent years, was dedicated towards study and research which saw me living in Western and Central Europe, and the United States.

As a Guyanese woman of visibly African descent with connections from an educated, middle-class family, I was both an insider and an outsider, one of us and one of them, depending on the individual with whom I was interacting or the context in which I stood. Doors both opened and closed based on the category I was given. As I often explain, when in Guyana, I am categorised as afro-Guyanese. When in Suriname or elsewhere in the Caribbean, I am simply Guyanese. When in the rest of the world, I am whatever that particular aspect of the world categorises me as, based on how it is used to interacting with people who look and speak like I do. I have been Caribbean, African and American, based on the eyes of those looking in. Not to mention that my Hungarian university association put me in the realm of outsider while in Guyana, since I was not enrolled at the University of Guyana.

My interactions with my research site and interviewees, along with my reflections on the society, come from the intersection of experiences that intertwine and overlap to form my identity. I have no doubt benefited from the young and helpless female stereotype, and was likely shut out of communities in Guyana based on not being indigenous or a presumed supporter of the then-Government of Guyana, based most likely on my ethnic categorisation.

A prime example of a conflation of these roles was my experience of attempting to access an indigenous community in the South Rupununi of Guyana. During the period of my research, the People's Progressive Party (PPP), which is overwhelmingly supported by Indo-Guyanese, was in power. The party was also largely supported by indigenous populations, in part, due to alleged dubious means such as buying their support and threatening that the communities would not receive development benefits if they do not support the party during the elections. These remote villages, with access mostly to the coast through state channels and propaganda, were protected to some extent from outsiders, through the Amerindian Act which stated that researchers should gain both the permission of the village leader and the Minister of Amerindian Affairs. I was able to gain permission from the former, but I was frustrated by attempts to gain the latter. I can only surmise that in the political climate of that period, I was categorised to have been outside the status-quo and a possible threat.

I was able to communicate with some groups in Suriname based on my ability to speak Guyanese English creole, which is the version of English they predominantly speak. I was, however, unable to richly engage with the Dutch speakers and maroon communities in Suriname because I could speak neither Dutch nor Sranantongo[11]. Ironically enough, it was in Suriname that I could freely gain access to communities, with minor political interference, due to the absence of land rights, an issue I engage with in depth later in this dissertation. My interactions with these groups were coloured, so to speak, by the white Dutch women who served as my translators (who spoke the language but looked like outsiders (read former colonizers) in the maroon villages. There, I was both insider and outsider. I looked the part somewhat, but did not sound it. These personal, subjective experiences which undoubtedly influence my account of the histories of these countries, and of their progress towards REDD+

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[11] Sranantongo is the local dialect spoken in Suriname

readiness. I was objective as far as I could be, questioning my own biases and assumptions as far as they became known to me. This dissertation, and research project, proceeded with these subjective positions influencing and shaping its contents.

Multi-sited ethnography

I conducted a multi-sited ethnography (Marcus 1995) to trace the different manifestations and perspectives embodied by REDD+ across two countries. Captured within the period of one-year, the depth of my experience lay in the NGOs and Intergovernmental organisations working on REDD+ issues, that is the United Nations offices. The data gathered from forested communities was embodied by interviews (sample of interview consent form and protocol in appendices) with their representatives, policy documents or position papers to which they had contributed, and one-week periods spent in each forested community. While where I was based influenced the data I had access to, to some extent, not having extended periods in forest locations did not preclude me from gaining robust data. It is often assumed that a multi-sited ethnography trades depth of engagement for a broader scope (Marcus 1995). I do not feel limited by this to the extent that I am examining REDD+ as a mode of governing. Community perceptions played a role, but they were accessed in NGOs, REDD+ meetings, interviews, and at their villages. For example, I was interviewing community representatives while sitting in IGO offices. My physical place influenced, but did not determine, the knowledge to which I had access. When people spoke, they spoke about the past, the present, the future, sometimes interchangeably. There was no automacity in terms of who said what where. Of course, there is a disadvantage in terms of robustness of community concerns and the way the multitude of considerations governing the subject there, but possible ruptures, or sudden changes in policy, do not alter my overall argument of the importance of engaging with histories and recognizing these racialized relations in the preparation for and implementation of REDD+.

Carrying out a multi-sited ethnography made me better able to identify how power moves, especially in the context of policy documents. I followed the persons identified as relevant and saw power operationalised in terms of which actors were able to speak and what was allowed to be seen, from a diversity of perspectives. A wide array of experiences and actors made this possible. Where gaps in data existed, I drew on pre-existing literature where possible. This dissertation is representative of a particular snapshot of Guyana and Suriname and is liable to change, but this does not affect the underlying fabric of the societies I explain. If REDD+ were to be disregarded tomorrow and\or another intervention introduced, the societal context introduced and operationalised here, remains relevant.

Sampling Issues

I selected the Caribbean Community as the geo-political region of my research because of my interest in the complex milieu within which these societies exist. The vulnerabilities of the Caribbean region to climate change, combined with the complex historical circumstances, make the prospect of research in this region a compelling one. Guyana's REDD+ agreement is specifically of interest because of its bilateral arrangement with Norway. The geographical proximity of Guyana to Suriname, which is also a REDD+ country, adds to the richness of this endeavour since it strengthens the understanding of the Caribbean experience of REDD+ and allows for stronger findings as evident within that particular context of former colonial, multi-ethnic, 'developing' societies. These countries present a curious case given that they exist on the margins of academic and intellectual thought, on the borders of world politics and events, nestled in a place that is not quite South American and not fully Caribbean, depending, of course, on how these regions are defined.

Internships

My participant observation was executed through five (5) months of work with the Guiana Shield Facility (GSF) of the UNDP Guyana and four (4) months of work with the UNDP Suriname. To facilitate my research and to gain access to policy makers and stakeholders, I interned with the GSF which is a project funded by the European Union and Dutch Government which seeks to preserve the biodiversity within the Guiana Shield, inclusive of Suriname and Guyana, through PES. The project supports REDD+ implementation since it falls directly within their remit (Guyana Shield Facility 2012). While in Guyana, I also utilised the workspace of an international conservation organisation which gave me internal access to the individuals working there and their thinking on conservation, development and REDD+.

Within the Guiana Shield Facility, I functioned as their Policy Intern and conducted research for them on the effectiveness of the PES initiatives they were supporting by interviewing their collaborators in the different countries of the Guiana Shield within which they had active projects, that is Guyana, Suriname, and Brazil at the time. I produced a report for them on this issue and travelled to and within these countries talking to people about their experience with the GSF and with the PES effort overall. These experiences were selectively used for supporting my doctoral research. I also attended social and professional events to gain access to people and resources.

At the UNDP-Suriname, I developed a similar but less intense relationship where I worked in the office environment for four months as the Energy and Environment (REDD+) intern, conversing with the staff, attending launch events, meetings with high level representatives of organisations and developing informal relationships. I took notes at meetings and had a final work output of preparing a Draft Terms of Reference for Major Groups consultations in

Suriname, which was intended to result in government consultation with forested communities and other national stakeholders on the type of development they would like to see in the country. Finally, my relationship with the non-governmental organisation was more informal with me stopping by to use their workspace, using their knowledge of the field to plan field site visits and conversing with the staff at the lunch table which provided me with insight into how actors in the field of conservation see themselves and their role. There was no major output from this interaction.

This institutional support has provided anticipated advantages and disadvantages. I gained greater access to policy makers and persons influencing REDD+ implementation, along with data through my work with these institutions. Also, these organisations supported the logistics of my travel to remote locations within both countries and for finding interpreters and persons already more familiar with the terrain. On the other hand, my affiliation undoubtedly influenced the type of data to which I had access since interviewees in both countries most likely cast me within the light of previous interactions with these institutions. Despite these engagements, I remained critical to the development and neoliberal approaches to nature of both these institutions through my constant engagement with the academic literature which constantly questions the relationship existing between conservation and neoliberalism.

Open ended interviews

Outside of the time I spent working with GSF and the UNDP-S, and my time visiting the field sites described above, I conducted interviews with stakeholders identified in the REDD+ readiness proposals in both countries. Interviewees included representatives of the following organisations:

Table 1 - List of organisational representatives interviewed

Primary Category	Secondary Category	Organisation in Suriname	Organisation in Guyana
National Government Official		Ministry of Foreign Affairs	REDD+ Secretariat
		NIMOS	Adviser to the President
		Ministry of Physical Planning, Land and Forestry Management	Guyana Geology and Mines Commission
		Ministry of Regional Development	Small Business Bureau
		Gold Mining Regulatory body	
Local Government Official		Ministry of Regional Development Councillor in Apoera	North Rupununi District Development Board
		Ministry of Regional Development Councillors in Apoera	North Rupununi District Development Board
Academia		Anton de Kom	Academia
		Centre of Agricultural Research	Academia
	Nyuka Representative	Anton de Kom	
Research|Academia		Tropenbos	
	REDD+ Project Implementer	Technical REDD+ Consultant	
Research|NGO		Amazon Conservation Team	
Research| Consultant		Mining	Office of Climate Change
Civil Society organisation| Representative of Forested Community		Association of Indigenous Village Leaders	Crew Members of Community Monitoring, Reporting and Verification
		Association of Traditional Saramaka Authorities	North Rupununi District Villagers
		Organisation of Indigenous Peoples Suriname	Amerindian People's Association of Guyana
		Captain Washabo	Civil Society Organisations - Transparency etc.
		Community Member Apoera	Georgetown Chamber of Commerce
		District Council	Guyana Gold and Diamond Miners Association
		Captain Section	Forest Producers Association
		Gold Miners Association Suriname	
Conservation Organisation			Conservation International
		Conservation International	World Wildlife Fund
		World Wildlife Fund	ONF International

CEU eTD Collection

Private Company	Indigenous Community Member	Logging - Greenheart	Diamond Trader
Intergovernmental Organisation		UNDP	Representatives of the International Community
		UNDP	CARICOM
	Member of Indigenous Community	UNDP	Amerindian Development Fund - UNDP
Para-Statal Organisation		Staatsolie Oil Company	

Twenty-two (22) interviews were carried out in Guyana and thirty-four (34) in Suriname. I unfortunately was unable to interview all the persons I was desirous of interviewing. Those I was unable to interview are representatives of the following organisations:

Table 2 - List of Representatives I was not able to interview

SURINAME
Commission on Climate Change
Consultant
Parliament
GUYANA
Guyana Lead Negotiator on Climate Change
Amerindian NGO
National Toshaos Commission/MoAA
Adviser to the President
Member of Parliament
Ministry of Agriculture
Ministry of Natural Resources and Environment
Inter -American Development Bank

Approximately eighty (80) policy documents were collected along with twenty (20) community development plans (CDPs) which demonstrate how indigenous communities in Guyana conceive of development. All interviewees signed an agreement that permitted me to use a recorder and to utilize the information they provided for my doctoral research, articles,

presentations and other publications. I committed to anonymity of all respondents so when names appear in the dissertation, they are pseudonyms. In the cases where identities would be easily identifiable with persons familiar with the context, I limit the detail provided. When I write of experiences and interactions, these are in reference to events where participants were aware that I am engaging in these activities for research purposes. I also gained the express permission of the organisations with which I interned to use my notes and other documents made available to me for research purposes. Interviews were subsequently transcribed for ease of analysis. Ethnographic field notes were also prepared which provided me with greater detail through my own perceptions of how the lives of groups affected by REDD+ are changing and being affected by the initiative.

Table 3 - Development Data on Field Sites

Forested Community Name	Country	Main Income generating activities	Average Population size[12]	Location	Infrastructural development	Access to city for improved education and health facilities[13]
Annai and surrounding areas	Guyana	Tourism, craft, small scale produce	9000[14]	Inland	Moderate	Poor
Mahdia and nearby Campbelltown	Guyana	Gold Mining	4000[15]	Inland	Poor	Poor
Brownsweg collection of communities	Suriname	Gold Mining	5000[16]	Inland	Moderate	Good
Nieuw Aurora	Suriname	Craft and tourism	2000[17]	Inland	Poor	Moderate
Apoera and surrounding communities	Suriname	Fishing and trade	3000	Coastal	Moderate	Good

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[12] These are rough estimates based on census data since these small communities are often captured within the larger districts in the census.

[13] All communities have access to primary education and some form of healthcare. Due to a lack of data on this, I refer to their access to the city to give an idea of healthcare options and education accessibility

[14] Taken from Rupununi people (2017) http://rupununi.org/people/

[15] Taken from USAID (unknown) http://www.poweringhealth.org/index.php/resources/materials/case-studies/item/306-guyana-mahdia-district-hospital

[16] Taken from Suriname Census (2012)

[17] Taken from Isadou (2015) http://www.isadou.com/?page_id=92

Field site visits in Suriname

In 2008, Suriname had a total population of 517,052 which was concentrated in Paramaribo, the capital of the country. It has a growth rate of 1.3% in 2005 (Heemskerk 2005). Approximately 67% of Suriname's total population resides in Paramaribo with 20% in the other coastal districts. The remaining 13% resides along the rivers of Suriname's interior (Ministry of Labour, Technological Development and Environment 2013). Within Suriname, all forest is state forests and the indigenous populations residing within them have use rights but no claims to ownership (FCPF 2013). As such, all Suriname's forests have been dedicated to the REDD+ mechanism. Visiting this community, therefore, allowed me to spend time in forests being allocated to REDD+, to witness threats to this forest and to communicate with persons living within these areas and affected by these initiatives. Maroons represent 14% of the population and indigenous groups (referred to as Amerindians throughout this dissertation) represent 3.7% (Ministry of Labour, Technological Development and Environment 2013).
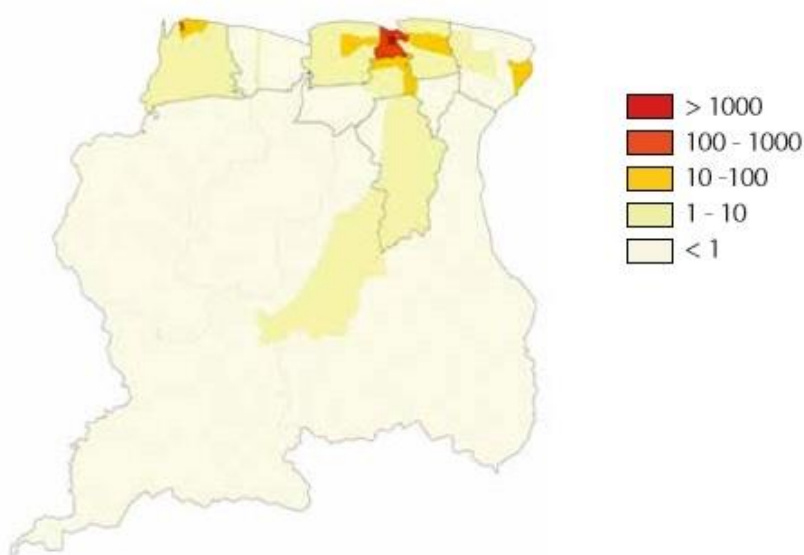
Figure 3 - Suriname Population Density
Source: Ministry of Labour, Technological Development and Environment. 2013. 'Suriname Second National Communication to the United Nations Framework Convention on Climate Change'.
http://www.nimos.org/smartcms/downloads/1.%20suriname%20snc-unfc%20on%20climatechange%20february%202013.pdf.

My participant observation also featured visits to the field sites to indigenous communities and resource extractive locations to see how these human activities and living sites are situated within the forests. Maroons in Suriname are divided between the Ndyuka, Saramaka, Aluku, Pamaka, Matawai and Kwinti, of which the first two are the majority (Price, 2013). The Amerindians in Suriname are the Kaliña (Carib), Lokono (Arowak), Trio and Wayana of which the Caribs are the majority (Heemskerk 2009). Within Suriname, I visited Apoera, an indigenous community near the border of Guyana and Suriname and several communities in the Brokopondo area. These areas were selected based on accessibility, cost, and engagement with specific threats to the forests. Since forest communities in Suriname are either indigenous or tribal, I selected:

- Apoera and the two communities nearby, Washabo and Section, to gain access to indigenous views;

- The Brokopondo area comprising the Brownsweg group of nine communities, the Brownsberg nature park, Afobaka dam, and Niuew Aurorara, a small riverine community of tribal maroons to gain access to tribal views.

Figure 4 - Apoera and Brokopondo Research Sites
Source: https://commons.wikimedia.org/w/index.php?curid=89564 (Last accessed, August 23, 2016)

Apoera is an Amerindian village in Suriname that has been suffering from the effects of logging and electricity generation for logging activities nearby. I stayed in Apoera, which is the relatively conventional village acting as an administrative centre in West Suriname. Apoera is close to the Guyana border and most of the indigenous people residing there are either Guyanese or of recent Guyanese descent, speaking Guyanese creole, Dutch and Sranantongo, the colloquial language of Suriname. Apeora's relatively developed status is attributed to previous government efforts to convert the village into a town centred around bauxite mining which took place there between 1975 and 1985 (Mhango 1991). As the global demand for bauxite production began to wane, interest in this project dissipated and Apoera remains the

administrative hub of the area, the most infrastructurally developed of the two neighbouring communities of Washabo and Section. Now, these three communities present a compelling case of societal change, depicting the ways in which indigenous communities are affected by failed historical attempts at shaping their internal relations.

Figure 5 - Indigenous Woman in Washabo, Suriname making Kasiri, a fermented beverage (Collins, 2014)

In Apoera, I spent a week interviewing the chiefs of that village and the two nearby villages of Washabo and Section, as well as the councillors and development workers there. I visited sites and locations where extractive activities were taking place and spoke to representatives of the companies carrying out these activities. I interacted with them as both as an independent

researcher connected to the United Nations Development Programme (UNDP) in Suriname, which was instrumental to the REDD+ effort taking place at that time.

Figure 6 – Street views of Apoera, Suriname (Collins, 2014)

Within the Brokopondo area, I carried out similar activities and witnessed large amounts of small scale mining along the roadsides. This area is also interesting because the Afobaka hydropower plant is situated there and it is populated by maroon communities that were set up by runaway slaves. The building of the dam in the 1950s resulted in the displacement of large numbers of maroons who are now living in a trans-migratory state along a main road, in a grouping referred to as Brownsweg. I spent a few days of my time in the Brokopondo area visiting Nieuw Aurora, the riverine community previously mentioned that has not suffered displacement and is therefore a more stable example of tribal life in Suriname. There too, I

identified myself as an independent researcher connected to the United Nations Development Programme (UNDP) in Suriname, a connection that allowed me some access to the community representatives who were aware of REDD+, having participated in events related to its implementation in the capital.

Figure 7 - View from highway passing through the trans-migratory communities of Brownsweg (Collins, 2014)

Field site visits in Guyana

As previously noted, Guyana is divided between the densely-populated coast, where the capital Georgetown is located, and the forested hinterland\interior. There are over 180 indigenous communities in Guyana which can be found in a large area of the country referred to as the interior or the hinterland. A single community can have a population which ranges between

150 and 5000 (GRIF 2014). As such, 90% of the population live on the coast with Amerindians comprising 9.2% of the 750000 population (Bureau of Statistics Guyana 2012). Guyana has a population growth rate of 0.02% (2015 est.) according to the CIA fact book (CIA 2016). Other non-indigenous forested communities exist, making up the remaining 10% of the population which resides in the hinterland.

Within Guyana, I visited the North Rupununi region where REDD+ efforts are taking place as part of the community effort to prepare for REDD+. The two forested communities I visited in Guyana were predominantly Amerindian. I chose to visit the communities which otherwise yield interesting insights into forest monitoring activities, threats and its effects on the people in those communities. The North Rupununi communities are distinct due to their adoption of technology for forest monitoring and resource use. Being positioned near to the Iwokrama nature conservancy, which attracts global attention for the scale of its forest preservation efforts and its goal of developing sustainable resource use models in the area, the communities of the NRDDB have had sustained engagement with international actors and government officials interested in testing their resource management approaches on the Amerindian community within the boundaries of Iwokrama, and on the other communities nearby, comprising the NRDDB.

The NRDDB communities feature many projects including interventions aimed at preserving the culture of Amerindian communities through videotaping and storytelling; eco-tourism projects, solar panels as a means of electricity generation; and a radio station through which they communicate with the residents and update them with the activities taking place at Annai, the capital village. I, as part of my visit to the NRDDB, was also invited to speak on the radio to apprise village members of my role in the community for the period spent. The community

is infrastructurally well supported through the donations of several international organisations and donors like the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the GSF of the UNDP and Conservation International-Guyana. There too, I identified myself as an independent researcher investigating REDD+ and working tangentially on investigating the effectiveness of the efforts of the Guiana Shield Facility on their work in the area.

Efforts are being made to share the experience of the NRDDB with forested communities throughout the Guiana Shield, through the efforts of the GSF which also works with the Association of Village Leaders in Suriname (VIDS) comprised of the leaders of almost all indigenous communities in Suriname, including Apoera; and with the collection of Saramaka authorities in Suriname (ASA) including Brownsweg in the Brownsberg region, which I also visited. Collaboration does take place between all these communities represented by their leaders who attend various development partner events held by the GSF, CI or the UNDP in both countries. However, the level of international development support demonstrated through infrastructure seen in the North Rupununi was not seen elsewhere.

In Guyana, the land tenure rights are different from that of Suriname in that since 2006, indigenous populations have been granted collective ownership of their land and are free to manage that titled land as they choose. Significantly however, the government retains some rights, such as access to the subsoil, but within Guyana, the indigenous groups have the option of opting in to the REDD+ mechanism and determining whether their forests will be used for REDD+ activities. Persons interested in mining on titled Amerindian lands must seek permission of the Amerindian village council. This is not required in the case of large-scale mining which must have government authority and supersedes the village council's desires. This aspect of the Amerindian act is contentious because mining concessions were granted

before the signing of the Amerindian Act in 2006. When miners move to execute their rights to mine in the now titled areas, conflict ensues which is playing out in the courts of Guyana.

I spent a week in the villages of the North Rupununi. Here again, this convergence of factors allowed me to interact with indigenous groups affected by REDD+ in terms of land rights, mining, and other means. Villages within the North Rupununi have already been engaged in REDD+ awareness sessions and these villages are considering opting in to the REDD+ mechanism in Guyana. I interviewed some crew members who were working on Community Monitoring, Reporting and Verification (C-MRV) activities in the villages of the North Rupununi, along with some unaffiliated community members.

Figure 8 - Annai, North Rupununi, Guyana (Collins, 2014)
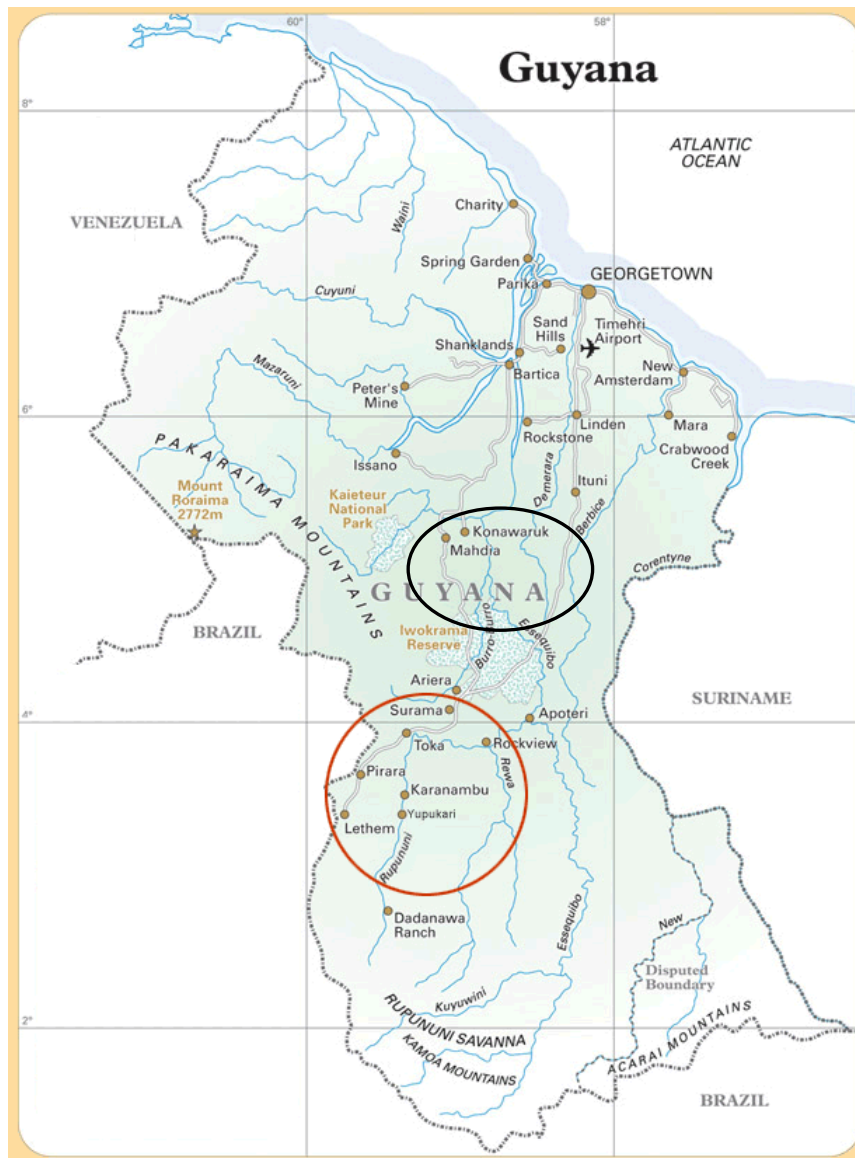
Figure 9 - Map of the North Rupununi (circled orange) and Mahdia (circled black), Guyana

Source: http://rupununilearners.org/ecotourism/mapguyana_big.htm, Last accessed 13th February, 2014)
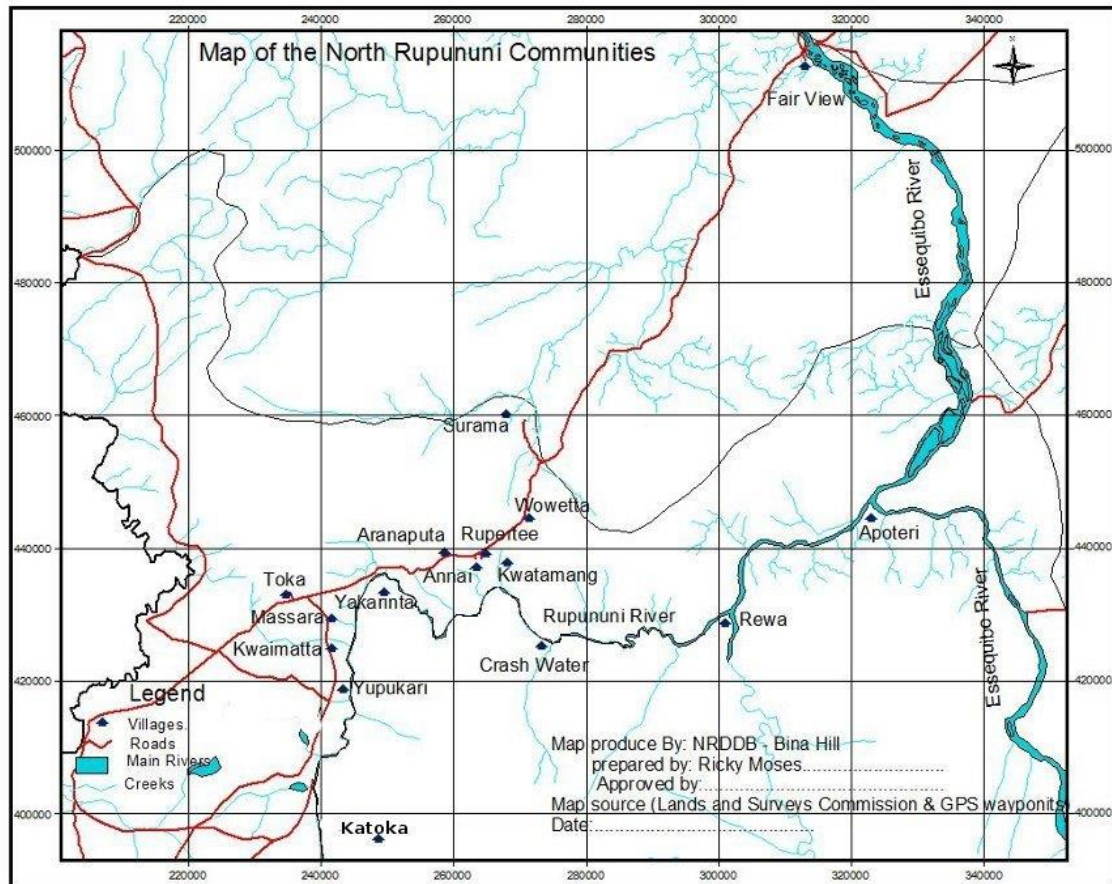
Figure 10 - Map of the North Rupununi, Guyana
Source: http://nrddb.org/communities, Last accessed 13 Feb, 2014

In Guyana, I also visited the mining town of Mahdia and spoke to community members from indigenous villages nearby called Campbelltown. Mahdia has been inundated with miners and while it is not an indigenous community, it is positioned near one. My visit to Mahdia was insightful due to its establishment as the hub of gold mining activities in the area. In Mahdia, I visited the nearby gold mines and to interview workers there, while observing the interaction of miners and the indigenous societies nearby. My trip to Mahdia was supported by the Guyana Geology and Mines Commission (GGMC), the country's mining regulatory body, which allowed me access to their representatives in the area, and to mines and their workers near the area. I identified myself in that case as just an independent researcher since no other organisational affiliation would have been useful at that point.

Figure 11 - Road to, and through, Mahdia, Guyana (Collins, 2014)

Data Analysis

The data detailed above, inclusive of interview material, policy documents and community development plans, was coded using Atlas TI software (Screenshots in the appendices). The identification of codes was reflective of an iterative process based on my engagement in reflecting upon my research questions, emergent themes in the data, and my theoretical framework. This effort yielded 155 codes within 20 categories, and 2340 quotations. The code family represented a rough attempt to group the data into categories supportive of my research questions, and influenced by my literature and conceptual frame. The code families and the codes constituting them became my base, though not reflected in the data management software, for determining the narratives and discourses of REDD+ implementation in both countries according to Hajer's approach described earlier.

Limitations

This research project was limited by time, funding, language and accessibility considerations. Particularly in relation to accessibility, I was not granted access to an indigenous community in which I would have liked to spend a month to better understand how REDD+ affects their way of life. Instead, I relied on interview data of representatives of other indigenous communities and the brief visits to some communities outlined above. Funding limitations were overcome, to some extent, by relying on financial support for travel provided by the organisations with which I did internships. This, of course, coloured the feedback I received and the persons to whom I had access since I was seen as affiliated, to some extent, with these institutions. I was also limited by a paucity of literature on the history of forested communities in both countries resulting in an overreliance on a few sources. Finally, my work was also limited by language concerns. Older indigenous people in Guyana are sometimes unable to speak English, and thus, they were not reflected in my interview data. To a larger extent, in Suriname, I was able to communicate with people in English and Guyanese creole, and through translators in Dutch. This too, limited the data collected in some way. With these practicalities now outlined, I move in the next chapter, to my arguments and findings comprising the main body of my dissertation.

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Chapter 3 - The Creation of the Racialized Subject

Introduction

> We have allowed the shadows of our history to dominate our potential and to perpetuate fear. We have become captive to our own racial and political stereotypes. ('Guyana National Development Strategy' 1997, 27)

The agricultural East-Indian indentured servant, the vulnerable forest-dwelling Amerindian, the enslaved, liberated and gold-mining African, the trading Portuguese, and the European master are some representations of the racialized subject in Guyana and Suriname, characterisations established during the colonial period. REDD+ seeks to tweak this colonially-rooted, diversely manifested, racialized subject by inculcating new subjectivities amenable to the governing methods of neoliberal governmentality which represents human beings as self-interested, rational and operating solely in their own interests, responsive to externally introduced stimuli and incentives (Fletcher 2010). The interaction of these tropes and stereotypes with the idealised neoliberal subject presents a useful lens through which the mechanism of REDD+ and its societal limitations can be understood.

In this chapter, I explore the historical circumstances that brought this subjectivity into being, as a post-colonial genealogy or 'history of the present' (Foucault 1980) establishing the development trajectories of Guyana and Suriname as sites that contributed to the capitalisation of Europe. My specific aim is to pinpoint unequal power relations and their continued effects in modern day Guyana and Suriname. Drawing on the concept of political forests (Peluso and Vandergeest 2001), this genealogy traces the extraction of value in the form of natural resources in both countries through their colonial histories, and the categorisation of people based on their racialized relation to this system of extraction. Guyana and Suriname have been

independent for 50 years and under, after being colonised for over 400 years. The circumstances of both countries are linked to the legacy, ideas and governance mechanisms established by the colonial masters from which they gained independence, Britain in the case of Guyana in the year 1966, and the Netherlands in the case of Suriname in 1975. I seek not to interrogate race and race relations, but to highlight how racialized relations with the natural environment have shaped subjectivities, continuing to influence the societies today.

This chapter sets the tone for understanding the unequal power relations between industrialised Northern countries and peripheral ones like Guyana and Suriname and traces the relations that have cemented a relationship based on the extraction of value, an ethic instituted by the colonizers, yet scarcely questioned by those governments or of those of Guyana and Suriname, as reflected through their policies and interactions. I revisit the histories of these countries and explain how their very creation was premised on their ability to generate value which was then sent to the centres of the colonizers, fuelling the growth of capitalism in the territory of the colonizers and establishing an ethic based on 'store of value' for external consumption in these peripheral states. I ground these claims in the theories of subject formation through governmentality, reflect on critical approaches to development while detailing the relations to the natural environment that been problematised through REDD+ preparation and implementation.

The demarcation of political forests
Colonial creations and recreations of societies and spaces around the globe have left perceptible imprints and residue on the modern incarnations societies (Hardin 2011) like that of Guyana and Suriname. The legacy of colonialism lives on in the identities of the people, embodying strong but passive resistance to interventions aimed at changing their traditional ways of

interacting with the natural environment. The racialized legacy of colonial forest management practices, however, has long been recognised by Peluso and Vandergeest (2001, 2011) who outlined the creation of political forests, a conceptual tool describing the land declared as forests by the state. This process of claiming forests as areas to be managed by the state necessitated that exceptions be created for use by certain ethnic groups dependent on the forests, a system which became known as customary rights (Peluso and Vandergeest 2001).

Forests in post-colonial countries are political spaces that were, and continue to be "designated, legislated, demarcated, mapped and managed" (Vandergeest and Peluso 2015, 162) by both state and non-state actors. The concept 'political forests' comes from decoupling the notion of forests as both a biological and ecological category, and a reconceptualisation of those forests as an area to be managed and engaged with through disciplined interactions. Forests were, in effect, delineated to facilitate government control, enabling the extension of the territorial presence of the colonial powers. Racialized relations emerged as a legacy of the relationship of the colonial powers to the forests through the way forests were zoned.

Peluso and Vandergeest, drawing too on Foucauldian inspired governmentality, argue that particular forms of governmentality led to the creation of political forests, a process which featured the development of codes and regulations intended to centralize power over the forests, criminalizing previous common forest usage practices (Peluso and Vandergeest 2001). Colonial forestry had a vital role in the formation of state power with the creation of political forests setting the stage for future conflicts over the role of the state in managing nature. It effectively disciplined people's actions towards to the forest, proceeding from the initial demarcation of what forests are (Peluso and Vandergeest 2001), a recognition that is a useful point of departure for understanding the forest politics of Guyana and Suriname. The

importance of these areas to the expansion of capitalism should not be overlooked.

The stated aim of REDD+ is to change the way that the populations of Guyana and Suriname interact with the forests by incentivizing behaviour change of actors whose behaviour is likely to result in deforestation. In outlining this aim, proponents of REDD+ are attempting to change deeply entrenched traditions of forest utilisation, while integrating the forests of these two countries into the global effort to address climate change. However, since independence, these states have embarked on development paths deeply rooted in the tradition of natural resource exploitation which continues to be driven by the demands and vagaries of the overseas markets. I turn now to tracing the historically rooted social relations to the forests.

Guyana: The Pre-colonial period

Amerindian peoples have occupied lands within the geographic space now known as Guyana for several millennia before the arrival of the Europeans in the sixteenth century (Griffiths and La Rose 2014). Presently, there are four main tribes, the Warraus, Arawaks, Wapisianas and the Caribs, which has formed smaller groupings of the Arrecunas, Akawaios, Patamonas, Macusis and the Wai-wais (Reporter 2010). The Amerindian tribes were numerous and diverse in the characteristics of the geographical areas within which they lived and how they interacted with their environments. The Waroa, for example, were said to be boat builders who foraged and fished for their meals, while the Arawaks were said to prefer higher ground along the rivers and to have practiced agriculture on crops tailored to their environments (Colchester *et al* 1997). Of the Amerindian tribes found in Guyana, the Caribs were the most dominant at the time of European arrival. Their societies were known to be "well-ordered and technologically complex hierarchical societies based on intensive agriculture and fishing" (Colchester *et al* 1997).

Upon European arrival in the 16th century, the Amerindian societies began to take on noticeable changes adopting some of the European technologies which were better suited for clearing forests and building houses. The Europeans established trading relationships with the Amerindians based on the system of barter, trading industrial goods for forest products. The Dutch established their first permanent settlement in Guyana in 1616 and called it Kykoveral. They were dependent on the Amerindians for food through trading, but planned to establish plantations of tropical crops to be traded with Europe (Colchester *et al* 1997). Sugar estates were eventually developed in Guyana and the 'red slaves' captured by other Amerindians and traded with the Dutch, continued to be an important source of labour on the plantations until the arrival of enslaved Africans (Colchester *et al* 1997). This arrival of the Europeans to the Guianas was followed by several battles and conquests directly tied to events in Europe which saw the areas of Guyana and Suriname change hands on numerous occasions, being controlled by the Dutch, the French and the British resulting in over 400 years of colonial rule. The borders between these two countries also changed frequently as determined by the colonial power *du jour*.

Guyana: The Colonial period

With the then Amerindian and European presence, the beginnings of the multicultural societies were in place in the territories now known as Suriname and Guyana. European influence and the need for labour on the plantations spurred the forced relocation of large groups of people from around the globe. Between the 16th and 19th centuries, the modern incarnation of Guyana and Suriname had its most definable features to date laid out through the forced relocation of large numbers of people from Europe, Africa and Asia to the Caribbean, including Guyana and Suriname, to work on the now established coastal plantations (Knight 1990). The arrival of

enslaved Africans to work on the plantations, stimulated by the slave trade in which the Dutch engaged, brought a new role for the Amerindians of Guyana. The Amerindian trading allies of the Dutch became 'owls' or guards of sorts, in that the Dutch began to reward Amerindian allies for capturing the slaves who ran away and attempted to seek refuge within the forests. By the 1760s, the norm had become that the Amerindians would fill this role of policing the interior and of providing 'red slaves', weaker Amerindians, to work on the plantations for the Dutch. This was not the case in other Caribbean territories like Suriname and Jamaica, where successful maroon communities were established, in some cases, through collaboration with indigenous communities.

The alliance between the Dutch and the Amerindians was strong as evidenced by the 1763 slave rebellion in Guyana where the enslaved Africans on the plantations rose up to fight for their freedom. The Amerindians accepted the offer of Dutch arms and helped them to put down the rebellion, their alliance weakening only as the Dutch demand for Amerindian 'red slaves' waned, due to the increasing labour supply in the form of enslaved Africans. As such, the Amerindian slave trade was abolished in 1793 and the trade relationship of the Amerindians with the Dutch came to an end (Colchester *et al* 1997). These events paved the way for a future relationship of distrust between Amerindian communities and enslaved Africans and their descendants who were becoming all the more populous on the coasts, while the Amerindians themselves were shrinking in number due to war and disease stimulated by their on-going conflict with the Spanish in nearby Venezuela.

In 1803, as a result of the changing power relations between European states, the three Dutch colonies of Essequibo, Demerara and Berbice, comprising what is known today as Guyana, passed to British control. The colonies were united in 1831 under the banner of British Guiana.

The relationship with the new colonizer did not see much room for engagement with the Amerindians other than relegating them to the role of bush police, a role that required that Amerindians recapture runaway slaves, and to ally themselves with the British to control the number of enslaved Africans which at that time, vastly outnumbered the British presence. The upcoming independence of the enslaved Africans in 1833 all but obliterated the role of the Amerindians which was no longer needed to police the activities of the slaves on behalf of the colonizers (Colchester *et al* 1997).

Within the colonial period, sugar, and the value placed on Guyana's natural resources, became the pivotal factor in Guyana's future. It acted as the motivator for European colonizers to relocate vast numbers of enslaved Africans and indentured servants from India to Guiana to labour on the plantations. The profits of these endeavours did little to develop the infrastructure in Guiana, since large amounts were repatriated to Holland and England. The emancipation of enslaved Africans in 1833, brought about by the triad of shifting public opinion in the England, coordinated uprisings in the colonies and the possibility of having goods produced at a cheaper cost elsewhere; reduced the ready labour supply dramatically. In order to remedy the situation, large groups of people were brought as indentured laborers to Guiana from China in the 1860s, Portugal in the 1880s and most notably due to their large numbers, from India in the 1830s. Land issues emerged as a challenge in this context as the colonial authorities sought to make alternative forms of livelihood difficult for the freed slaves.

Most important, however, was the divide and rule policy employed by the colonial authorities to foment strife between the different ethnicities to prevent them from collectively organising (Colchester *et al* 1997). As Ross (1996) highlights:

> The coolie despises the negro because he considers him… not so highly civilized as himself, while the negro… despises the coolie because he is so immensely inferior to himself in physical strength. There will never be much danger of seditious disturbances among the East Indian immigrants… so long as large numbers of negroes continue to be employed with them (Ross as cited in Dabydeen and Samaroo 1996, 29).

Here, it is evident that the divisions within society between individuals of East Indian descent, derogatorily referred to as 'coolies' and those of African descent, referred to as negroes, were a conscious policy of managing the multi-ethnic society that was emerging in Guiana to maintain European dominance.

> The society which developed was framed by these labour relations. At the top of the social order were white planters, who had the support of the colonial authorities and controlled the majority of land and capital. Chinese and Portuguese, freed from the restrictive laws and able to acquire land, emerged as a class of vigorous smallholders practicing market gardening, which provided the basis of their later prominence in commerce, charcoaling and gold-mining. Free villages of miserably poor black ex-slaves eked out a living on marginal lands or worked as seasonal labour on the estates, to which East Indian indentured and ex-indentured labourers were more closely tied year round. Altogether, over ninety per cent of the population was concentrated along the narrow coastal strip, while the Amerindians, out of sight and out of mind, continued to populate the interior (Colchester *et al* 1997, 28).

There was no inherent tension between the Indians and Africans but it was the organisation of the colonial society that created and fostered this strife. At the end of the 19th century, the immigrant labour began to reorganize themselves. A black middle class emerged in urban areas through education, public and administrative service. East Indians expanded their economic base in the rural areas through rice farming on land granted to them by the colonial masters in exchange for opting not to demand their return passage to India. The outcome was an emergent black middle class and an East Indian dominance over rural rice producing areas (Colchester *et al* 1997) as groups sought to find ways to sustain themselves.

