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GENDER MAINSTREAMING & BIOLOGICAL DIVERSITY CONSERVATION IN SURINAME





Gender Mainstreaming and Biodiversity Conservation in Suriname

FINAL REPORT

September 2012

AUTHOR: This report has been prepared by Dr Stacy Hope, the consultant, who was contracted by the UNDP Guiana Shield Facility to assess gender mainstreaming and the conservation of biodiversity as it pertains to Suriname. The consultant was contracted for a thirty day assessment of the region, and has, therefore, spent two weeks collecting data in various parts of the country.

CONTEXT: This paper was prepared in keeping with the contract deliverables between UNDP GSF and the consultant.

COVER: Photo taken by Coen Wubbels

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DISCLAIMER

This document has been produced with the financial assistance of the European Union. The views expressed herein can in no way be taken to reflect the official opinion of the European Union and the Government of The Netherlands.

ABBREVIATIONS

ASM	Artisanal and Small-Scale Mining
CARICOM	Caribbean Community
CBD	Convention on Biological Diversity
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CELOS	Centre for Agricultural Research in Suriname
CI	Conservation International
COP	Conference of the Parties
DECRIPS	United Nations Declaration on the Rights of Indigenous Peoples
DFID	Department for International Development
ECOSOC	The United Nations Economic and Social Council
GEF	Global Environment Fund
GSF	Guiana Shield Facility
GMP	Global Mercury Project
HDI	Human Development Index
HDR	Human Development Report
IGA	Income Generating Activity
IGAP	Integral Gender Action Plan
MDGs	Millennium