However, the divide and rule policy had also coloured the interaction of indigenous groups with the remainder of the society in Guyana, a legacy of their role as gate-keepers to the forest, preventing run-away slaves from seeking refuge there. This, and the subsequent separation of

Amerindian groups from the society spatially and actively (due to their residence in the forested areas), and outside of the more developed coastal areas, led to these forested communities being represented as backward and unmodern. As one policy document positing community-owned approaches for managing their resources outlined, indigenous peoples are often depicted as poor and backwards, and in need of help from external sources (Mistry *et al*, 2015). This and Colchester's (1997) acknowledgment of the relative autonomy of the Amerindians in the interior, forested areas of Guyana is important, especially considering REDD+ as a new mechanism of governing their forest use, an aspect that will be developed in subsequent chapters.

Independence and the pathway to progress

Race relations continue to underpin the politics of Guyana where people continue to identify strongly along ethnic lines, as demonstrated in voting patterns, areas of residence and economic earners of choice. Guyana is more reflective of its British colonial past than of its Dutch history in terms of language and culture, but its populations continue to be centred near the coastal sugarcane plantations. Georgetown and New Amsterdam remain the main urban centres populated by the descendants of enslaved Africans while the rural population is dominated by the descendants of East-Indian indentured workers (Menke and Egger 2006).

Sugar continues to play an important role in the Guyanese economy despite attempts by the colonial government, foreign companies and small local producers to alter the economy after the nineteenth century (Menke and Egger 2006). Guyana's political, social and economic situation is still reeling from its past of slavery and servitude, demonstrated by ethnic polarisation and strife evident in the country where political parties in Guyana continue to draw their support from ethnic groups (Singh 2008). The People's Progressive Party (PPP) emerged

in the pre-colonial period championing an ethic founded on opposition to the exploitative practices of the transnational sugar corporations, and independence workers' rights and socialism.

In order to hand independence to a more malleable governing body, Britain and the United States fostered racial and political violence lasting from the mid-1950s to the mid-1960s. The PPP leader, Cheddi Jagan, was vilified publicly and jailed for 6 months by the colonial government who opposed his rhetoric, resulting in reduced confidence from supporters. The party then split and the People's National Congress (PNC) was created. Britain and the US then supported the opposition PNC as part of the Cold War manoeuvres to ensure that another socialist state was not established in the Western Hemisphere (Rabe 2005). This division later took on racial tones with Indo-Guyanese overwhelmingly supporting the PPP and Afro-Guyanese supporting the PNC (Colchester *et al* 1997).

In 1988, after decades of PNC corruption and mismanagement of the economy, along with fraudulent elections, it became evident that socialism had failed in Guyana and the new PNC leader of the country, Desmond Hoyte, embarked on structural adjustment and development based on foreign investment. This was supported by liberalisation of the economy and a new push to utilize natural resources to stimulate development, a process accompanied by the elimination of price controls, a floating exchange rate, reduced import tariffs and privatisation of state assets, along with other such neoliberal reduction of state intervention. With the support of the World Bank support, debt repayments were eliminated and debts were forgiven significantly freeing up budgetary allocations for development. Socialism which had commenced under the PNC government, had by 1992, been discredited with the PPP again taking the reins of government instituting widespread market reforms.

The PPP embraced foreign investment as part of structural adjustment packages due to a lack of available alternatives. This effort was largely influenced by the International Monetary Fund (IMF) and World Bank's development model. Jagan, however, encouraged South-South relationships and tried to break Guyana's dependency on Western development sources (Colchester *et al* 1997). Notable, however, is that these two major political parties in Guyana's history have drawn their support from ethnically affiliated supporters. To the present day, voting in Guyana continues to be carried out along ethnic lines with the PPP being predominantly supported by Indo-Guyanese voters, and the PNC, now part of a coalition with smaller ethnically mixed parties, supported by Afro-Guyanese voters.

Racialized identities

> …the majority Afro-and Indo-populations have been administered as types of 'racial' citizens. (Vaughn 2012, 363-364)

Within Guyana, the representation of different ethnicities became imbued with a particular role in the economy and in relation to the natural environment. Within the colony of British Guiana, Indians worked largely as paid laborers on the sugar plantations, while establishing their own agricultural ventures in rice. African descendants were involved in mining bauxite in the areas of Mackenzie and Kwakwani, some miles outside of Georgetown; and African descendants and mixed race individuals dominated the civil and educational sectors. The Chinese and Portuguese groups within British Guiana derived their sustenance from trade (Rabe 2005). This economic separation is depicted by the following quote extracted from an interview with a leading figure in gold and diamond mining in the now independent Guyana:

> Mining was distinctly divided in terms of who was doing what. The afro-blacks, they were the pork knockers. They did the digging, they did the mining and they brought out the gold. The Portuguese were the pawn brokers, pawn the gold and sell the jewellery. The East Indians were the gold smiths. They made the gold. They used to buy the gold. As the price of gold went up, the first people who got the bright idea was the gold smiths. Why would they buy gold? So, they started to invest in mining so they started to go into mining as a question of business. The Portuguese were always backing. They weren't the pork knockers. They would back the pork knockers. You have to understand. (GGDMA- Shields, May 9, 2014, Interview)

During the 1840s, the extractive industry began to take hold in Guyana and Suriname. In addition to the already established plantations producing sugar utilizing the labour of populations relocated from around the globe, the mining industry began to strengthen its foothold in the country. Up to this point, in Guyana, most the mining done was carried out by the earlier described pork-knockers. The experience of the Portuguese is notable since they were brought to British Guiana as immigrant labour, along with small numbers (approximately 4000) of other white immigrants, in an attempt to increase the colony's white population and to stave off some of the slave rebellions that were taking place over the years approaching emancipation. Along with the Portuguese, some Irish, Scottish, German and Maltese laborers were brought to the plantation (Daly 1974) but were never seen as equal in status to the British colonial masters and themselves resented having to work alongside the now free Africans on the plantation who they saw as inferior beings (Jagan 1966). This separation lives on in Guyana today where people speak of the land of six peoples: Amerindians, Europeans, Africans, East Indians, Chinese and the Portuguese. Note here the distinction between Portuguese and Europeans since the two were seen to be different 'races'. This difference was based not on the colour of their skin, but on their economic status and societal position of power on arriving to the colonies.

An interview with a dominant figure in regulating the mining industry confirmed these racialized roles in relating to the economy which emerged after independence. While acknowledging that all pork-knockers were indeed of African descent, he stated that:

All. Because when the laws were done, the British made sure that when they had the indentured servants come in, that the indentured servants couldn't leave to go elsewhere without permission so there was a statement in the mining laws that the East Indians had to get permission to go into the mining areas (WW-GGMC, June 23, 2014, Interview).

He further described that the Portuguese and Chinese were unable to venture into the forests either, and that these racial divides could play a role in how people manage their resources today. He continued:

What I know for sure is that a lot of the (mining) claims which are the small-scale holdings were held by people of African descent for many, many years. Gradually, others bought from them and then others located their own claims. In 1994, we had the introduction of medium scale and that medium scale had a key element that it was going to make available to the Guyanese, land without them having to go into the bush (forests) to get it. If you wanted a claim, you had to go into the bush, prospect and then claim the area that you had prospected. That is why it is called a claim. To get the medium scale, you could go on a map, identify it on a map, and apply for it by geographic description only, so we had a lot of people doing that and the monied class, then stepped into the industry in a much bigger way. (WW-GGMC, June 23, 2014, Interview)

These racialized identities were taken a step further by one policy maker working on PES activities in both Guyana and Suriname, who saw the internal divisions of Guyana and Suriname as the root of the fragmented approaches of these countries in managing their natural environment. He stated:

In Guyana and Suriname, we have a number of cultures living together that brought different ideas from different parts of the world and we haven't yet melded a nation from a coming together of these cultures and traditions. Finding out what I would say the best aspects of these cultures and traditions, that are essentially compatible with nature, I haven't seen any of the cultures that have been brought here or any of the traditions that have been brought here, that are essentially nature destroying in nature. They are not nature destroying at all. In fact, what has been nature destroying has been this tendency to respond to markets, and these are external markets which requires 'Gold? The price is high. Ok, we have it. We take it out. We sell it'… We disrupt the environment. We disrupt the equilibrium. We need to establish a new equilibrium through some managed activities. We seldom do that. We depend on nature to deploy its healing properties (CP, April 4, 2014, Interview).

This interviewee, in view of the diverse people and cultures comprising Guyana and Suriname, points out that deforesting and environmentally harmful activities are not due to the culture themselves, but due to the response of the people in the countries to the demands of the

externally driven market and due to the lack of a melded national identity. The satisfaction of these demands results in local environmental destruction which is seldom actively remedied by people in both countries. In Guyana and Suriname, the demands of the international arena are met, with little concern for its local effects.

In the 1950s, the East Indians, who formed the largest group of indentured servants in the then British Guiana numbering approximately 250000, kept working on the sugar estates, with some of their descendants eventually taking up rice farming (Lowenthal 1960). The smaller numbers of indentured servants made up by the Portuguese and Chinese stopped working on the plantations as soon as they were able to and formed a strata of peddlers, shopkeepers, and urban tradesmen and professionals (Lowenthal 1960). As Lowenthal describes in his discussion on race relations in Guyana in the 1950s, one person stated: "The trouble with us," a Portuguese explained to me in Georgetown, "is that we are not a nation. If you ask a man here what he is, he will tell you. I am Creole, I am Indian, I am Portuguese, I am Chinese; never Guianese" (Lowenthal 1960, 53). Here, I make the point that the different cultures brought to Guyana and Suriname have adapted to their new environments and circumstances, but in doing so, they adhered largely to racialized roles available to them in the colonial period based on the circumstances of their arrival, roles rooted in capital expansion (Moore 2000) which continue to be played in both countries today.

Economic earners as a means of progress at the time of independence

The small scale and artisanal gold mining industry of the post-independence period was almost entirely characterised by racialized identities where one particular ethnic group was responsible for different aspects of the process. By the 1900s, there were approximately 6000 black pork-knockers in Guyana's interior who adopted simple techniques that allowed them to earn and establish small communities in the forests. Being deprived of access to land and employment, African descendants were willing to risk their fortunes in the interior of Guyana in search of gold (Colchester *et al* 1997).

Since then, small scale gold mining in Guyana experienced many periods of peaks and troughs. In the 1970s, it experienced a boom spurred by a rise in gold prices and the introduction of mechanised mining which allowed for much easier and more widespread mining which was, in turn, more ecologically destructive. Further, in the 1970s and 80s, Brazilian miners started to flow across the border with improved technologies which fed this destruction even more (Colchester *et al* 1997). Gold mining, in effect, became the mainstay of the descendants of enslaved Africans, with profound effects on the indigenous communities already residing there.

Bauxite also formed an important part of Guyana's effort to diversify economically. It was discovered in British Guiana in the late 1870s. The Aluminium Company of America (ALCOA) became the aluminium monopoly in Guyana, supplying the United States with high quality bauxite. Then known as red-gold during the Second World War and the post-war years, this supply was complemented by bauxite sourced from neighbouring Suriname. These economic and natural resource extractive activities, however, generated little financial gain for British Guiana since the ALCOA had bought the land from its previous owners at a very low cost under the pretext of needing it for growing soybeans (Jagan 1966). Bauxite did, however,

form a large part of Guyana's primary commodities being exported around the time of independence in the 1960s (Colchester *et al* 1997).

Land claims and the political forests

Both then and now, access to land was a pivotal factor in the economic fortunes of the different ethnic groups in society, but as Peluso and Vandergeest (2001) described, forests, in particular, had been taken over as an area to be managed by the state. The legacy of this land claim by the then colonial government of Guyana, and the new independent government, is entrenched and legalised in the constitution where it is written that "The Minister may by order declare any area of State land to be a State forest and may, from time to time, vary or revoke such order" (Laws of Guyana, Forests Act, Chapter 67:01, p. 7). Further, Article 36 of the 1980 constitution establishes the state's emphasis on rational use of its natural resources (GFC, 2011) through an institutionalised structure including the Guyana Forestry Commission (GFC), Guyana Lands and Surveys Commission (GLSC), Guyana Geology and Mines Commission (GGMC), Ministry of Amerindian Affairs (MOAA), the Ministry of Agriculture, Ministry of Local Government, and the Guyana Environmental Protection Agency (EPA), all responsible for different land use practices often on the same plot of land (Guyana Forestry Commission 2011).

These forests were also categorised and classified with the GFC also declaring that while 87 % of the country's 21 million hectares of land resource is covered by forests, 18.3 million hectares are forested, of which 12.8 million hectares is state forest administered by the Guyana Forestry Commission. These forests have too been duly categorised as swamp, seasonal, and dry forests in different parts of the country (Guyana Forestry Commission 2011). This zoning of the forests for state sanctioned uses across different zones set the conditions for the competing land claims of those who had been living in and utilizing the forests for centuries.

Linked fortunes but different destinies

Politics in both Guyana and Suriname is based on support from various ethnic groups, divisions that have manifested themselves in violence between groups in both countries at different points in their histories (Singh 2008; Menke and Egger 2006). Reflecting on the colonial legacy in modern day Guyana, one respondent who advises the former PPP led government on climate change related matters stated that:

> The fact that we are a plural society here is an example of that, where at the end of slavery, the freed slaves of course, were unwilling to go back to the plantations. They were given a hard time even though they bought land, they were not given drainage and irrigation. They were not allowed to function in their villages. Then, the indentured laborers were brought in: Chinese, Indians, and Portuguese, and just lumped together without any thought as to their future in terms of education, the coexistence in terms of culture, religion and all of those things. So we very much have been left to fend for ourselves, and as you see the bad examples of tribal wars in Africa, and even in the post-independence period, people still trying to come to grips with what exactly is this independence (MGJS, March 27, 2014, Interview).

There is presented a clear reflection on how these countries continue to grapple with their identities with the outside world, and amongst themselves. The interviewee went on to state that:

> If you are mentally still subjugated, subordinated, whether it is to World Trade or the academic education, you are only allowed to pursue certain vocations, and even your knowledge of your own country. I knew more about British history and British geography than I knew about the Caribbean and my own country. When you consider that we are only 48 years old as an independent country, then it is too short a period to really expect an overturning of those aspects of colonialism (MGJS, March 27, 2014, Interview).

The colonial legacy continues to live on in Guyana with the people dealing with the effects manifested through occasional racial strife and discord. The colonial period set the stage for the country's development, conflicting land use policies and cultural clashes.

Suriname: The Pre - Colonial and Colonial Periods

The circumstances of European arrival to Suriname were similar to that of Guyana, but with a different outcome in that Suriname gained independence from the Netherlands, despite

intervals of British rule. In Suriname, indigenous people had a similar way of life to that previously described in Guyana, relying on the subsistence economy to meet their daily needs. Events in Suriname followed a familiar pattern of divide and rule, but the first successful establishment of a European settlement in the area now known as Suriname, was in 1650 by British planters who began to establish plantations through the use of slave labour. Suriname changed hands from British rule from 1651, to Dutch rule in 1667. The planters there also benefited from indigenous slaves taken by the Caribs. However, the coastal areas continued to be used as plantations producing sugar, coffee, cacao and cotton, eventually through the use of African slave labour. Due to the Dutch presence on the coast, the indigenous populations of Suriname withdrew into the country's forested areas, strengthening Suriname's separation between the coastal and forested zones, a legacy which continues today.

Their withdrawal was not without resistance, however. In 1678, the Carib indigenous tribe went to war with the Dutch presence which at the time was still weak. In 1684, a peace treaty was signed between the Dutch and the Amerindians so that the indigenous people were free to live in their traditional fashion in Suriname's interior with livelihoods based on subsistence economies as they did prior to European arrival. Prior to the war and eventual signing of the peace treaty, their only remaining contact was through trade in items such as weapons and cloth (Struiken and Healy 2003). Despite some periods of breaks in the control through British intervention, Suriname remained under the control of the Dutch until independence in 1975.

The plural society that emerged in Suriname, so categorised due to the importance of ethnicity in the daily life of people (Choenni 2014), was based on a small white plantation class, a relatively large number of enslaved Africans, and a creole section of the population comprised of mixed African and white descendants. The escaped slaves in Suriname, now referred to as

Maroons, formed villages in Suriname's interior with the coast remaining divided along racial and colour lines (Colchester *et al* 1995). In Suriname, too, a legacy of the colonial period is evident in the physical separation of the forests from the agricultural coastal areas which left forested communities, in Suriname's case maroons and indigenous groups, viewed as traditional, vulnerable and backwards, in need of support from their more developed counterparts.

Independence and the pathway to progress

In the post-independence period, creoles, the descendants of enslaved Africans who were eventually emancipated establishing themselves in the city, came to dominate Surinamese politics. The maroon communities were reluctant to acquiesce to independence since they considered themselves already mostly independent and had built up an amicable relationship with the colonizers with whom their forefathers had made peace in the 1760s. They feared domination by the creoles in the city who at times, claimed to be able to represent maroon interests (Hoogbergen and Kruijt 2004).

Suriname's post-independence period was defined, however, by internal civil strife which saw the fall of the economy and the severing of Dutch development aid. These two connected events left indelible imprints on the country's future. Suriname, unlike neighbouring Guyana and many other former colonies around the world, benefitted from what was referred to as a 'golden handshake' in the form of a large development aid grant from the Netherlands through which the now former colonizer, retained substantial control over the Surinamese economy and its internal affairs (Mhango 1991). The grant, formally called the Multi-Annual Development Programme (MADP) with intended and actual spending depicted in tables below, was intended to be disbursed over the period of 10-15 years commencing in 1975-6, amounting to some 2.2

billion Surinamese guilders on a population of then four hundred thousand people. This was unlike the arrangement of any other colonial power at the time of granting independence to the colonies (Mhango 1991). Using the per capita income of Suriname at the time, the grant reflected an increase of between 300-600% of the national income, an amount aimed, in part, at reducing immigration to the Netherlands. Its major aims were to encourage diversification of the economy, to promote self-sufficiency (Mhango 1991) and overall development. Interestingly, Apoera, a majority indigenous community near the Corentyne river separation with Guyana and one of the field sites of this research project, was signalled to receive a significant portion of the grant in aims of having it develop as a new city that could facilitate the production of hydropower for the bauxite industry.

The plan did not achieve its aims, and ran into difficulty in terms of disbursement. Suriname was ill-equipped to absorbed these large sums of aid, which was also stopped twice due to the internal troubles of the country. The bloodless military coup that took place on the 25th of February 1980 was driven in part by dissatisfaction with the way that the grant was being executed. The new military government prepared a new plan and convinced the Dutch government to use a minimum of 500 million Surinamese guilders to fund this emergency plan. This was, however, the beginning of threats from the Netherlands to stop the grant.

TABLE 2
SECTORAL AND REGIONAL DISTRIBUTION OF PLANNED INVESTMENT OF THE MULTI-ANNUAL DEVELOPMENT PROGRAMME
(In millions of Surinamese guilders of 1974)

	Paramaribo	Nickerie Coronie	Apoera	Tibiti	North Marowijne	Others ****	General	Total
Agricultural sector*	160.1	199.0	119.5	286.5	124.0	45.9	6.2	941.2
Forestry	405.0	-	132.5	60.7	115.2	8.5	50.0	771.9
Mining	-	-	875.1	p.m.***	p.m.	p.m.	-	875.1+p.m.
Waterpower	-	-	361.0	-	-	-	-	361.0
Industry	22.8+p.m.	p.m.	p.m.	p.m.	3.5	1.0	310.0**	337.3+p.m.
Social Cultural	190.0	48.0	40.3	39.0	44.9	53.0	60.0	475.2
Infrastructure	79.1	53.0	219.2	68.1	15.4	61.1	104.5	600.4
Other	-	-	-	-	-	-	105.0+p.m.	105.0+p.m.
TOTAL	857.0	300.0	1747.6	454.3	303.0	169.5	635.7	4467.1

—Source: Multi-annual development Programme 1975

* includes the livestock and fisheries sectors

** Sf 250,- millions of this earmarked for participation in existing industries

*** p.m. means per memorie (unspecified)

**** Others include Brokopondo, Saramacca and Upper Marowijne

Figure 12 - Spending allocated for Multi-Annual Development Programme
Source: Mhango, Baijah. 1991. 'The Political Economy of Aid: The Case of Suriname'. Caribbean Studies, 123–164.

TABLE 3
SECTORAL AND REGIONAL INCOME EFFECT OF THE M.A.D.P.
(in millions of Surinamese guilders of 1974)

	Paramaribo	Nickerie Coronie	Apoera	Tibiti	North Marowijne	Others ***	General	Total
Agriculture*	38.5	46.8	51.7	60.7	56.0	13.8	----	267.5
Forestry	100.0	----	145.8	62.0	117.8	9.5	.	435.1
Mining	----	----	302.4	p.m.	p.m.	p.m.	.	302.4+p.m.
Water power	----	----	155.0	----	----	----	----	155.0
Industry	6.6	p.m**	p.m.	p.m.	—	—	27.3	33.9+p.m.
Social Cultural	----	----	----	----	----	----	----	----
Regional Infrastructure	----	----	----	----	----	----	23.0	23.0
TOTAL	145.1	46.8+ p.m.	654.9+ p.m.	122.7+ p.m.	173.8+ p.m.	23.3	50.3	1216.9+ p.m.

----Source: Multiannual Development Programme 1975

  * includes the livestock and fisheries sector

  ** p.m. means per memorie (unspecified)

  *** Others include Brokopondo, Upper Suriname and Upper Marowijne

Figure 13 - Sectoral and Regional Income Effect of The Multi-Annual Development Programme
Source: Mhango, Baijah. 1991. 'The Political Economy of Aid: The Case of Suriname'. Caribbean Studies, 135.

During 1980 and 1982, numerous countercoup attempts were made by members of the economic and political elite that had been removed from power, and quite likely also, by the former colonial power which had not approved of military rule in Suriname (Mhango 1991). This led to the murder of sixteen political opponents by the Surinamese military in December 1982. It is notable that the current democratically elected President of Suriname, Desi Bouterse, was at that time, the leader of this military government. The Netherlands swiftly and indefinitely suspended the aid agreement. Even after suspending its aid flows, the Dutch worked to isolate Suriname further in the international community based on its desire to see

human rights and the principles of democracy reinstated in the country.

The failure of the MADP to reform the country's economy was partly due to the weakening bauxite sector, and an overreliance on aid which devastated the country when it was suspended. Further, internal strife led by Ronnie Brunswijk complicated the matter (Mhango 1991). The saga surrounds Ronnie Brunswijk, the leader of the Suriname Liberation Army, who functioned as a sort of Robin Hood in Suriname society sharing the spoils of his illegal activities with maroon communities in Moengo. This spurred retaliation by the Surinamese army which carried out violent atrocities against the maroons who supported Brunswijk. This resulting civil war that took place between 1986 and 1992 (Price 2013) combined with the fall of the price of bauxite on the international market, devastated the Surinamese economy. Debt and inflation soared as a result in the late 1980s. As a result of the war, education stopped in the maroon areas and the young male population turned largely to gold mining as a source of income. This took place in the early 1990s.

Debt and inflation soared as a result in the late 1980s. Democracy returned to Suriname with a referendum in September, 1987, election on the 25th of November, 1987, and a handover of power to the new government in February, 1988. The Dutch government though, instead of resuming aid, devised new methods of access which featured the World Bank and\or IMF's involvement in restructuring the Surinamese economy. During the period of conflict in Suriname in the early 1990s, the Brazilian garimperos who lost their land usage rights to big business in nearby Amapa, Brazil, moved over to Suriname to work, bringing new technologies to gold mining there, and collaborating with Surinamese maroon miners. Within the maroon communities, there existed an informal means of taxing Brazilian gold miners a bit higher than

maroon ones, a revenue system for the maroon villages in the gold mining areas. The Brazilian

gold miners, however, have a relatively tension free relationship with Surinamese maroons and

the wider Surinamese society (Hoogbergen and Kruijt 2004).

Racialized identities

Suriname's presence on the global stage is miniscule considering the falling international

demand for bauxite, upon which previous relations with the United States were centred, and

the tendency of Suriname to be left out of global deliberations since it is not covered by Spanish

speaking Latin America, is not a part of Portuguese speaking Brazil, while on the margins of

the English-speaking Caribbean (Ellis 2012). The structure of Surinamese society continues to

be influenced by tensions between different ethnic groups (Hoogbergen and Kruijt 2004) but

the situation remains relatively peaceful. Most recently, the influx of Chinese arriving since

2010, caused a rise in tension in the society. Suriname's relationship with China is both similar

to China's resource extractive relationship with other countries, and different in that there is

now a large Chinese population within Suriname which conflicts with other ethnic groups.

In addition to bauxite, Suriname's economy is known to be dependent on aid, but it is more

covertly known to gain income from illegal gold mining, narcotics trading and remittances

from Surinamese living in the Netherlands (Hoogbergen and Kruijt 2004), and now from its

coastal oil industry. As opposed to European and American tensions with Suriname due to the

colourful past of its President, Desi Bouterse, China has a non-judgmental, welcoming

approach to Suriname which saw Suriname being one of the first South American countries to

establish relations with China.

Suriname was the recipient of a large influx of Chinese nationals during the colonial period for

the purposes of work on the plantations. However, up to 2010, Chinese engagement with Suriname was seen as minimal (Ellis 2012). After that, however, the Chinese population moved from limited in number from largely affluent and ordered groups, to poorer immigrants which increased the Chinese share of the population from 3% to 8%. Many of these persons are illegally in Suriname either being smuggled into the country or overstaying visas previously allotted to them. The older generations of Chinese in Suriname help to establish and to make room for newer generations of migrants. The local Chinese also act as local partner organisations for projects based in mainland China (Ellis 2012).

Chinese companies are also deeply involved in infrastructure projects within Suriname, the award of some of which was highly contentious. Many projects are on stream but Suriname has, compared with some of its neighbouring countries, remained less deeply dependent on Chinese loans for the execution of these projects. China's biggest commercial interest is in lumber even though it is not permitted to own timber concessions in Suriname, it has been able to buy the concessions of others operating there. There is also an effort underway to establish palm oil plantations in Suriname, despite concerns of local residents of Chinese labour taking away local jobs. Gold mining is potentially interesting to Chinese companies, but Suriname's interior is currently beset by some forty thousand individual Brazilian miners looking to extract the gold that was not exploited by the last century of mining in Suriname (Ellis 2012). These tensions between some ethnic groups in Suriname and the growing Chinese presence was palpable like a growing undercurrent bubbling occasionally to the surface when a Surinamese creole person would remark, when discussing the need to change a car tire, that the vulcanizing shops are still quite expensive since "the Chinese haven't set their sights on that yet" (Casual remark, BD, 2014, Interview).

The ethnically mixed, but majority indigenous community of Apoera, also demonstrated a certain resignation to the Chinese lumber firm operating in their backyards. The maroons shared similar concerns in their expressions of annoyance with the Chinese working in forests near them which were said to be protected by dogs. Also notable is the large number of Chinese shops present in maroon villages along the main road which runs through the collection of maroon communities called Brownsweg, and the fact that there were at least four Chinese shops and one Chinese restaurant in Brownsweg. Surinamese citizens seem to feel like the Chinese are taking advantage of every conceivable economic opportunity and that the influx of Chinese into the country puts good environmental stewardship at risk, through poor management practices, and sometimes, with covert Surinamese government support. In both Guyana and Suriname, tensions between the Chinese and the rest of the population are visible around forest concessions in particular, as discussed later in the dissertation.

Racialized identities are also shown in how other ethnic groups, such as the maroons, continue to be aware of their historical connections. They spoke freely of their living memories. When asked about their living knowledge of the way they were brought to Suriname, they stated that "Our grandparents came out of Africa and they lived there for around 100 years... It was a nightmare for us and it is traumatic for us. We will never forget it." (Ben, October 24, 2014, Interview). When asked about the way they make a living now that they are settled in Suriname, one respondent said "Wood... We are living from the rainforests, we use everything. Also, the gold mining in the woods... We are dependent on the forests." Maroon communities subsist on farms and trading with the capital city. Increasingly, they are turning to small-scale gold mining as a source of income. He continued: "That's the problem over here, we are still living as slaves" (Ben, October 24, 2014, Interview). His reference to living as slaves is grounded in his experience of being chased off mining concessions allocated to multinational

large-scale mining companies, impeding his gold mining activities.

The interpretation of different groups related to REDD+ of the interaction between maroons and indigenous groups with the forests, are demonstrated by reflections on the difference between the two groups. As LMR described:

> Yes, the indigenous people are not interested in mining because they have a special bond with nature… I think the bond they have is 'We respect the forest because the forest can kill us and it can give us food.' It is a very strange relationship they have with the forest, with the jungle. The indigenous people don't look at the forest in that way. They always speak of the forests like it is a person. It has feelings that can speak to you. It is totally different compared to what the maroon people do. They live in the forests but it is like the forest is not, they don't see the forests as a person that has feelings (LMR, November 17, 2014, Interview).

These respondents explain that these different relations to nature, have an impact on the views of these two communities on land tenure, highlighting that maroon societies tend to be more individual while indigenous communities are more collective. They explain that "It could be a historical thing because they (maroons) sort of were forced into the interior. They weren't there before and they learned from the indigenous people how to live and what to do" (LMR, November 17, 2014, Interview).

These interview excerpts illustrate how different ethnicities within Suriname have taken up certain socioeconomic positions. They have also taken up certain spatial positions that have led to "ethnic labour specialization, economic stratification, and spatial concentration and segregation" (de Bruijne and Schalkwijk 2005, 240). The racialized subject remains an ever-present actor shaping development outcomes and relations with the natural environment.

Economic earners as a means of progress at the time of independence

Suriname, like its neighbour to the West, also sought to diversify its economy and it did so through the extraction of gold and bauxite from its soils. As previously mentioned, Suriname

and Guyana played a key role in supplying bauxite to the United States during the Second World War with American interest in Suriname's bauxite to support their war economy, stretching back to 1917 when ALCOA, which also operated in Guyana, established a branch in Suriname. Suriname's reliance on bauxite continued strongly even into the late 1950s as its bauxite was needed for the supply of aluminium to support the US' war with Korea (Colchester *et al* 1995). By 1975, bauxite production was of such importance to Suriname that plans were made to develop a new city around its refinement, along with a railway and road system which would facilitate its extraction and transport. As previously noted, this new city was to be located at the site of Apoera (Colchester *et al* 1995). Though these plans never came to fruition, Suriname's reliance on bauxite mining did clash with the land rights of some local communities (Colchester *et al* 1995).

Notably, one large infrastructure project which continues to affect the well-being of several forest communities within Suriname, did materialize as a corollary of Suriname's bauxite mining and exportation effort. This project, the construction of the Afobaka dam, forced the relocation of a number of maroon tribes resident in the surrounding area. The construction of the Afobaka dam in the Brokopondo district of Suriname had forced approximately six thousand Saramaka and Ndjuka maroons off their land in the colonial period of 1963-1964 to facilitate the construction of the dam and its accompanying reservoir. This dam was originally constructed to provide hydropower for a bauxite refinery. As such, some 600 square miles amounting to almost half of the Saramaka territory was flooded. The communities were paid the equivalent of US$3 in compensation and were not assigned land rights in the areas to which they moved (Kambel and MacKay 1999).

Ben, who was previously quoted talking about the historical memory of slavery as a maroon

today, described his experience with the construction of the Afobaka dam. He said:

> I was born in the District of Suriname, Brokopondo, and when I was little, I had moved from Stuwmeer (Stuwdam) to here (Brownsweg), when I was four years old. (We moved) because of the power, because we were living near the river, African slaves, then we had to move because they had to dam the Stuwmeer, but it was really sad. That's why we had to move here… We had to move. There was no choice. We had to. Otherwise we would die…   (We would die) because of the river, they dammed it, and the water was coming up so we had to move (Ben, October 24, 2014, Interview).

He continued:

> We were moved 55 years ago. You have to see what kind of house they gave us. We had to live in it with a husband, wife, 3-4 children. It is too small. We want to have our own rights, make our own decisions, build our own houses, and do everything by ourselves without the government telling us what to do. How is it even possible to live in this house for a whole family? (Ben, October 24, 2014, Interview).

Instead, with the proceeds from gold mining, the communities have developed relatively permanent looking domiciles in the area.

Figure 14 - House originally provided to relocated maroons in Suriname in the communities comprising Brownsweg (Collins, 2014)

Suriname's gold rush began in the late 1860s. Initially, the labour force on the small gold mines was made up of creoles, with Amerindians and Maroons seeming little interested in the endeavour. The maroons used their knowledge of the rivers and jungle to provide transport for equipment and people to and from the gold mines. The extraction and sale of gold continued to be big business in Suriname until the emergence of the First World War when demand slumped (Hoogbergen and Kruijt 2004). This void in economic earnings was filled in part by the bauxite industry which, as previously described, gained in value as demand for aluminium increased to supply the demands of war.

These maroons now engage in gold mining as their major income earner. It is due to the events and circumstances that put them in the situation in which they find themselves today, that the Surinamese government faces the difficult challenge of reducing small-scale gold mining among maroon communities within Brownsweg, who are vilified, along with the small-scale Brazilian miners, as the main source of deforestation in the country. The experience of being forced from their lands brought about loss of life in the communities. The devastation did not stop there, however, with the Nieuw Koffiekamp community, one of the areas to which the displaced Saramaka had settled, eventually facing a second relocation due to the granting of their lands as a concession to Canadian gold mining companies. The community of Nieuw Koffiekamp was not made aware of the granting of the concession until they were surrounded by armed guards and trucks in 1995 who restricted their subsistence and small-scale gold mining activities and intimidated them by firing live ammunition to keep them from the areas in which the companies were working (Kambel and MacKay 1999). The challenge of mining and the subjectification of indigenous and maroon peoples in Suriname will be further detailed in subsequent chapters, but here the effort is being made to demonstrate the historical antecedents and depth of the challenge that the incentive of REDD+ must overcome to

stimulate forest conservation through financial means.

Gold mining has, as evidenced above, become the economic earner of choice for many maroons within the collection of villages relocated because of the construction of the Afobaka dam, now comprising Brownsweg. There is a desperate need for improved management of gold mining in Suriname which is known to be a lawless activity, invested in by businesses in the capital and by drug money (Hoogbergen and Kruijt 2004). Recently, however, the government of Suriname began to make efforts to coordinate and manage the devastating environmental and social effects of gold mining in the country through the Gold Sector Planning Commission (OGS in Dutch acronym). Larger scale gold mining has, however, been entrenched in the country for quite some time.

Notable also is the consideration that, in Suriname, a large portion of their economic earning activities is directed towards boosting GDP and maintaining the large public sector, accounting for as much as 60% of employment (World Bank 2016), a state that is maintained in part by extractive industries. According to Bruijne and Schalkwijk (2005), this is because political parties in Suriname tend to use the public sector as an avenue towards allowing access to the state's resources by their popular or ethnic base. They further explain that:

> In the past, government ministries and other public offices were distributed among coalition partners to ensure 'equal access', between different political parties and thus their ethnic base, to public resources, such as civil service jobs, housing, land, loans, and permits… Ethnic identity and ethnic boundaries have thus not been eliminated by the cultural and political context, but are sometimes exacerbated by them, though members of the ethnic groups apply them in a flexible rather than a rigid way (de Bruijne and Schalkwijk 2005, 253).

As one respondent in Suriname explained:

> I think there is a huge public sector machine, if you wish, like way, way, way too many public workers… Every time there is a new government, other people become non-active, and then there are new people being hired, you can't fire the other ones because you know, they are public workers. There is a huge pool of workers being paid by the government and they all have, you know, not all, but people at a higher level, they have cars, they can get free gas, and

then, people, persons who have been in the government in higher positions, they have basically benefits and pensions for life, so even if they have just been serving in the national assembly for a couple of years, they are kind of covered for the rest of their lives. So, it's such a huge amount of money that is being used by that…. All the cars being driven by government workers at all levels. You wonder why they need to be so expensive (MH, September 30, 2014, Interview).

The burden of a large public sector must surely have some impact on the need to rely on extractive industries as income earners in Suriname, a consideration that I note as relevant in describing the racialized subject as an undercurrent and continual factor in the management of the natural environment in Suriname.

Land claims and the political forests

Recalling here too the process of creating political forests, the legacy of this state claim of forest is described in Suriname's constitution which states that

> Natural riches and resources are property of the nation and shall be used to promote economic, social and cultural development. The nation shall have the inalienable right to take complete possession of the natural resources in order to apply them to the needs of the economic, social and cultural development of Suriname (Svensson 2014, 17).

Unless private ownership of land can be proven, land is considered to be under the jurisdiction of the state. In the case of the forested indigenous and maroon communities, such proof does not exist.

Linked fortunes but different destinies

The extractive industries formed a core part of the economies of Guyana and Suriname in the run-up to and period after independence. These activities were carried out in a similarly racialized fashion as was the relocation of different ethnic groups from around the world to Suriname and Guyana. These economic activities have become part and parcel of the culture of certain ethnic groups within these two countries and any mechanism seeking to protect the

forests of Suriname and Guyana must engage with these deeply entrenched histories that continue to influence the fortunes of both countries. Moreover, these economic earners were spurred largely by demands and events taking place in the international arena, as Guyana and Suriname's natural resources became coveted for their desirability in the international markets.

The Surinamese society shows less dominance of a particular ethnic group as evident from the fact that they are often governed by an array of small parties that formed coalitions, and by the more ethnically integrated nature of their capital city. The major difference between the ethnic profiles of Guyana and Suriname lies in the presence in Suriname of significant minority populations of Indonesians and Maroons. While racial tensions continue to exist, it is less obvious and palpable than in neighbouring Guyana. In both societies, however, the plantation economy and the features of slavery and indentureship continue to influence the societal structure and ethnic composition (Menke and Egger 2006) as evidenced by living patterns and economic earners of different ethnic groups. Social separations in Suriname are evident in the case of local language with different languages being spoken by different groups, and even different types of creole being spoken by different ethnic groups. For example, coastal Surinamese often speak Sranantongo and Maroons speak their own languages (Premdas 1996). As such, the economic separations in Suriname are limited somewhat on the coast but continue to be impactful within the forest, with maroon communities primarily engaged in mining, and indigenous communities trying to maintain their subsistence practices.

Both societies have resource based economies, making them vulnerable to the vagaries of the international market economy. Within Suriname, there were also attempts to diversify the economy after the turn of the nineteenth century. The importance of sugar there declined dramatically and several alternatives attempted to take its place. In addition, Guyana's

independence of 1966 took place in the foreground of the Cold War which saw several foreign interventions in its politics. Suriname's political process, on the other hand, was characterised by a number of coalitions and a situation where due to the fractious nature of the population, no one party could win an outright majority (Menke and Egger 2006), a situation which changed in 2015 with Desi Bouterse's National Democratic Party (NDP) winning an outright majority. These different histories certainly lead to different present day political circumstances and continue to influence the way present day Guyana and Suriname view themselves in relation to the rest of the world.

Despite several shared circumstances between Guyana and Suriname, a rather harsh separation exists between the two, representing a leftover relic of the colonial pasts. While territorial delineation is significantly easier between England and the Netherlands, the challenge is not so clear cut in the case of their former colonies. These two countries are engaged in a protracted territorial dispute that directly challenges carbon accounting methods since both countries claim this territory, and its constituent forest cover, as their own. This geographical area under contention, called the New River Triangle in Guyana and Tigri in Suriname, is currently included in both countries' identification of their forests. While this issue is not currently being highlighted during public REDD+ discussions in either country, the border dispute is a continuous sore point between Guyana and Suriname resulting in a few skirmishes between the two armies, representing one of the most easily identifiable examples of how the histories and societal circumstances, along with the claims of political forests, continue to impact the preparation for and implementation of REDD+ in these two countries.

Conclusion

The histories of Guyana and Suriname, especially the colonial ethic of viewing these geographical areas as stores of value to be exploited, have had a profound impact on how different groups and cultures relate to the environment. Proceeding from the recognition of the creation of political forests (Peluso and Vandergeest 2001), I have sought to trace not only the racialized relations with the natural environment, but the legacy of the colonial and state claim on the forests which effectively set the ground work for current forest use and relations, entrenching the need for customary rights as an exception to these rules based on ethnic categorisations. My use of the racialized subject is not intended to pronounce normative judgment on its existence, but to point out that it is a consideration with which these interventions must interact, forming part of the population and practices which proponents of REDD+ seek to govern.

The process of creating the political forests could be seen as an on-going one in that in both Guyana and Suriname, as we shall see, forest communities continue to challenge the state's claim on the land by asserting usage of the land for generations, in effect, resisting these sovereign means of governing the forests. The creation of political forests and the establishment of racialized relations to the forests and natural resources of both countries were initially sovereign in nature, based on the state claiming what was previously indigenous territory, and its subsequent classification, categorisation, and management through laws and regulations. To a large extent, the process of managing the forests of both countries continues in this fashion.

Despite broad areas of commonality, there remain clear differences between the cases. These independent governments continue to be haunted a single racialized subject, represented by an image of the subject to be governed with these racially determined positionings and histories

influencing their realities. Therefore, REDD+ interacts with this racialized image of a subject, across both countries. This racialized subject continues to be particularly evident in the forested communities where less societal integration happened, less geographic movement of people, and less communication with the coast. Thus, in both countries, forested communities depict a harsher tone of 'racialized-ness' than on the coasts. It could even be said that the Dutch increased their projections of racialized'ness' in Suriname, so to speak, by bringing large numbers of people from Java, Indonesia to work in Suriname. Differences and similarities notwithstanding, the point being made here is that a racialized subject exists as a legacy of colonial histories with which REDD+, as a neoliberal policy option, must interact.

However, their mutual exploration allows for me to bask in their similarities for supporting the notion of the racialized subject and for supporting my arguments for the existence of cross-national discourses; while allowing me to simultaneously explore different manifestations of REDD+ according to different circumstances, reflecting on the variegated nature of neoliberalism. However, REDD+ does not merely interact with the racialized subject, but it represents a different mode of governing. The political contestation related to land rights in both countries represents a gap between state control over land, and the process of allocating satisfactory and effective customary rights, that has become a major sore point for the implementation of REDD+. Thus, REDD+, as a novel instrument for changing forest usage, is interacting with and negotiating these different subjectivities which are by no means uniform.

As Fletcher (2013) noted, work remains to be done in questioning the human psyche to understand why and how people internalise the external incentives described in Foucault's governmentalities including neoliberal, external incentives. My effort here is not to determine the success of policies in general at accomplishing this change, but to focus on the intractability

of REDD+ as a specific policy intervention. Further, my focus on governmentality stops at the skin and does not examine the process of internalisation of these technologies of government and knowledges, but focuses on the manifestation of this internalisation in word and deed.

In the following chapter, I change focus from the histories of these countries, towards the intervention of REDD+ which must interact with the racialized subject. I identify the different discourses at play in the mechanism's implementation and tease out the different subjects imagined through each discourse, to put these imagined subjects into dialogue with the societal contexts of Guyana and Suriname, depicted by the racialized subject I have discussed in this chapter. The people who populate these two scarcely imagined countries reflect the events that brought them into being. Policies like REDD+ govern through an attempt to change their behaviour and are continuously confronted by these unequal realities and terrain.

Chapter 4 - Visions of REDD+: The Politics of Conflicting Discourses

Paramaribo is a big village

In May, 2014, in an attempt to bring the idea of REDD+ home to the people, and to share experiences at the inter-governmental level, the Highly Forested Low Deforestation (HFLD) Conference was held. It represented a group, inclusive of Guyana, Suriname, Nepal, Bhutan and Belize, countries that, as the name implies, are highly forested but continue to have very low deforestation rates. The HFLD conference was spearheaded by the Government of Suriname, and it drew together world class names in forest conservation such as Conservation International (CI) and the World Wildlife Fund (WWF), along with the governments and representatives of the REDD+ steering organisations such as the World Bank and the United Nations REDD+ Programme (UN-REDD+). In order to achieve the idea of good governance and transparency, and to be inclusive of all relevant stakeholders, representatives of civil society and forested communities were also invited to the conference.

It was there that the different discourses of REDD+ coalesced and became most evident. During the panel discussion on REDD+ on 'Community Engagement, Grievance and Participation', a member of the indigenous Sipaliwini community in Suriname stood up, played a piece on his flute, and introduced himself to the attendees. He described what was needed in his community for development. He asked for an improved airstrip, clean drinking water (because of polluted creeks) and improved education for the children. He emphasised that he was asking for these things because the forest cannot provide them. He claimed that the community members would be happy to maintain the forests if they could receive these things.

This indigenous representative was overtly using the HFLD forum and access to what he deemed to be a powerful force, to request improvement for his village. There was an implicit recognition that the agents gathered at the conference had the ability to help. The indigenous representative continued by comparing the daily reality of life in his village to that of Paramaribo, Suriname's capital city. He explained that Paramaribo is a big village that has power all day while this is not the case in Sipaliwini. He stated that the community was willing to pay for the power but that they desperately needed help. He made his case by describing the incident where a pregnant woman who was experiencing complications while giving birth, needed to be airlifted to the city but was unable to make the journey due to the lack of an airstrip. Here, the formation of new life, as described by the man from Sipaliwini, was subjected to the inadequacies of infrastructure. Couched in his expression was the recognition of the well-being and continued existence of the community being tangentially connected to their need for improved access to the city.

Tellingly, in response to the challenges described by the indigenous representative, the panel coordinator responded, "That is what REDD is about, bringing development" (LB, HFLD Conference, May 2014). As if trying to legitimise the concerns expressed by the indigenous representatives who were continuously using the conference proceedings to air their frustrations with their current standard of living, with little view of the overall aim of carbon reduction, the panel coordinator responded in a fashion typical of international NGOs and other actors who have relied on a similar logic in a variety of different spaces and places (West, 2006) seeking to pacify or superficially legitimise the concerns of the local populations in an attempt to further the aim of the intervention.

At the conference, one Maroon representative further pointed out that the root of the problem

of deforestation and forest degradation in Suriname lies in the fact that Suriname gives concessions to companies while not allowing communities to deforest. He asked:

> What is the world doing? REDD+ is about protections in Europe. Villages and houses are given to multinationals for mining. How does the world fix this? How can traditional practices continue in the face of these challenges? They cannot fish, hunt or plant without permission from (sic, the government). People are forcibly removed from concessions. People were moved to new spaces and they are being moved even from that. Maroons moved to the cities and will engage too in environmentally degrading activities. They don't care that our ancestors are buried there. Then when we adopt their way, we are stopped from that too. They call it development. (Indigenous representative, May 14, 2014, Interview)

In this instance, the maroon representative drew on the lived experience of his childhood and his ancestors and positioned their attachment to the land in opposition to the demands from the international community. He saw this as the latest instalment in a tradition of government policies that burden forest communities. While doing so, he simultaneously challenged the development narrative he identified around REDD+ activities and government practices he saw as disadvantageous to his communities. These communities have a long history of residing on the land they currently utilize, land that is also being granted as forestry and mining concessions to multinationals by the government.

The response emanating from the head table comprised of representatives from international organisations and members of the government, often bordered on relegating these concerns to the realm of the national and outside their purview. There was little engagement with these expressions since they were outside of the view of forests as stripped of social relations, constitutive solely of carbon and representative of economic value as imagined by the initial conceptualisations of REDD+. The technocratic responses to the concerns of the forested communities tended to flatten emotional expressions and impassioned pleas. Dwellers in forested communities, in their attempt to point out their own neglect, asked "There are continued claims for indigenous rights and the needs of forests seem to be taking priority over the rights of forest peoples. Maybe we should become animals and you will protect me?"

(Maroon representative, May 14, 2014, Interview). These expressions highlighted the way members of forested communities see their lives as valued less by their governments than the lives of animals, reflecting tangentially too on the priorities of the international development architecture which they interpret as being more concerned about biodiversity conservation than of the lives of people living in the forests.

Their frustrations were frequently vented in this manner, bringing to light the manner in which historical injustices and racialized relations to the forests continue to feature strongly in the national discussions on the implementation of REDD+ in Guyana and Suriname, and to continuously permeate this effort to shape the behaviour of forest dependent groups and peoples who respond in an oft expressed clamour for development and recognition. To some extent, these expressions drew on the previous relative autonomy that forested communities had over their environment, and challenged the state's sovereign approach to managing land they thought to be their own.

Introduction

No longer categorised as merely contextual, this chapter explores the politics of intractability surrounding REDD+ implementation by introducing the three discourses drawn on by different actors related to the mechanism's implementation. It extracts their imagined subjectivities, and puts them in dialogue with each other. These discourses embody the meaning of REDD+ to different actors in the societies, shaping their expectations of the mechanism, and challenging some aspects of its implementation. Drawing on the governmentality literature, this chapter explores how the technical, development and social justice discourses challenge, overlap and interact with each other, being constantly challenged by other actors related to REDD+. Their shifting and at times complementary interaction encapsulates the highly-politicised nature of

the endeavour in both countries. These discourses are individually reflective of a nexus of power, knowledge and domination (Escobar, 1995).

The representatives of the HFLD conference had sought to explore a paradoxical set of circumstances in their pursuit of PES provided by their forests, circumstances alluded to by President Jagdeo outlined in the introduction. Given that REDD+ seeks not just to compensate these governments for the work of their forests and ecosystems, but to stave-off the effects of climate change, focus is placed largely on those forests most directly in the line of fire. In other words, countries such as Guyana and Suriname, which have maintained high percentages of forest cover, would likely attract significantly less funding than countries such as Brazil or Indonesia, which have higher deforestation rates and hence, constitute a greater threat to their standing forests. In the global marketplace for environmental services, the demand for carbon reduction efforts would be highest in the places that presently contribute most to global carbon emissions, a group that does not include Guyana and Suriname. It was at this HFLD conference that the different discourses were most perceptible, with a stark difference evident between the technical, calculated approach employed largely by representatives of international organisations, and the historically rooted claims for development and justice drawn on mostly by representatives of forest communities.

Figure 15 - Participants of the HFLD meeting (Collins 2014)

The technical discourse evident at the conference, was characterised by a strong emphasis on certain types of knowledge, and by the process of demarcating aspects of the natural environment based on measurable function such as carbon storage and land value. The knowledges on which it draws are: an emphasis on the techno-science which presents as new way of monitoring the forests of Guyana and Suriname through satellite imagery and other technologically reliant means; and a focus on the economic and valuation aspects of the environment. At its core, and hence presenting another characteristic of this discourse, is its separation of the desired aspects of the forests and the connection of these aspects to the prevailing economic system.

National government representatives, while drawing on this technical discourse, also tended to emphasize the potential of REDD+ for bringing development to their countries. Throughout the conference and in national policy documents, actors drew also on this second discourse of development. This discourse is reflective of the tendency of different actors to highlight the

mechanism's development potential through narratives centred on the need for climate change readiness; the fulfilment of basic needs for education and health care; the strengthening of the system of allocating land rights and the need for economic growth, albeit in the different guises of green or low carbon growth.

The third umbrella discourse in the process of implementation of REDD+ is that of the social justice discourse. This discourse is employed largely by representatives of forested communities and civil society groups such as collectives formed by miners or forest workers, and some of the representative non-governmental organisations (NGOs) and civil organisations they constitute. The social justice discourse bases its legitimacy on the explicit recognition of unjust power relations, historical injustices and a narrative that paints these groups as vulnerable and constantly left outside the mainstream development thrust. It is one that calls on the perceived powers-that-be to address the vulnerable group's requests for development while portraying their current lifestyles as environmentally benign or as a necessary livelihood option.

While considerations of the social use of forests are featured in the loose conceptualisation of REDD+ internationally and are reflected to some extent in the technical discourse, emphasis is placed on the science and technical considerations along with economic methods of valuing nature. Talk of Monitoring, Reporting and Verification (MRV) systems, representing the methods and technologies being used to capture and monitor the performance of the forest, was dominant at the HFLD conference, with representatives of international organisations reassuring communities through comparative case studies, that REDD+ and its concomitant funding, would be channelled to these countries. The demands of societies dependent on the forests for their wellbeing continuously challenge this scientific focus.
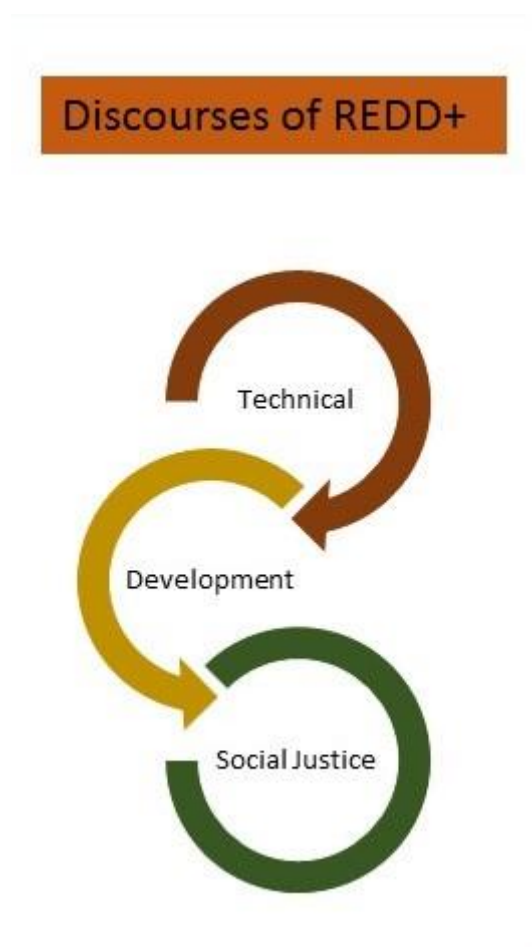
Figure 16 - Discourses of REDD+

The operationalisation, interaction and constitution of the three different discourses of REDD+ in Guyana and Suriname are detailed in the remaining chapters of this dissertation. In this chapter, however, I set the base for a subsequent elaboration of the constitution of these discourses by introducing them to demonstrate the difference between the overwhelming technical representations that draw on certain scientific rationalities and the highly-politicised nature of the endeavour in both countries depicted by the way that various interest groups clamour for development and social justice in response to the mechanism's implementation. The chasm between the different discourses is demonstrated through their distillation into imagined ideal type subjectivities to demonstrate their connections and incompatibility.

Building on the previous chapter's tracing of the racialized subject in Guyana and Suriname, I elaborate on the manner through which governments, environmental and civil organisations and interest groups contest REDD+ and shape its implementation at the local level.

Identifying the Neoliberal Subject

As previously outlined, Foucault sees the subject in neoliberalism as someone manageable who responds to systematic modifications artificially introduced into the environment (Fletcher 2010). Within the technical discourse, the neoliberal REDD+ subject is one who has some relation to the forests in Guyana and Suriname operating with some ability to affect the carbon sequestration abilities of the forest either by deforesting, or by causing some degradation in the forest stock. This subject would respond to externally introduced incentives which would change his damaging or potentially damaging relationship with the forests, based on the alternative options available to him or her. This REDD+ subject is imagined to be willing to forego activities that would reduce the performance of the forests based on considerations such as the availability of alternative sources of income, a reduction in profits from forest degrading behaviour, or quite simply, being paid to refrain from degrading behaviour.

The neoliberal subject as imagined through neoliberal environmental interventions is scarcely present in Suriname or Guyana, and the different uses of the forests are highly dependent on historical circumstances that have urged certain segments of the society, while flexible in and of themselves, to interact with the forests in certain ways. Foucault states that we should "try to discover how it is that subjects are gradually, progressively, really and materially constituted through a multiplicity of organisms, forces, energies, materials, desires, thoughts etc." (Foucault 1980, 97). This method of tracing the formation of subjectivities eschews pre-determined ideas of subject formation based on societal categories and their relationships. It

does not however, leave out the acknowledgment that these categories matter, as shown in Chapter 3. Governmentality represents a mode of governing through which actors set out to influence and change individual behaviour.

As Agrawal points out, "using social categories such as gender and caste to try to understand subject formation serves only to obscure the processes through which subjects are made" (Agrawal 2005, 197). He continues "these categories are useful only as proxies, hinting at a small fraction of the interactions that go into the making of environmental subjects" (Agrawal 2005, 197). I question the designation of "small fractions" as posited by Agrawal, and contend that while several factors shape the subject in both countries, colonial histories and racialized categories pose a substantial consideration in the relationship of different communities to the forests. In Guyana and Suriname, these subjectivities in relation to the forests are fragmented as demonstrated by the way people describe themselves consciously, and how they talk about themselves unconsciously. However, at this point, it suffices to say that the neoliberal subject is an ideal type largely absent from societal fabric of REDD+ in Guyana and Suriname. At its base, the real world is a messier, more convoluted mix of histories, economic circumstances and resistance to governing powers than the one REDD+ seems to tackle.

I assume no inherent group essentialisms as a determinant of behaviour in Guyana and Suriname. The subjects identified and discussed here were not imposed by me, but are adopted based on their categorisation as such within policy circles. Hence, my use of the word 'maroon', for example, is based on the self-categorisation, and external imposition by other respondents of a shared title to a group of people based their experiences, area of residence, and way of life. Individually, in relation to REDD+, there is a base representative subject I identify, but I eschew the idea of a collective subject (with an 's') since I do not wish to ascribe to certain

essentialisations of a group of people.

In decentring imposed subjectivities, I also move away from the state as the central unit of analysis. Peluso and Vandergeest (Peluso and Vandergeest 2001; 2011), in their description of political forests based on their demarcation, zoning and management; focused primarily on the state apparatuses as the central actor of their analysis. Recently, however, they recognised the importance of non-state actors in forest management, effectively decentring the state (Vandergeest and Peluso 2015) and viewing it as one actor in the variety of actors who shape the outcome and management of forests. The REDD+ mechanism, as explored here within the governmentality frame, is imbued with the characteristics of government. As such, the state apparatuses in Guyana and Suriname are also represented as actors being governed by REDD+ which as a policy mechanism, does not differentiate between the actor it incentivises since the aim is merely to incentivise the use of the forests, whoever that user may be. However, in the cases of Guyana and Suriname, REDD+ thus far has engaged with an arbiter that is the state envisioned as the owner of the forests and hence incentivised through the mechanism's implementation. As the remainder of the dissertation describes, REDD+ takes place within an environment where users of the forests are being given rights to manage their resources and are being shaped for market governance. Further, in Guyana, REDD+ is shaping actors at the ground level into neoliberal actors by depicting them as self-realizing, rational actors which should have the ability to opt-in to REDD+ if it suits them, or to manage their resources as they deem fit.

My discussion here is carried out in the recognition that actors have different capacities and are constrained through relations with the state and other actors, but I focus on how the people are shaped and are responding to REDD+. REDD+ incentivises the state and the actors on the

ground who, through a variety of means, have bypassed and continue to bypass the state in their activities, whether through the previously mentioned invisibility of their engagements, or through corrupt practices which are unmanaged by the state or facilitated by its weakness. REDD+, as an expression of neoliberal governmentality, is supported by other pre-existing forms of governmentality, such as sovereign modes of government. However, it is a neoliberal means of governing a proliferation of actors including the state, with this constellation of actors shifting and positioned in different ways both in relation to REDD+ and with each other.

Technical Knowledge

As previously noted, the technical discourse is reliant on certain types of knowledge. It is shaped by logic exemplified by the following quote from Suriname's REDD+ readiness document:

> A national forest monitoring system will be designed to follow changes in all five REDD+ eligible activities, i.e. reducing emissions from deforestation; reducing emissions from forest degradation; conserving forest carbon stocks; sustainable forest management; enhancing forest carbon stocks. It will build on available terrestrial inventory and remote sensing data, while aiming to incorporate new emerging technologies to continuously improve the quality and cost efficiency of the national MRV system. The monitoring system will also be developed for monitoring impacts on forest biological diversity and ecosystem services, *socio-economic impacts*, productive impacts and governance (FCPF 2013, 10, emphasis added)

This quotation shows how socio-economic impacts are relegated to management as an aspect of the MRV instead of being depicted as a limiting factor on REDD+ activities themselves. This tendency of relegating the social and political circumstances as a secondary consideration was also evident in a casual conversation I had with one of the presenters at the HFLD conference. A consultant to the REDD+ effort in Suriname described to me an incident where, while collecting scientific data in the Democratic Republic of Congo as part of its REDD+ effort, she was confronted with a group of men armed with machetes who demanded to know what they were doing with the soil samples. The men were described as not understanding the impartial and scientific nature of the REDD+ effort, and as interpreting the consultant's work

as a threat over the men's jurisdiction over the forests (DM, August 2014, Interview). The technical base that forms the core of REDD+ frequently side-lines the socio-political circumstances in which it is operating, depicting these circumstances as manageable by the governing bodies, but outside of the domain of the wider international body supporting the 'neutral' intervention that is REDD+. These considerations frequently resurface to challenge this neutrality.

The technical discourse is frequently drawn on by governments in the international arena, international organisations and NGOs who work towards establishing and providing funding for the establishment of MRV systems in both countries which are posited as necessary for tracking and verifying the carbon sequestration services provided by the forests. This discourse is also used by the governments of Guyana and Suriname, more so in Guyana, in justifying the decision to offer the services of the forests as an economic earner in the countries. At the local level, the technical discourse is taking root in some forest communities who are working towards their own monitoring systems adopted for their own forest management use. The technical discourse is imbued with a large amount of policy and financial influence and backing as discussed in following chapters. As such, I envision the technical subject and the neoliberal subject to be the same rational actor that proponents of REDD+ seem to assume exist, or seek to shape, in the societies within which it hopes to incentivise behaviour change.

The discursive constitution of the technical discourse is premised on the Western, scientific knowledge on which it draws, along with the actors who use it. It is predominantly drawn on by international actors with access to large financial resources, and it dominates the societal context in which REDD+ is implemented through its ability to contextualize and side-line the use values associated with the natural environments and the forests. The science on which the

technical discourse is based is itself imbued with notions of neutrality, being tied up with colonialism and domination of non-Western countries (Nader 1996). As such, this discourse embodies clearly a merging of power, the ability to dominate and Western scientific knowledge, all operationalised in the process of demarcating and setting up the structure of incentivizing forest conservation.

'REDD+ is about bringing Development'
The governments of Guyana and Suriname rely on infusing the ideas of development into their REDD+ implementation process since development is seen as a natural goal based on their global categorisation as developing (Escobar 1995). These governments draw on their perceived right to develop by shaping the mechanism into a tool that could primarily facilitate development, albeit one of a greener hue. This discourse of development is also drawn on by forested communities and their representative organisations, as well as some NGOs in asserting also the right of forested communities to develop according to their own desires. The development discourse is most evident in the reinterpretation of REDD+ by national governments reflective of the competing visions of REDD+.

Recalling the ethnographic description of the HFLD conference introducing this chapter, REDD+ is widely seen by national governments and forested communities as a tool for development. The remarks of the panel coordinator who stated that REDD+ is indeed about development, and about fulfilling the claims of the indigenous people, serve to demonstrate the pervasive nature of the development discourse. As previously alluded to, development is not an ideal in itself but a categorisation of these two countries which sees them as aspiring to fulfil certain modernisation aims while improving the wellbeing of their populations. The development discourse is supported by four narratives of: climate change readiness, the

establishment of land rights, the provision of basic needs and ideas of growth (inclusive of low carbon, economic and green growth). REDD+ is continuously presented in this frame to justify its contribution to the country's development aims.

Economic concerns are dominant in supporting the development discourse. In Guyana, the REDD+ mechanism forms the cornerstone of the Low Carbon Development Strategy (Office of the President, Republic of Guyana 2013) which outlines Guyana's plans for development with income derived from REDD+ activities as its source of funding. REDD+, as the cornerstone of the LCDS, has taken centre stage in the country's development, as a means to provide funding to settle historical Amerindian land claims, to modernize Guyana's interior, to prepare the country for climate change, and to reduce climate vulnerability on the coast, while reforming some of the country's major income earners and providing jobs and business opportunities for persons on the coast.[18] These aims are highlighted as the most pressing development needs of Guyana. These development ideals in Guyana are explicitly rooted in the need to remedy some historical concerns such as the marginalisation of indigenous Amerindian communities during the colonial period, and the subsequent handover of control to the newly independent government of Guyana in 1966.

For example, within the Forest Carbon Partnership Facility (FCPF) Readiness Proposal from Guyana, REDD+ is described as a means of contributing to the country's overall development.

> The REDD+ Strategy will be incorporated into the overall development of the country through the following ways:
> - into the national forest policy via the GFC which is the forest policy coordinating body of Guyana
> - into the LCDS which serves to transform Guyana's economy whilst combating climate

CEU eTD Collection

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[18] The 'coast' here is an important consideration since most of Guyana's population and its economic centres are located on the low-lying coast of the country, with the rest of the forested and Savannah-type interior, sparsely populated with little signs of modernity. More symbolically, the coast is more representative of the cultural division in the country between Caribbean coast, and more South American landscapes throughout the rest of the territory

change.

- into national climate policy via the OCC[19], OP which is the principal climate policy coordinating body of Guyana
- in keeping with one of the main goals of Guyana's Poverty Reduction Strategy (PRSP)- (i) sustained economic expansion within the context of a deepening participatory democracy
- REDD+ will be incorporated into both the national climate change agenda as well as the national forest policies to ensure that there is a holistic approach to its implementation, rather than a fragmented one.
This will be accomplished through collaboration and coordination by relevant parties involved as well as with the involvement of the MNRE. It should be noted that policy and governance issues have been identified as an important part of the REDD+ agenda for Guyana. The REDD+ Governance Development Plan (RGDP), which includes aspects on a land use plan for Guyana, revision of the National Forest Policy Statement & National Forest Plan etc., addresses these issues. (FCPF 2012, 68)

Similarly, in Suriname, the government positions REDD+ as a tool for development in their

Readiness Proposal Plan (FCPF 2013, 64).

> As Suriname is still in the early stage of the forest transition curve, priority will be given to avoiding or redesigning infrastructure developments, resettlements, and other large-scale projects that can accelerate deforestation. In other words, Suriname will focus less on reducing current emissions from deforestation and degradation, and focus more on limiting the growth-curve and associated emissions. Suriname is in the process of defining how the country can fit REDD+ into its development planning and how it will be implemented. REDD+ is seen as a way of sustainable planning, as part of climate compatible development strategy that Suriname is committed to follow in the years to come. The climate compatible development strategy aims to minimize the impacts of climate change while maximizing opportunities for human development towards a more resilient future. REDD+ can be seen as a pillar of the climate compatible development strategy and will seek out a development path that balances social, economic and environmental issues. It is a tool to find a sustainable way of treating the forests without limiting economic and social development (FCPF 2013, 64).

Environmental concerns have always had a place in the policy goals for development outlined in Guyana, but these concerns have risen in dominance in development policy documents over the past decade, with climate change and deforestation being depicted as serious threats to the nation's wellbeing. Notable here is the fact that despite the continuous reinstatement of the development narratives in newer incarnations of development plans in Guyana, as well as in the policy context for REDD+, this very reiteration signals the fact that these visions of development in Guyana are never met. These narratives continue to be drawn on for newer

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[19] OCC refers to Office of Climate Change, and the OP, to the Office of the President

versions of development plans, entrenching this discourse of development with little effect (Escobar 1995; Ireland and McKinnon 2013). Economic growth is the constant aim throughout the policy documents from the early nineties to the present era, changing however, from an emphasis on job creation and increasing markets for traditional exports like sugar, to inculcating technological practices to foster a greener, more environmentally friendly development model. These economic growth concerns now strongly feature the need for a 'low carbon' model of development which allows the country's growth aspirations to continue unfettered, while somehow protecting the natural resources of the country including its forests while reducing carbon emissions.

Continuously also, the need for the provision of basic health and education services are dominant within policy documents as a means of defining the development aims of the country. These are pervasive concerns which are also seen as remediable through REDD+ implementation and funding. REDD+ is also given the role of protecting the forests and facilitating low-carbon development through the reduction of high-carbon economic activity, which is never explicitly defined. The following quote depicts this somewhat:

> Through the implementation of the LCDS, Guyana would be able to protect its forest and simultaneously seek a development path that promotes the growth of low-carbon economic sectors and reduces deforestation and high-carbon economic activity (FCPF 2012, 8).

Illustrative of the centrality of economic growth in the implementation of REDD+ in Guyana is the fact that despite mining being identified as the main driver of deforestation, accounting for 60% between 2000 and 2005, and 91% between the years 2009 to 2010, there are no plans to decrease mining. Contrarily, there are plans to encourage it, but in more sustainable ways. Gold mining has been the largest foreign exchange earner for Guyana over the past few years. Though both countries have had decades of history of mining for gold, this economic earner has been rising dramatically in response to the demand for gold on the international market.

These considerations show that the core aim of the REDD+ implementation is not forest protection, but continued economic growth.

In making the case for REDD+ activities to take place within Guyana, the country's vulnerability to climate change also serves as a frequent reference point contributing the narrative of the need for climate change readiness. In the Readiness Preparation Proposal (R-PP) which was approved by the Inter-American Development Bank (IADB), the government of Guyana stated:

> Guyana will face serious challenges from sea level rise and extreme weather events such as intense rainfall and extensive dry periods (Guyana's R-PIN, May 30, 2008) … It is anticipated that if action is not taken to reduce the amount of greenhouse gas emissions globally to reverse this trend, sea level may continue to rise, with a total increase of 40 cm —60 cm by the end of the 21st Century. Sea level rise and extreme weather events including shifts in the frequencies of El Niño Southern Oscillation and North Atlantic Warming events will have a direct and substantial impact on Guyana and the livelihood of its people. The main expected impacts include water shortage, deceased yields from agriculture, infrastructural damage, flooding, health problems, environmental changes and economic losses as well as social impacts (FCPF 2012, 7).

Contributing to the narrative of addressing land claims from the indigenous people and that of economic growth as a solution for development challenges, REDD+, and the funding derived from its activities is also being used for titling Amerindian lands, an issue which plagues the implementation of REDD+ in Guyana from its inception:

> Among the priority projects for implementation under the LCDS with funding from the GRIF, is the Amerindian Land Titling project... Through engagement and consultation and based on requests from villages or communities, the project seeks to enable Amerindians to secure their lands and natural resources with a view towards sustainable social and economic development. It is expected that titling of communities and villages will strengthen land tenure security and the expansion of the asset base of Amerindians, allowing for long term planning for their future development (FCPF 2012, 7).

The drive for economic growth and land rights for forested communities also dominates REDD+ discussions in Suriname. Within Suriname also, it is recognised that the major driver of deforestation is that of mining, including small, medium and large-scale mining for bauxite,

gold, kaolin and ore. The Surinamese government has a reflective approach to criticism, acknowledging critiques of their development trajectory and reflecting on their efforts to remedy these criticisms in their R-PP. In addition to mining, logging, infrastructure development, agriculture, energy production and housing development are all listed as drivers of deforestation. Logging is said to be conducted in a sustainable manner with no illegal logging currently taking place within the country's borders. Suriname does recognize, however, the connections of its economic endeavours with the global market stating that the increased demand for tropical timber was one of its challenges, along with low concession fees and taxes targeted at attracting foreign investment in the timber industry. Suriname also recognizes its inability to enforce the law in the remote areas of the country (FCPF 2013).

According to its R-PP (FCPF 2013), the Surinamese government sees the country as being in the beginning stages of the forest-transition curve, which according to (Culas 2012), is based on the likelihood that deforestation, driven by demands on the forests will bring about a rise in deforestation. However, this deforestation should eventually fall as the opportunity costs of deforestation will also rise as forests become more scarce leading to a decline in deforestation, and possibly eventual reforestation (Culas 2012). This approach to understanding deforestation is based on the logic of commodification of the forests viewed as resources to be exploited for development. Thus, Suriname aspires to having REDD+ fit into a mix of policy options that would help to limit its deforestation rate.

In the R-PP, persons dependent on the forests are seen as responding rationally to incentives which guide their interaction with the forests. As such, the Surinamese government sees REDD+ as a mechanism that would allow for forest conservation without limiting economic development, leaving conservation and development to the market. Like Guyana, the

Surinamese government also recognizes the need to address the land rights concerns of its people and it explains the stance of the state on this issue, which is essentially that indigenous and maroon people within Suriname have the right to freely, but not exclusively utilize the lands on which they reside (FCPF 2013). This stance of the Surinamese government conflicts sharply with the reported experiences of indigenous and maroon people within Suriname, as I discuss in Chapter 6 in greater detail.

A Development and technical Subject?
In both Suriname and Guyana, development and economic growth remain a core aim, with REDD+ being seen largely as a means to facilitate this development. Within this development discourse, economic growth remains a fundamental consideration countries with little engagement on how current trajectories will affect the climate. In this context, *homo economicus*, the ideal subject of neoliberal governmentality, is quite compatible with the dominant economic growth emphasis of the development discourse. The outcome of REDD+ and its possibility of being environmentally beneficial or harmful would be more dependent on the incentives being provided, than that of the constitution of the subject per se. However, the compatibility of the development and technical subject is not absolute since the governments representatives, who draw most often on this discourse, do seek to somewhat address societal problems in their conception of REDD+. While the economic growth imperative reflects a certain compatibility with the neoliberal REDD+ subject, the subject of the development discourse is a bit more reflective of local societal imperatives but seeks the solution in economic growth.

Inverting this model from a focus on the subject as an individual, the Guyanese and Surinamese governments themselves could be seen as neoliberal subjects responding to the cash incentive

provided by the mechanism of REDD+ urging them to protect their forests. In such a scenario, REDD+ governments are the actors imagined as neutral and responsive to external incentives in the overall aim of reducing carbon emissions through forest protection. The incentive provided plays a key role in formulating the subtle difference between the imagined neoliberal REDD+\technical subject and its closely related developmental counterpart is that if the incentives are changed, removed or seen as inadequate (as is the case presently), the overall goal of carbon sequestration and greenhouse gas reduction of REDD+ will likely fail.

Flute Lessons

Recalling the Indigenous Representative from Sipaliwini in Suriname, who stood and introduced himself by playing the flute and went on to describe the health care and infrastructural needs of his community, I turn next to the social justice discourse which speaks of the experiences of these communities as outside of the wider development thrust, and as a continuation of the history of marginalisation they have faced since colonial days. It is in the discourse of social justice that the historical injustices suffered by different ethnic groups comprising Suriname and Guyana are most present and vociferous. There is the frequent refrain that the status quo is unfair and that indigenous and forested communities were treated unjustly not only by the former colonizers, but by the independent governments of Suriname and Guyana who continue to see the natural resources the communities have conserved for centuries as pools of natural resources to be exploited for economic gain. In this discourse, there are frequent comparisons between the perceived comfort of those living the capital cities and the lack of basic facilities in the forested or rural areas. A large section of these groups, in making these claims, frequently refer to themselves as stewards of the forests, positioning themselves as environmentally benign forest dwellers frequently left out of the mainstream development thrust.

Most often, these claims are unconcerned about the carbon reduction aims of REDD+. As is evident in the claim made by the indigenous representative from Sipaliwini, the fact that an airstrip is likely to lead to forest degradation due to clearing and increased air traffic which will increase carbon emissions, does not factor into his concerns for an improved livelihood and calls for recognition. Representatives of forested communities in Guyana and Suriname have also formed groups and organisations that are tasked with coordinating their efforts to achieve this recognition and contributing to the required development outcomes for these populations. Within Guyana, representatives of the Amerindian People's Association (APA), a civil society organisation representing indigenous interests, told me that REDD+ may be useful for protecting the forests, and that it might indeed have beneficial outcomes for Amerindian people. However, they see it as mired in concerns about its execution, stating that the issue of land rights, while central to REDD+, must be addressed before they lend their support.

These concerns for land rights were also echoed in Suriname where there is no legal recognition of the land rights of the forested communities. Representatives of these communities continuously use the forum of REDD+ negotiations and preparations to voice their concerns and to assert their claim based on their histories as first peoples, and good stewards of the forests. These representative organisations, such as *De Vereniging van Inheemse Dorpshoofden in Suriname* (Association of Indigenous Village Leaders - VIDS), see REDD+ discussions as positive in that it provides an opportunity for land rights issues to be reinstated on the national agenda. They state that "having all these IGOs and NGOs focus on land rights is the biggest advantage for them (indigenous communities)" (VIDS Interview, May 19, 2014, Interview).

Representatives of The Ministry of Regional Development in Suriname helped to put REDD+ development ideas in perspective by pointing out the histories of these groups residing within

Suriname's forests. They stated:

> Let's start with the Amerindians, the indigenous. They were living here all the time and they
> don't have anywhere else to go, and then during slavery, a group of Africans fought for their
> freedom and because they did not have weapons, they ran away and they established themselves
> in the forests with all kinds of consequences. Over decades, they developed their own way of
> life, survival system and other kinds of systems without any help of the government at that
> time, you see? So, you can understand that if people have been living in a special area without
> the support of the government and they have been surviving all the years, until governmental
> influence and other things came. They feel that there is their home. Everything in the
> surroundings is theirs. With land rights, what they want is not to own everything but to deal
> with the government. If the government could deal with them and there are economic activities
> that can bring about a lot of development, I don't think the people will say "no we don't want
> that (MoRD, September 3, 2014, Interview).

This quotation makes the point that indigenous and tribal communities in Suriname are still

reeling from the effects of the past and their perceived marginalisation and are imbued with a

sense of self-reliance, remaining desirous of having a voice in their own determination. For

REDD+ outcomes to progress, these communities require recognition and progress on the issue

of land rights.

Drawing on perceived global injustices, some representatives of indigenous groups within

Suriname remain sceptical of the benefits they could accrue from REDD+. One representative

stated that:

> Personally, what I see is that REDD+ is a way of keeping everybody cool and big countries that
> have the money continue to destroy the world, so they give you a little bit of the money to say
> 'I give you this' but they are still doing the same thing that they used to do (OIS, September 2,
> 2014, Interview).

Also, drawing on this discourse of social justice, indigenous groups in Guyana position

themselves as stewards of the forests in discussions on REDD+. One representative stated that:

> Amerindians have lived in the forest for years and have always protected it. People can't come
> to tell me that I should stop my way of life because it wouldn't be fair. This Strategy (referring
> to the LCDS) is made for the people that use a lot of energy, not for the Amerindians ('A Low
> Carbon Development Strategy: Transforming Guyana's Economy While Combating Climate
> Change. Draft Report, Region 8, Kato' 2009).

The social justice discourse of REDD+ is also drawn on by a group that is often depicted as harmful to the natural environment, the gold miners. It is expressed through their impassioned claims to having mined in areas for years, and on their inability to earn a living through other sources, both in the colonial period and the post-independence one. While their possibilities for earning might have moved from mining based on the foreclosure of other options to mining somewhat by choice, they still claim to be marginalised by society and assert that they should thus be able to continue their small-scale gold mining as it is essential to the survival of themselves and their families.

The social justice discourse of REDD+ in Guyana and Suriname has also been put into practice, challenging Suriname's first version of its R-PP submitted to the World Bank since it was not prepared in conjunction with the forested communities. The Surinamese government was then required by the World Bank to consult with the communities systematically to gain their input before the R-PP was eventually approved in 2013. Outside of the official REDD+ process, Surinamese forested communities have also furthered their aims for recognition of their interests and land access through the Inter-American Court for Human Rights (IACHR) in the notable case where the Saramaka community made the claim that their human rights were being infringed due to their lack of land rights, a case which they won, requiring that the state put plans in place for addressing their concerns, a process that is still on-going. Within Guyana, forested communities and their representatives are essential actors in REDD+ preparation and implementation because of the same requirements of the World Bank and United Nations to which Suriname is subject (that of consulting with forest people before participation), but also because some communities hold legal titles to some forested land. That, and the proximity of these groups to the forests, empowers their claim to the REDD+ process and for consultation and recognition of their demands.

In other words, the social justice discourse too, while drawing on historical experiences and traditional understandings and interactions with the natural environment, also sits at the nexus of power, domination and knowledge (Escobar 1995) in their relations with the effort to prepare for and to implement REDD+ in Guyana and Suriname. In either country, their positionings are qualitatively different based on societal circumstances including considerations such as their current land tenure, international mandates and the recognition the government has given to their claims. Moreover, those who draw most on the social justice discourse turn to a narrative of their intimate and long-lasting relationship with the natural environment, along with their claims of having had relative sovereignty over the forests for centuries, demanding that their privileged relationship to nature be recognised in efforts to manage it, or to incentivize its management.

This discourse of social justice is one that draws upon the peculiar position of forested groups residing within the forests of Guyana and Suriname and contests the technical, calculated rationality of REDD+ explained earlier in this chapter. It is a subjectivity, one that is fragmented in its formation, drawing on a number of different understandings of history and desires of indigenous people and tribal communities. The social justice discourse continuously challenges the technical discourse in the aim of subscribing to the development discourse and of gaining greater sovereignty, while resisting the neutrality with which the technical discourse is imbued. Similarly, as McAfee and Shapiro (2010) highlighted in their analysis of PES in Mexico, "In contesting the initial neoliberal criteria for the distribution of payments in the national PES program, campesino and social-movement activists espoused an understanding of the nature–society relationship quite at odds with that implied by neoliberal environmentalism" (McAfee and Shapiro 2010, 581).
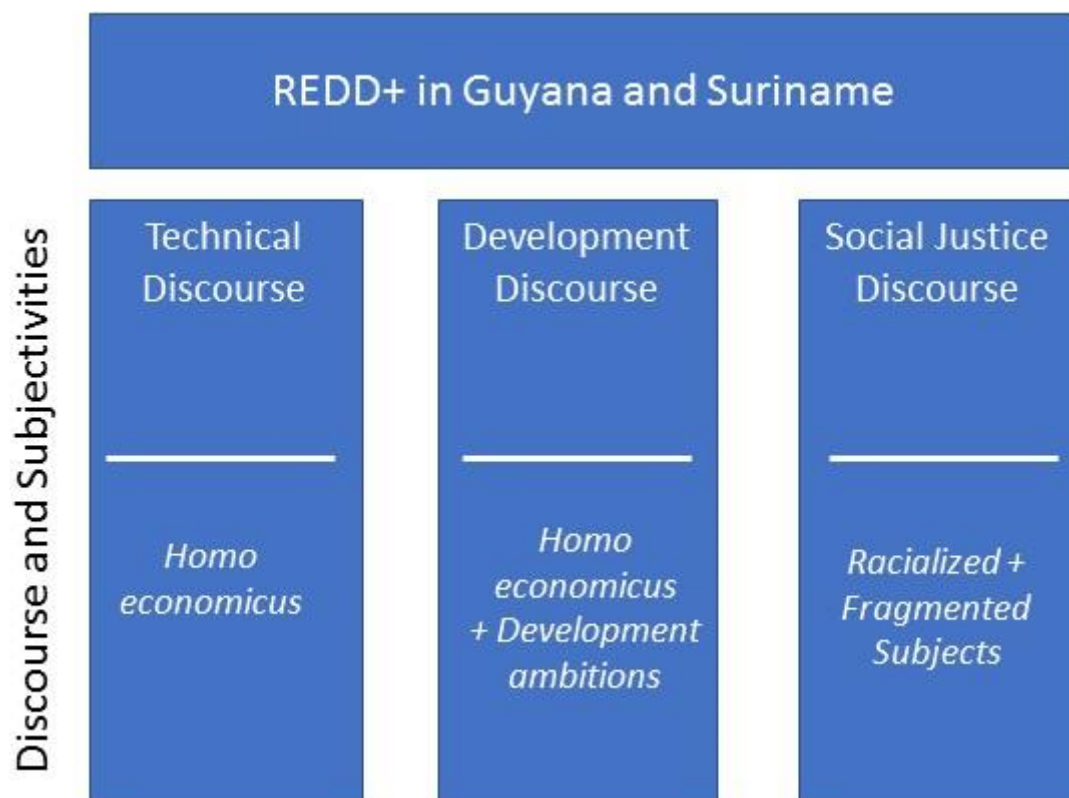
Figure 17 - REDD+ Discourses and Subjectivities

Conclusion

It is clear, as is illustrated throughout this chapter, that the discourses drawn on by different actors in REDD+ are archetypes based on emphasis, instead of absolute distinctions and categories. However, the starkly different subjectivities of the social justice discourse and the development or technical discourses leads me to conclude that the subjects embodied by the social justice discourse are less likely to reconcile their objections to the intervention of REDD+ without a deep engagement with their circumstances and the perception of a more equitable view of their situation. As long as those groups continue to feel separated from the mainstream development thrust, and to define themselves according to historical injustices, REDD+ will be challenged by the differences between the subjectivities of the social justice discourse, and the rational, incentive-inducing response central to the technical subject.

In imbuing REDD+ with the properties of government and interrogating its regime of practice, I have sought to identify its discursive constitution and to identify the subjects amenable to these discourses. I have argued that the technical discourse promotes a subject amenable to the neoliberal mode of governing, and as such, amenable to REDD+ interventions. While this subject would be amenable to governance through incentives, it is scarcely evident in Guyana and Suriname and represents a certain ideal type or telos (Dean 2009) in terms of subjectivities of REDD+. Instead, different groups draw on different discourses influenced, to a large extent, by their social categories. While these categories are not the only means of forming subjectivities, as I elaborate in subsequent chapters, they are significant considerations in understanding the discourses on which certain groups draw to make their case.

This chapter has also alluded to the reliance on economic growth as part of the development discourse of REDD+ showing so far, that REDD+ is being included in the development efforts of these countries, by highlighting environmental concerns, but that it does not alter the dominance of economic growth as a goal. I have presented also the overarching means, in the form of discourses, through which REDD+ is embodied and accessed by different actors, and I have scratched the surface of how it interacts with pre-existing subjectivities, as shown most through the development and social justice discourses.

However, given these complexities and incompatibilities amongst the narratives and discourses supporting the REDD+ architecture in Guyana and Suriname, the mechanism's implementation is going ahead, with its proponents adjusting to the socio-political circumstances as it must to ensure its adoption. In the chapters that follow, I delve further into the interactions, constitution and use of these different discourses to demonstrate further how differently their subjects are depicted, challenging the overall preparation and implementation of the mechanism.

Chapter 5 - Seeing through Science: Shifting from extraction to abstraction of value

Indigenous technology

At the foot of the Pakaraima mountain range lies the indigenous community of Annai, a small village hub of conservation, development and, of course, REDD+ activities. En route to Annai, Guyana's Caribbean-ness begins to fade, and a feel of the South American landscape takes over. Close to the Southern border with Brazil, Annai is accessible either by short flight from Georgetown, or by a tedious seventeen-hour drive along a dirt trail through the forests. It represents a peculiar confluence of circumstances, acting as a hub of knowledge, science and forest monitoring, and as an example to other indigenous communities in the Guiana Shield seeking to develop sustainably. It is well known for its focus on sustainable development and the way it harnesses its natural resources for the development of its people. Moreover, Annai is located outside the Iwokrama conservation area, a reserve of 371,000 hectares of forests which were set aside by the Government of Guyana to be sustainably managed to the ecological, economic and social benefit of the people of Guyana and the world. The Iwokrama conservation area draws on international partners and actors to develop innovative ways of managing forests, and as such, the villages within and around the conservation area benefit tremendously from its proximity to the conservation area in terms of knowledge sharing and support.

Figure 18 - Solar Panels in Anna, North Rupununi adjacent to one of its buildings displaying the People's Progressive Party (PPP) flag (Collins, 2014)

Annai, with a population of some 523 persons, acts as a base for the North Rupununi District Development Board (NRDDB). The community hosts several internationally and locally funded projects and non-governmental organisations working towards sustainable development, and relies quite heavily on technological means and approaches to managing natural resources. The World Wildlife Fund (WWF), for instance, supports Community Monitoring, Reporting and Verification (CMRV) activities in Guyana. CMRV, according to the WWF, involves local people in the process of MRV, and is able to provide a cost-effective means of contributing to REDD+. The WWF is supporting the use of technologies, such as mobile phone applications on open source platforms to monitor forests, collecting information such as the size and species types in community forests (WWF 2015). CMRV activities in the North Rupununi are also supported by the Norwegian Agency for Development Assistance (NORAD), Global Canopy Programme (GCP) and the Guiana Shield Facility (GSF).

However, some concern exists among community leaders about the use of technological innovations to monitor forests based on the question of data access. According to the leader of

the NRDDB, data sharing is becoming a topical issue in the communities since some residents are afraid that their data is being shared in a way that they cannot understand. People are afraid that their data will be collected and used for the financial gain of others without benefitting the village (Joe, April 28, 2014, Interview). However, CMRV, supported by these organisations, is allowing the communities to measure and take stock of their resources through Global Positioning Satellite (GPS) systems through the provision of funding, equipment, software (biomass, fish, water, forest disturbance, farm survey). According to village leaders, the communities comprising the NRDDB have become more empowered through the support of these organisations and report being able to collect and analyse their data themselves. The leader of the NRDDB explained that previously, capacity was dependent on Global Canopy Program but that data is now being analysed from phone to spreadsheet on the computer negating the need for fast internet connections which is currently absent in the surrounding areas (Joe, April 28, 2014, Interview).

Annai represents a convenient starting point for my elaboration of the technical discourse of REDD+, showing that the discourse is not just centred in government offices on the coast, but has taken on a life of its own in previously marginal forested areas through the work of the international development architecture. Its less obvious effects form the core of this chapter.

Figure 19 - View from the top of a hill in Surama, one of the NRDDB communities (Collins, 2014)

Introduction

> Social problems are much more complex than are technological problems… The availability of a crisp and beautiful technological solution often helps focus on the problem to which the new technology is the solution… There is a more basic sense in which social problems are much more difficult than are technological problems… To solve a social problem one must induce social change- one must persuade many people to behave differently than they behaved in the past (Weinberg 1967, 41-42).

Weinberg (1967) here explains that social problems, such as those problematised through REDD+, could be circumvented or somewhat ameliorated through technological fixes since "social engineering" (Weinberg 1967, 42) is too complicated a problem necessitating the change in behaviour of too many people who cannot see past short term gains for long term or global good. He believes it is better to take steps that are dependent on fewer people, resources and technology, explaining that while technological fixes do not get to the root of the problem and can in turn cause other problems, they can help to buy time by providing a temporary solution. The REDD+ mechanism is similarly an effort to provide a technological solution to

a societal issue that is demarcated as an area for such intervention, one that comes with a number of instrument effects (Ferguson 1994).

Distinct from the development and social justice discourses introduced earlier in this dissertation, the technical discourse, you may recall, is characteristic of a strong emphasis on certain types of knowledge, and demarcates aspects of the natural environment according to measurable functions. It is based on technology as a new way of monitoring the forests of Guyana and Suriname and it entrenches a calculative rationality that focuses on the economic and valuation aspects of the environment. Importantly, it represents the application of these technologies to the desired aspects of the forests and to the prevailing economic system, creating carbon as 'fictitious commodities' (Büscher 2010; Brockington 2011) and presenting the core rationality or technology for enabling the neoliberal means of governing that is REDD+.

Recalling the process of problematisation (McElwee 2016) and that of rendering technical (Li 2007) detailed in the introduction, this technical discourse is central to making the natural environment amenable to governing interventions. It provides the visualisation or advanced mapping that allows deforestation to be problematised, along with the knowledge to enable the governing of the resultant problem. The technical discourse establishes the core rationalities necessary for neoliberalization. This discourse is indispensable for the execution of REDD+ since without it, the forests will not be monitored in a form verifiable by the international community, and payments will not be possible for measurable reductions in deforestation. REDD+ hinges on the ability to demonstrate and verify that forest conservation and carbon sequestration are taking place. This is by no means a small feat and satellite imagery available from different sources, at different levels of financial investment, are being made available to

make this possible, enabled by the support of a burgeoning cadre of technical professionals.

This discourse remains closely associated to the development discourse in the furtherance of the neoliberal model of development and conservation. I argue in this chapter that the technical discourse succeeds in doing several things other than just monitoring the carbon storage of the forests in Guyana and Suriname. It makes the previously marginal and illegible (Scott, 1990) forests, previously a provider of refuge from activities on the coastland to indigenous groups, pork-knockers and runaway slaves; and the activities within it, legible to government actors and international agents, while creating a particular way of seeing. It ranks forest use based on the way entrenched power structures have allocated their importance. It legitimises a burgeoning cadre of technical professionals which, in addition to working toward the commodification of forests, facilitates the movement of capital not only through fictitious commodities (defined later), but through institutions and particular types of knowledge creation. This is especially pertinent, since as Wilson Rowe (2015) points out, "the process of defining which kinds of issues are technical and which are political is in itself an act of power" (Wilson Rowe 2015, 72).

Technical fixes vs. Social Change

Scientific intentions

While Weinberg points to the tensions existing at the intersection of natural scientific and positivist ways of seeing the world in addressing societal problems, Escobar (1994) takes a different approach. He explains how technological innovations are bound up with dominant world views, transforming each other and naturalizing the role of contemporary technologies. This mutual transformation represents nature and society in ways that "…reinforce the technological imperatives of the day, making them appear the most rational and efficient form

of social practice" (Escobar *et al.* 1994, 221), resulting in the universalisation and naturalisation of the European techno-scientific imaginary (Escobar *et al.* 1994). Escobar (1994) suggests that the cultural contexts from which technologies emerge be interrogated, along with technology's "…continued links to the dominant values of rationality, instrumentality, profit, and violence" (Escobar *et al.* 1994, 216) while paying special attention to the manner in which "they allow various groups of people to negotiate specific forms of power, authority, and representation" (Escobar *et al.* 1994, 216).

Erasing this separation between science and society, demonstrated by Weinberg, Daston (2000) discusses how different events and phenomena become and expire as scientific objects. First, they become salient, being interpreted as a field to be investigated and moving from the realm of culturally relevant realm of abstraction to a more condensed and solid object of research. Then they emerge, being used to explain other taken for granted things, effectively intensifying reality. Thirdly, they produce, in terms of results, implications and other effects as they are applied to existing phenomena. Finally, they are embedded into a field of practice and more deeply enmeshed with cultural and other practices and areas of significance (Daston 2000). Clearly then, scientific objects do not just emerge and pass away, but have perceptible sociological effects being embedded in the power structures and political systems of the time.

Considering the emergence and embedding of scientific objects into cultural practices blurs the dominant, taken-for-granted rationalities of science, with science being seen by Nader (2013) as, "… a body of knowledge distinguishable from other knowledge by specific methods of validation" (Nader 1996, 1). Particularly in Western settings, science refers to institutional settings and common rules for ordering rationality, with an emphasis on actors competent for these rationalities (Nader 1996). Harding (1998) challenges this scientific ordering and claims

to rationality. She explains that European science is tied up with domination. Similar to arguments made by Escobar (1994), she points to the overlapping interests of development and scientific pursuit, discussing how development undertaken by the same personnel and in the same buildings as former colonizer administration, worsened the fortunes of those countries being 'developed' while enriching those doing the developing. Colonialism and science went hand in hand to meet the imperatives of the colonising mission (Harding 1998). As Nader (2013) points out, "science is systematised knowledge, a mode of inquiry, a habit of thought that is privileged and idealized" (Nader 1996, 1). Modern Western science is, however, just one of many traditions. It is embedded in power relations, given that disciplines are developed and shaped by power struggles which are often overlooked (Nader 1996).

The technical discourse of REDD+ is underpinned by this Western techno-science, embodied most clearly in the technologies being used to monitor forests in Guyana and Suriname. Despite its neutral packaging and seeming calculated rationality, science and technological change are political by nature, especially through its distribution and redistribution of the costs and benefits of use of natural resource (Harding 1998). Science and technology tend to widen societal inequalities unless specifically confronted (Harding 1998). Often depicted as context free or autonomous, science is politicised through its use by politicians, corporation and other actors who try to draw on its conclusions, since as Nader points out, "virtually all science has social and political implications" (Nader 1996, 9-10). Similarly, Hornborg (2014) argues that it is the separation of objects from the process which creates them which allows technological objects to exist as both non-political objects and as exploitative commodities that signal the wealth of certain populations. If people were to become cognizant of the fact that technologies are in fact politically constituted, their objects would no longer be apolitical, but recognised for having agency (Hornborg 2014).

Nader (1996) highlights that Western science is "self-consciously detached from its practical effect, detached from other scientific traditions and detached from the lay public…" (Nader 1996, 10). She explains that when Westerners go to nonliterate cultures, they assume that they will find an empty knowledge vacuum of sorts to be filled with Western scientific knowledge and technology (Nader 1996). Nader (1996) explains that:

> …science as universally applicable knowledge is supposed to override ecological particularism and site-specific knowledge. Science derives its power precisely because it is not confined to particularities. But principles in an ecological rather than physics model may not be true for all times and places (Nader 1996, 12).

Nader notes that due to the vast array of different qualities, ecological science is anti-scientific. Comparing it to mathematics, she draws attention to the controlled factors of isolation, reaction and analysis. In ecological sciences, context overwhelms this effort at control (Nader 1996, 12). Further, Escobar (1994) went on to question the relationship between science and technology, and the growth of capitalism, arguing that the former has become vital to the latter since the creation of value depends largely on scientific and technological developments (Escobar *et al*. 1994). The development of Monitoring, Reporting and Verification (MRV) systems as the backbone of REDD+, which draw heavily on science and technology, do certainly, as I argue in this chapter, contribute to the spread of capitalism and facilitate the continuance of the relations established through development interventions globally.

Making populations legible and visible

Technological solutions also render populations, in this case, the forests and its uses, legible (Scott 1998). As Scott (1998) explains, planners often take what he refers to as a high modernist view of societies and what they identify as problems. In doing so, they tend to erase the multiplicity of values associated with a particular good and to install instead a logic of order imposed from above. By doing so, they ignore the different use values of their object of analysis

aiming to emphasize or heighten the effectiveness and visibility of the use most important to them. This logic is usually underpinned by a destructive element where what exists, fulfilling multiple purposes, is dismantled, and the more efficient, at least in the mind of the planner, single use object is constructed (Scott 1998). REDD+ can be viewed through this lens of high modernist thinking in its effort to upend pre-existing, social and historical ways of managing the forests, and to install instead the singular use value of carbon sequestration, shaping society in a way that makes this possible and convenient instead of the other way around. It is this effort to remake the image of the forests into an archetypal carbon sponge in Guyana and Suriname that forms the crux of this research endeavour. I draw on the logic of legibility, based on a desire to create order and to facilitate efficiency, to expand on the effects of REDD+, and the technologies it utilizes to govern the forests of Guyana and Suriname.

Legibility, is tied up with considerations of visibility, which Brighenti (2007) sees as often asymmetric with limited reciprocity of vision (Brighenti 2007). Legibility and visibility are central to the identification of a population to be governed (Dean 2009) since that which cannot be seen, cannot be governed. This often-asymmetric mode of visibility, embodied in MRV activities, is a site of strategy related to the positioning of the seer and the one being seen. Instrumentally, Brighenti (2007) suggests that, "When a transformation in reciprocal visibilities occurs, i.e. when something becomes more visible or less visible than before, we should ask ourselves who is acting on and reacting to the properties of the field, and which specific relationships are being shaped" (Brighenti 2007, 326). He continues:

> At any enlargement of the field, the question arises of what is worth being seen at which price – along with the normative question of what should and what should not be seen. These questions are never simply a technical matter: they are inherently practical and political (Brighenti 2007, 327).

These political questions have not escaped MRV use in REDD+, and as demonstrated in the

vignette introduction to this chapter, as the people of Annai are beginning to question their increasing visibility and whether the benefits outweigh the risks.

Vision is imbued with power in that everything that can be seen can be acted upon (Brighenti 2007). That which is seen, is seen through ways of seeing which are in fact, "socially and interactionally crafted" (Brighenti 2007, 329). In explaining that visibility is both a means of empowerment and disempowerment, Brighenti (2007) explains that while the search for visibility is often a quest for social recognition, visibility is often "the flip side of discipline and control" (Brighenti 2007, 326). This is especially the case of monitoring by video, and in this case by satellite, since its unreciprocal nature results in a certain dehumanisation of the observed, and possibly too, the observer (Brighenti 2007).

Issues of representation

Key here is also the recognition that asymmetries in visibility are asymmetries in power. Moreover, I extend the logic of legibility, based on a desire to create order and facilitate efficiency in the previously illegible forests, as a concept to my analysis of how REDD+ interacts with forest users and dwellers within the forests of Guyana and Suriname. But why is this ordering being carried out, and what are the effects on statehood of these efforts to make legible the forests of Guyana and Suriname? The efforts associated with REDD+ conveniently entrench the reach of the state into the dense forests of Guyana and Suriname. Insight into these representational activities of forest monitoring is provided by Asad (1994) who recognizes how statistics, in this case satellite images and other data generated by MRV, do not only represent social life, but construct it (Asad 1994). Mitchell (2002) also explains how these images are a representation, one that is qualitatively different from the reality it depicts. However, it blurs and hides the contested and political nature of that which it represents, denying the limitations

of its representation (Mitchell 2002)(Mitchell, 2002).

Asad, reflecting on the power of statistics for representation, stated that it is also a tool for political intervention in that the process of assembling data on a population is not just a means of understanding them, but of regulating and transforming them (Asad 1994). In an argument reminiscent of those related to technology outlined above and of Peluso and Vandergeest's idea of the rationalities of political forests, he argues that statistics are in fact discursive interventions through which the cultures of non-European people have been transformed by Western powers (Asad 1994, 78). MRV enables state-making practices, operating on what could be seen as a margin of its existence (Das and Poole 2004). When one considers that the state as an abstraction (Asad 1994), can be experienced and undone through its practices, documents and words (Das and Poole 2004), these practices take on new meaning. Asad (2004) explains that although abstractions are used in everyday circumstances, when they are employed, they treat their objects as equivalent. We should ask, therefore, not what is equivalent, but why they are being treated as equivalent (Asad 1994). In this sense, as elaborated on by Asad (2004), the margins of the state are being expanded through its reach into the territories it has not thoroughly penetrated, and with this effort at making legible and deepening the penetration of the state, comes capital, as I argue in the remainder of this dissertation.

With deforestation in Guyana and Suriname now recognised as an area of intervention which can be addressed, at least in part, through technological application and improvement, state building, representation and illegibility enter the equation, along with considerations of capacity building. Capacity building, in effect, is underpinned by ideas of development by interrogating the ability of these countries to implement and sustain REDD+ activities. These

considerations point also to the type of development desired by these countries and the establishment of certain technical aspects of REDD+ also serve to lock these countries into a certain level or expectation of development. These considerations of development are also linked to questions of access and power represented by ownership over the technical solutions being posited to address the newly rendered-technical problem of deforestation. Power relations form a silent but ever present factor in the entrenchment of the technical discourse reflected by considerations of accessing qualified personnel and of the production and attainment of knowledge and funding necessary to facilitate these new ways of seeing the forests in Guyana and Suriname.

The technical discourse is constantly challenged, however, by the social justice and development discourses, along with the pre-existing social fabric and patterns of forest use in the societies of Guyana and Suriname. As Ferguson (1990) explains, efforts to render societal interventions technical, as pursued by the wide range of development organisations globally, are usually and inevitably complicated by the political situations of the country. With this in mind, the technical discourse of REDD+ can be seen as suspending the societal and political conditions surrounding forests use, as embodied especially by the social justice discourse, while carrying out the process of painstakingly calculating the value of the carbon it sequesters and stores, thus, fostering the creation of the new 'fictitious commodities', which are traditionally land, labour, and money, categorised as such because of their inability to be produced exclusively for sale on the market (Prudham 2013). It represents distinctive forms of visibility, the underlying economic rationality, vocabularies and processes, along with the particular ways of acting necessary for the neoliberal governance of the forests.

Remedying illegibility

Guyana

As noted in Chapter 3, Guyana's forests functioned historically as home to the indigenous people in various capacities, including as slaves, and subsequently trading partners with the European powers stationed on the coast-land. With the arrival of enslaved Africans, the forests were recast as a place to where the enslaved could attempt to seek refuge after escaping the plantations. After the abolition of slavery and the arrival of indentured servants to the country, movement within the forests was largely undertaken by the Amerindians native there, and the now African freed slaves who engaged in artisanal gold mining activities in the early 1900s.

Efforts to zone and manage Guyana's forests, making it more legible and disciplined, commenced with the establishment of the Forestry Department in 1925, which eventually became the Guyana Forestry Commission in 1979. According to the Amerindian People's Association (APA), a representative body of Amerindians in Guyana:

> British land and development policy was primarily geared towards colonization of the interior and increased economic development, including mining development and plans for commercial farming and market gardening. Definition of Amerindian Districts was seen as part of wider land use planning needed to include Amerindians in national administration and a process for national development. As already noted, the Districts did not possess titles and indigenous peoples did not enjoy security of tenure. The British also had powers to reduce Districts without consultation and agreement, and in 1959 they dereserved 0.4 million ha of the Upper Mazaruni District to create a Mining District for the extraction of diamonds and gold (this followed earlier large-scale dereservation of extensive tracts of land in the Mazaruni Indian District in the lower and middle Mazaruni in 1933 – mainly for mining) (Dooley and Griffiths 2014, 15).

In the late 1990s, the continued existence of Guyana's forests was described by the Department for International Development (UK DfID) report as a result of neglect, rather than astute forest management practices (Guyana Lands and Surveys Commission 2013). As such, in recent years, efforts have been made, mostly through increasing usage of the forest resources for economic earning, to reduce the illegibility and opaqueness of the forests in Guyana. The Guyana National Land Use Plan (GLUP), the then Government's road-map for managing the

forest and land resources of the country, described how international thinking on forests no longer features solely considerations of logging and timber production, but now recognizes the value of ecosystem services provided by forests. These recognitions spurred the Guyana Forestry Commission (GFC) to take steps towards the sustainable management of its forest resources, which feature timber harvesting guidelines, a Code of Practice for the management of forest concessions, and several other requirements and stipulations aimed at fostering good forestry practice (Guyana Lands and Surveys Commission 2013).

The attainment of independent status in Guyana and international pressures resulting in increased appreciation of forests through the Earth Summit in 1992, stimulated the revision of goals, methods and instruments to manage the forestry sector. The National Forest Policy Statement (NFPS) was prepared in 1997 along with the Draft National Forest Plan in 2001. The NFPS described that due to the need for sustainable forest management, there is a greater need for forest monitoring through increased numbers of forest stations, 7 mobile monitoring units and staff. This move to increase on the ground monitoring activities signals the government's desire of improving the monitoring of Guyana's rainforests. As such, the development of a Monitoring, Reporting and Verification System (MRVS) could be seen as in-keeping with the monitoring thrust of the GFC while providing a performance measurement framework for the REDD+ financing mechanism.

The politicisation of forests, as defined by Peluso and Vandergeest (2001), to some extent resulted in increased legibility through management practices. However, the forests use practices of the communities residing in the forests were perceptible only on the ground, through site visits and eventually, through overhead flights for monitoring. The MRVS system of REDD+ represents the newest step in forest monitoring, and while it remains somewhat

limited in terms of the visibility of activities taking place within the forests, it sees the forests from a distance through technological means which have seen the forests moving largely from the realm of illegibility to legibility, with a need for verification.

Suriname

Suriname's history of forest monitoring has been more volatile, being severely impacted by societal issues including political uprisings. Suriname's forest monitoring organisation, the Suriname Forest Service (LBB) was set up in 1947 with timber being managed through state concessions to lumber companies and the granting of cutting rights called HKV (Houtkapvergunning) to tribal communities. Originally, the LBB focused on carrying out forest inventories and collecting fees associated with timber concessions. After the seizure of military power in 1980, the country lost several relationships with foreign countries, which reduced dramatically the flow of foreign investment into Suriname. Starting in 1986, the armed internal conflict described in Chapter 3 destabilised the maroon societies especially, and by 1986, the management of forest concessions had halted. In 1993, Suriname was economically devastated. The peace agreement had been signed in 1989 so, to facilitate economic growth, the government began reissuing concessions for logging with some concessions drawing international condemnation. In 1996, the management of Suriname's forest was restructured with the establishment of the Foundation for Forest Management and Production Control (SBB), which eventually began to oversee all forest management. Forest monitoring in Suriname is now scheduled to be upgraded through REDD+ efforts with plans on stream that would make the forests more visible, and technologies more available through MRV that would make monitoring the economic activities within the forests, and the subjects who carry them out, more possible.

In essence, MRV systems in Guyana and Suriname allow the countries to improve the monitoring of their forests in a manner compatible with REDD+. Previously, the management of the rainforests was based on more isolated methods where the forest management agency based in the cities carried out their work through physical visits, necessitated by economic activities taking place in the forests. The implementation of MRV allows for governments, along with independent, non-governmental and foreign bodies to view and measure the conservation of the forests, while interrogating the events taking place within the forests that lead to deforestation. REDD+ and its constituent MRV, effectively enables the state to increase its unreciprocal visibility of the forests, while extending the reach or margins (Das and Poole 2004) of the state allowing for an increase in the capacity of governments and other actors to monitor the events taking place within their borders.

Technical Narratives
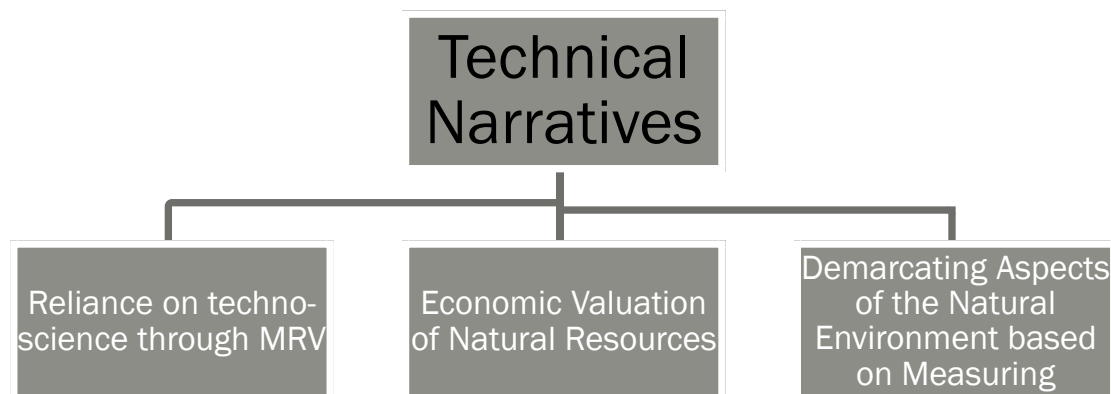
Figure 20 - Technical Narratives of REDD+

Techno-Science through Monitoring, Reporting and Verification (MRV)

The most dominant narrative of the technical discourse is its focus on techno-science shown through the application of MRV systems to the monitoring of the forests in Guyana and Suriname. At the time my research was conducted, this technology was still being explored in

Suriname. In Guyana, though, it was being presented by forestry officials working on its development, and by the Government of Norway, as one of the most important contributions of REDD+ (specifically the Guyana-Norway agreement) to the country. MRV is presented as a means of monitoring the forests resources by drawing on satellite imagery and increasingly complicated and costly databases and equipment that should be sensitive enough to detect changes in forest cover around the globe. MRV systems are responsible for providing the requisite data for the quantification of emissions reductions and removals relative to the Reference Emission Levels (RELs) or Reference Levels (RLs) which determine the amount of carbon the REDD+ participating country should conserve. The MRV system, as the name implies, includes a process for reporting and verifying the emissions reductions or removals.

The word 'monitoring' means to "observe a situation for any changes that may occur over time" (Svensson 2014, 10), and as such it is often necessary that a proactive role is taken in ensuring that activities progress according to plan and that objectives and targets are being met (Svensson 2014). Reporting, in the specific context of REDD+ and the UNFCCC systems, embodies the process of conveying formally assessment results to the UNFCCC according to their established standards and guidelines in order to foster "the principles of transparency, consistency, comparability, completeness and accuracy" (Barquin *et al*. 2014, 94). Verification, on the other hand, seeks to "ensure the validity of the information that is presented" (Barquin *et al*. 2014, 94) and to ensure that certain requirements or processes are followed after a specific activity to ensure its reliability (Barquin *et al*. 2014). Due to its nature of paying for performance, REDD+ relies on MRV systems for its implementation. In some cases, MRV systems are used for more than just reporting on emissions reductions and removals, including within their purview other variables, such as social and environmental performance (Barquin *et al*. 2014).

In Guyana, MRV systems function as the basis for the identification of the drivers of deforestation. As one policy maker at the GFC explained, it was the MRV system that identified that gold mining accounts for some 93% of deforestation in the country, turning attention to small scale miners as a problem to be remedied. The other drivers of deforestation were identified as agriculture, infrastructure, forestry and fire, with the recognition that forestry is a very small contributor to deforestation, driving instead degradation of forest resources (Sarika, March 31, 2014, interview). As such, the areas needing to be remedied in Guyana's REDD+ effort are identified through MRV, with gold mining logically necessitating the most intervention due to its high allocated deforestation rate. Conversely, quite the contrary has taken place, with gold mining being allowed to continue practically unfettered, though it is claimed by some government representatives that better management of this activity would take place (GGMC, 2014, interview).

The GFC in Guyana began the process of establishing "the world's first national scale REDD+ MRV system" in 2010 (Office of the President, Republic of Guyana 2013), which is intended to provide the basis for reporting on the country's efforts to report on the removal of carbon emissions through the use of its forests (Office of the President, Republic of Guyana 2013). Interim measure and performance indicators filled the role of the data on which reporting was made while the MRV was being developed into a full forest carbon accounting system (Office of the President, Republic of Guyana 2013). Guyana, through financial support from the Guyana-Norway agreement, has been able to pay for more advanced RapidEye imagery that has increased the previous measurements of Guyana's forest cover (Indufor and Guyana Forestry Commission 2014). The development of the MRV system in Guyana has not been without its challenges, which are said to include difficulty penetrating cloud cover in satellite data, technical capacity building and operational costs (Best 2014).

As a representative of the GFC explained, the agency was suffering from the lack of technical skills to carry out activities like the consultations, co-benefits and to develop a REDD+ strategy (Sarika, March 31, 2014, Interview). She depicted this as a recurring problem to be remedied by international consultants who then build the capacity of the GFC (Sarika, March 31, 2014, Interview). She explained that "to carry out reference level related activities, modelling skills are needed and there isn't the capacity to do that in-house" (Sarika, March 31, 2014, Interview). The solution for this challenge was presented by the GSF and several other organisations that provided funding and support for building Guyana's capacity of REDD+, working towards making MRV a reality.

Imagery and data are central to forest cover monitoring, but due to a presumed lack of funding, the government of Suriname is using free data sources. According to the FCMU, increased resolution data is desirable and commercially available sensors will be necessary. As such, funding will have to be sourced to make this possible. Additionally, improved technological capacity will be necessary to make storage and management of forest cover data possible and easily accessible (Svensson 2014).

Economic valuation of natural resources

The second narrative supporting the technical discourse is the importance of economic valuation of natural resources. As depicted by President Jagdeo's reliance on this logic outlined in the introduction, this narrative underpins the rationale of REDD+ since it provides the estimated 'worth' of the forest to determine fair compensation for their services. It is a narrative that comes across most strongly in the policy documents of both countries. Guyana's Low Carbon Development Strategy (LCDS) had roots in a policy paper in 2008 that attributed an economic value to Guyana's forests based on estimates provided by McKinsey and Company,

an international consulting firm widely used in climate change and environmental matters. McKinsey and company provide an economic analysis and attribute financial values to environmental services. The firm has increasingly been criticised by environmental NGOs such as Greenpeace (2011) and the Rainforest Foundation (Dyer and Counsell 2010) for using methods that lead to the favouring of industrial land use over subsistence uses. This value estimation has acted as the foundation of Guyana's REDD+ effort though, with the subsequent policy papers representing the value of the forests to the world at 40 billion USD per year.

The Guyana Government explains

> Our work suggests that baseline assumptions should be driven by analysis that assumes rational behaviour by countries seeking to maximize economic opportunities for their citizens (an 'economically rational' rate of deforestation). Such baselines can be developed using economic models of expected profits from activities that motivate deforestation (vs. in-country benefits of maintaining the standing forest), and timing and costs required to harvest and convert lands to alternative uses (Office of the President, Republic of Guyana 2008, 2).

The estimated value of those in-country benefits was estimated at a more conservative 580 million USD per year. The economically rational path that Guyana should take is depicted by a wide array of statistical graphs based on economic valuations attached to activities which have traditionally taken place in the country, or which are likely to take place to generate income. Some of these graphs are depicted below, the first of which depicts the estimation of the carbon abatement costs for predicted avoided deforestation, amounting to an annual payment of $430 million USD to Guyana for the services of its forests.

Calculation of marginal carbon abatement cost for avoided deforestation in Guyana

Forest cover
Hectare, millions

△ Deforestation rate of 4.3%** ⟹ ~215 MtCO₂e per year (based on 342 CO₂ per hectare)

At an annuity payment of $430 million to $2.3 billion, the release of 215 MtCO2r per year implies a carbon price between $2 and $11

Year
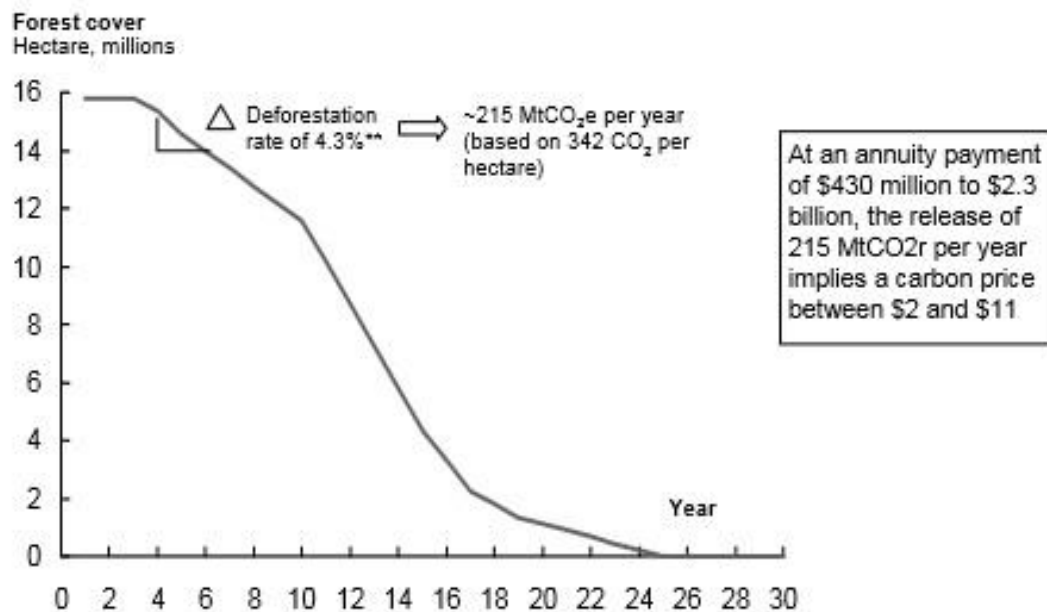
Source: FAO 2005 Forestry Assessment; team analysis

Figure 21 – Calculation of marginal carbon abatement cost for avoided deforestation in Guyana
Source: Office of the President, Republic of Guyana. 2008. 'Creating Incentives to Avoid Deforestation'.

Exhibit 3

EVW, EVW$_C$, AND EVN PROVIDE BOUNDARY CONDITIONS FOR A DEAL

$US, present value per hectare of forest

Measure of value	Order of magnitude	Description
Economic value to the world (EVW)	$25,000+	• Rough estimate of value of ecosystem services forests provide to the world • Large, but value cannot be captured due to lack of traded markets
Economic value to the world – carbon (EVW$_a$)	$6500 – $20,000+	• Estimate of the CO$_2$ abatement value that avoiding deforestation on one hectare provides • Driven by global marginal abatement cost and estimate of carbon stocks
Economic value to the nation – (EVN)	$300 – $3500+	• Estimate of the economic value a hectare of forest could generate if exploited in an economically rational but unsustainable way • Driven by timber values, rents from alternative land use, avoided protection costs and loss of local ecosystem services

Figure 22 – The Economic Value to the Nation of Guyana's forests
Source: Office of the President, Republic of Guyana. 2008. 'Creating Incentives to Avoid Deforestation'.

The above chart makes an argument for the receipt of the amount referred to as the Economic Value to the Nation (EVN) of forest degrading and removal activities, pitting this estimate against the allocated value of the ecosystem services the forests provide to the world. Finally, in the image below, the economically rational deforestation path is depicted to demonstrate the likely deforestation of different economic activities predicted to take place in the country under this rational development path.
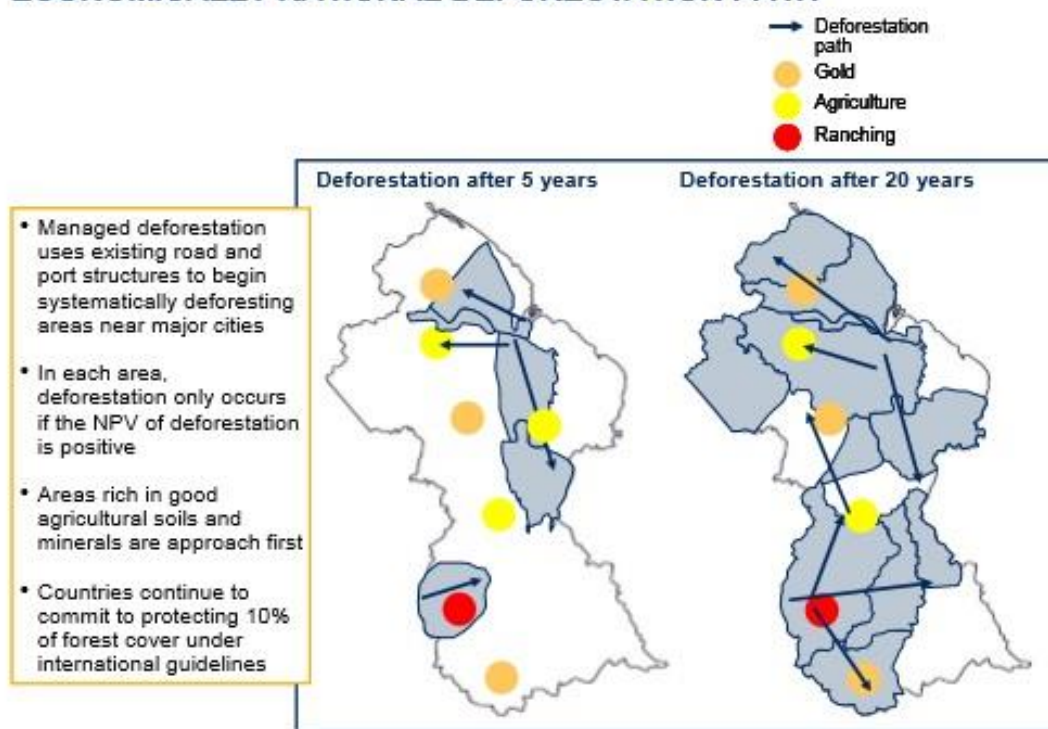
Figure 23 – Economically Rational Deforestation Path
Source: Office of the President, Republic of Guyana. 2008. 'Creating Incentives to Avoid Deforestation'.

It is worth pointing out that these values are estimates based not on historical trends, but on possible future pressure on the forests. Development here, is used to justify the need for these interventions, and for REDD+ since a 'rational' development path is predicted as necessitating the destruction of forests. As such, the pursuance of REDD+ through the LCDS, draws on these economic rationalities rooted in neoliberal logic, and points out that a rational development path would result in the destruction of the forests, making room for REDD+ since the people's needs must be met. This logic, and reliance on economic valuation as a means of making REDD+ possible or natural forms the second narrative of the technical discourse.

In Suriname, due to its recent focus on REDD+, the reliance on the economic narrative of the technical discourse is less overt. Their process of REDD+ preparation took a different path

commencing with their R-PP. Given that Suriname was operating within a pre-established framework which outlined the funds that would be available for REDD+ readiness, its R-PP was prepared in response to this possibility. Also, Suriname did not go the route of having its forests valued and offered up for incentivisation by the international community. There were no bilateral agreements with Suriname to generate funding for MRV system development so Suriname is very much in the preparatory stage of REDD+ where, while the technical narratives of reliance on the techno-science and economic valuation are present in their R-PP, this is reflected less in the policy documents of the country. Instead, Suriname presents a listing of the potential future drivers of deforestation in its R-PP to contextualize the incentive potential of REDD+ in the country including mining, logging, infrastructure development, agriculture, energy production and housing development (FCPF 2013).

Demarcating aspects of the natural environment

The third and final narrative of the technical discourse is characterised by the central logic of the discourse and its constituent narratives, that is, the *process* of demarcating aspects of the natural environment based on measurable function such as carbon storage and land value. Both earlier identified narratives are rooted in this practice, which underpin the effort to incentivize the conservation of carbon. What these narratives have in common is an effort to demarcate a measurable aspect of the environmental services seen as provided by forests in order to attach an economic value and system of monitoring to this service. It narrows the management of forests to the heightening of these values for which governments and forest owners could be compensated, re-organizing the management of these natural resources along the lines of the valued service. Previous efforts to manage the forests of Guyana and Suriname were centred on economic income earners that drove the need for the establishment of government bodies dedicated to forestry. Now, with the prospect of REDD+ bringing large sums of funding, the

management of the forests is again being reorganised, this time, according to its carbon

sequestration potential measured and justified by the reliance on the techno-science and

economic valuation of the forests.

As one respondent who worked closely with the government on their environmental strategy

stated,

> So in the case of Guyana and many other countries like Guyana where forestry and mining are
> still going to be key economic activities, we as a country, we are not going to shut down our
> mining industry, but what we will do is try to improve their performance and at the same time,
> increase their productivity, so if we could apply better practices, better technology to increase
> productivity, but at the same time, reduce the environmental footprint, what that does is that it
> ensures that traditional activities like forestry and mining can continue but it also creates that
> space where we can also earn from REDD+ (SN, May 29, 2014, Interview).

Forest uses are hierarchised according to their earning potential. Mining as a key economic

earner, as depicted in the quote, is not being hampered, but technology should allow for

improved efficiency, and ideally improved forest conservation, and hence, carbon

sequestration for REDD+.

Instrument effects

The technical discourse makes the forests of Guyana and Suriname, which prior to

independence, were only marginally included in the effort to govern, more legible to those who

seek to govern and to gain access to possible financing generated by the newly created

'fictitious commodities', reimagining these forests in particular ways. MRV is carried out at

multiple levels. While it is, by and large, an effort coordinated by government and forestry

officials in the city; the desire of policy makers, NGOs and communities themselves to involve

forested communities in monitoring activities has generated the earlier introduced Community-

based MRV (CMRV) where local communities such as Annai are envisioned to, or are actively

participating in the effort of monitoring land use change. In this framing, local communities

become eyes on the ground that can help in "monitoring carbon stock changes, illegal extraction rates, production of timber and non-timber products and other variables such as biodiversity and social impacts" (Barquin *et al.* 2014) necessitating that these communities also have their capacities built through training and the establishment of local monitoring systems. Local communities are also encouraged to change the way they view forests, as they are re-imagined as officers on the ground for monitoring and verification. While these local communities have been functioning as eyes on the ground since independence, their interests lay then in drawing attention to the forest concessions being issued by governments in the forests within which they reside, rather than as verifiers of sorts, aiding the monitoring effort.

MRV systems and the technical discourse do not address the challenges to the ownership of the forests previously brought about by communities. Instead, in this discourse, forest dwellers are re-imagined as an ally in government-led forest protection efforts instead of as a challenger of their previous exploitative practices. Through this monitoring effort being ardently pursued in Guyana, and at its beginning stages in Suriname, vision and legibility (Scott 1998) are made possible both from above and on the ground, shaping the manner through which both governments and indigenous communities within the forests, more so in recent times, see and interact with the forests. Thus far, training in technologies related to measuring carbon stocks has been carried out in Suriname by SarVision with indigenous people to make them able to use remote sensing technology for land and vegetation cover monitoring. According to Suriname's R-PP, there continues to be a need for training to increase capacity in field measurements, remote sensing, data analysis and reporting within government organisations, and forest dependent communities. In this capacity, forest dependent communities are imagined to be useful for the provision of data on non-timber forest products, and the reporting of threatening activities such as gold mining in the areas near their residence. This is a

particularly interesting assertion since large scale gold-miners are usually in surrounding areas

near residences of indigenous and tribal communities, usually with the express permission of

governmental bodies.

The R-PP continues,

> Forest dependent communities are needed for collecting information on area changes and carbon stock changes, which are not detectable using remote sensing imagery. They need to be trained in relevant methods for monitoring land cover changes and carbon stock changes. *For monitoring purposes, traditional knowledge of local communities needs to be converted to western knowledge.* Communities need to be trained in these specific requirements and to monitor field activities in an informed and systematic manner to deliver data that can be incorporated in monitoring systems (FCPF 2013, emphasis added).

As evidenced by this quotation, the government of Suriname imagines a large-scale 'seeing' of

the forests with forest communities imagined as complementing this effort, having their

knowledge transformed into Western interpretations to facilitate REDD+ activities. The FCMU

depicts the role of forest dwellers similarly, explaining how different segments of the society

should come together to support forest cover monitoring. While it is recognised in the

document that forest cover monitoring is a technical process that should be led by individuals

versed in satellite imagery, GIS and remote sensing; the involvement of institutions,

stakeholders and communities is stated as desirable since public participation is needed for

calling attention to environmental problems and for improving the governance of these issues.

Civil society and NGOs are presented as allies in the effort along with forest based communities

in Suriname, given the last's special relationship to the forest. This participation is touted as

able to improve the system through an increased flow of information. Social justice should also

improve through this participation, according to the document, since citizens would be able to

hold their government accountable, leading to forest cover monitoring being more than "merely

data production and passive observation of facts" (Svensson 2014). Here, in an effort to

increase the legibility of the forests, the people dwelling in the forests of Guyana and Suriname

are being re-imagined and disciplined through REDD+ activities. The technical discourse goes further though. It operates as the technology or key rationality for the operationalisation of REDD+ in these countries, intervening as the means through which behaviour change should be brought about. The traditional subjectivities of these forested communities are being repackaged in a manner that seemingly makes them more amenable and useful for the REDD+ effort of incentivising forest protection.

The technical discourse of REDD+ has, in effect, created this, and other instrument effects (Ferguson 1990). For example, there is said to be added value to the implementation of MRV in that the system could also be used for land management and the monitoring of land concessions for the extractive sectors. According to NORAD, the GFC is using its MRV system to check for compliance of concessionaires with their timber harvesting plans, and it intends to use it to foster compliance with several international efforts to trace forest resources. The GGMC is said by NORAD to also be using the system to identify illegal mining activity (NORAD 2014). These instrument effects of the effort to monitor carbon have amounted to new ways of seeing the forests and their users, and of integrating the residents of forested communities into this effort. At present, few concerns have been publicly raised about increasing the legibility of the forests to organisations other than the government of Guyana, but the effort at establishing these technologies continues full force, making the forests literally more visible, in an attempt to measure their utility for various purposes.

Yet another effect of this discourse is the fact that forest use is being ranked based on earning potential. Most evident is that the use of the forests is being shaped according to the activity which would bring about the highest economic return, and forests are being managed according to this model of rationality, as explained in Guyana's evaluation of its potential for REDD+

payments. Naturally, the subsistence activities of indigenous and other forested communities in the forests are not prioritised since their use brings little financial return in this rational approach. The entrenched interests in forest management, such as gold mining and forestry concessions, continue to be allowed based on their contribution to the economic earning potential of the country, as underpinned by the rationality of the economic reliance in the technical discourse. Ironically, despite their identification as the largest sources of deforestation by MRV systems, in this new form of seeing the forests, gold mining is scarcely being restructured since this very technical reliance, grounded in economic rationalities, elevates gold mining as an important source of economic earning potential. This consideration was reflected in the targeting of indigenous people as the source of deforestation by those responsible for managing gold mining in Guyana (GGMC, June 6, 2014, Interview). The issue is further complicated by the fact that REDD+, in Guyana at least (the only one of my two case study countries which has actually received performance payments) has slim prospects of receiving the 580 million USD per annum it determines as acceptable for compensating against its pursuance of forest destroying activities. REDD+ presents little incentive, therefore, in this rational model of forest management, of challenging the threat of gold mining, despite its identification as significant.

Finally, the technical discourse legitimises a burgeoning cadre of professionals to operationalise its techno-science and economic narratives, an act which itself facilitates the flow of capital. As previously noted, MRV technologies carry a hefty price tag, one that is usually out of reach of the REDD+ participating country. As such, Guyana and Suriname have outlined the expected costs of these activities, costs which are funded largely by donor governments and international organisations. In the case of Guyana, this is facilitated mainly by its now concluded bilateral agreement with Norway.

Main Activity	Sub-Activity	Estimated Cost (in USD$)				
		Year 1	Year 2	Year 3	Year 4	Total
Establish data and information framework	Gather and integrate information & fill data gaps for national REDD+ opportunities, scoping and policy development	450,000	200,000	200,000	100,000	950,000
Develop key capacities to execute MRV	Develop capacities, conduct historical monitoring, and implement a (minimum) IPCC Tier 2 national forest carbon monitoring, establish the reference level and report on interim performance	950,000	500,000	50000	30000	1,530,000
Execute MRV	Monitor Other Benefits	50,000	50,000	40000		140,000
	Establish consistent and continuous MRV supporting national REDD+ actions and international IPCC GPG-based reporting and verification		450,000	500,000	140,000	1,090,000
Total		1,450,000	1,200,000	790,000	270,000	3,710,000
Government		50,000	30,000	30,000		110,000
Other Financing: GRIF, CI KfW Support		1,400,000	1,170,000	760,000	270,000	3,600,000
FCPF		0	0	0	0	0

Figure 24 – Cost of REDD+ preparation
Source: FCPF. 2012. 'Guyana Readiness Preparation Proposal (R-PP)'.

The table above shows that MRV capacity building and establishment costs 70% of the REDD+ (cumulation of capacity development and MRV supporting national actions columns) effort in Guyana, while the table below depicts the costs associated with REDD+ readiness preparation in Suriname. There, forest monitoring and forest reference level determination costs approximately 7.5 million USD (cumulation of forest reference level and forest monitoring cost in total column), almost a third of the amount estimated for funding the entire preparation effort, funding that contributes towards strengthening the narratives and activities that enable and support the technical discourse.

TABLE 7. SUMMARY OF ACTIVITIES AND BUDGET FOR R-PP COMPONENTS					
Component	Sub-component	Estimated Cost (in thousands)			
		Government	FCPF	UN-REDD and other donors	Total
1: Organize and consult	1A	500	2345	1325	4170
	1B		472	178	650
	1C		801	344	1145
2: REDD+ strategy	2A		470	155	625
	2B + C	500	796	349	1645
	2D		350	180	530
3: Forest reference level	3		801	534	1335
4: Forest monitoring	4A	500	1261	1539	3300
	4B		1008	672	1680
6: Program monitoring	6		277	114	391
	Total	1,500	8,581	5,390	15,471

Figure 25 – Cost of REDD+ Preparation

Source: FCPF. 2013. 'Suriname Readiness Preparation Proposal (R-PP)'.

This burgeoning cadre of REDD+ professionals usually draw on discussions of capacity building to legitimise their large investments into the activities highlighted in the tables above. Capacity building has been previously interrogated in the academic literature and has been critiqued for its ambiguous and shifting meaning within development (Black 2003). It continues to be widely used within the global development discourse, however, and in the case of REDD+, it seems to allude to the ability of participant countries to meet the overall monitoring and reporting requirements of the mechanism. This need for capacity building is established by Guyana's R-PP, which was submitted to the World Bank to solicit funding for REDD+ preparation activities. Here, the government of Guyana signals its call for expanding the physical and technical capacity of all institutions associated with REDD+ to ensure that the efforts and findings are internationally accepted and grounded in scientific protocol (FCPF

2012).

This deficiency is premised on the Guyana Government's recognition that increased financial investment and capacity building are needed to ensure that the country is able to sustain the national effort to implement forest carbon financing mechanisms. There is recognition, however, that while investment is needed for the building of capacity of key implementing agencies, attention should also be directed towards building the capacity of forest dependent communities, a need that will be established through consultation with these groups (FCPF 2012).

Within Suriname, a similar logic exists, as depicted by the statement of Arets and Kruijt (2011) that further capacity is needed to ensure that Suriname would be able to carry out the field measurements, remote sensing, data analysis and reporting necessary for effective REDD+ implementation (Arets *et al*. 2011). In Suriname's R-PP, it is explained that the national forest monitoring system is necessary to facilitate the monitoring of all REDD+ activities by "build-(ing) on available terrestrial inventory and remote sensing data, while aiming to incorporate new emerging technologies to continuously improve the quality and cost-efficiency of the national MRV system. The monitoring system will help to ensure that forests are utilised efficiently" (FCPF 2013). The need for MRVS is firmly connected to the internationally established need for mitigating actions against climate change to be accountable and transparent (Arets *et al*. 2011). This should, in fact, facilitate the "availability and exchange of data and experience" (Arets *et al*. 2011, 9). Since most tropical countries do not have operational or adequate systems to fill the role of the MRV, the building of such capacity is necessitated under REDD+ (Arets *et al*. 2011) with the aim of these systems being replicable and transferable to other tropical countries.

This replicable and transferable experiences are reminiscent of Asad's (2004) observation of abstraction and equivalency between representations of forests in markedly different contexts. The need for technical skills locally was reiterated by one official of the GFC who described that in many cases, the technical skills necessary for REDD+ were absent from the country and as such, international consultants had to be hired. She stated,

> These consultants when they come in, our staff is being, their capacity is being built as well…We don't have that kind of advanced capacity to do some of the modelling and so. I would say that is one of the major constraints that we encountered (ND, May 7, 2014, Interview).

Largely, it is expected that wealthier countries should fund preparations efforts for REDD+. As one respondent described, the implementation of REDD+ is a positive development and as such, all that is missing are the mechanisms and tools to address the challenges faced by developing countries. These tools are largely capacity and financial resources (GB, 2014, Interview).

The capacity building discussion and the identification of the areas of exchange of resources and knowledge between wealthier countries and poor ones act as a microcosm of the wider development debate. It redirects attention away from the root causes of inequality towards technical solutions that come mired in increased financial dependency. The local drive for participating in the REDD+ mechanism necessitates this search for capacity building, technological know-how and financial resources to enable participation, making room for the continued involvement of development organisations in these countries.

Primarily, the need for capacity building stems from the recognition of the inability of poorer states to engage in an earlier identified activity, in this case, REDD+. Secondly, it follows from the recognition that this activity would be made possible using the technologies, methods and

tools available in the more advantaged countries and that these capacities are not present in the poorer ones. An adept reviewer of this scenario would perhaps ask why it is that these countries are at such different (in the words of the mainstream development discourse which are very fitting here) 'levels of development'. However, instead of engaging in that messier, historical Pandora's box that questions access to resources, exploitative relations and so on, the solution is provided that these poorer countries should simply be able to access the capacities of their richer counterparts through information and technological exchange. This is precisely the logic that underpins the development discourse where countries are imagined as needing to reach some level of development, according to a standard and image set by those more powerful ones (Escobar 1995), and that continues to legitimise future development interventions as technical 'solutions' continue to have damaging effects. In this case, however, capacity building adopts the technological approach to seeing nature according to its usefulness in fulfilling a particular aim: forests as a means of storing carbon.

The spread of capital and the reshaping of Guyana and Suriname into neoliberal spaces is facilitated also by the large international organisational architecture which supports REDD+, the details on this organisational architecture can be found in the appendices. Many of these organisations are associated with development efforts around the globe, some of which have been thoroughly criticised within the literature (Spierenburg and Wels 2010; Corson 2010; Igoe 2010). These organisations are often financed and supported by explicitly neoliberal governments and businesses that appear to see REDD+ as a means of facilitating economic growth and extending the reach of capital to the far reaches of the global environment. These organisations, together with the money and influence with which they are imbued, facilitate and are embodied by the movement of capital while furthering the aims of neoliberal conservation, ordering societies, making forests more visible and legible, and inculcating in

communities the rational, neoliberal ethic.

Conclusion

The technologies needed for intervention into the racialized relations with the forests, described in Chapter 4, are provided by the technical discourse of REDD+. These technologies, operationalised largely by NGOs and international organisation in the cities, monitor the land use changes associated with indigenous use of the forest and shifting cultivation; the mining for gold by predominantly African descendants that then goes on to be sold in the city; and perhaps even the stability or instability of sugar plantations on the coast where descendants of indentured servants ply their trade. A few indigenous groups, such as the ones in the North Rupununi, also engage in monitoring their resources in a fashion that contributes to this national effort.

REDD+ seeks to change the way that populations of Guyana and Suriname interact with the forests by incentivizing behaviour change of actors whose behaviour is likely to result in deforestation. In these two cases, however, proponents of REDD+ are essentially seeking to change the deeply entrenched traditions of forest utilisation in these countries. An ethic of extraction, as highlighted in Chapter 3, has already been established in these countries, and this tradition of natural resource exploitation continues to be driven by the demands of international markets. Therefore, as shifts in the demands of the international arena become more evident, Guyana and Suriname have begun to flirt with a different type of resource use, one that is based on the abstraction instead of extraction of value from their natural resources, without the destruction of these resources as had become the norm. This abstraction represents resource use based on the production of the fictitious commodity of carbon. As plans for sustainable development became the buzz word of the day, resource usage and the interpretations of their

use took on a palpable shift, from that of extraction and associated damage, to one of utilisation through conservation in situ for the global good (West 2006).

Western science and technological advancement form the core of the execution of REDD+ since without it, the forest will not be monitored in a form verifiable by the international community, and payments will not be possible for measurable reduction in the already low rates of deforestation. As such, REDD+ hinges on the ability to demonstrate and verify that carbon preservation and sequestration is taking place. This is by no means a small feat, and as such, satellite imagery available from different sources, at different levels of financial investment, are being made available to make this possible. The technical discourse is rooted in the previously identified aspects of neoliberal thought through which growth in profit and the accumulation of capital are facilitated through the extension and entrenchment of the practices of commodification, financialisation, competition and market discipline. The technical discourse and its supporting narratives are based on economic rationalities, and the technology which makes the forests of Guyana and Suriname visible across borders. It features also the process of commodifying the fictitious commodities once created through the intervention of powerful actors, the application of certain knowledges and these new ways of seeing.

Within the discussion on climate change, deforestation has clearly been rendered technical. It has been carved out as a demarcated space which needs to be addressed through technology and scientific advancement. The technical discourse of REDD+ enables the creation of a population on which it acts (the forests and its users in Guyana and Suriname) by intervening in their pre-existing methods of forest use. As such, the top down manner through which the technical discourse operates tries to metaphorically clear the clutter of centuries of forest use

and conservation efforts, and to fill this imagined space with neutral, apolitical methods of managing the forests. It is through the social justice and development discourses that these pre-existing histories and concerns resist, continue to challenge, or in some cases make space for, the new intruder discourse.

In this chapter, I sought to establish, firstly, the existence of the technical discourse, the dominance of which works to side-line other considerations and discourses in REDD+ implementation in Guyana and Suriname. The development and social justice discourses though, which are detailed in subsequent chapters, continue to challenge REDD+ efforts. Development remains the open-ended goal and means through which ideas such as capacity building and the creation of neoliberal spaces are made possible. However, the pursuance of the technical also serves to entrench the dependency of Guyana and Suriname which are incapable of meeting costs on their own necessitating their requests for aid\knowledge transfer while shifting attention away from the more political questions in relation to funding, and the motivations of the large development architecture around REDD+ which makes this new form of seeing the forests possible. Overall though, the technical discourse embodied mostly by powerful actors rooted in the international development architecture facilitate the spread of capital, and the entrenchment of neoliberalism in the forests of Guyana and Suriname, both through their more direct work and through the creation of 'fictitious commodities' made possible through the three constituent narratives of the discourse.

Earlier, I noted some of the instrumental effects of the technical discourse are that it makes the previously illegible (Scott 1998) forests and the activities within it legible to government actors and international agents, while creating a particular way of seeing while ranking forest use based on imposed levels of importance, obscuring the impact of some activities (gold mining)

and promoting the work of the forest in achieving others (carbon sequestration). Further, I discussed how it legitimises a burgeoning cadre of technical professionals. All this, taken together, makes it possible for communities living in the forests to be increasingly aware that their previous dynamics of illegibility have changed. The increasing legibility of their practices, which has to some extent, worked to their advantage in terms of autonomy and self-sufficiency, is diminishing through the imposition of these new ways of valuing and seeing the forests, modes and approaches to which the communities, in part, subscribe.

This awareness on the part of forest communities, especially those of the North Rupununi, of constantly having their environmental and livelihood activities monitored may eventually, drawing here on the Foucauldian understanding of power which discipline subjects, further complicate subject formation and contribute to a change in their behaviour and use of the forests. Presently though, the technical discourse of REDD+ contributes to conducting the behaviour of forest communities through their internalisation of the monitoring of their forest use, reflecting mostly the use of disciplinary governmentality in the furtherance of an aim, that of incentivising forest conservation through the logic of neoliberal governmentality. Here, we see three Foucauldian ideas operating in tandem: the constant monitoring of people which would result in a change in their behaviour; the disciplinary internalisation of norms; all within the neoliberal governmentality underpinning global REDD+ efforts and made possible through the burgeoning cadre of technical professionals previously described.

Finally, in this chapter, I focused most on how REDD+ operates to achieve its aims, reflecting on the technologies of government it harnesses to shape the forest use practices of communities in both countries. While the technical discourse does to some extent shape the development trajectories of the two countries in terms of making them ready for REDD+, this effect or aim

is secondary to its operational implications which have a variety of unstated instrument effects. These effects contribute to the subjectivities and conceptions of the self of the communities and forest users made more visible and their activities more legible through MRV. In this chapter, I also specifically reflected on how Western science, operationalised through the technical discourse, was being adopted through REDD+ in an overt effort to side-line traditional ways of seeing and interacting, presenting also a certain equivalence in terms of how the forests of Guyana and Suriname are seen by proponents of REDD+. The forests, here, are seen as useful when devoid of social context but measured for the functionality of storing carbon. My main aim was a critical engagement with the knowledges supporting the technical discourse and its supporting knowledges through which forests are visualised and made legible (Scott, 1990). In the following chapter, I draw out the means through which these technologies of government are being used to shape these populations themselves into the image of *homo economicus*.

Chapter 6 - Constructing 'homo economicus' - Neoliberal development in Guyana and Suriname

Selling nature over lunch

At the offices of an international conservation organisation working on REDD+ related activities in Guyana and Suriname, I participated in a few lunch table conservations that provided insight into their organisational priorities. It was clear that myself and the staff of the organisation shared concern for the interaction of human beings and nature, believing in simultaneous use and nature conservation, along with a desire to find a balance between use to satisfy human wants/needs and conservation. The staff members of the organisation insisted, however, that we engage with the major polluters in the world to make a difference. The Executive Director of the Guyana office explained that we should seek power out and engage with it within the current hierarchy of things. He stressed engagement and dialogue with world leaders and responsible businesses, in the firm belief that improvements can be made in humans' management of the environment through these efforts. He further asserted that when indigenous populations live in pristine environments, yet cry out for educational opportunities and means of 'development', the resources they desire must come from some other natural environment somewhere on earth. Since all human 'wealth' and progress comes directly or indirectly from the earth, some sacrifices must be made. The challenge, according to this view, is in finding a tolerable balance between natural resource use and preservation.

Both in Guyana and Suriname, the organisation supports REDD+ activities. In Suriname, it is spearheading its own contribution to the REDD+ implementation process which is intended to build the capacity of the Government of Suriname to engage with stakeholders, especially indigenous and tribal communities. However, this organisational effort has been fraught with

controversy since some indigenous groups claim to have come up with the idea themselves only to have it refined and re-presented to them by the conservation organisation without acknowledgement of their input (OIS, September 2, 2014). The project's progress had also been challenged by the Association of Indigenous Village Leaders Suriname (VIDS) which sees the organisation as an untrustworthy partner due to its director's recent change from government representative to head of the international NGO. As such, VIDS sees itself as unable to transparently engage with the organisation due to the number of hats worn by its Director.

This organisation's Executive Director in Suriname was much more explicitly market focused than in Guyana. A gap exists between the engagement and facilitating function claimed by the NGO on its website, and the economic focus and contention with indigenous representatives in Suriname. During the aforementioned HFLD conference, the organisation's director, in presenting his view of REDD+, heavily emphasised the economic benefits that could be gleaned from REDD+ activities and from monetising nature. His presentation focused on what he described as a climate finance challenge of gaining enough financial support for REDD+, a problem which he saw as rooted in the lack of demand for carbon credits. The director pointed out that investing in nature was a cost-effective solution. He made this cited data provided by McKinsey Global, a global firm of more than 10,000 consultants around the globe ('Who We Are | McKinsey & Company' 2017) that has been criticised by Greenpeace (2011) for the provision of cost curves around the world which grossly inflate rates of deforestation to give them increased potential for continuing forest degrading activities while gaining money from REDD+ (Greenpeace 2016). Incidentally, this was the same firm that provided the economic valuation of Guyana's forests detailed in the preceding chapter.
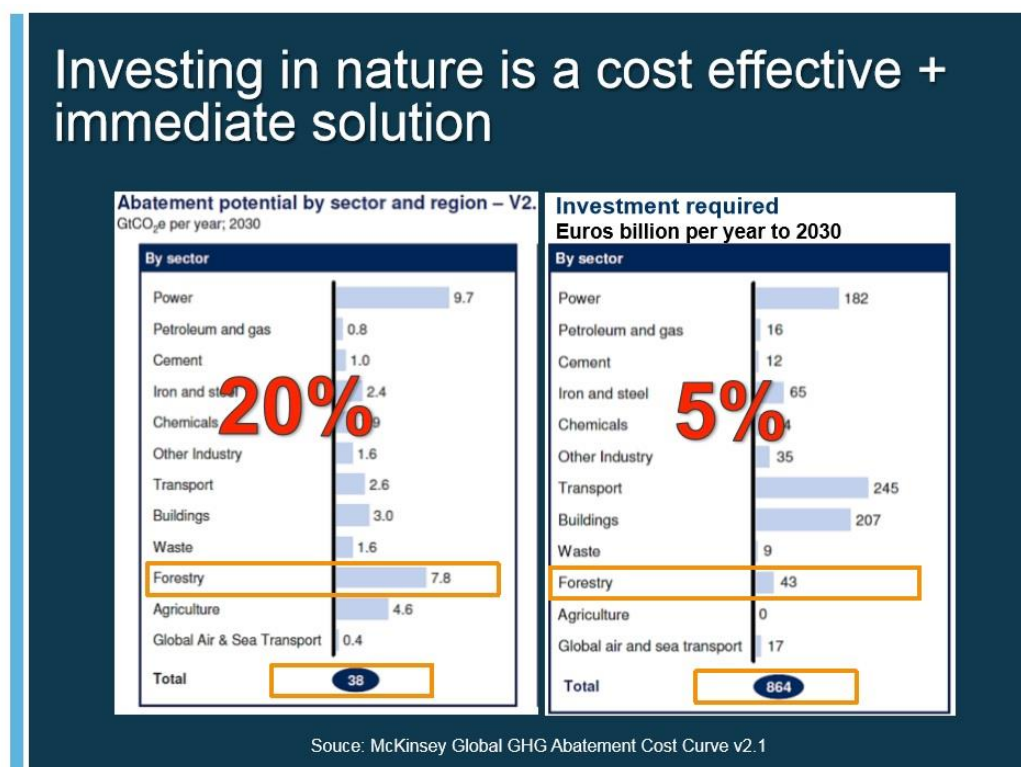
Figure 26 - Slide from NGO Director HFLD Presentation

The Executive Director in Suriname went on to propose bottling and selling the freshwater resources of Suriname and engaging in large scale export of the water, arguing that this was the next frontier for economic growth in Suriname and ignoring the environmental downsides of these activities, such as plastic pollution, carbon emissions of transportation and the high consumption of oil in producing bottled water. In other communications, he expressed a very pessimistic outlook on the prospects for combatting climate change on the global level and proposed that since the damage is done with little hope of carbon emissions abating in the short term, what is necessary is that Suriname better utilize its natural resources to gain funding for the strengthening of their infrastructure to deal with the inevitable impacts of climate change. This type of rationale demonstrates how some key conservation NGOs draw heavily on the narratives of economic growth as a facilitator of combating climate change. In this way of thinking, environmental concerns are no longer the overriding factor, but have been superseded

by the exigencies for capital expansion, blurring, or in fact, eviscerating, the line between conservation and development.

REDD+ fits neatly into that organisation's mandate, with Suriname's Executive Director stating that "… we see REDD+ as a very clear example of how to actually look for alternative ways that leave natural capital intact that still allows for development" (HL, October 3, 2014, Interview). This transformation of nature from the focus of conservation efforts to its depiction as natural capital is reflective of the commodification of nature and the dominance of the economic growth imperative in REDD+ implementation. Economic growth is the priority and is seen as a means to environmental conservation, even though on the way, some conservation NGOs become effectively as economically oriented as that which they purport to fight. The organisation's simultaneous concern with conservation and development, with an explicit market focus, demonstrates this chapter's focus on neoliberal development in Guyana and Suriname.

Introduction

Conservation organisations contribute actively to the neoliberalization of nature, with an explicit focus on economic growth through nature conservation and use. This overt subscription to the view of nature as capital has been challenged by the academic literature. Chapin (2004) questions the current modus operandi of these big international conservation NGOs, within which power, through finance, connections to government and big business, is imbued (Chapin 2004). Despite being written more than a decade ago, these concerns of competition and covert interests remain valid since contrary to my expectation of encountering a proliferation of new institutions to support the preparation for REDD+, I found that the mechanism has, in large part, been captured by pre-existing institutions and organisations that work on development

and environmental conservation in Guyana and Suriname, and around the globe. Here, I present a brief overview of the way conservation organisations and other actors have honed in on REDD+ conforming to suit its overwhelmingly economically oriented approach while side-lining, as shown in the introductory vignette, the discourse of social justice and contributing to the construction of *homo economicus*.

REDD+ continues in the vein of representing Guyana and Suriname as stores of value to be exploited, representing forests as 'fictitious commodities' (Büscher 2010) that act as natural capital and stores of forest carbon for the global good, enabling the abstraction instead of extraction of value from their natural resources. Here, I focus on the closely related discourse of development which is imbued with a similar power since its proponents draw regularly on the technical discourse to justify certain actions and interventions. The development discourse is reflective of the tendency of the governments of Guyana and Suriname to highlight the potential of REDD+ to facilitate economic growth and ever-elusive development. In previous discussions on these discourses, I asserted that the technical and development discourses share a reliance on the neoliberal subject imagined as responsive to external incentives. I assert in this chapter, however, that the creation of this imagined subject represents the aim of efforts on the ground driven by international organisations and complicit governments of Guyana and Suriname to move these countries further along a neoliberal development path.

While REDD+ is purported to embody a new, more effective way of managing the globe's remaining tropical rainforests, it facilitates continued exploitative, resource driven engagement with these countries, to which has been added the fictitious commodity of carbon. Through REDD+, the physical environment, the forest communities that depend on it, and the wider society itself, are re-envisioned in ways which make them amenable to the spread of capital,

and are, in some cases, themselves being shaped into capital, representing those distinctive ways of being which characterize subjects amenable to neoliberal governmentality. I argue that Guyana and Suriname continue to be imagined as a store of resources, an imagination that has moved from plantation-based economies centred on sugar and other crops, to extractive ones based on lumber, bauxite and gold, and now to conservation oriented ones. This latter move is encapsulated by the continuous pursuit of neoliberal development models explained here.

Questioning the naturalness of Natural Capital

> For any way of thought to become dominant, a conceptual apparatus has to be advanced that appeals to our intuitions and instincts, to our values and our desires, as well as to the possibilities inherent in the social world we inhabit. If successful, this conceptual apparatus becomes so embedded in common sense as to be taken for granted and not open to question. The founding figures of neoliberal thought took political ideals of human dignity and individual freedom as fundamental, as 'the central values of civilization'. In so doing they chose wisely, for these are indeed compelling and seductive ideals. These values, they held, were threatened not only by fascism, dictatorships, and communism, but by all forms of state intervention that substituted collective judgments for those of individuals free to choose (Harvey 2005, 5).

In the above quotation, David Harvey brings squarely into focus the process of the rise to dominance of neoliberal ideals. For Harvey, the political ideals of human dignity and individual freedom carry with them some unassailable desirability, forming aims that are themselves challenged through their conflation with the "true agenda" of neoliberalism's proponents. It is this permeation of neoliberal logic throughout the political and social realm, and the "natural" esteem to which neoliberalism is held, that I bring into focus in this chapter asking how these societies on the margins of the global economy internalise and seek to achieve development through a reliance on neoliberal logic.

Harvey's interpretation of neoliberalism remains applicable and expressive of the natural manner in which the market is assumed to address the distribution of goods, access, power and

resources around the world. This logic has filtered through the areas that have remained on the peripheries of capital accumulation, serving only as a store of resources to facilitate its sustenance, leaving evidence and trails of this modus operandi in their wake. Harvey also points out that neoliberalism and development usually go hand-in-hand today with the former being suggested as a means of attaining the latter (Harvey 2005). Interventions in the affairs of poorer countries are often justified in terms of their need to attain developed status and these interventions are usually couched in neutral and apolitical terms. This is most thoroughly explored by Ferguson (1990) who, while not specifically addressing neoliberal development, points out that aid projects which purport to address poverty, do not in fact address poverty, but instead reinforce the system that creates poverty in the first place. Likewise, I purport that the establishment of monetary values on natural resources in Guyana and Suriname does not address poverty and provide development, but reinforces the capitalist system that created the threat of extractive development in the first place.

More specifically, I delve into how the monetary values associated with REDD+, as well as those introduced to indigenous communities, are imbued with a certain economic guise of neutrality that is inherently political. It is this logic of covert interventionist thinking operating behind the guise of the neutrality that pervades this chapter as I discuss how REDD+, through its implementation in Guyana and Suriname serves to extend state power which is fragmented especially in the interior locations of the countries, while providing access to the fictitious value provided by their forests in a vein that is in keeping with the capitalist logic that informed the very creation of these societies. As Li explains, "Capitalist relations serve double duty as a vehicle of extraction and a vehicle for imparting the habits of diligence, responsibility and the careful weighing of costs and benefits that characterize, in liberal thinking, the ideal, autonomous subject of rights" (Li 2007, 20). Therefore, I explore how neoliberal reshaping of

Guyana and Suriname extract value while imparting the traits amenable to the ideal subject in neoliberal governmentality.

An important aspect of the process of capitalizing on nature is the production of carbon as a fictitious commodity (Büscher 2010). Prudham (2013) describes fictitious commodities as previously inclusive of land, labour, and money based on the fact that none is or can be produced exclusively for sale on the market (Prudham 2013). There are profound difficulties associated with moving fictitious commodities under the realm of market control and self-regulation since attempts to do so are met with societal resistance based on their social values that would never allow these commodities to be fully controlled by a price mechanism (Prudham 2013). Prudham further explains that "… the social use-value of these commodities to society cannot be fully subsumed by the exchange-value animating capitalist production" (Prudham 2013, 1578). Brockington (2011) similarly explains that PES initiatives, like that of REDD+, are forms of commodification that seek to create more things from nature that can be traded and sold. This process creating of fictitious commodities therefore "require(s) complicated social and political exercises to subdivide landscapes into titled parcels, create the banking and state apparatus that allows money to be trusted, and create labour pools and skills" (Brockington 2011, 367) necessitating complex means, as we see here, for measuring, valuing and titling nature (Brockington 2011). In part, the processes necessary for enabling the production of fictitious commodities are inherently abstract, assuming that these processes of measuring and titling are transferable to various contexts (Asad 1994). Social resistance takes place, however, when these abstractions settle into the social contexts to be altered, resulting in expressions of frustration as the values traditionally associated with resource use, especially land, are upended or clarified. Considerations of social resistance in this process of enabling fictitious conservation will be addressed in the following chapter. For now, I focus on the fact

that large 'technical' or abstract processes are necessary for enabling the creation of fictitious commodities.

Aligning society with the global economy
REDD+ goes beyond its previously described contribution of changing the relationship between indigenous communities and the forests and is now depicted as an income earner, one that further integrates Guyana into the global market economy. REDD+ is portrayed as having the ability to generate economic growth in excess of Latin American projected growth rates, while guiding the economy of Guyana specifically along a low-carbon pathway. The Guyana government, in its R-PP, describes the mechanism as oriented towards ensuring that those persons who derive economic benefit from the use of the forests can continue to do so in more sustainable ways established through international practice (FCPF 2012).

Interestingly, the orientation of development policy in Guyana has barely shifted from its neoliberal underpinnings and market focus depicted in policy documents of earlier years. The shift towards environmental concerns is almost imperceptible in the framing of the challenge, future development goals and aims of the country. The government of Guyana, again in its R-PP, states that the overall aim of REDD+ payments will be to enhance the economy through the attraction of investment into areas such as "human capital" (FCPF 2012, 9) and social services, while using payments for job provision and higher standards of living. The government explains that

> transforming Guyana's economy will require striking a balance between attracting large, long-term private investors who will have a catalytic impact on the national economy, and making significant investments in human capital and social services to equip the population for participation in the new economy (FCPF 2012, 9).

The economic growth orientation of REDD+ could not be clearer, with its references to human

capital, natural capital and explicit stating of efforts to ready the population for participation in

economic activity. The R-PP continues:

> It (REDD+) will also require a balance between using forest payments to enhance the
> opportunities for those who live in the forest and recognizing the rights of other Guyanese
> citizens, including the urban poor. The importance of benefit sharing with Guyana's
> Amerindian communities is particularly important. To meet the needs of both forest dwellers
> and the population at large, Guyana will invest a significant share of the forest protection funds
> it receives in initiatives aimed at developing jobs and diversifying the jobs base, and improving
> the general standards of living of its citizens (FCPF 2012, 9).

REDD+, as shaped in Guyana, is a tool for development. Considering that REDD+ is intended

to shift the economy along a greener and more low-carbon path, it is telling that the rhetoric

underpinning the agreement, like that quoted above, differs little from that of the National

Competitiveness Strategy (NCS) published in 2006, well before the entrenchment of market

methods of conserving the environment. This demonstrates the pervasiveness of neoliberal

ideas and how little they have changed in the Guyana government's reinterpretation of REDD+.

This emphasis on attracting investment and instilling discipline in its peoples was evident even

then as the following quote from the NCS demonstrates:

> Important progress has been made in Guyana in recent years in managing the process
> of adjustment to the new world economic environment through exercise of monetary
> discipline, improvements in the environment for private investment, reform of the tax
> system, creation of a property market, investing in basic education and infrastructure,
> and boosting productivity in traditional sectors of the economy. But important and
> pressing challenges still remain to be tackled. At the forefront is achieving the economic
> imperative of improving national competitiveness and diversifying the economy
> (Government of Guyana 2006).

One can see a clear correlation with neoliberal thought, as set out in the theoretical framework

of this dissertation. There, I had described it as a process through which growth in profit and

the accumulation of capital are facilitated through the extension and entrenchment of the

practices of commodification, financialisation, competition and market discipline representing

characteristics embodied in *homo economicus*. Guyana's NCS, from an era preceding REDD+,

is remarkably similar to these neoliberal principles in its emphasis on boosting productivity

and fostering national competitiveness. The R-PP of REDD+ and the earlier described Low

Carbon Development Strategy (LCDS), depart little from these core rationalities.

Economic growth through foreign investment and market discipline have, in recent decades, been the go-to tools for development in Guyana and the shift of rhetoric from economic development to sustainability is belied by the continued reliance on market tools and methods for ordering the society. The difference of the LCDS, underpinned by REDD+, is the shift in focus from the capital centres to indigenous communities previously marginalised in development discussions. The logic remains the same: that economic growth through the market is central, with no shift in the economic earners deemed necessary for development. With this in mind, the spin-offs of REDD+ become clearer: indigenous visibility, legibility of the forests (Scott 1998), the re-imagination of the forest from obsolete to suitable for extraction (store of natural resources to be exploited) and now, to representation of fictitious value re-imagined as natural capital.

REDD+ continues in the vein of instilling self-discipline, market awareness and efficiency in the society as depicted by previous policy documents upon which Guyana's official development trajectory has been based. REDD+, as reinterpreted by the Government of Guyana, is seen as adding to the basket of economic earners with little engagement with how these earners conflict with each other. The NCS does, however, attribute some recognition to the international drivers of resource use, stating that

> Moreover, the situation is now more critical than ever because the mainstay of Guyana's economy, Sugar, is under threat from the EU's reform of the Sugar Protocol which will reduce the landed export price received for Sugar by 36% over four years and could potentially amount to a loss equivalent to 5.1% of GDP and 5.4% of merchandise exports annually (Government of Guyana 2006, 6).

Interestingly, the NCS points out that the need for Guyana to compete on the international

market and to diversify its base is linked to the removal of preferential trade in historical stronghold commodities that, as previously pointed out, have driven the very creation of the modern-day state of Guyana. This is also true in the case of Suriname which, according to my respondents, has already embarked upon a path of diversification due to the people's insistence on disassociating themselves from the production of sugar and other historical goods (CP, April 4, 2014, Interview). This has resulted, however, on a reliance of remittances from the Surinamese residing in the Netherlands (Vezzoli 2014), extractive industries and the state as a major employer (Hout 2007; MH, 2014, interview). However, this challenge to historically entrenched income earners and identities has shaken Guyana to the core. Certain ethnic groups, in this case the former indentured servants, are particularly threatened by the ongoing reduction of their livelihood options through the now unviability of sugar. As the NCS demonstrates, much of the need to be competitive and to instil neoliberal logic of efficiency and cost effectiveness throughout the society is spurred by this need for financial viability at the country level.

Additionally, the shift of European countries towards deepened relations amongst themselves has affected the viability of sugar exports. Their integration resulted in a coalition of states, which as a unified entity, is no longer definitively characterised by colonial relations. The desires of a now unified (at least from the viewpoint of Caribbean states) Europe have reduced the intensity of the discourse of colonialism and post-colonialism and has left small, now independent former colonies without preferential access to markets, fighting a battle to adopt the characteristics they see as associated with the strength of their former colonizers. It appears that to win the battle, countries like Guyana see the need to adopt the weapons of the strong, while shifting their rhetoric and policy orientation to reflect the international concerns *du jour*.

The need to diverge from this reliance on monoculture and dependency on sugar has been recognised since 2006 with the publication of the NCS. Ironically, the lack of incentives to change the development path was the topic of the day:

> Guyana relies too heavily for its economic existence on the production and export of a few virtually unprocessed commodities. In other words, the country's economy is almost totally dependent on the production and export of raw materials. Moreover, most of these products are sold in guaranteed preferential markets at prices which even now are generally higher than those that are obtainable in the non-preferential world. As a consequence, the Guyanese producer has had no *incentive*, indeed no overwhelming reason, to be competitive, to be as efficient as possible…. Moreover, because of the ready acceptance of certain of our export products in these favourable conditions, we have tended to concentrate on only a few products, and to continue to employ outmoded production practices (Government of Guyana 2006, 14 emphasis added).

The recognition that preferential trade would soon be removed brought about an impetus towards diversifying the economy (Government of Guyana 2006). Thus far, it seems that gold production has filled that gap with its contribution to Guyana's GDP rising from 7% in 2007 to 12% in 2010 and continuing to over 15.5% in 2011 (The Private Sector Commission of Guyana, Conservation International-Guyana, and World Wildlife Fund (Guianas) 2013), with effects on the global environment with which, by now, we should be all too familiar. The need to neoliberalize the economy could not be more explicit:

> Competitiveness, at the micro level, means the capacity of our firms to compete, to increase their profits and grow. It is based on costs and prices, but more vitally on firms' capacity to use technology and on the performance of their products determined by a wide range of factors… Building national competitive advantage is not a matter of a fixed production structure predetermined by a given and unchanging set of endowments. Competitive advantage does not simply exist. It has to be *created*. It has to be carved out of initial conditions through the right enabling environment, through conscious investments in technology, education, training, information search, engineering and even research and development to create new skill and technological endowments that can allow the economy to grow by diversifying and deepening the productive base (Government of Guyana 2006, 17, emphasis added).

Competitiveness must be created, according to the then government of Guyana. REDD+ fits quite well with this effort to create competitiveness throughout the Guyanese society.

As previously noted, the largest driver of deforestation in Guyana and Suriname is gold mining,

followed by logging and smaller economic activities like infrastructure and subsistence agriculture. International markets are the main destination of the products of forest degrading activities. In Guyana, the year 2015 saw 450873 ounces of gold being declared by gold miners, with 448248 ounces being exported, demonstrating that 99.41% of the gold declared was destined for overseas markets (Bank of Guyana Annual Report 2015). The logging industry is less export oriented with 137407 cubic meters of 336, 318 produced (40%) exported in 2015 (Bank of Guyana Annual Report 2015). In 2014, Suriname declared the production of 30.782 kg of gold, of which 30.034kg was exported (97.57%) (Centrale Bank Van Suriname 2014). In terms of the production of goods, domestic markets are not by any means the major consumers of the items that contribute mostly to deforestation. These activities are subject to the demands of the international market.

In essence, the loss of preferential markets in Europe, coupled with a lack of vision and execution towards diverting the economy away from its historically charted past, resulted in an overt and explicit adoption by the Government of Guyana of neoliberal tendencies and market dependence which then had to be instilled in the society to develop an efficient workforce with an enabling environment.

Transforming the Racialized Subject into 'homo economicus'
Indigenous communities, which had previously been left out of this thrust towards market centeredness, are now being sufficiently and reluctantly integrated into the effort through the 'new' incarnation of market dominance, the neoliberalization of forest conservation. Communities themselves are somewhat divided on this process of reshaping. In Suriname, the Organisation of Indigenous People (OIP) representative explained that these communities are used to bartering as their form of exchange, but that now that cash is replacing barter, there is

a great need to build the capacity of the community members for managing money, along with basic needs such as school, recreation and health facilities (OIP, September 2, 2014, Interview). This move from bartering to cash has brought about a concomitant change in the way community members relate to each other. As one resident described, "We used to share fish. A big calabash of fish we would bring to your neighbour, bring to everybody, but now we sell meat to our brother, sister, father, anybody we sell..." (Community Member, Washabo, September 2014, Interview). When I asked why they feel the need to sell also to family members, she explained, "Everybody needs money. You don't have money, you can't buy things from the shop" (Community Member, Washabo, September 24, 2014, Interview). She went on to detail how some communities still have the culture of togetherness, such as the least modernised community in the triad of communities in West Suriname, that of Washabo, adjacent to Apoera:

> Washabo still has the tradition. They make tradition drink, culture drink. They call family around, people around and they are going to help one another to plant their farm. So it is not her alone working on the farm. They call more people and 20 or 15 or 12 or how much people come…10, 10 ladies like, and me ah go cook to eat and maybe she buy like cigarette or whatever for the men. She bring some drink in the farm also and everybody drink and work and thing. They plant the whole thing… like a community. Until Mashramami (celebration after 'hard work') when we come together. … So, you see everything change in our place, change change[20] (Community Member, Washabo, September 24, 2014, Interview).

Now due to the increased need for cash, indigenous communities are turning to exploitative and extractive options to gain income, working even with the logging companies they see as harming their ancestral forests and taking away their resources. The circumstances in indigenous communities are then depicted by international organisations working in the countries as poverty which should be remedied by both directing financial and other resources towards the communities, and by shaping the residents of these communities into more suitable neoliberal subjects, who can choose rationally between income options and respond well to

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[20] Repetition is being used here for emphasis

incentives such as those provided by REDD+. This need to govern the indigenous and forested communities in a way that makes them compatible to market concerns is by no means limited to REDD+ implementation, but the mechanism's arrival has certainly heightened this trend.

The United Nations Development Programme in Guyana (UNDP-G) is one organisation that works with the Government of Guyana on this goal of lifting Amerindians out of poverty (GRIF, 2014). It does this, in part, through the Amerindian Development Fund (ADF) created for this purpose, and is funded by Guyana REDD+ Investment Fund (GRIF) which receives proceeds from Guyana's REDD+ efforts with Norway. The ADF aims to support Amerindian communities in the following sectors: Processing, Village Infrastructure, Tourism, Manufacturing, Village Business Enterprise, and Transportation, through the provision of financial resources and the strengthening of implementation capacities for sustainable livelihood activities (GRIF 2014). The project was established to support the socio-economic development of Amerindian communities in Guyana through the implementation of their Community Development Plans (CDPs). These CDPs are said on the website to have been developed democratically by the villages, even though this has been reported to be false by one well-positioned interviewee who claimed that all the twenty CDPs made available to me at the time were written by the staff of the Amerindian Affairs Ministry in Guyana and not by the communities themselves (CP, April 4, 2014, Interview).

The Project Document of the ADF, an archetypal example of governing indigenous communities with a neoliberal logic through environmental conservation, demonstrates the logic of development interventions and its neoliberal guises. Primarily, it problematises poverty in rural communities in Guyana, and while it is by no means the first policy intervention to do so, it does so specifically in the confines of REDD+ in Guyana. Poverty here

is not as straightforward as earning power or daily spending expectations (Li 2014) since some Amerindian communities, in Guyana especially, have titles to their land and the above-ground resources on that land. They also live off the land, in some cases, depending on solar panels for electricity and lakes for water, while growing their own food. While they continue to need financial resources, they are often less dependent on finances for their day-to-day survival than their coastal counterparts. In keeping with Ferguson's identification of the anti-politics machine and Escobar's critique of the development discourse described in the theoretical framework, through the problematizing of poverty, which cannot be seen in absolutely measurable terms, the UNDP cements a role for itself and its expertise as a development organisation.

Poverty, as I see it in the context of forested communities, is not simply a lack of cash, but a lack of the means of survival, a situation that is often worsened by the very turn towards capitalist means of production (Li 2014). The pollution of rivers and the chasing away of animals the communities hunt for food by mining and forestry activities, are a large contributor to the problem of poverty that goes unaddressed in plans and interventions of development organisations. The project document establishing the ADF commences with a problematisation and role definition that side-lines these considerations. In its 'situational analysis', it marks out the problem it intends to address, namely "the situation of poverty in the rural interior - where most Amerindian Communities are concentrated" (GRIF 2014, 3), and "the specific challenges that this project proposes to address including specific limitations associated with developing rural economies in the context of the remoteness of Amerindian communities and the nuances of doing so in Guyana" (GRIF 2014, 3). The document continues by describing the circumstances that have led to Amerindian poverty such as the physical conditions of their environment, and the absence of infrastructure linking them to capital that could enhance their business opportunities. In highlighting the geographic challenge, the project document blurs

out the historical events and relations of power that have moved indigenous communities deeper into the forests and limited their livelihoods, as outlined in Chapter 3.

It also removes from view and takes for granted the partially unsatisfied claims for land rights these groups have asserted over the centuries, while justifying infrastructural development as a means of facilitating economic growth to lift these groups out of poverty. A tangential consideration is that these documents do not mention that increased access to the markets in the cities would also mean reciprocal increased access of the communities to city dwellers who place the communities at increased risk of societal change based on their ways of viewing the world, a consideration that is often overlooked in policy planning. The project document specifically states that

> due to terrain and other natural conditions, critical infrastructural challenges confront the feasibility and sustainability of many business ventures pursued by Amerindian Villages and Communities. Accessibility and logistics: remoteness and costs associated with transportation, communication and other logistical needs contribute significantly to the loss of competitiveness and necessitate the procurement of technical and skilled services, which are vital in ensuring business viability (GRIF 2014, 3).

As a corollary of the UNDP-G's development plan for Amerindian communities, enabled through REDD+ funding, the necessary remedies for the situation of poverty of Amerindian communities in Guyana would be the provision of roads and cheaper transportation, improved communication and so forth, along with educating community members in the means of competitiveness and competition, facilitating an overt policy effort, as shown below, that attempts to shape them into to the image of *homo economicus*.

The very nature of Amerindian communities is problematised in the UNDP document which states that:

> … by nature, Amerindian communities evolve and reform through community ownership, responsibility, volunteerism and communal labour. As such, there is a significant gap between livelihood needs and economic enterprises that requires careful and attentive support including

nurturing, monitoring and rapid response troubleshooting (GRIF 2014, 4).

Here, they are naturalised as communal and painted as deficient and in need of reform. It remains an open question whether the effort to make these communities more amenable to business ventures and self-management requires a change in the very nature of the communities that the document identifies as the root of the problem. Despite the temptation to quote extensively from this document, I limit my reflection to the fact that the ADF specifically aims to strengthen the management of the village structures it sees as critical to the implementation of the CDPs. In essence, the project document is underpinned by a logic that promotes market behaviour and the capacity to engage with the market as the solution for poverty in Amerindian communities. It posits that market information and communication technologies and media access are the answer to the challenges of indigenous communities, along with financing and investment options and an adequate supply of energy, which should of course, be supplied from green energy sources.

These solutions to Amerindian poverty conveniently ignore the root causes of that perceived poverty. Essentially, these communities become discursively poor when measured by the dominant economic logic, and this poverty is constructed as the communities increasingly become subsumed into that paradigm. Considering that these communities have survived, largely ignored, for centuries in the forests of the Guiana Shield, modern day poverty is a relatively recent categorisation. It emerged from the imagination of these communities as poor, through their interactions with the colonizers (Escobar 1995) and subsequent governments of the modern states of Guyana and Suriname. Also, poverty in these communities originates from a depreciation of the natural resources on which they developed, made possible through their continued interactions with the capital centres of both countries that imagine forest dwellers to be backward and different, and their environment as resources that can be and are drawn upon

for exploitation and economic growth. This exploitation is made possible through an absence of adequate rights to the land, and in some cases, through their own exploitative pursuits in the aim of development and wealth.

The UNDP Guyana, through the ADF, continues in this vein, utilizing the solutions readily available in its arsenal to suggest improvement for the communities, ignoring the more entrenched and fundamental histories of disempowerment and exploitation that have left these communities in a disadvantaged position. As the project document itself recognizes:

> The distribution of a micro capital grant for business development to Amerindian communities cannot by itself be the panacea for socio-economic development, though it does have the potential to stimulate economic activities further. The project aims to establish market access and improve linkages with players in the private sector. The task at hand therefore is to address specific capacities and capabilities related to communal business development and management for implementation; negotiations and bargaining with private enterprise; information asymmetries; and market integration (GRIF 2014, 5).

This recognition of the inability of capital grants to function as a magic bullet to solve poverty in the communities is the only reference the project document makes to circumstances beyond its control, an issue on which it does not elaborate. It does continue, however, to be apolitical in its stance and neutral in its presentation of technocratic solutions for the deeply entrenched problem of viewing indigenous communities as relevant only when their lands are needed to fuel exploitative activities and economic growth.

The CDPs themselves were explicitly capitalist in their approach, citing as examples of their envisioned development outcomes having increased eco-tourism, and improvement in business management capacity and a more sustainable economy. Some communities specifically requested improved machinery such as the provision of an all-terrain vehicle to improve employment opportunities through the provision of rides for the tourists. Some other communities were more specific in their desire to have an increase in income through activities

like honey production facilitated through training in financial and business management. There was frequent reference to the need for technological innovation in these CDPs with absolutely no reference to need for the clarification of land rights and the disadvantaged position of the communities in relation to miners operating on their land, for instance. It was clear that these CDPs were, at the very least, guided by government authorities since they were presented in the same template form with the same depiction of technology and the market as the saviours of indigenous communities through access and capacity building. Their underlying logic could be illustrated through quotations such as the following:

> Economic health refers to the need to strike the balance between the costs and benefits of economic activity, within the confines of the carrying capacity of the environment. Based on the financial calculations and with an expected Financial Internal Rate of Return (FIRR) of 7.25%, giving the risk, and in spite of the 3 years duration to cover the cost of capital, the proposed project will still yield positive economic benefits for the Village with spin off effects for community economic development, labour market development, infrastructure and agriculture with minimal impact on the environment ('Community Development Plan - Hobodeia – Region 1' 2011)

Even if these communities did not write the CDPs themselves, they depict how the Government of Guyana would have liked indigenous communities to be imagined, featuring a reliance on the available solutions. This framing ties neatly into the antipolitical nature of REDD+ characterised by minimal engagement with the reasons why indigenous communities became disadvantaged to begin with. Mitchell (1998), in his discussion of the discursive construction of the economy and the difficulty of delineating its constitution, argues that a new language was created that provided a means through which the nation-state could represent its existence (Mitchell 1998). He argues that it is at these limits of the economy that the distinctions, in this case between developed and undeveloped, become most ambiguous. Mitchell explains that the categories of capitalist expansion are incomplete (Mitchell 1998) and in the case of Guyana, the process of shaping populations into subjects amenable to the governing mechanisms the state has chosen for itself, is certainly ongoing.

Money does grow on trees - The environment re-imagined as natural capital

REDD+ continues in the vein of re-imagining the forests as economic earners and as capital. As such, the indigenous and tribal communities of Guyana and Suriname are seeing the forests no longer as primarily a provider of sustenance, but through the transformative lens of the market. This change is made through both the restructuring of their social relations and their subjectivities, made possible through the ever-present promise of development. Within discussions on REDD+, the different means of gaining income while conserving the environment feature strongly with the oft suggested activities such as eco-tourism, sustainable forestry and the sale of non-timber forest products holding sway. In this section, I discuss the way forests and the natural environment in both countries are being re-envisioned as natural capital as depicted by the way persons on the ground refer to their worth and value. Furthermore, in order to prepare communities for REDD+ implementation, overt efforts are carried out by the governments of Guyana and Suriname to facilitate their absorption into the dominant economic frame of the society. In other words, in keeping with the logic of the neoliberal subject of *homo economicus*, the preconditions for his or her functioning should be set up in these communities.

This process of establishing the preconditions for a functioning market in indigenous communities had commenced prior to the introduction of REDD+. According to Griffiths and Anselmo (2010), most Amerindians in Guyana are earning some amount of cash and survive on a mixture of cash and subsistence activities. They also note that levels of dependence on the market vary between communities (Griffiths and Anselmo 2010). Increasingly, though, references are being made to the need for the introduction of the cash society in the rural areas of Guyana (Singh, March, 2014, Interview) referring to the removal of the use of barter and the installation of the practice of basic economic relations on cash exchange.

REDD+ is explicitly described by policy makers and community members as a means of bringing cash to indigenous communities, a welcome proposition to the communities themselves. To qualify for this cash, and to be able to manage it, certain changes must be made to the way the communities are being ordered. As described in the previous chapter, REDD+ is already functioning as a means of managing forests in the indigenous communities of the North Rupununi in Guyana with internal ordering established according to the prerequisites of REDD+.

However, the introduction of the cash society is seen now by some indigenous leaders as an incentive for the destruction of forests since forests, a resource whose value was previously difficult to exchange, is now represented by cash. Joe, a representative of the North Rupununi District Development Board (NRDDB) which is successfully implementing REDD+ forest conservation activities, explained:

> Payments for Ecological Services are a good thing, because the international community claims that indigenous people destroy the forests. Indigenous people are custodians of the forests. First, they used to barter up to approximately 15 years ago. Now, there is a cash society and if there is no payment for the ecosystem services, people, even the indigenous people, will destroy it because they are becoming greedy also (Joe, April 28, 2014, Interview).

As one representative of the NRDDB in Guyana pointed out, the area has huge tourism potential with different tourist attractions available in the different villages throughout the area, including cultural and landscape tourism, birding and activity-based tourism (Tour guide, 2014, Interview). His comments reflected the emergence of a situation where indigenous people started to see themselves as outsiders looking in, and were determined that their culture would be a spectacle that would be able to earn them an income. Both within and without indigenous communities, market considerations were a pivotal factor in discussions on REDD+, forming the central language within which policy and other decision makers couched their approval or disapproval for REDD+. This should come as no surprise since REDD+ is primarily about

incentivizing behaviour change through financial incentives. The introduction of the cash society seems to be contributing to shifting indigenous views of the forests from environmentally oriented to economically dominated. The most striking example was that of a REDD+ crew member in Surama in the North Rupununi who, when asked what he thought REDD+ was for, replied by rubbing his thumb, index and middle fingers together to demonstrate that it was about money (Crew member, Surama, 2014, Interview). The fact that this community member describes to me just the financial component could indicate this changing view of the forests from one of sustenance provider to one of capital, a shift that begs the question of how their relationship with the forests will change when they continue to see it as natural capital without sufficient earnings from REDD+.

Policy makers have a wider view of nature as capital and see the financial valuation of nature as a basic step for making land planning decisions. The former commissioner of the Guyana Geology and Mines Commission (GGMC) highlighted this centrality by explaining his assertion that land use planning and environmental management should be dependent on the unit value of land. He explained that the revenue brought in by tourism, rice and standing forests and mining, for example, should be known before decisions should be made on which activity should be pursued (Woolford, 2014, Interview).

According to representatives of the NRDDB, in order to facilitate the growth of the tourism industry in the area, there is a need for cost effective and efficient development of infrastructure to reduce the capital outlay (Larry, April 28, 2014, Interview). This desire to gain as much income as possible by having hundreds of guests per year is being tempered by concerns for the environment. There is clearly an awareness even in this reframed view of the environment, that "the thing about this tourism thing is not for you to get rich, it's for you to sustain yourself,

in the meantime you build your community and support community efforts like schools, clinics, whatever, scholarships" (Larry, April 28, 2014, Interview). It is clear that even while communities in the NRDDB are entering the dominant economic system and relating to the environment as an income earner, their awareness of the need to conserve remains somewhat in place.

Indigenous communities in Suriname face similar options. In Apoera, Suriname, they too are flirting with the option of gaining income from eco-tourism and often compare their natural endowments with those of more widely known tourist destinations in Latin America (District Commissioner, 2014, Interview). However, they are more constrained in their effort to transform their forests into income earners due to the absence of formal rights to the land, a situation detailed in the following chapter. As such, outside of the practice of engaging in extractive economic activities themselves, indigenous groups and maroon communities in Suriname are less complicit in the effort to envision and depict the forests as natural capital. Given that rights to the land form one of the first steps in setting up a market-centred economy, I deduce that the neoliberal concept of natural capital is less readily accepted in Surinamese forest communities.

At the policy level, REDD+ is being proposed as a way of bringing increased revenue to the countries through raising the country's profile in terms of eco-tourism (EN, 2014, Interview). The transformation of the environment to 'natural capital' has permeated all levels of the society with conservation organisations such the one described at the beginning of this chapter, leading the charge to reform the environment into a form of natural capital. As the head of that organisation explained

> So, we help countries first and foremost, identify natural capital and determine how to use it successfully to leverage their development … and then we help countries, once they have

decided that they want to protect an area or manage it carefully (HL, October 3, 2014, Interview).

This representation of the environment as natural capital filters the market-based method of managing nature throughout different levels of society and lends a technocratic feel to discussions on the environment.

Capital is widely associated with markets, investments and economies, a realm dominated by rational thinking, logic and figures. The forests of Guyana and Suriname which had been, in colonial times, largely incidental considerations in the dominant interventionist and capitalist narrative, has been since reshaped into the imaginations of city residents and the international community as a store of raw materials, and as capital which can be managed, accounted for, utilised, invested, reaped and represented numerically. The previously overt political relations to the environment are now being tempered by the rationality of economics and neutral image of markets in a way that disguises the fact that global markets have in fact, generated the threat to the forests through demands for minerals and timber resources. This facade of market neutrality contributes to the widespread adoption of the view of markets as the solution, while contributing to the global reach and furtherance of neoliberalism.

The view of nature as natural capital is touted by development and international organisations such as the World Bank and the UNDP, but notable here is the fact that even at the community level it has changed how residents see the forests, and their relation to it. This constant reshaping of the image and discourses around the forests is largely the effect of the international flavour of the day, one that now targets the remedying of environmental concerns while achieving continued economic growth. At times, the stated environmental concern is overtly economic, as illustrated by the assertion by the previously mentioned conservation NGO

executive director's view that one sustainable approach for Suriname is that of selling bulk water to foreign countries since the forests are not commercially valuable enough to bring in enough income (HL, October 3, 2014, Interview). Conservation oriented organisations are themselves engaging in policy advocacy and taking positions on how to manage an economy and to earn income and stimulate economic development with conservation itself taking a secondary role. This view of nature as a means of earning income is entrenched also in Guyana, as one policy maker within the GFC insisting that REDD+ and the payments it generates are "… not a loan or grant, it's a payment for a service which we are providing" (Sarika, March 31, 2014, Interview).

In justifying REDD+, that policy maker explained that forests cannot be conserved without payment since without payment, there will be utilisation, and this utilisation could be unsustainable depending on the pressure of the day (Sarika, March 31, 2014, Interview). The implication here is that without financial incentives for conservation, forests will be destroyed. This logic ignores the power of sovereign governmental rules and regulations to manage the forests through national public funds, and lumps all groups associated with managing the forests as responsive to market pressures. This side-lining of governmental authority in the management of natural resources was evident also in the suggestion of the representative of the civil society organisation representing business interests who, while pointing out that public organisations, such as the aforementioned GFC, are charged with managing and protecting forests of Guyana, suggested that REDD+ was not that different since it is simply the international community paying also for the management of the forests from which they all benefit. This imagined extension of the forests as a global good brings with it ideas of global responsibility and shrinks the role of the state of the country within which REDD+ activities are taking place, while side-lining the relations local communities have with the forests. The

market expands in its reach, while state control and funding of the management processes within its borders shrinks, enabling the continued spread of neoliberalism as the dominant mode of distribution.

Questioning Market Dominance

> The real value of ecological services is not reflected in economic value (Tropenbos, 2014, Interview).

Recalling the assertion that the process of naturalizing technological approaches and of shaping the populations of Guyana and Suriname into an image more amenable to REDD+ and neoliberal ways of governing, Li (2007) notes that governmentality is usually an assemblage of existing mechanisms drawing on different types of knowledge, judgments and ways of doing things to achieve the desired change. This understanding of government as assemblages allows us to consider the role of different interests in achieving the desired aim including NGOs, civil society, different arms of government, all with different and often competing visions and methods. However, governmentality has four limits, also outlined by Li (2007), who stated that it is, firstly, not totalizing since people retain the possibility of acting; secondly, that life is unpredictable and social relations and histories cannot be erased; thirdly, that government interventions should not be totalizing; and finally, that transformations will never be complete. The extension of market logic to issues of climate change and the environment is not automatically accepted by all factions of the Guyanese and Surinamese society. People across levels and groups express their concerns about the mechanism. These concerns range from the methods it should take, to how it is being implemented, and the adequacy of basing policy decisions on monetary values in the first place. It is to these pockets of criticism and questioning that I now turn.

Some actors who are themselves leading the charge to implement REDD+ in these two countries question the mechanism's aim to a certain degree. Given UNDP's pivotal role in initiating and implementing REDD+, both on the global and local levels, it was surprising that one leading figure of the UNDP-S highlighted his concern about the funding discussions on REDD+. He asserted that market logic is not suitable for addressing the problem of climate change and that climate change is not about demand and supply since there is no demand for carbon emissions. Ironically, his phrasing of his objection reflects the dominance of market logic in policy circles. He explains that he is not supportive of the idea of buying and selling carbon credits, an interesting declaration since, according to him, 90% of his organisation's funding was tied to REDD+ at the time of the interview. He asserts:

> I am not big on the idea of buying and selling carbon credits. It might sound very strange from someone like me. I find this to be an orthodoxy that will just later down the road, keep us wallowing in the same situation that way. I have tried my best to expose myself to the literature on carbon credits. I am not sold on it (JJ, November 3, 2014, Interview).

His not being "sold on" carbon markets yet supporting REDD+ takes us back to the criticisms of REDD+ expounded on in the introduction of this dissertation, one that criticizes the option of the initiative being explicitly tied to carbon markets instead of financed through funds, such as those supplied by donor governments and interested parties. In its current iterations in Guyana and Suriname, REDD+ is supported through the fund approach, in part I assume, assuaging the concerns of the UNDP-S representative. However, some consultants and policy makers tend to be overtly supportive of the mechanism while asserting that the fund approach to REDD+ could only provide a limited level of financing. As such, carbon markets will have to play a role (SN, 2014, Interview).

Some other persons interviewed were concerned about the mechanism because of the

implication of placing monetary value on nature. A representative of a civil society organisation in Guyana explained that his concern was based on the fact that when there is no longer a demand for something, it is usually gotten rid of. He wonders then what would be the effects of a decline in demand for carbon credits (TIGY, 2014, Interview). This particular representative of civil society commented that whatever the price of nature that is assigned to it to facilitate its sale, "we can never buy nature back" (TIGY, 2014, Interview). Underscoring the fictitiousness of this approach, he explains that this valuation of nature must be recognised for the fact that it is not real. As such, he states,

> Unless we recognize that it is not real, we are going to think that 'oh yea, we have got the best value for it' but we have completely misunderstood everything. I don't think market solutions are any solutions at all. We have really got to address the way we imagine our existence on earth (TIGY, 2014, Interview).

Representatives of other NGOs, in Suriname in this instance, also recognize the inadequacy of monetary values in representing the worth of nature. The representative of Tropenbos International, which works towards increasing the scientific knowledge on the forests to lead to its conservation, explained that these numerical values are approximated and at times compared to the services nature provides in other countries. He explains that the same ecosystem services in Suriname may be less valued in other countries where there is a higher GDP. The 'relative' nature of ascertaining the value of ecosystem functions may assist in planning efforts but are not representative of a real value (Tropenbos, 2014, Interview). With this consideration in mind, Tropenbos is always careful to ensure that they do not use the word 'payment' in their interactions with communities since that will create the idea that the villages will receive money because they reside within the forests. Instead, they use the term 'benefit sharing' in order to create the impression that the area could generate benefits based on the sharing of responsibilities (Tropenbos, 2014, Interview), benefits that could include development support which would otherwise not be available. Interestingly, this argument was

contextualised within Suriname's history of receiving development aid since, according to the

respondent who alludes to corrupt practices on the part of the governing bodies, the money is

often not used for development (Tropenbos, 2014, Interview). To avoid these connotations, he

avoids the word 'payment'.

Other persons involved in or connected to the REDD+ implementation in Guyana were critical

not of the inability to reflect non-market concerns in policy making through monetary values,

but in the inadequacy of the money obtained through the Guyana/Norway agreement, a

criticism couched also in concerns about the ability of monetary values as currently structured,

to accurately reflect the worth of the forests. Other policy makers join the chorus of inadequate

valuation practices by explaining:

> What I see as the problem is lack of understanding of the value of nature, is lack of appreciation that there are other development paths to pursue, that removing forests for timber or conversion to agricultural lands or for mining is extremely short sighted, because when you really look at the substratum, this is a very old geologic formation that supports extremely unique ecosystems found nowhere else on Earth. We have failed to appreciate the tremendous value of those ecosystems, the biodiversity and a number of goods and services that they produce. A valuation done in Guyana of 580 million USD for standing forests, I think it is just a drop in the bucket (CP, April 4, 2014, Interview).

Representatives of Amerindian organisations in the country also questioned the efficacy of the

market approach to managing nature based on its execution in Guyana. The Amerindian

People's Association describes the situation where the improper assignment of baseline

deforestation levels led to controversy and the loss of revenue to Guyana.

> Determining the rate of deforestation is a critical factor for determining performance based payments in reducing rates of forest loss. In the Guyana – Norway MoU (Memorandum of Understanding), the baseline was set around twenty times higher than the actual historical rate of deforestation. During the first year of the agreement with Norway the actual rate of deforestation increased threefold (from 0.02% to 0.06% per year), yet Guyana received its first tranche of payments for reducing deforestation. This caused some controversy in international circles, and resulted in the MoU with Norway being modified to reduce payments if deforestation increases above 2010 levels, and halting payments if the deforestation rate exceeds 0.1%, which still allows for a considerable increase in deforestation. Deforestation has continued to rise since the Guyana-Norway MoU was put in place. The overall increase in deforestation compared to the last decade is due to the damage caused by gold miners, with mining remaining the main cause of deforestation in Guyana. The increased deforestation in

> 2012 could see Guyana lose as much as US $25 million, due to the modified MoU, which reduces payments if deforestation increases above 2010 levels (Dooley and Griffiths 2014, 86).

As the above quotation exemplifies, the actual execution of the preparation and implementation process in REDD+ was also fraught with methodological concerns that did nothing to allay the concerns of actors related to the agreement. The Guyana-Norway agreement was indeed heavily criticised by bodies observing REDD+ for allowing for this tripling of deforestation levels while still within agreed limits, a situation which was subsequently rectified through the imposition of a more accurate deforestation baseline. However, the APA remained concerned about their perception that technocrats are benefiting the most from the implementation of REDD+ while little benefit arrives to the indigenous communities, consolidating power in the hands of consultants and policy makers (Dooley and Griffiths 2014).

On a more theoretical level, REDD+ is criticised, along with the overall trend of monetarily valuing nature, because it neglects the variety of unvalued ways (financially at least) in which environmental systems benefit human life and development. These tensions are perceptible to some persons working in the area of environmental management in Guyana and Suriname, however. As one academic in Suriname sees it, economic values of nature are necessary because "it is the only language that politics understands" (GL, September 4, 2014, Interview). She asserts that the use of biodiversity indexes in policy making is futile since politicians are unable to connect to its values. She explains that "if you don't translate (your work) into economic values, your report, your PhD, or whatever will be something on a shelf. It is useless for the government to make the right decisions for your natural resources" (GL, September 4, 2014, Interview). Lamenting the perceived necessity of attributing financial values to environmental policy decision making, she claimed that this was the only current way to make dialogue on conservation possible, since financial values dominate the decision-making

language in policy circles (GL, September 4, 2014, Interview).

In exemplifying these tensions, and elaborating on their presence in Suriname, she continued:

> The government allocated a small part of the park and gold mining is heading towards the tourist area. 'There is a waterfall and above the waterfall, they are logging, and tourists are under the waterfall.' Over the last few weeks, there were lots of discussion and meetings and they were trying to discuss where to put the miners but the miners still got a small concession in the forests. They want to protect the park but what do they get from the park besides the money from the gold miners? This is because they are not aware of the value of the park. The park has been assigned for ecotourism since the 80s and there are good management plans for ecotourism there, but when WWF started to pull back, the government no longer wanted to support ecotourism. So now the government says that tourism is down so they allocate a piece of the mountain for gold mining. It's a perfect example of how they choose between conservation and that destructive development (GL, September 4, 2014, Interview).

The challenge of accurately valuing nature is at times also couched within the histories of the societies and the different relationships they have with nature. As the head of the GSF explained, the cultures of Guyana and Suriname have not yet melded together, but what they have in common is a certain compatibility with nature. What has destroyed nature, however, is the tendency to respond to market demands and permitting the destruction of the environment in this response.

> In taking out and selling that gold, one, we destroy nature which our cultures tell us is important to our livelihoods and important to who we are as a people, two, the value we get for that gold is artificially decided. We don't decide that value… It costs more than what the market says it costs because we are destroying other things to get it. We don't have the kind of mechanisms in place to ensure that receipts from that gold that we export are equitably distributed, that are leading to the development of our people, or that some of it has actually returned to reclaim the environment that has been disrupted. You know, we disrupt the environment. We disrupt the equilibrium (CP, April 4, 2014, Interview).

In this respect, it can also be questioned whether receipts from REDD+ would be adequately distributed to ensure, perhaps not the remedy of environmental disruption, but meeting of the needs of groups dependent on the environment for their sustenance and survival.

Relevant also is the fact that a significant portion of these economic earning activities in Suriname are directed towards boosting GDP and maintaining the large public sector in

Suriname (MH, 2014, Interview). As the discussion above demonstrates, the process of neoliberalization and the transformation of resources into natural capital is not unchallenged. It shows that people do in fact retain their possibility of acting, and they, at the very least, verbalize and question the logic of the neoliberalized environment. It shows that, thus far, the transformations intended by proponents of the REDD+ mechanism are indeed resisted and questioned, as pointed out by Li (2007) limits of governmentality. They settle into the historical and societal fabric of these countries and form a part of the next new development idea which powerful actors will likely posit for radically changing these societies, in the pursuit of the ideal of development.

Conclusion

As noted in Chapter 5, technical or abstract processes are necessary for enabling the creation of fictitious commodities. In the case of Guyana and Suriname, this process includes the alignment of the economy with global priorities; shaping those groups not automatically amenable to these imperatives into subjects that are more accommodating; and reimagining the environment as natural capital. REDD+ and its processes of readiness and implementation facilitate these changes, leading to the creation of abstraction of value, rather than just extraction. As we see here though, these two economic earning processes, are perfectly capable of being carried out in tandem.

The will to develop continues unabated in Guyana and Suriname, and REDD+ addresses symptoms of a challenge instead of engaging with the unequal, exploitative relations that brought about threats to the forests in the first place. Development and economic values are masked in a targeted and neutral guise that further the deepening and spread of neoliberalism around the globe. REDD+ continues to align the societies of Guyana and Suriname along a

neoliberal development pathway, a path that continues in the vein of exploitative power relations that erupt in deforestation, environmental damage and degradation.

Neoliberalism has become the natural order of things. This has not happened automatically. It has been actively pushed by the government and other civil and non-governmental actors in society. While I recognize the internal push towards the adoption of neoliberal tenets, I acknowledge that this is believed to be a necessity because in responding to global market demands, the prevailing system of ordering society appears to be the most logical and natural. As such, the previous governments of Guyana have overtly bought into the adoption of neoliberal approaches as a means of gaining competitiveness and income. This adoption features strongly the shift on the international arena towards the formation of regional blocks like the EU, and the liberalisation of world trade, a combination of factors that has seen former colonies lose their preferential trade status and has forced them to compete on their own on international markets. This development has motivated the governments of these countries to turn to their natural resources as a source of income, and as such, has fuelled exploitative activity such as gold and bauxite mining and logging. The very neoliberal principles that have in large part contributed to the emergence of deforestation in Guyana and Suriname are now being relied upon to remedy the ills of its own pursuit (Fletcher 2013).

All in all, the process of constructing *homo economicus* is ongoing and REDD+ is only the most recent manifestation of this societal reconstruction. This idealised neoliberal subject would be compatible with the neoliberal development thrust taking shape in these two countries. However, the process of constructing *homo economicus* is also ongoing in tandem with that of neoliberal development, seemingly further along in Guyana than in Suriname, due to the former's earlier start with REDD+ activities, and its more explicit push towards

neoliberal governance in the 1990s. Suriname, on the other hand, was less outwardly focused, gaining its development aid from the Netherlands and engaging marginally with international organisations. The ideal REDD+ subject represents the aim of reshaping the users of forests in Guyana and Suriname, interacting with the earlier established racialized subject. The technical discourse interacts with the historically rooted racialized subject, and is targeted at shaping it into the image amenable to REDD+ interventions through the policy interventions detailed in this chapter, while drawing on the narratives of the technical.

I asserted in this chapter that the process of associating monetary values to the value of the forests is partly anti-political in nature, creating a guise of neutrality and rationality in making environmental policy decisions that facilitates scarcely questioned acceptance of the global status quo, without interrogating the processes that put different groups and factions of society in disadvantaged positions in the first place. While Ferguson (1994) may have developed the concept of antipolitics to address the removal of political considerations from views of development intervention, I have in part adopted it to posit that these monetary values remove political considerations from view while re-enforcing the very system which has brought about the problem of environmental degradation, one that transforms the view of nature from that of provider of sustenance, to that of capital. The ascertaining of monetary environmental values is however inherently political, demonstrating governmental allegiance towards a dominant way of doing, and imposing, a neoliberal ethos on social and physical realm of the forests, claiming to address the ills of poverty while expanding the reaches of the system that created the challenge in the first place. As the last section of the chapter shows, however, the process of neoliberalization is uneven, often called into questioned by actors related to the mechanism's implementation. The process is fuelled nevertheless, by the seductive power of development conflated with neoliberal tenets.

This chapter focused on the application of the aforementioned technologies and knowledges to different levels of the society in Guyana and Suriname in the effort to shape them into subjects amenable to neoliberal governance. In the following chapter, I detail the resultant fragmented subjectivities after decades of continued intervention.

Chapter 7 - Fragmented subjectivities: Gold mining, Land Rights and the Indigenous Question

Conflicted Captains

Some three hours' drive from the centre of Paramaribo along a single paved road through the rainforests, I sat in Brownsweg, Suriname, with two Dutch translators in a small wooden building, the domicile of the captain of the maroon community. The home had a smattering of things, a mixture of modernity and tradition. On the way in, we had witnessed maroon women sitting outside in a communal yard, topless and wearing the patterned print that characterizes their traditional dress while tending to food in big bowls at their feet. While inside sat the captain of the small community dressed in jeans and a t-shirt emblazoned with the letters "NYC" within the image of the statue of liberty. He was seated on a white plastic chair with fragments of other places and times surrounding him, including a broken mixer, gas cylinders and empty bottles of alcohol. The following are selected, sequential extracts of my interview with this captain:

Me:	Can you tell me a little about yourself and what you do?
Maroon Captain:	I am the captain of this village. I am a gold miner
	(…)
Me:	Do you think the forests should be protected?
Maroon Captain:	Yes
Me:	Why should the forests be protected?
Maroon Captain:	For the future
	(…)
Me:	Who do you think should protect the forests?
Maroon Captain:	The Government…
Me:	What activities cause trees to be cut down?
Maroon Captain:	Gold mining, quarrying, logging and making products out of the wood
Me:	Do you think you damage the forests?
Maroon Captain:	Yes, I think so (Captain Dorps, October 27 2014, edited interview)

The above extracts reveal the inherent contradiction in the Maroon Village captain's responses to my questions. His response highlights the fact that he, as captain of the village, is also a gold

miner. Yet, he is a gold miner who also believes that the forest should be protected by the Surinamese government against the threat of gold mining, quarrying and logging, in the first of which he is himself involved. Given the historical connections of maroon communities with their lands, some seeing themselves as spiritually connected to it, this comes as a bit of a surprise.

Moreover, one could deduce that being captain of the village brings with it some representative functions in deciding for, and making decisions that affect, the community members. I am unaware of whether this role of caretaker of the community includes consideration of threats to their natural resources, health and wellbeing posed by small-scale gold mining taking place in and around their community. Secondly, the Captain believes that forests should be protected in the interests of the future, however that is conceptualised. In his present though, he feels the need to uproot trees to get to the gold that is beneath the soil presenting perhaps a conflict between future interests and present needs.

Introduction

REDD+ depicts a subject responsive to economic incentives. In the preceding chapter, I described efforts to convert people in forested communities into subjects of neoliberal governance. Here, I continue in that vein, arguing that governing interventions such as REDD+ merely complicate the subjectivities of actors related to REDD+ implementation in these two countries. These groups use REDD+ preparation and implementation to clamour for development and the establishment of new or clearer land tenure systems, drawing mostly on the social justice or development discourses, challenging the neutrality of REDD+ depicted in the technical discourse. In this chapter, I continue to reflect on the process and resistance of being governed, highlighting the process of subject formation. I use Foucault's ideas of

governmentality and Agrawal and Fletcher's adoption of the concept, to outline the fragmented subjectivities of individuals in forest dependent communities in both Guyana and Suriname. The fragmented, but racialized, subjectivities evident around the connected issues of gold mining and land rights are also explored and connected to the social justice and development discourses previously identified, with a specific focus on the interaction of these discourses in forested communities to show how efforts to govern over the centuries are shaping and reshaping these populations, now manifested in more market centred ways. I discuss the complexity of subject formation on the ground and the elusive nature of *homo economicus*, by discussing the different manifestations of fragmented subjectivity that form the meeting point of the racialized subject, REDD+ interventions, ethereal promises of development, and the efforts to shape societies in ways amenable to the spread of neoliberalism - all variously constituted in the individuals to be governed.

Subject formation is a complex process as demonstrated in the case of REDD+ preparation and implementation in Guyana and Suriname. *Homo economicus,* the ideal subject of neoliberal governmentality and of REDD+, is elusive but being actively shaped in these two countries. While forest conservation is the ideal of the mechanism of REDD+ that has captured so much attention globally, the current reality sharply conflicts with this stated aim. Through the use of this concept of 'fragmented subjectivity', I discuss how the tendency to essentialize particular subjects related to the REDD+ mechanism in Guyana and Suriname conveniently avoids the complexity of engaging with these nuanced subjects, allowing for blanket suggestions to be made to facilitate the furthering of the aims of REDD+. This essentialisation of the subject ignores the number of factors that contribute to shaping the very identities of these actors, amounting to much more than just economic considerations, the main motivating factor offered by REDD+.

Governmentality, Power and Subject formation

The complexity of subject formation is due to the fact that people react to the effort to govern them in widely different ways. Here, I recall that REDD+ is operationalised through neoliberal governmentality, building on Lemke's earlier identification of neoliberalism as rendering the social as economic with concomitant welfare reductions and demands for "'personal responsibility' and 'self-care'" (Lemke 2001, 203). In Suriname and Guyana, there is a scarcity of state support and intervention in forested communities, and when this intervention does exist, it intervenes to shape the natural environment in an image that facilitates market demands through the exploitation of natural resources. The analysis of neoliberalism through a post-structuralist lens necessitates the consideration of subject making, an aspect that emerges from the relationships of the government to those being governed. These subjectivities are not directly determined by the easily identifiable subjectivities such as caste and gender but through differently manifested relationships with those being governed (Agrawal 2005), in this case, the forests and its users in Guyana and Suriname.

Disciplinary governmentality is being used within Guyana and Suriname to support the neoliberal governmentality approach to managing the forests (Fletcher 2010). Disciplinary approaches aim to have subjects internalise the norms, in this case, of forest preservation through economic rationality and are complemented here by pre-existing rules and regulations in the form of forestry, mining and land use laws. These governmentalities support the implementation of REDD+ to different degrees in both countries, with an overarching emphasis on economic growth, the centre point of neoliberal governmentality (Fletcher, 2010). Viewing REDD+ as the mechanism of governing forests in Guyana and Suriname, I now discuss the subjects of REDD+ as evidenced in both countries, and their conflicted interpretations of self and fragmented relationships with the forests that REDD+ seeks to conserve. The state in this chapter is especially de-centred (Vandergeest and Peluso 2015). I

recognize it as a key actor but have shifted focus from state\sub-state relationships to a wider

view of different actors in the political economy. The issue of gold mining within the context

of debates on land rights form an area of intense fragmentation of the subject at different levels

of the societies. It is to these areas I now turn.

Figure 27 - A mined-out site in Mahdia, Guyana showing the effects of gold mining on the forests (Collins, 2014)

Because its gold! Gold Mining and the fragmented subject

The social justice discourse presents the most resistance to the effort to govern the forests

through REDD+ by drawing attention to the historical and current injustices that continue to

shape the options of communities in, and users of, the forests. I argue here that the discussions

on gold mining and land rights in Suriname and Guyana reflect the limitations of neoliberal

governmentality in that it represents gold mining as an activity that cannot be stopped due to

the threat of wreaking havoc on the societal balance of both countries. Actors related to REDD+

in Guyana and Suriname are highly conflicted in the way they describe and relate to the forests,

resulting in political tensions and fragmented subjectivities. In the following sections, I

interrogate these relationships and describe how the effort to govern these communities

engaged in deforestation or degrading activities through the incentivisation of conservation

envisioned by REDD+ does not connect to *homo economicus* as described in the academic literature on neoliberalism and neoliberal governmentality, but instead helps to form what I refer to as fragmented subjectivities. By fragmented subjectivities, I am referring to those actors affected by REDD+ implementation who state their interest in preserving the forests, while acting in contradicting ways; and to the different representations of subjects in this effort to govern the forests.

Internal fragmentation

While forest conservation is the stated ideal not only of the maroon captain described at the opening of this chapter, but of the mechanism of REDD+, the current reality sharply conflicts with this aim. This internal conflict between the historic ties to the land in these communities; the drive for economic growth and sustenance; and the aim of protecting the forests is the tension to which I refer when I speak of fragmented subjectivities which are impurely constituted in the effort to govern forests through the implementation of REDD+. The maroon captain exemplifies the fragmentation not just of individual subjects but of groups and forested communities affected by REDD+ implementation, both in the way they are depicted in the policy documents related to REDD+ and development in both countries, and in the way they see themselves.

When I consider, however, that the community in which the interview with the maroon captain took place is one that is trans-migratory in that they were moved away from their traditional lands to make way for large scale infrastructure development, his contradictory approach to the forests makes a bit more sense. The area where this interview took place is a site where historical events set the stage for the emergence of gold mining as a threat to forest conservation. Brownsweg is a collection of maroon communities along a main highway cutting

through the northern part of the forests of Suriname. The founders had escaped enslavement centuries ago and settled in the forest. In 1964, the then Dutch colonial government completed construction of the Afobaka hydropower dam to provide low cost electricity to fuel the country's then booming bauxite industry. These communities, comprising approximately six thousand maroons, were forced to relocate and those members who refused, saw their communities flooded losing infrastructure, land, spiritual grounds, and even their lives. The communities were then relocated to the area of Brownsweg, near the mountain of Brownsberg on which a nature park was established in 1969. Gold mining is now being carried out in the Brownsberg national park under government approval by gold miners, most whom are from the Brownsweg trans-migratory communities nearby. Efforts are being made to limit the reach and effects of the mining but its continuation, even within a protected area given its negative impacts on biodiversity and even ecotourism activities, is telling. Academics in Suriname see the activities of nature tourism, which usually takes place in the protected area, and gold mining, as incompatible (GL, September 4, 2014, Interview). However, gold mining continues to be allowed due to the Government's recognition that these communities are disadvantaged and suffering from centuries of abuse.

The difficulty of conserving the Brownsberg nature park in Suriname illustrates the difficulty of reconciling the need for economic earnings and growth of the Suriname government, and the history of the area and previous actions of the Dutch colonial government, an injustice that has continued into the post-colonial era. The authorities of the nature park wanted the miners out of the park but the representative of the Gold Sector Planning Commission (OGS in Dutch) stated that "this, of course, was not going to happen" (Rick, November 11, 2014, Interview). He explained that after extensive consultation with the three communities that mine near the park, the OGS decided that since these people had been mining there for 12 years already and

had caused significant destruction of the environment in that location, they would be allowed to continue mining there, considering that the location had enough gold reserves to keep the miners engaged for an additional ten years. In order to ensure that the mining does not spread to the remaining areas of the park, an outpost was created in the buffer zone to ensure that the miners stayed in their designated area (Rick, November 11, 2014, Interview). These communities also have difficulty finding land for mining and are often expelled from their lands when large-scale mining concessions are granted (SR, 2014, Interview).

The unaddressed issues of social justice are palpable in this case, and are a direct contributor to the challenge of protecting forests in Suriname since these groups cannot in good conscience be prevented from engaging in this means of earning income given that their precarious situation is the result of unremedied historical injustices.

Figure 28 - Effects of Gold Mining in Brownsberg Nature Park, Suriname (Collins, 2014)

Figure 29 - View of Flooded out area and dead trees from where Maroon communities now comprising Brownsweg were displaced, seen from the Brownsberg nature reserve (Collins 2014).

Forested communities frequently draw on the social justice discourse while criticizing the development thrust on the coasts of Suriname and Guyana, demanding also the redistribution of perceived development outcomes to their benefit. As demonstrated in Chapter 3, they point out that their situations are precarious in part because of the exploitative historical relations that have shaped these societies, and they resist REDD+ as a mechanism for governing their resources because they see it as one additional means through which they are short-changed in their interactions with their governments, Europe, and the wider international community.

Group level fragmentation

While they may have common origins, the maroons in Suriname are by no means homogeneous in their views and political standings. Even though several maroon communities are themselves engaged in gold mining, some maroon and indigenous communities are vehemently against mining in their areas. They point to the negative environmental and societal effects of the activity on communities where mining takes place, and state their desire to keep it away from their areas (Woodworker, October 29, 2014; Community Member A, September 24, 2014, Interviews). The variation in views of the maroon communities would be surprising only to those who maintain that forested communities are by nature better placed to protect the forests, as is common in discourses of the "ecologically noble savage" (Stearman 1994). Maroons' relationships with the forests, and their subjectivities in relation to them, are based on factors such as their historically racialized relations to the environment, their experience with gold mining, proximity to the city, and whether they had been the victims of forced relocation to facilitate infrastructural development.

The miners themselves are also conflicted in their view of mining in a variety of ways. Some openly state that they destroy forests regularly as part of their work. They also accept the societal ills that come into communities through their work and behaviour, eroding cultural norms and values. In the words of a maroon representative of an organisation representing the interests of miners in Suriname,

> Many times, you see the gold diggers looking for gold and destroying trees. Sometimes, you see the gold diggers, and by doing so, because they have their needs and they bring in prostitution coming into the community, something that destroys almost the system of how we know to live with each other (WR, 2014, Interview).

Conflicting approaches were also evident in how the miners view themselves in relation to the environment. Some small-scale miners believe that they can remedy their damage to the

environment by being responsible, filling the holes left in the earth and by refusing to use poisonous chemicals (George, July 9, 2014, Interview). These small-scale miners blame deforestation and environmental damage on large-scale mining companies (George, July 9, 2014, Interview). This issue is debatable since the potential for remedial action after mining is dependent on the scale of the damage. Moreover, the potential of regeneration of the forests after mining interventions is unknown. One academic working on forestry issues in Guyana claims that the poor soils in the country do not foster speedy regeneration (JB, 2014, Interview). In Suriname, researchers have found that small-scale gold mining and the repeated movement of the soil necessitated by it slows regeneration, and produces vegetation cover post-mining that is of poor quality relative to undisturbed forests (Peterson and Heemskerk 2001). They estimate that mined out sites will remain deforested for a minimum of ten years with perhaps centuries passing before mining pits bear resemblance to old-growth forests (Peterson and Heemskerk 2001).

Gold miners, along with their representative organisations, frequently allude to how deeply mining is connected to the gold price, which functions largely as the determining factor for whether a mining enterprise was viable. The gold price formed the measure against which input costs are calculated to estimate the risk of finding enough gold to cover these costs and make a profit. The viable gold price is currently estimated at 1200 or 1300 USD per ounce of gold (MGJS, March 27 2014, Interview). Despite their awareness and responsiveness to the gold price, small-scale gold miners see mining, and their residence in forested areas, as a central part of their identity. As such, efforts to govern the forests through REDD+ find sedimented resistance in the racialized subjects who identify themselves along the lines of their traditional relations with the forests, and their needs for economic sustenance.

Governmental disparity

At the government level, too, fragmentation in terms of policies to address gold mining is also evident, as demonstrated by the clash of interests where the Guyana Geology and Mines Commission has recently been subsumed under the newly created Ministry of Natural Resources and the Environment (MoNRE) presenting a conflict in its own right since this Ministry now has a mandate of both protecting nature and of exploiting the resources it provides. The Government of Suriname sees small scale gold mining as very damaging to the environment but is seeking to streamline mining within its borders. Since 2010, the OGS has attempted to create order in this area by working with the some twenty to thirty thousand illegal gold miners to bring them into the country's formal economy, since there was no legal mechanism for facilitating gold mining in the country. However, due to the wide scale and long period of uncontrolled gold mining in the country, significant amounts of forests have been removed or degraded. Nevertheless, in Suriname, according to one policy maker working in both countries, the exploitation of the country's gold deposits is driven by the directive from the Governments to exploit the natural resources of both countries to the maximum extent possible (CP, April 4, 2014, Interview). This should come as little surprise considering that while some representatives of the government of Suriname were harshly critical of the effects of gold mining and forests on the interior of the country (MoRD, 2014, Interview), there were also reports of some government representatives engaging in mining by owning concessions (Paul, October 26, 2014, Interview).

In Guyana, a similar duplicitous logic ensues where in the LCDS, gold mining, its revenues and contribution to the local economy, is described in glowing tones, noting that mining and quarrying contributes to 10% of Guyana's Gross Domestic Product (GDP). In the space of one year (2011-2012), the value of mineral production is said to have risen by 28.9% to G$175.8

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billion. In terms of foreign exchange and exports, mining and quarrying rose from 58.7% to 61.6% of the total of US$1,291.1 million in 2012. This rise is due in part to the rise in the price of minerals including bauxite and gold. Gold accounts for 78% of this output. Approximately 20,000 persons were reported as being involved in mining and quarrying in 2012. The strategy described the likely increase of the output of gold as stemming largely from increasing investments in large-scale gold mining (Office of the President, Republic of Guyana 2013). However, in Guyana, gold mining is the largest driver of deforestation in the country. While the country pursues its REDD+ effort, there is no effort to reduce mining, as long as it falls within the agreed, yet problematic, deforestation rate.

While vilified as the source of much environmental degradation and deforestation by government representatives and NGOs, and lauded for their contribution to the economy by other governmental officials and NGOs, miners are also often portrayed as innocent of these claims by bodies that represent or regulate them. According to the Guyana Gold and Diamond Miners Association (GGDMA), there is no link between damage caused by the use of mercury and mining (GGDMA, May 9, 2014, Interview), a connection known as irrefutable the world over. The GGDMA also refutes the claim that gold mining is responsible for as much as 93% of deforestation, referring to that as "nonsense" (GGDMA, May 9, 2014, Interview). According to the environmental department of the GGMC, which regulates gold mining in Guyana, this statistic is due to an error in calculation. The GGDMA attributes any other environmental damage to the inability of the GGMC to manage its miners and to enforce the mining laws. However, according to media reports and an anonymous source, GGMC officers, while themselves forbidden from owning or participating in mining claims, do in fact own gold mines (even if unnamed on the mining claim establishing ownership), bend rules to suit their own operations, and accept large bribes usually in the form of gold, from miners (Anon, 2014,

Interview). Mining officers argue that if they were to adhere to the formal rules of gold mining in Guyana, the industry would grind to a halt (Anon, 2014, Interview).

The GGMC however, agrees with the GGDMA that attributing 93% of deforestation in Guyana to gold mining is an overstatement. According to their representatives, deforestation is partly the fault of the Amerindians who engage in slash and burn agriculture, which is incorrectly interpreted by the satellite data. Also, forestry, and its clearing of forests to build roads to access timber resources, is pointed to by GGMC officers as a major source of deforestation (GGMC, 2014, June 6, Interview). When asked whether the attribution of almost 93% of deforestation in Guyana to mining, they responded that "That seems very farfetched. We have a lot of issues with that" (R1 GGMC, June 6, 2014, Interview. He went to on state that the satellite image is incorrect in their interpretation of mining and to highlight that there was a wide area of slash and burn agriculture in the country. To that, another responded that "That is done by the Amerindians, the Amerindians, slash and burn, that is the way how they cultivate" (R GGMC, 2014, June 6, Interview). This representation of mining as innocent of some of the charges against it is widely contested since representatives of the WWF also attributed these burnt-out swathes of forests visible from a fly-over, to the activities of small-scale gold mining. One claim by the GGMC that rang true is that there is little opening of new mining areas since small and medium scale miners frequently rework old mining sites, especially when the viability of their enterprise strengthens due to increasing gold prices. As such, finding a small amount of gold may bring enough income to cover their costs and provide them with a profit even in previously 'worked' areas. The amount of gold unearthed in each mining claim is largely the luck of the draw in small-scale gold mining since prospecting is not as systematised as in large scale mining where there must be some certainty that substantial amounts of gold are available to justify the initial cost outlay for starting up the mine. As one miner in Mahdia, Guyana,

explained, some gold always escapes the miner during the process. This particular miner had not removed any forest cover since he was working in an area, which, according to him, had been mined over five times (Miner 1, Mahdia, 2014, Interview).

As one afro-Guyanese miner in St. Luce, an area near to Mahdia in Guyana, described,

> Well in some cases, people do rework the area. What happen, the kind of mining we do sometimes is throw away the gold right? so you would find some people working certain areas the old pork knockers were working back in 68 and time like that, because dredges and thing weren't so thing (popular) at the time. Is the Brazilians and so, I understand that brought in this engine kind of dredging thing, and the Guyanese run with it and, so you would find areas that have already been worked but because of machinery and engine and stuff, you won't find that the pork knockers, you know they late working (they would have missed it) would always find a piece of gold right there. You would always find an opportunity, so nuff (many) miners normally go to where them old pork knocker working, because they time was shovel and spade and drag-a-line, yes that's what we called (George, July 9, 2014, Interview).

Clearly, at least to some degree, miners are responsive to market demands as imagined through the neoliberal governmentality logic of REDD+, especially in their self-sufficiency and demonstrations of self-care (Lemke 2001). The management of their operations is based on careful calculation of the economic benefits, and they explain the input costs and the gold prices necessary to sustain their operations (George, July 9, 2014, Interview). Their subjectivity is not so straightforward though since their allegiance to the mining enterprise is often unshakeable. As one miner replied when asked about whether he will still be working in the Mahdia area in a few years, "I am not certain about around here but what I am certain about is that I love this job and nothing is gonna stop me from doing it" (George, July 9, 2014, Interview).

Gold mining in both countries, as shown through the Brownsberg example and the allegiance to the activity of gold miners in Suriname, presents a certain red line that cannot be crossed which frames the banning or reduction in mining as extremely unlikely or impossible, lest chaos be unleashed in society. It is reminiscent of Li's (2007) assertion that governmentality is limited through the need to maintain some sort of societal equilibrium with minimal

intervention into the delicate balance between social and economic processes (Li 2007). The inevitability of gold mining is also captured by the representative of Transparency International (Guyana) who works on issues of forest management. Referring to the then uproar over the fact that the Guyana government had lost 20 million USD from its agreement with Norway due to increasing deforestation attributed mostly to gold mining, he described the government's response to the environmental threat:

> When the new Minister of Natural Resources and the Environment took the bold and commendable step... He said, 'Oh we are going to put a hold on any new claims of river mining. Now river mining should be banned. Everybody knows that, even the people who are mining in the rivers know that it should be banned but they don't want it to be banned because they're getting gold, they are getting money. But when he said he was going to put a hold on any new licence, you're not saying that the ones that are there will have to stop, you're saying that you are not going to give them anything new. There was a huge uproar from within the mining sector and within a very short period, he backed off. Why did he back off? Because it's gold! The miners will tell you that. The mining association will tell you that. It is gold. They have got the money (CB, May 9, 2014, Interview).

Largely, organisation and government officials have resigned themselves to the fact that mining will continue. Scope for better management is how they exercise their influence. Little effort is made by policy makers to change gold mining trends since this is unacceptable to key groups in society, some of whom frame their disputes along the lines of the development discourse (i.e. mining is central to continued economic development) and others who draw on the social justice discourse (i.e. mining is damaging to their prospects for health and well-being). Banning mining is officially a futile talking point since this will never be accepted by the population, especially when pushed by a government seen as unable to provide alternative income earning options.

While Guyana has already institutionalised gold mining and has a formal system of managing it, challenges to the quality notwithstanding, Suriname has only recently begun to institutionalise small-scale gold mining through the OGS. My interview with the head of the organisation revealed quite a bit about how mining was viewed in Suriname, and the efforts to

govern them and their interaction with the forests. He explains that in 2010, he, with a law enforcement background, was appointed to lead a special task force to bring law and order to the lawless gold mining sector. By the end of 2011, there were about 120 persons made up mostly of former military personnel, working to bring order to the interior. The aim of the force was to make miners become mainstream by "flipping" (Rick, November 11, 2014, Interview) them, that is, making them get registered with the tax office and by helping them to become "bankable" (Rick, November 11, 2014, Interview).

Further, these miners were trained to use less mercury and to cause less pollution. Previously, there was no source of mining permits for small-scale miners in Suriname. There are approximately thirty thousand miners in Suriname but the OGS claims to have brought some order to the situation. The aim, according to the leader of the OGS quoted below, is to treat them like a sick person who needs treatment and to seek them out and make them orderly through medicine in the form of mining rights (Rick, November 11, 2014, Interview). This action was spurred by the recognition of the government that gold mining is economically important for Suriname in the form of export earnings and jobs. This analogy of the miner as sick connects with the creation of the category of despised, uncivilised and maligned miner, which is criticised based on its damage to the well-being of nature and human life. Increased management through regulations and rules of disciplinary power are then needed to make these miners inculcate the ethic of environmental concern, in the furtherance of the aim of forest protection and REDD+.

The head of the OGS compared this process of regulating small-scale gold miners to the setting up of a church in hell. He explains:

> Well, you are in hell so everybody is bad and you have to try to bring in these little souls and try to convert them. But still you are in hell so we will never forget that we are in hell because

we are around these 4000 gold mines, pits, people don't want to listen, they don't have time, they want to make fast money, they don't want to learn new skills and they are surviving. That is the little church in hell, so the little church in hell tries to win souls and with the difference that my church has pastors with ATVs and they go out… (Rick, November 11, 2014, Interview).

In the overall effort of rendering of deforestation technical, miners have been depicted as both the problem to be remedied, the main source of deforestation, and as great economic earners for the society. As Li (2007) explains of the limits to governmentality, mining is presented as somewhat inevitable, and the governmental body as merely able to reduce their harm through management. The way miners and mining activity are interpreted is varied, dominated largely by its means to contribute to the economic earning potential of the miners, and the countries in which it takes place.

The effort of government organisations like the OGS to have miners internalise the norms of better management of the forest resources complements the overall effort to govern through neoliberal governmentality presented by REDD+, representing the disciplinary aspect of governing here. The neoliberal subject here remains contested. In the following section, I continue to delve into polarising issues with a discussion on land rights. Deeply connected to the previous discussion on gold mining, it presents a core consideration of REDD+ and the management of subjects and forests in Guyana and Suriname that contributes to the polarisation of subjects.

The question of Rights to the Land
The above described debate on gold mining is intricately linked to internal conflict on who has rights to the land in Guyana and Suriname, and the historical claims and contestations around land use practices. When viewed from the lens of the political forests (Peluso and Vandergeest 2001), this debate is shown to be connected to the colonial period when land, specifically forested land in this case, was "designated, legislated, demarcated, mapped and managed"

(Vandergeest and Peluso, 2015, 162) by state institutions. This transferred automatic usage rights from the traditional users living in the forests to the state, creating a new category of customary rights and leaving a legacy of racialized access to the forests (Peluso and Vandergeest, 2001).

The inability of successive governments in both countries to satisfactorily address the issue of land rights is a bargaining chip for the communities, especially in Suriname, who draw heavily on the social justice discourse and arguments of injustice meted out to them over centuries to challenge REDD+ implementation and to demand certain political concessions which they see as able to improve their overall wellbeing. The discussion on land rights in both countries is most evident in the social justice discourse and fragmentation is evident at the societal level where different groups harshly contest the perceived inadequacy of their legal rights to the land on which gold mining, forestry, or any other economic activity must take place. In this section, I present a brief account of the debate on rights to the land in Guyana and Suriname, and reflect on how these relations contribute to the fragmented subject.

The trend of international investment as a driver of natural resource exploitation has taken on different tones with the large influx of Chinese business interests that do not always follow the legitimate channels for managing natural resources. Concerns about these practices were voiced by a number of my respondents who were concerned about the Chinese interest in the forests of both countries. Within Guyana, this is manifested by agreements with Bai Shan Lin, a Chinese company which, according to one respondent attached to the WWF, has control over 1 million hectares of Guyana's forests, a claim which has been strenuously denied by Guyana's Minister of Natural Resources and the Environment. However, it is reported, by the aforementioned respondent that Bai Shan Lin, has both forestry and mining licences in the area,

the former of which would allow it to sustainably log forest according to the guidelines previously mentioned, while the latter would allow it to clear cut areas to access the minerals underneath. Of more concern is the fact that Bai Shan Lin's practices seem to be largely ignoring the guidelines as videos have emerged lately in the Guyanese media of clear cutting of large swathes of Guyana's forests (Unknown, 2014). Policy makers and representatives of forest communities claim that these Asian companies operating in these countries are taking advantage of the knowledge that Suriname and Guyana do not have the resources to limit their operations (JJ, November 3, 2014, Interview) allowing for challenges to the management and governing capacity of both governments.

Guyana

In Guyana, Amerindian lands are owned and managed by the communities who have complete rights to the land except for mineral rights. By law, they can veto attempts to have medium and small-scale mining take place on their land, but not large-scale mining (Guyana Lands and Surveys Commission 2013). According to the national land use plan (NLUP), land lease types can be small-scale (27.58 acres) permits, medium-scale (150-1,200 acres) or large scale prospecting licences (500-12,800 acres) renewable yearly that can be converted into a Mining Licence (up to 20 years or life of deposit, renewable) (Guyana Lands and Surveys Commission 2013). Public land is, in effect, all land that is not owned privately or by Amerindian communities. The GGMC and the GFC administer leases for resources on and under the land, for mining and forestry respectively with each agency imbued with the capacity to issue titles for different purposes over the same land space as discussed above.

Region	No. Amerindian Areas (MoAA & LCDS)	No. Titled Amerindian Areas (GL&SC)	Extension Applications	Total area of Amerindian Land (ha) (GL&SC data)	% Amerindian Land
1	26	24	3	351,828	18.0
2	9	5		127,936	21.4
3	1	1		17,391	4.7
4	1	1		63,676	29.2
5	1	1		35,870	9.0
6	1				
7	18	12		468,947	9.9
8	17	16	1	269,799	13.9
9	31	27	8	1,765,440	31.5
10	7	8		125,606	7.5
Total	112	95	12	3,226,492	15.3

Source: MoAA & GL&SC 2012 and LCDS

Figure 30 - Status of Amerindian Land Titling in Guyana
Source: Guyana Lands and Surveys Commission. 2013. 'Guyana National Land Use Plan'. Report.

As depicted above, the NLUP reports that in November 2012, there were 112 Amerindian Communities recognised by the Ministry of Amerindian Affairs of which ninety-eight Amerindian Villages possessed land titles. Twenty-five villages were of unknown title status and were in the process of being demarcated. Twelve of the ninety-eight villages possessing titles have applied for extensions of their land areas of which three have been issued and demarcated, with the rest being processed. The large majority of the communities were those recognised before independence but the number has risen since then. The status of some communities is disputed with at least six communities challenging the small size of their titled area in a court action that has been ongoing for 11 years. The status of the titling effort is shown in the table below.

	Total	Title			Demarcation	
		Title Issued	Unknown	In Preparation	Demarcated	Not Demarcated
Villages with Grant of Title	98	62	25	11	73	6
Extensions applied for	(12)	3		9	3	9
Settlements without Grant of Title	14		9	4		
		Plus 1 settlement with title not issued				
Total	112					
Other Settlements	19	Established before 2003 and will become eligible for title in the future				
Mixed Communities	9	Communities with significant number of Amerindian population				

Source: MoAA & GL&SC 2012 and LCDS

Figure 31 - Progress of Amerindian Land Titling
Source: Guyana Lands and Surveys Commission. 2013. 'Guyana National Land Use Plan'. Report.

In Guyana, the Amerindian Act serves as the legal basis on which the right to the land of Amerindian communities is established. It is presented by the Government of Guyana as a sign of their willingness to engage with indigenous concerns and to recognize their need to have some amount of self-determination. It is however, often challenged by representative organisation of indigenous groups in Guyana as insufficient. An analysis carried out by the most vocal representative body of indigenous issues in Guyana, the APA, claimed that the discriminatory norms with roots in the colonial period continue to be manifested in the Guyana's national legal framework, supporting the notion that all the untitled land in the country is solely the domain of the state, a position that does not consider customary land ownership rights of indigenous peoples (Dooley and Griffiths 2014).

In describing tensions that are rooted in the creation of the political forest (Peluso and Vandergeest 2001), the report describes that the accepted view regarding indigenous people's

rights to the land in Guyana is that once the British colonial power took control of the country in the 19th century, the rights to the lands of indigenous people were voided. Hence, property rights are the sole domain of the state and must be defined by their acquiescence or granting of these rights. Thus, the traditional use of Amerindian land must be granted to gain recognition. The APA sees this as against international human rights, especially considering that forestry and mining concessions are often issued by Guyana government bodies within the areas considered customary lands by the Amerindians. As such, conflicts between the communities and loggers and miners happen frequently. Regarding the allocation of land titles to some communities, most of these villages are reported as dissatisfied with their titles since they are not representative of the lands they have traditionally used and lived on. Further, many settlements across the country are entirely without title. The ability to log and mine within the communities is at times also excluded from the community's land title, and local court rulings tend to support these extractive activities carried out by non-community members when they are challenged by the communities (Dooley and Griffiths 2014).

Figure 32 - View of the Amerindian Village of Surama in the North Rupununi (Collins, 2014)

The REDD+ process has been roundly criticised by indigenous representatives in Guyana on the grounds that it does not adequately address indigenous land rights concerns. Recounting the beginning phases of REDD+ readiness preparations in Guyana, the APA in their special report describes how an early draft of the R-PP was approved by the FCPF of the World Bank in June 2009 despite what they describe as poor participation of the indigenous peoples. Although some corrections to the R-PP were requested and carried out subsequently, some issues remained unresolved while REDD+ forges ahead (Dooley and Griffiths 2014).

On the other hand, the representative body of gold miners in Guyana criticizes the Amerindian effort to gain recognition of their land use by stating that the Amerindians in Guyana have interests solely in lands known to have gold, an allegation which would be difficult to substantiate given the difficulty of knowing which areas have substantial gold deposits. These conflicts are actively playing out in the law courts of Guyana with Amerindian communities usually suffering grave losses based on the fact that some mining licences were given out prior to the signing into law of the Amerindian Act which gave them some rights over their resources (GGDMA, May 9, 2014, Interview). Detailing the fight over land rights in Guyana, the APA explains that the lands communities expect will be granted to them are at the same time being granted as mining and logging concessions. This was illustrated by a court case where the GGMC asserted that it would not be accepting fees for mining concessions in proposed Amerindian lands, but was forced to continue doing so because the miners filed an injunction and won. A representative of the APA explained the way that different interests compete for access to the land as follows:

> You have areas that fall within traditional lands that are not titled Amerindian communities that will be considered under the REDD+ scheme. At the same time, you have, and that's competing within the indigenous traditional interests, you have indigenous communities also competing and conflicting with the mining and the forest sectors, and protected areas, and who else knows, or what other sector as well. That's what the Amerindian Act says, that villages have to give permission. But the constitution retains the rights to mineral resources and the mining act takes precedence and all resources belong, and that is what the agency has been

promoting, that is what the courts have upheld. Because the Mines commission has the right to grant permits prior to a community giving permission. So, the miner can easily have a piece of paper which says 'I have permission to do this mining here' then move to the community and say 'Can we have a mining permit?' In the case of traditional lands, that doesn't apply. The Mines Commission will give a mining permit and that's why you have one community being taken to court over and over and over again because they are seeking to protect their waterways, they are seeking to protect their lands. One of the only untouched rivers in that area and they are seeking to protect it, well the mines commission is saying the miners have the right. The court is saying the Miners have the right. But these people… and this is where the clash between protection of the environment and extractive activity and protection of a people comes into play (APA, March 21, 2014, Interview).

In Guyana, some of the funding the country then gains from the REDD+ process is allocated to continuing this demarcation process (Office of the President, Republic of Guyana 2013), a process the APA sees as fraught with irregularities that will again result in short-changing the Amerindians (Dooley and Griffiths 2014). This is exemplified by the case of Isseneru where a miner was allowed to carry out medium-scale mining despite the community's disapproval based on the fact that his mining claim was granted before the award of their land title. Amerindians have sought to have these perceived injustices remedied by the courts but have lost their case and subsequent appeal.

According to the NLUP though, cost is the major impediment of the country's progress in demarcating land. The plan also states the government's commitment to clearing all outstanding requests by 2015, through its partnership with the UNDP, a target that has not been met (Guyana Lands and Surveys Commission 2013). The image below shows land use patterns devoid of contestation by Amerindians. The one that follows shows a sample of areas contested by Amerindians (Dooley and Griffiths, 2014).
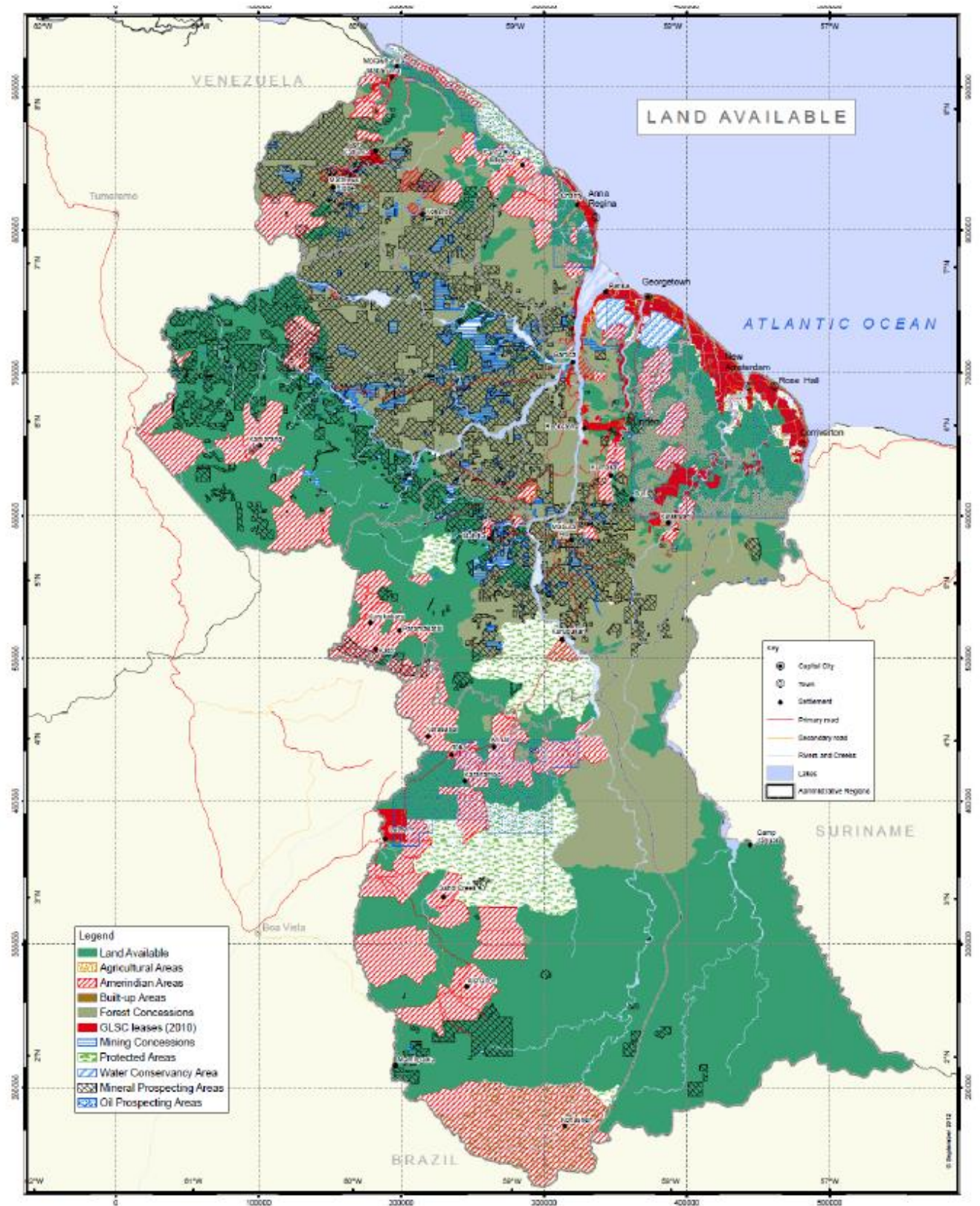
Figure 33 - Map demonstrating land classified as available by the NLUP not reflecting contestation by indigenous communities
Source: Guyana Lands and Surveys Commission. 2013. 'Guyana National Land Use Plan'. Report.
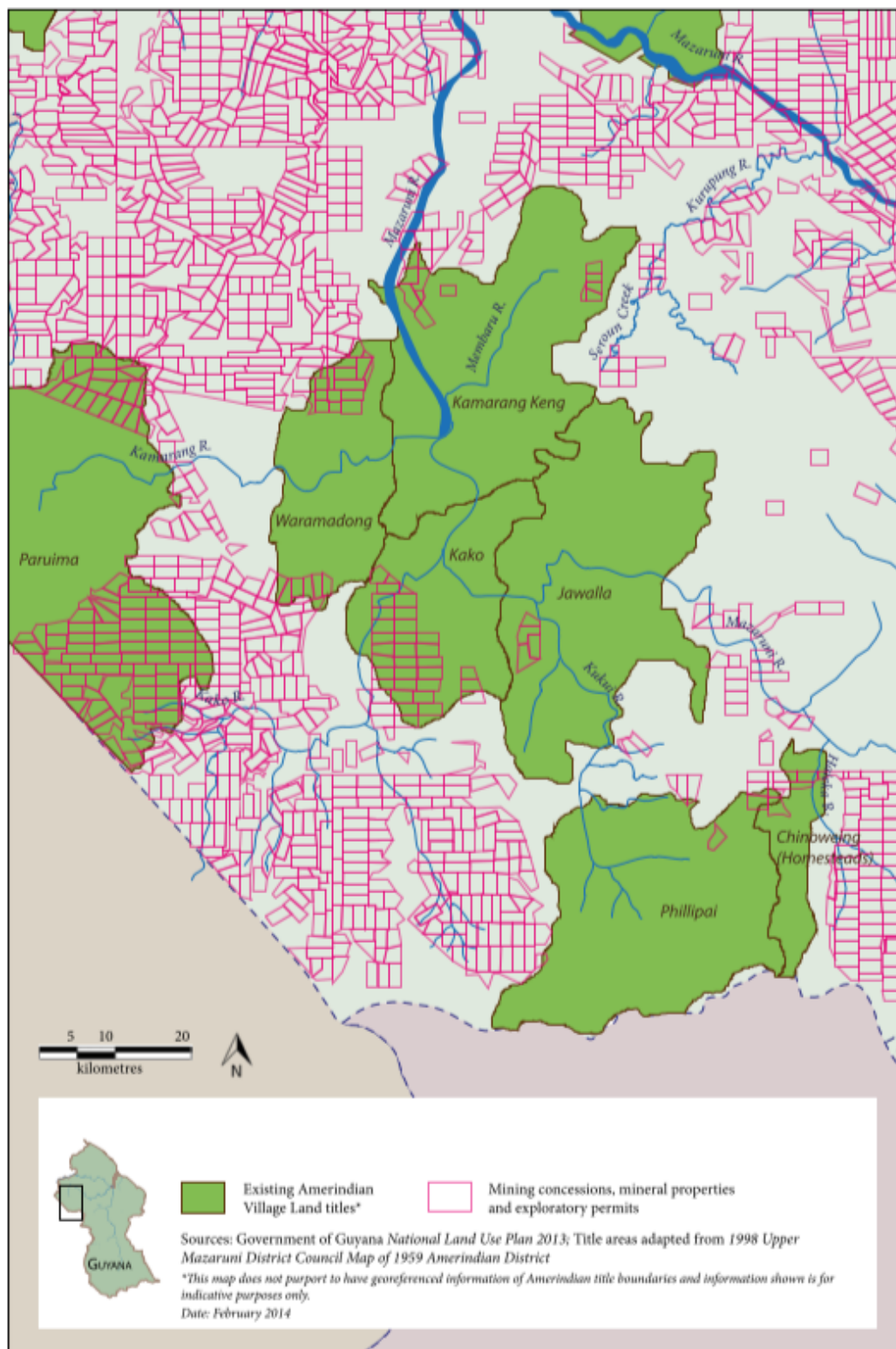
Map 3: Much of the Upper Mazaruni territory of the Akawaio and Arekuna is affected by imposed mineral properties and concessions that have been issued to miners without the knowledge or consent of affected communities and without repect for ongoing litigation on the same lands in the High Court of Guyana.

Figure 34 - Sample Map illustrating land contestation
Source: Dooley, Kate, and Tom Griffiths. 2014. 'Indigenous Peoples' Rights, Forests and Climate Policies in Guyana - A Special Report'.

Clear land tenure is central to the REDD+ mechanism and to the process of creating carbon as a fictitious commodity. However, the logic of a responsive neoliberal subject is imperceptible on the ground in Guyana, save for in the category of rational, price responsive gold miners. Therefore, where this neoliberal subject does exist, vehement contestation is also present, especially between and among indigenous groups, government actors, and a variety of other actors who use and conceive of their rights to the forests in a variety of ways. Fragmentation of the already racialized subject is set within by this complicated milieu, with economic, historic and identity considerations driving their response to the land. REDD+ is only one such factor in shaping the already fragmented subject.

Suriname

Suriname stands in sharp contrast in terms of land tenure, with no legal recognition of the rights of forested communities to the lands they have lived on and utilised for centuries, nor does it recognize any ethnic group as capable of claiming special rights based on their historical or cultural difference. In the colonial era, there was a recognition by the government, after internal wars that took place in the country, that the indigenous and maroon people should live in peace with authority over their land and lives (Heemskerk 2005). As Heemskerk (2005) describes:

> Indigenous and Maroon customary laws contain detailed arrangements for access to land and resources, natural resources management, and resolving disputes about these matters. These traditional laws were recognised in the various peace treaties that were closed between colonial rulers and Indigenous Peoples (17th century) and Maroons (18th century). The treaties did not provide new rights but rather confirmed arrangements in contemporary legal documents, such as the Governmental Order of 1629; the 1667 Capitulation treaty between the British and the Dutch; and the so-called exemption clause (uitsluitingsclausule or garantieformule), which prohibited settlers to molest Indigenous and Maroon occupants of the land and obliged them to respect customary law rights (Heemskerk 2005, 3).

However, the laws of the Republic of Suriname contained no such considerations. As such, the land rights debate framed in terms of a challenge to REDD+ takes on sharper tones in Suriname, with historical injustices and social marginalisation, along with calls for access to development opportunities, frequently forming the discourse that would justify this recognition. During the colonial period, this special status of indigenous and maroon peoples was recognised but this is no longer the case in the modern state. The modern view of land rights in Suriname is based on L-Decrees of 1982, which states that once there is no evidence that land within the borders of Suriname belongs to someone, it is the domain of the Government. State land is evidenced by land leases that are valid for between 15-40 years and persons with these titles to state land have access only to the surface resources, and not that below the soil which remains under the jurisdiction of the government (Heemskerk 2005).

While some laws in Suriname, such as the Mining decree (1986) and the Forestry act (1992), recognize the existence of communities in the forests, and advocate for their livelihoods to be respected, this is a consideration more than a right, which is granted as convenient. Moreover, there are no institutions for the voicing the concerns of indigenous or tribal communities and they are not recognised as legal entities within the state. This precarious situation results often in the granting of mining and logging concessions close to or overlapping indigenous and maroon villages and the land they utilize. The situation of these communities is then largely dependent on the discretion of the government at the time, or the multinational company to which these concessions are granted (Heemskerk 2005). In some national legal documents, governments of Suriname committed to resolving the land rights issue through the demarcation of indigenous and maroon lands, a commitment that has never been met. International agreements have also been signed by the governments, that should lead to the recognition and protection of the rights of indigenous peoples and maroons, but that have also not brought about

any perceptible change to the situation (Heemskerk 2005).

In Apoera, Suriname, community members often complain of this injustice. For example, one community member of Apoera explained to me that life is continuously getting more difficult and that the government does not care since they allow these things to happen, that is, the over-exploitation of forest resources. She responded "(It) is the government allowing it, the Chinese and the Malaysians and everybody" (Community Member, Apoera, September 24, 2014, Interview). There are reports by maroon communities that Chinese loggers had set up bases cordoned off by angry dogs within the forests which they then log with little regard for the country's forestry guidelines.

However, Suriname's land rights debate, and its connection to REDD+ is most visible through the circumstances of the group of maroon communities that was evacuated from the area in the forests in which they were residing to facilitate the building of the Afobaka hydropower dam. Tellingly, however, it is this group of people, earlier described as now comprising the Brownsweg communities, that poses the greatest threat to the forests of Suriname since some of them have turned to gold mining as their central source of income. They often describe the forests as their keeper and source of sustenance, stating that the forest provides for them. Their idea of provision is markedly different from that of the indigenous communities, and even other maroon communities that are not in this trans-migratory state. Complicating the formation of subjectivities even more, their idea of forest use includes exploitative practices with fewer concerns for the continuing wellbeing of the forests. As Ben, the district commissioner of Brownsweg describes,

> We are not waiting for money from the government. We want to decide for ourselves on what we are going to do, and make our own decisions. We were moved 55 years ago. You have to see what kind of house they gave us. We had to live in it with a husband, wife, 3-4 children. It is too small. We want to have our own rights, make our own decisions, build our own houses,

and do everything by ourselves without the government telling us what to do… We try to make our own houses so we use the rain forests. We use wood, gravel, we use everything that we can find in the rainforests, we use to build our own house (Ben, October 24, 2014, Interview).

As the leader of the OGS mining authority in Suriname explained, once concession holders, usually large scale gold miners, need the area cleared, populations were relocated to different areas. The case of Koffiekamp in Suriname illustrates this. The villagers of Koffiekamp were initially displaced by the flooding caused by the building of the Afobaka dam, and were relocated to a different area. Some years passed, and the community was then again "surrounded by trucks" (Rick, November 11, 2014, Interview) after the government allocated mining rights to the Canadian large-scale mining operation known as Iamgold. Community land rights are then seen as an option to eliminate the option of having the land taken away.

These injustices have not gone unchallenged by these communities. The most notable such challenge was taken by the twelve Saramaka clans in Suriname who, in the mid-1990s, filed a complaint with the Inter-American Commission on Human Rights (IACHR) claiming that their customary rights were being violated. Their geographic area of focus was the upper Suriname River region where they have traditional claims and no legal rights to the land. At that time, the threat pinpointed came from logging companies in the form of concessions in their lands. These foreign companies had destroyed domiciles and agriculture fields and had not paid compensation. The IACHR handed down a judgement that was supportive of the Saramaka claim in November 2007 and it recommended that "The State shall delimit, demarcate, and grant collective title over the territory of the members of the Saramaka people, in accordance with their customary laws…" (Heemskerk 2009, 14). These recommended rights were intended to include the exploitation of the natural resources within the area and compensation was to be granted to these communities by the government for the damage that had been caused, with this compensation deposited into a special development fund, which had not been done by 2009

(Heemskerk 2009).

One of the leaders of the maroon effort to obtain recognition for their rights over the land added that the recommendations from the IACHR in 2007 is that Free, Prior, Informed Consent (FPIC) of the communities according to the Indigenous and Tribal Peoples Convention, 1989 (No. 169) be obtained before any future major development (Linus, September 5, 2014, Interview). Within the Saramaka communities, it is often claimed that little to nothing has been done in carrying out the recommendations of the IACHR. However, the maroon leader previously mentioned, who is now a part of the Surinamese government, stated that much progress has been made. The development fund has since been created, which is jointly managed by a panel of three persons: a representative of the Saramaka, a representative of the government and a neutral individual. He also stated that progress has been made in demarcating the community lands. Apparently, a bureau for land rights was also set up but the concern remains that things are moving too slowly due mostly to a lack of expertise (Linus, September 5, 2014, Interview).

Indigenous groups in Suriname are also claiming their right to their lands. Through VIDS, the association of indigenous village leaders, they work towards legal recognition for the lands indigenous groups have historically inhabited. They see REDD+ as a means to restate their desire for land rights. In justifying the need for land rights, the government is often depicted as duplicitous and a threat. A community member in Apoera described the experience of the indigenous people living there:

> They come in your village and they say that they are going to teach you how you must save your forests and the government sends people to destroy your forest. We are not destroying. Yes, we must save our forest. Yes, because when you need something fresh, you go to the forest. When you need anything in the forests, you go in the forests and take it out, out of the forests. Now a next one comes in from another country and says that you must not destroy your

forests, and behind our backs they come and destroy our forests for us.[21] We must tell them that we don't what you all to come to destroy our forests, yes, but now you just come and tell me that we must not destroy our forests. We are not destroying our forests. You come and reach the forests everything and all the bush green, but now you come in Suriname, now you see the place getting very hot and this machine[22] is coming, this coming and everything coming and destroying the forests for us (Community Member A, September 24, 2014, Interview).

Again, indigenous community members, as with any grouping in society, have divergent viewpoints. They see these industries as useful for providing jobs and income, but are still critical of the environmental damage and societal impacts of their presence. Take for instance the indigenous representative of the lumber company operating in Apoera; while supporting the community's claim for land rights and legal recognition, he claims that he works with the nearby Greenheart logging company to which they attribute much environmental damage because increased flooding through climate change ruined his crops, necessitating his turn to the company for an income (Green, September 23, 2014, Interview). This demonstration of the fragmented relationship some indigenous people have with the forest exemplifies the difficulty associated with essentializing these communities as stewards of the environment when they are in fact political subjects shaped by relationships of power and inequality, simultaneously using and protecting the forests while contributing minimally to deforestation.

Meanwhile, in Suriname, government representatives are adamant that REDD+ will not bring land rights. While the government representative asserts that the "wheelbarrows" for land rights could come through REDD+, land rights will not be granted. Instead the mechanisms of REDD+ for addressing grievances is posited as a possible meeting point (Kurt, November 20, 2014, Interview). This grievance mechanism is intended to be a means of resolving issues

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[21] Here, I believe the respondent was referring to the Chinese Greenheart group operating a lumber concession nearby, and to the actions of the government who advocate conservation and then grant concessions to foreign businesses.

[22] The machine referred to is one that was brought in to power the forestry concession and activities. Loud noises are often coming from the machine and community members are afraid of it blowing up.

related to REDD+ implementation in Suriname, and it is suggested that this will ensure that prior to any large scale or significant development taking place in the communities, the community will be consulted (Kurt, November 20, 2014, Interview). What this consultation means remains unclear as some actors note that it remains an open question whether these developments will go ahead if the community expresses concern (November 17, LMR, 2014, Interview).

This discussion of land rights and the encompassing social justice discourse in Suriname had a direct impact on REDD+ and its progress in the country when the forested communities collaborated in 2009 to express their concerns as it regards consultation and the mechanism's impact on their rights. As a representative of the maroon community described:

> Thank God there were mechanisms for us to stop the R-PP from 2009 and that was approved last year … if we need the money, because most of the them just don't look at the money, we can get like millions of dollars and then yea, but it's not about the money, it's about the people and as long as our rights are not recognised, we don't know what will happen with us, we cannot agree with this part of the REDD+ process… Why did we stop it? We stopped it because we were not sure that our rights were guaranteed, because the way that they prepared the R-PP, we were not happy with the language they put in it. Our main concern was the rights paragraph, the right of the people, because there was a decision that people in the interior, the maroon and the indigenous people didn't have rights on the land, they said that our constitution was there, but we were not happy with the safeguards for our people so we couldn't agree with it (Linus, September 5, 2014, Interview).

The challenge posed to REDD+ by the land rights issue was also expressed by representatives of the Ministry of Regional Development who described that land rights are a continuous issue for the communities, a goal for which the indigenous people and the maroons have been fighting for decades. As such, when REDD+ was floated as an idea, these groups saw the opportunity to restate their demands (Ministry of Regional Development, September 3, 2014, Interview).

Even within the collective effort of indigenous groups and maroons in Suriname to work

together regarding the assertion of their claim to the land, there are differences in approach both between these two ethnic groupings, and within them, with the Maroon Saramaka tribe taking their case to the IACHR, and the indigenous groups working collaboratively through civil organisations that represents all but one indigenous tribe in Suriname. They can by no means be seen as a cohesive entity. Within the policy data, indigenous groups are overwhelmingly portrayed as more concerned for the well-being of the environment, considering especially that they have lived within these forests for generations, even before the arrival of the colonizers and other ethnic groups of both countries. Maroons, however, are depicted as supplanted into the forests due to extenuating circumstances, and while they have formed bonds with nature and the forests, their relationship is seen as a few shades more exploitative than that of the indigenous groups. While their damaging practices are acknowledged by some community members (Green, September 23, 2014, Interview), the indigenous groups continue to be depicted (Mistry *et al*. 2015; WWF, 2015), and to mostly internalise themselves, as harmless forest dwellers who have been able to manage their natural resources without depleting or worsening them. As such, it is often suggested that their knowledge of the environment should be drawn on for solutions to environmental challenges (Mistry *et al*. 2015)(Mistry *et al*, 2015).

Conclusion

REDD+ follows in the logic of neoliberal governmentality and it imagines a neoliberal subject responsive to external incentives but it draws on the disciplinary methods in attempting to have those identified as threats, in this case miners, internalise the norms of forest conservation. The subjects of Guyana and Suriname embody resistance to the very effort to govern them through the variety of factors that have led to their subjectification. They have been created as racialized, and REDD+ along with a myriad of other interventions that have been sold as

necessary for their improvement, attempt to reshape these subjects in the image of *homo economicus.* The result is the emergence of the fragmented subject, caught between fractured ways of seeing themselves, of being represented nationally in policy and development documents, and torn between the need to meet economic desires and forest conservation.

In this chapter, I have shown the complications of subject formation and of essentializing particular groups by demonstrating how the interrelated issues of gold mining and land rights reflect contentious and vociferous debate at different levels of both societies. The communities and governments within both countries are ambiguous in how they address these issues to some extent, and as such, the cohesive neoliberal subject becomes harder and harder to identify. The miners are the group most motivated by economic concerns, presenting more than any other group characteristics of *homo economicus.* However, even they are influenced by other factors related to the shaping of their very identities as small-scale miners. Slater (2001), in her rich description of the culture and lives of gold miners in Brazil, describes other factors shaping the identities of miners. She shows that miners want to escape outsiders, seeing gold as a living woman desirous of escaping an existence trapped beneath the soil, at times beckoning towards them and presenting a chance of escaping the harsh realities of poverty. She presents this as a lure to the miners who seek, to some extent, to dominate nature and its eccentricities, as demonstrated in the unpredictable nature of gold mining (Slater 1994).

However, social justice issues in Suriname have a more palpable feel, based on the almost complete absence of land rights and the decision of forested communities to use REDD+ as a means of reasserting their perceived rights to the land. In Guyana, these considerations are present but are less sharp. Having already recognised the limited impact of REDD+ on the development trajectories of Guyana and Suriname, I described in this chapter, the difficulties

of subject formation, and hence, of neoliberal governmentality based on providing incentives to guide the behaviour of subjects envisioned as rational and calculative. In other words, the predominantly technical rationalities of REDD+ through which its proponents seek to realize their goals, are frustrated by the complexity of subject formation on the ground.

All in all, though, forested communities in Guyana and Suriname are groups of people tied by ethnic origin and shared living space, but there is little consistency in how these different actors around REDD+ are seen and how they see themselves. The images of indigenous and tribal communities being more environmentally friendly managers of the forests has validity based on their history of conserving the forests, but these groups are in effect subjects shaped by the myriad of interactions, external influences and desires of their members, who are themselves conflicted and shaped by a variety of factors.

In this chapter, I sought to highlight this complexity depicted through my elaboration of the different factors involved in the formation of subjectivities, to question whether the elusive subject of *homo economicus*, responsive to externally induced incentives is present in these countries. Thus far, any incentives being presented by REDD+ seem wholly inadequate when compared to the fact that large amounts of deforestation are brought about through government activity or their continued permission for the continuance of the pursuit of gold mining; and the embedded identities of these racialized subjectivities rooted in centuries of interaction with the forests. I have also shown that this process of governing through neoliberal governmentality is complemented in both countries by the rules and regulations of disciplinary power, towards the well-being of environment and the communities living in the forests. This effort of governing through the manipulation of incentives is limited though, at least in the case of gold mining, by what is deemed acceptable by those with ingrained interests in the endeavour.

Enmeshed in all these factors and considerations is the consideration that the concerns of the forested communities are framed largely in terms of recognition, fairness and response of historical transgressions that have left them in a disadvantaged position as compared to those on the coast. These are the concerns that form the core of the social justice discourse. Moreover, their recognition that the wealth of their environment continues to be exploited by the government and actors from outside their communities, while they continue to live with the effects, has spurred them to frame their demands in terms of demands for development in terms of having similar access to infrastructure and economic earning potential.

Historically side-lined populations continue to turn to environmentally degrading behaviour to satisfy the demands they see as rightfully theirs. REDD+, as a method of neoliberal governmentality, meets this complicated array of interests and demands, and is presented by its proponents as a nudge towards conservation. Here, I point out that this nudge is barely enough to move the entrenched identities and fragmented subjects evident on the ground in Suriname and Guyana, but that it instead, as explained in previous chapters, recasts the natural environment as capital, and encourages the exploitation of these resources for economic and developmental gain.

Dissertation Conclusion

Seven years after President Jagdeo outlined his plan for creating incentives for avoiding deforestation in Guyana, and one year after the end of the period of the Guyana-Norway agreement (2009-2014), I had a brief interview with the Norwegian signatory of the agreement, Mr. Erik Solheim, who stated that the reason REDD+ came into difficulty in Guyana is the competition between the two main political parties who draw on their ethnic bases in policy and decision making (Solheim, July 29, 2016, Interview). While I see this as just one reason for said difficulty, it is evident that the racialized subject and emergent politics, play a role in decisions these countries must make between extractive activity that could facilitate economic growth and carbon mitigation efforts.

Opportunities like REDD+ set out to simultaneously improve both countries' prospects for meeting these demands. Considering the vulnerability of Guyana and Suriname to climate change, these urgent questions grow even more so, continually re-emerging at the onset of each extreme weather event. With these considerations in mind, I had set out in this research project to understand whether REDD+, imbued with the properties of governing through neoliberal governmentality, could in fact alter the deeply rooted, racialized relations with the forests evident in both countries as legacies of their colonial past. In asking this question, I acknowledge that the local sources of deforestation are being problematised, rather than their international drivers, but still I focus my attention on the potential of the mechanism to reduce already low levels of deforestation while enabling development, while considering the lived realities of the people on the ground.

Considering these realities, especially in light of the intractable issues surrounding implementation, REDD+, as currently constituted, appears as a mere complication to the

current sovereign and disciplinary methods of governing forests. It has little potential of changing the circumstances of forest use and of shifting the development trajectories of these countries from one based on an ethic of extraction and economic growth geared towards satisfying foreign markets, to one that is more accommodating of local realities.

Given the loose interpretations of REDD+ in theory and in practice, I also sought to understand how different actors related to its implementation, understood and attempted to operationalise it in different societal contexts. Across countries, I identified three overarching discourses that demonstrate the different interpretations of REDD+, inclusive of the different means of understanding its aims. Unlimited to particular actors but drawn on by some more than others, these discourses embody REDD+ implementation in both countries, structuring the different ways actors relate to the mechanism and its constitution. Together, they represent the politics of intractability.

Case findings

In Guyana, due to its pilot REDD+ arrangement with Norway, its more pioneering efforts with REDD+ on the global stage and its longer period of engagement with the mechanism, the technical discourse, centred on Western techno-science and economic rationalities, is markedly more dominant. I do not discount here the likely impact of having a strongly market oriented leader, who to some degree embodies quite well the characteristics of *homo economicus,* in driving orientation towards this policy, but based on the mutual engagement between Guyana's then leader and the government of Norway, and the wide array of organisations and other actors that have moved to support this vision, this leadership drive is less impacting as a solitary consideration. The development discourse remains a strong seducer in Guyana, more so than in Suriname; and the social justice discourse, remains a somewhat marginalised expression of

the need to include forested communities and other groups reliant on the forests for their livelihood, into the implementation of the mechanism.

The technical discourse is less distinct in Suriname. Due to an almost complete lack of land rights in the country and the more diverse nature of the forested communities, growing in number especially in the case of the maroons, Suriname has a much more palpable expression of the social justice discourse. There, communities act vigilantly and organize themselves to take advantage of any opportunity to air their grievances against having land they utilised for generations taken away from them and awarded to international companies. These concessions leave communities to either relocate, or to live nearby with the negative effects such as pollution and reduced hunting prospects.

In both countries, the development discourse holds much influence, being underscored as a necessity for all actors in the community. I do not lightly brush aside the imperatives of development since there are clear advantages to having a paved road, for instance, that would allow children to get to school when it rains, as opposed to a dirt road that impedes mobility. This discourse is a monolith, however, with different emphases on certain aims and goals as opposed to others, depending largely on the actor drawing on it. Useful for reflection here is the fact that development is an absolute good in both countries, and that many an intervention, particularly that of REDD+, is and can be justified by suggesting that it will move these countries closer to this loosely defined state. Perhaps it would be better if governments and other actors step back from their absolute adherence to the demands of development through economic growth, and assess the possible alternatives for climate change readiness available locally or collaboratively.

Neoliberal governmentality and instrument effects

REDD+, as an expression of neoliberal governmentality, aims to change the entrenched methods of forest use in both countries, problematizing these methods that have resulted in limited amounts of deforestation, and presenting a departure from the sovereign and disciplinary methods historically used to manage the forests. These older forms of forest management were racialized in nature, and they continue to form embodied and lived resistance to the intervention that is REDD+. Through a focus on subject formation, I extracted the different subjectivities implicit in the discourses of REDD+ to show how the technical REDD+ subject is scarcely evident in either country, where instead the racialized and fragmented subjects are most evident; with the racialized subject passively resisting efforts to govern via neoliberal governmentality through their insistence to just continue with their ways of life. Consequently, the neoliberal means of governing the population of REDD+, inclusive of the forests and their users, operates with a certain scarcely-locatable subject in mind. REDD+ therefore, either tries to inculcate these subjects, or fails as a governing mechanism based on the absence of subjects amenable to its aims.

REDD+ instrument effects: Political forests

I would like to draw attention, however, to what REDD+ does succeed in doing. The effort to govern the use of forests through REDD+ successfully shifts attention from the role of international businesses and governments themselves in causing deforesting activity (Hammond, 2007). The proponents of REDD+ do not acknowledge that the deforestation that does occur in Guyana and Suriname is the outcome of neoliberal tenets and processes that facilitate the movement of capital, processes that in turn, support the mechanism of REDD+. Further and reflecting on the process of creating political forests as identified by Peluso and Vandergeest (2001), REDD+ represents a further state claim on the forests, working now to

shape the subjectivities of those who use it. Considering wider border tensions between Guyana and Suriname where a significant swath of forest is being claimed by both countries and considered in both their carbon accounting tallies for REDD+, the process of creating, demarcating and claiming political forests is clearly on-going, with the mechanism forming at least a representative function on state land claims across borders, and a significant consideration on state land claims within the respective territories.

Drawing parallels with the process of shaping biological forests into political ones, REDD+ facilitates the process of shaping previously disciplined and sovereign subjects into neoliberal ones. Parallels can be drawn between that process of governing the pre-existing in view of a particular goal; and that of depicting now the populations within these forests as amenable to management through incentives. Would it be too radical to suggest that REDD+ can in fact function as a continuation of the process of creating political forests? Could then the challenges put forward by indigenous groups and other forested communities represent a continued challenge to this state claim on forest resources and land rooted in the colonial period? REDD+ could in fact be facilitating governments as they move from simply claiming forests, to claiming the identities of their people by representing them as amenable to certain concerns.

Technical instrument effects

My exploration of the technical discourse of REDD+ in Guyana and Suriname also pinpointed several instrument effects of REDD+ that are scarcely acknowledged in the activity and chatter around implementation. I argued that REDD+, through its reliance on the technologies of the technical discourse, makes the previously illegible (Scott 1998) forests and the activities within it, legible to government actors and international agents, while creating a particular way of seeing and of ranking forest use based on imposed levels of importance. This is enabled through

changing visibility of the forests, enhancing the capacity of external actors to monitor the activities taking place within it. The previous capacity of the forests in these two countries to act as refuge, and as a place within which some amount of sovereignty can be exercised by the persons within it, is being somewhat reduced through REDD+ implementation. Related to my previous observation of REDD+ as a state claim, this increased legibility and visibility serve the monitoring purposes of REDD+ supporters, while extending the margins of the state (Das and Poole 2004) to previously illegible and somewhat resistant territory. With this in mind, perhaps there are some advantages to the absence of land rights in Suriname that would be enabled through MRV, advantages such as continued illegibility, invisibility and therefore, less discipline from state actors.

REDD+ also legitimises particular knowledges based on economic valuation of the natural environment. Further, it enables a burgeoning cadre of technical professionals squarely rooted in the development discourse, that in turn, facilitates the movement of capital in the purchase and use of scientific technologies and the process of ensuring that adequate capacity of human and financial resources, are available for enabling monitoring activities, all targeting the eventual commodification of the forests and its integration into the market mechanism. Finally, REDD+ continues to move Guyana and Suriname along a neoliberal development pathway, being actively pursued by the government, and other civil and non-governmental actors in society. There has been a certain naturalisation of neoliberalism as the enabler of development, as reflected in consecutive policy documents outlining the paths for development of both countries. This is seen as a necessity by a wide cross section of the societies due to the fact that in responding to global market demands, the prevailing system of ordering society appears to be the most logical and natural with successive governments of both countries, but to a greater extent in Guyana and its adoption of neoliberal approaches to gain competitiveness and income.

Recalling my earlier reference to McElwee's (2016) elaboration of environmental rule, the author identified what REDD+ and different environmental interventions are really about, while drawing partly on a governmentality analysis (McElwee 2016). I, however, stop short of declaring that REDD+ is really about legibility, state claims or blurring out the role of extraction in Guyana and Suriname. This is rooted in my recognition that policy does not always accomplish what it set out to do, and that quite often, its outcome is socially constructed by different actors as a success or failure, with its implementation being constantly loaded by actors who get involved (Mosse 2005). Further, when I recognise that these forested countries themselves have been vocal leaders on the policy of REDD+ (Wilson Rowe 2015) while also being constantly surprised by its outcome, I see that while different actors come to the area of forest conservation with different agendas, any assertion of the true face or aim of REDD+ would be misguided, attributing too much coherence and totality of gaze than I see in its operation.

These discourses, interventions and successive efforts at shaping the subject and societies of Guyana and Suriname converge in a fragmented subject that demonstrates inconsistencies between word and deed, or gaps between views and action, conceptualizing the social good in one way, but acting in another. Perhaps due to the tension between the demands of satisfying their everyday needs, and those of adhering to the good they would like to see in the world, there is a certain fragmentation in the way that people and groups related to REDD+ depict themselves, their aims, and their relation to the natural environment. Overall though, REDD+, as an expression of neoliberal governmentality, imagines a neoliberal subject responsive to external incentives but is supported by disciplinary and sovereign methods of managing the forests and met by a complicated milieu, embodied also by fragmentation that it cannot easily govern.

A meeting of discourses

The overall effort of this dissertation has been to invert the focus of REDD+ from that of technical interventions transposed to the social, to social contexts receiving technical interventions, interpreting REDD+ within the continued lived reality of people in Guyana and Suriname. While different authors have called for engagement with the local communities in their analysis of the effectiveness and feasibility of REDD+ (Leggett and Lovell, 2011; Evans *et al*, 2014), I have taken a different approach, one that does not focus on any particular actor or set of actors, but identifies discourse across national boundaries.

Carried out within the framework of political ecology and drawing on its tenets, I was able to pay significant attention to the relationship between the international political economy, both current and historical; and the environment, focusing especially on the relationship between capitalist and neoliberal endeavours and the societies supporting them. Removing the automacity with which the state is accorded the capacity of government, I traced and determined the likely consequences of these power relations over narratives for economic and social development, focusing especially on how these narratives have constrained self-determination in both countries, especially for forested communities.

The discourses I identified are reflective of the societal contexts in which they operate. Therefore, they differ to some extent from the global environmental discourses identified by academic authors (Bäckstrand and Lövbrand 2006; Nielsen 2014). While I do not question the validity of those discourses for top-down approaches to managing nature evident predominantly at the global level, these authors outline a set of discourses that, while different from those I identify, overlap and present commonalities I see as inevitable due to my desire to commence my analysis from a recognition of societal contexts. Bäckstrand and Lövbrand (2006) draw on a discourse-analytic framework for their analysis of the effort to encourage the

growth of trees in developing countries, an issue they see as a microcosm of global debates of global environmental governance. They identified three meta-discourses of global environmental governance—ecological modernisation, green governmentality and civic environmentalism. Ecological modernisation, centred on a framing often used by proponents of REDD+, focuses on flexible and cost-effective approaches to dealing with environmental concerns at the expense of social justice concerns. The second discourse of green governmentality is understood as viewing nature as a realm to be administered, embodied by satellite images of the earth underpinning a holistic stewardship of the earth's resources. Finally, the discourse of civic environmentalism focuses on the multitude of groups and activists championing democratic approaches to tackling environmental problems (Bäckstrand and Lövbrand 2006). While my technical discourse of REDD+ in Guyana and Suriname clearly features some aspects of ecological modernisation and green governmentality as expressed by Bäckstrand and Lövbrand (2006), it conflates the two. Meanwhile, their civic environmentalism discourse (Bäckstrand and Lövbrand 2006) translates quite neatly with that of the social justice discourse evident in Guyana and Suriname. These conclusions point to Gupta *et al*'s (2012) earlier recognition that the technical simplification of REDD+ is likely to be overturned in practice by diverse context-specific interpretations originating from local ways of seeing and knowing (Gupta *et al*. 2012).

Theoretical reflections

This research project also contributed to the academic literature a post-colonial elaboration of a genealogy of the extractivist ethic in Guyana and Suriname, challenging the neat categories (e.g. indigenous, civil society) that can be inferred throughout society by analysing policy at the level of the subject. I see different actors, though largely continuing in social categories with which they have been assigned, as not automatically imbued with those characteristics. I,

therefore, examine them at the level of the subject outlining contradictions at a variety of levels, including at the level of individual subjects themselves.

In my analysis of the power relations of REDD+ in Guyana and Suriname, I determined that even though, to some extent, the preparation and implementation of the mechanism demonstrated entrenched power structures on the global level in terms of who holds the power for implementation, of resources and so on, REDD+ was also very much loved by a number of actors on the local level, which is demonstrated by the idea that being compensated for forest conservation was originally driven by developing countries (Wilson Rowe 2015). While power can be seen as flowing through established structures, it also was manifested in new actors outside the colonial frame, or the exploitative histories. For example, Norway's leadership of REDD+ globally, and especially in Guyana, is linked to the wealth it amassed through capitalist endeavour, but is not rooted in a history of exploitation in the global South. In reflecting on power then, I conclude that while power can, at a basic level, be pinned to those with resources in order to incentivize activities or drive policy or build capacity; its constitution is not restricted or limited to actors traditionally seen as instrumental in development, conservation and extraction in the South.

The movement of power within the system supporting REDD+ is visible and predictable in terms of financial resources and the extent to which REDD+ mirrors certain global structures, but it is also not predictable in the new actors who have come to support it. Power, and hence, resistance was predictable only in the consideration that those who have historically been disenfranchised continue to assert their claims for inclusion or justice. New actors like Norway in the affairs of Guyana and Suriname, are then confronted by these old pockets of resistance or dismissal, but it shows that even in established global injustices with certain groups

continuing to be dominated, coalitions and persons working to push for certain interventions are often shifting. In other words, there is both sedimentation and fluid movement in my understanding of power around REDD+ and particular movements or pathways cannot be taken for granted.

As pointed out before, more research needs to be done on how people internalise certain decisions. Perhaps that would provide a window into understanding why developing countries themselves were so eager to pursue and demand for the institution of REDD+. In that way, we may be able to understand whether this was indeed the independent decision of their leaders, or was the result of some form of external guidance in this direction. However, this remains unknown and is outside the scope of my work. What is apparent though is that power relations are both stable and shifting. As contradictory as this may seem, when considering the magnitude of the global environmental challenge, it is entirely possible and well-evidenced. REDD+ is a technological fix that merely capitalises on and reinforces inequalities in the modern age. We should keep in mind though, in our pursuance of REDD+ and other fixes, that the instrument effects of global policy that incentivises certain behaviour cannot simply be undone by further incentivising behaviour to change those outcomes. The opposite overt incentive may instead create instrument effects of its own (Hammond *et al*. 2007).

With the Marxist–post-structural tension in mind as previously outlined in the theoretical framework, I surmise that like post-structural leaning post-colonial authors suggest, Marxist analysis give some structural pathways along which power flows, through which identities are shaped and through which people see themselves and their place in society. However, analyses or understandings of policies through these lenses are crude and do not get close enough to an understanding of the subject in relation to the mechanism of REDD+. When attempting to

ascertain the potential of this policy intervention for achieving its goals, an understanding of these societies along the lines of class, or other predefined categories, would conflate the voice of the indigenous community member and the miner who have markedly different experiences and relations to the forests, lumping them under the category of, perhaps, forested communities. Clearly, I have drawn on Marxist thinking and structured approaches to the global political economy to some extent. However, the post-structural conception of power and societal relations allowed me to develop a more accommodating, detailed analysis and to understand the diversity of single voices. These individual voices are important when talking about a vulnerable environmental resource like forests where one actor, for example President Jagdeo or the miner in St. Luce, has the potential to make big changes or cause significant damage.

Through the lens of governmentality, I have been able to explore these societies and their interaction with the natural environment as still reeling from the colonial experience, though not defined by it. Further, the examination of how REDD+ is interpreted and reinterpreted on the ground of both countries shows that the context does matter, with REDD+ taking on a more perceptible neoliberal tone in Guyana, based largely on the colonial experience and the process through which independence was granted. As such, this neoliberalized approach to managing the forests also takes on different tones and hues. A relatively coherent policy, that of REDD+ (at least at the level of technical intervention), has been variegated in its interpretation on the ground with likely different outcomes. While these outcomes are not just limited to the histories of these countries but are impacted by how the mechanism is being implemented and by whom, the histories continue to play a significant role in the reception of the mechanism, and its scope for impact. The histories and societal contexts embody the role of the soil in which REDD+ must place its technical roots. Finally, this dissertation has shown the diversity of governmentalities that allow REDD+ to operate, and the different ones perceptible at the local

and the global level. Undeniably, these considerations have some effect on why REDD+ has been stalling globally.

Opportunities for further research

I close with opportunities for further research. New developments in relation to extraction and conservation in Guyana have left me with a few burning questions. Exxon Mobil recently found large oil depositions in the territorial shelf of Guyana and the country is now heading towards the simultaneous pursuit of oil extraction and REDD+ activities, resulting in a puzzling contradiction in terms of carbon emissions, development and climate change readiness. This development has exacerbated pre-existing territorial conflicts with Venezuela which has since ramped up its effort to claim the area in which the oil deposits were found. While we were all aware that Norway, the major financial supporter of Guyana's market-based conservation, gained its wealth largely through oil production, and that gold mining continued unabated in Guyana throughout its REDD+ agreement with Norway, these new developments make it clear that there is a link between extractive activity and market-based conservation yet to be systematically analysed. Guyana would present an interesting case for these mutual contradictory pursuits, drawing especially on the frame I have provided in this dissertation and reflecting on PES and REDD+ as state claims under the guise of neutral policy interventions.

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Personal Communication list (publishable)

Solheim, Erik. Executive Director of the United Nations Environment Programme. Former Minister of the Environment of Norway.   Formal interview. Budapest, 29 July 2016.

Appendices

1. Consent Form

Central European University

Department of Environmental Sciences and Policy

Information for prospective interviewees in the context of Doctoral Studies of Yolanda

Ariadne Collins

I am a graduate student of Central European University studying the way in which

development in Guyana and Suriname is discussed around the Reducing Emissions from

Deforestation and Forest Degradation Initiative (REDD+). My research is financed through a

University scholarship and is totally independent.

REDD+ seeks to limit greenhouse gas emissions by paying for the preservation of the forests

around the globe to help to fight against climate change. In Guyana, the Government of

Guyana signed a REDD+ agreement with Norway. Suriname is working on a similar

initiative. I am interested in understanding how people who will be affected by this

agreement in Guyana and Suriname understand and respond to it. I would also like to find out

about how they feel about their circumstances, and what they hope will happen as a result of

REDD+.

In order to carry out this research, I would like to talk to persons affected by and interested in

the agreement's outcome, persons who helped to develop and carry out the agreement and I

would also like to collect any written information related to carrying out the agreement. I ask

that you share your perceptions of and experience with the REDD+ initiative, along with

some information on how you understand or interpret development in Guyana/Suriname. If you agree, I will record your conversation.

I will analyse the data and produce publications in the form of:

1. Reports

2. Doctoral Thesis

3. Scientific Publications

4. Conference presentations

Participation is completely voluntary. You are free to choose not to respond to certain questions or not to participate. If you do participate, you may revoke your consent at any point without having to provide an explanation. As long as your contribution remains identifiable, it will be removed immediately from the data set.

The participants will not receive payment for their participation for ethical reasons. You can access further information, if desired, by contacting me by email at Collins_yolanda@ceu-budapest.edu, by phone in Guyana at telephone number: +5926423025 or by emailing my research supervisor, Dr. Guntra Aistara, at guntra.aistara@gmail.com.

Central European University

Department of Environmental Sciences and Policy

Consent Form for prospective interviewees in the context of Doctoral Studies of Yolanda Ariadne Collins

Interviewee # …...

I confirm that I have received information on the doctoral research project of Yolanda Ariadne Collins. I took the time to understand the information, to ask questions and to obtain satisfactory responses. I understand that my participation is voluntary and that I am free to revoke my consent at any point after the interview without having to give an explanation.

I give my consent for my participation, for the recording and transcription of the interview. I also understand that my identity will not be confidential due to my public office and that my name may be used in publications emanating from the research.

Signature   Date

(Please check box if signed electronically)

2. Interview Protocol for Government Officials and Policy Makers as well as Heads of NGOs

<u>Individual and interaction with REDD+</u>

1. Can you tell me a little about yourself and your interaction with the REDD+ initiative?
2. What is your role in this organisation and how does it contribute to implementing the REDD+ Initiative in Suriname/Guyana?
3. How do you see REDD+ as fitting into your overall mandate?
4. Is REDD+ a major aspect of your organisational interest? Can you give me an idea of how much of your resource base is directed towards REDD+ as opposed to other issues?

<u>Climate Change</u>

1. Can you tell me a little about climate change and have you observed any of its effects so far?
2. Do you know how it will affect Guyana and your area more specifically?
3. What do you think should be done about climate change and who do you see as being responsible for fixing the problem?

<u>Forest Protection</u>

1. Do you see deforestation and the threat of deforestation as a problem in Guyana/Suriname?
2. What do you think drives this deforestation?
3. Is anything being done to address these problems?
4. How have forest policy and efforts to maintain its protection changed over time? What are the challenges to protecting the forests?
5. Does REDD+ help to address these challenges?

<u>REDD+ Implementation</u>

1. Do you agree with the idea of paying for the protection of the forests? Why?
2. What exactly are the goals of REDD+?
3. Do you think these goals will are achievable?
4. Can you suggest any other ways of achieving these goals?

<u>Vulnerable groups</u>

1. What efforts have you made to involve affected groups in REDD+ activities and to factor their views into the shape of the initiative?
2. How will people dependent on the forests for their livelihoods benefit from REDD+ implementation?
3. How will the expected benefits from REDD+ be distributed?
   - Who will manage this distribution?
   - Do you have faith in their ability to manage it?
   - How are they connected to the local communities?

- How much money do you think will be enough to make a difference in the lives of the people who will be affected by REDD+?
4. What effects do you think REDD+ will have on the affected groups?
5. What concerns currently exist about the welfare of the affected communities?
6. Are any efforts being made to remedy these concerns?

REDD+ and Development

1. Do you anticipate the implementation of this mechanism bringing about any change in the circumstance of the affected communities, the country, and the global problem of climate change?
2. Have any of these changes been manifested so far?
3. Have these effects been positive or negative? Who has been affected through this initiative? How so? Please explain your answer.
4. Do you see these effects as fairly distributed?
5. How do you think the proceeds from the REDD+ initiative should be spent?
6. Have there been any conflicts of which you are aware which resulted through the implementation of this initiative?
7. Do you think REDD+ will affect any other government policies?
8. Do you think that REDD+ has affected any other groups within Guyana\Suriname?
9. Where do you think the country's current forest/development policies are heading?
10. Do you agree with the overall direction of these policies?
11. What are your hopes for the community, region, or country?

The tone of these questions will vary according to the audience\stakeholder.

3. Screenshots of Atlas Ti
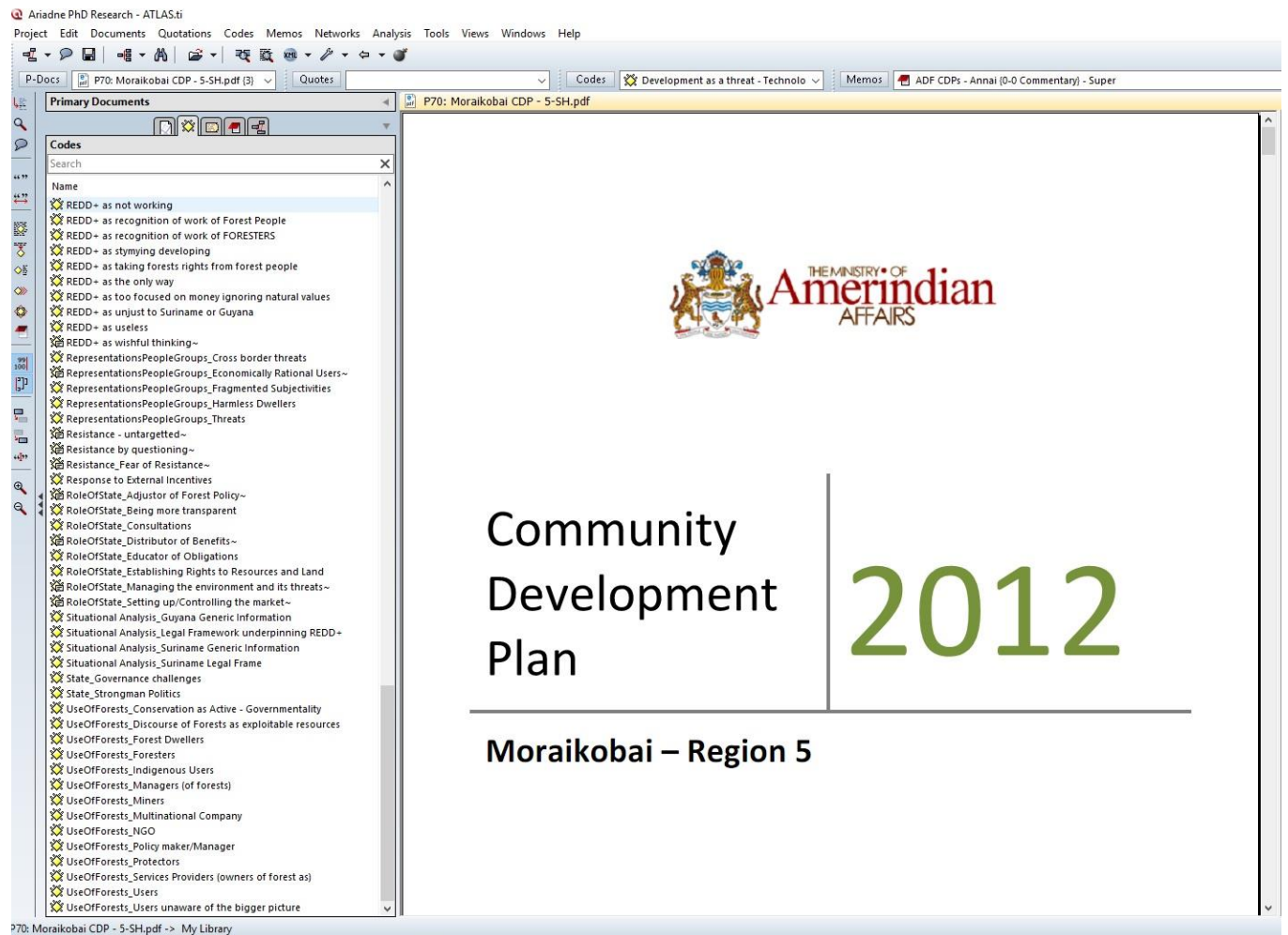
Figure 35 - Screen shot of Codes using Atlas TI
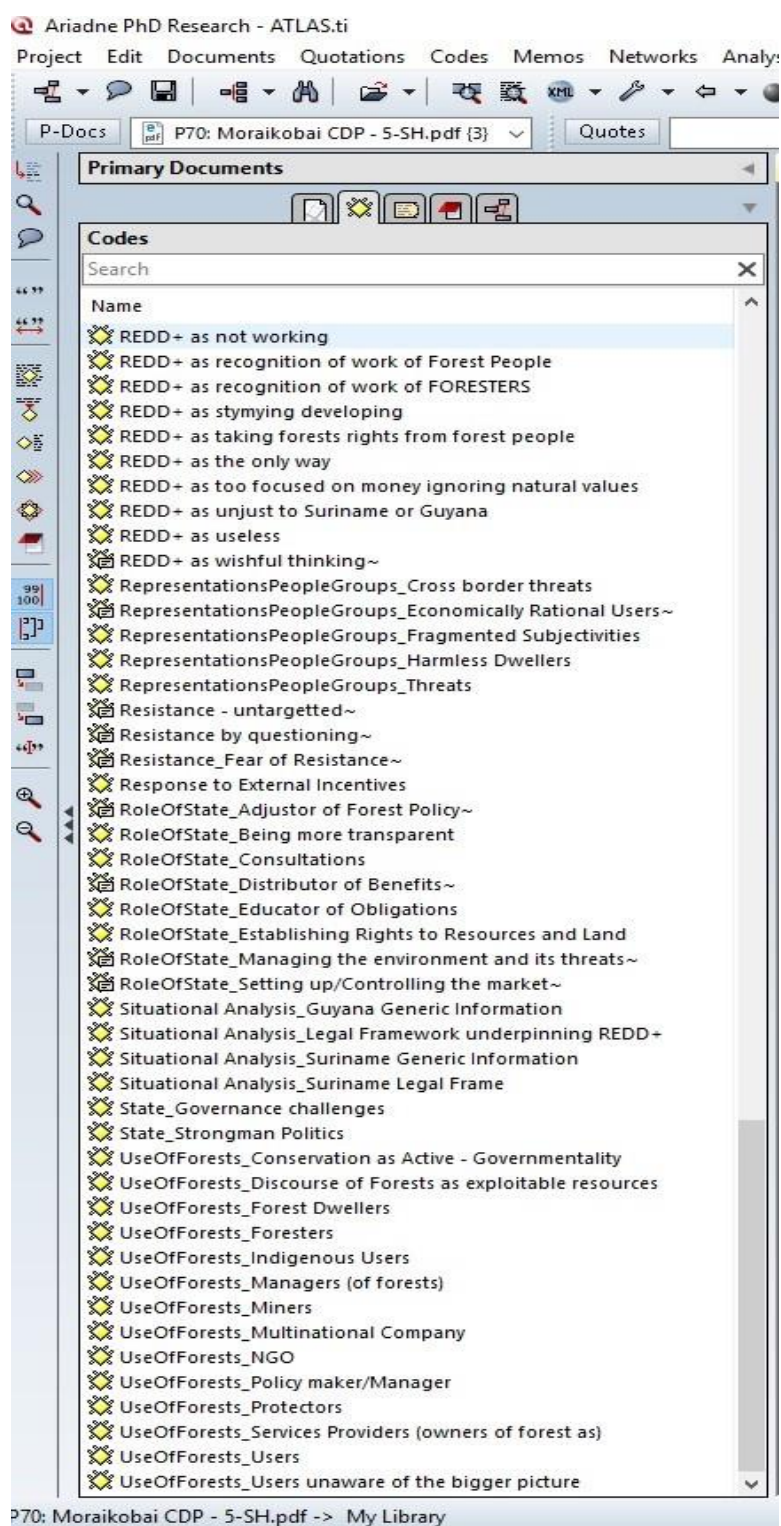
Figure 36 - Closer view of Screen shot of Codes from Atlas TI

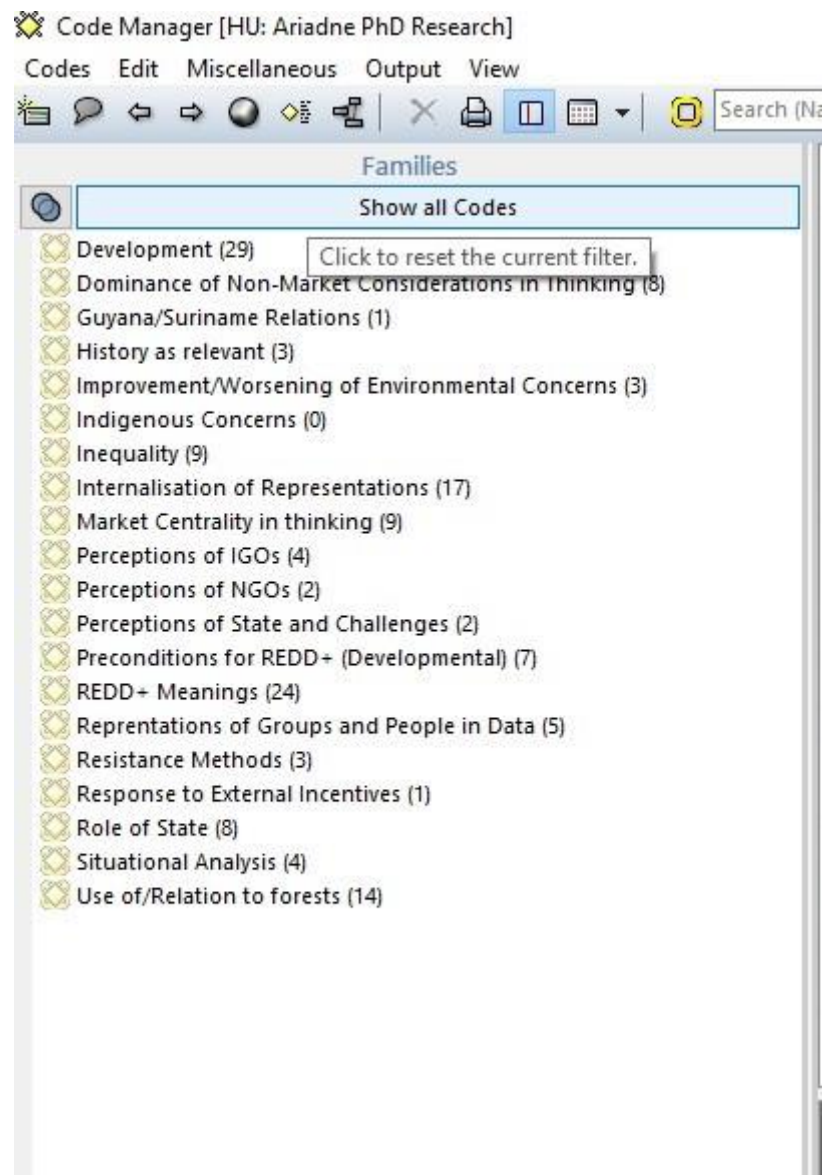**Figure 37 - Demonstration of 20 Code Families**

Figure 38 - Closer View of 20 Code families

4. Development and REDD+ Architecture

The United Nations Framework Convention on Climate Change acts as the convener for the international effort to address climate change, and its offices around the globe have taken the lead in preparation activities. The UN-REDD+ is one such lead office, representing the United Nation's effort at supporting REDD+ activities in participant countries. It collaborates to harness the capacity of the Food and Agricultural Organisation, the UNDP, and the United Nations Environmental Programme (UNEP) in support of REDD+ activities. Its policies also target specifically the concerns of stakeholders of REDD+ implementation including those of indigenous and tribal communities. The UN-REDD was provided with funds for its foundation from Norway commencing its activities in 2008, and has since been financially supported by Denmark and Spain (UN-REDD, undated). The UN-REDD Program collaborates with organisations including the World Bank, INPE, USDA Forest Service, Chatham House, Coalition for Rainforest Nations and GEO and others to facilitate their work (UNREDD, undated).

There also exists a network of non-governmental organisations that aim to support readiness activities for REDD+. Global Canopy Programme (GCP) is one such organisation aiming to protect 'natural capital' through scientific, political and financial data. GCP works in indigenous Amerindian communities in the North Rupununi, Guyana but so far has not worked in Suriname. It supports C-MRV activities in Guyana through collaborative efforts with the NRDDB and Iwokrama. Conservation International, as previously noted, supports MRV and REDD+ activities in Suriname and Guyana through their local offices (HL, October 3, 2014). WWF also works towards supporting MRV in Guyana and Suriname, focusing especially on this deployment of technology to improve the management of forests. Their approach is especially flattening, limiting their engagement somewhat with the complexity of each country, since they address the forests of what they refer to as the three Guianas collectively, referring

to the need to conserve the natural resources of Suriname, Guyana and French Guiana simultaneously. Given this area of collective interest, the WWF frequently works with the Guiana Shield Facility on supporting REDD+ and MRV activities through a relationship of co-funding and collaboration.

The burgeoning 'REDD+ in the Guiana Shield' project is especially concerned with MRV development. It seeks to support countries across the Guiana Shield on the preparation for REDD+ through the provision of science-based information and tools. This is facilitated by the development of a technical and regional platform that should provide an inventory of forest resources within the countries. Coordinated by the French Forest Office (ONF) and ONF International and funded by the European Regional Development Fund (FEDER), the French Global Environment Facility (FFEM), the French Guiana Region as well as by the project partners' own contributions, the project represents one new organisation directed toward establishing MRV systems with the project officially starting in January 2013 and continuing until December 2015. Collaboration takes place between this project and other organisations operating in REDD+ readiness such as WWF Guianas, Conservation International and the Guiana Shield Facility (Svensson, 2014). The Forest Carbon Partnership Facility (FCPF) of the World Bank (WB) also plays a central role in MRV establishment through the provision of funds and technical support. Support for R-PP Formulation and Readiness Preparation in the amount of $3.6 million to each country is provided in order to support the formulation of a Readiness Preparation Proposal (R-PP) and the Readiness preparation process. Guyana signed their agreement in February 2014 but is yet to receive funding. Suriname has received the funding with the UNDP Suriname acting as implementing agent.

In Suriname, United Nations Development Programme (UNDP) has been selected by the

government as the Delivery Partner for the FCPF grant. The UNDP aims to make Suriname ready for REDD+ by strengthening human capacities and stakeholders' engagement, developing a national REDD+ strategy and implementing the framework and tools required for REDD+ (Svensson, 2014). The UNDP-S is tasked with collaborating with the National Institute for Environment and Development in Suriname (NIMOS), which is the central government body responsible for REDD+ implementation. As such, it coordinates the Foundation for Forest Management and Production Control (SBB) which is responsible for setting up the national Forest Reference Emissions Level / Reference Level (REL/RL) and the national MRV system (Svensson, 2014). Norway's International Climate and Forest Initiative has funded both bilateral and multilateral efforts to support REDD+ activities. It has directly supported Guyana through the Guyana-Norway agreement, and frequently lauds the fact that Guyana has established what it sees as a successful MRV mechanism, especially considering that this was done in a "cost effective" (NICFI, 2013) manner to an advanced level. The report also notes that the Guyana MRV system is also being used to monitor forest harvesting compliance and mining. The Guiana Shield Facility, at which I interned as part of my data collection efforts for this research project, also seeks specifically to strengthen Guyana's technical capacity to implement MRVS and other REDD+ related activities by cooperating with and supporting the Guyana Forestry Commission (GFC), which is the governmental organisation responsible for REDD+ readiness. GSF funds filled a critical funding gap in the establishment of the MRV system since Guyana, while awaiting FCPF funding, was desirous of forging ahead with the development of the MRV system.

The Forest Investment Program (FIP) is another multilateral funding channel for REDD+. This organisation channels funds from the Climate Investment Funds (CIF) to support REDD+ globally, operating in Guyana but not in Suriname. Naturally, there exist overlapping interests

and collaborations within and across this institutional architecture. As NORAD points out, "Together, FCPF, FIP and UN-REDD Program provide a means of managing donor contributions for the implementation of the core elements required of an interim institutional framework for REDD+. These institutions have developed an international framework for REDD+ readiness by establishing the key requirements of Measurement, Reporting and Verification (MRV) and Safeguard Information Systems, and defined a methodology to enable results-based payments to be made" (NORAD, 2014).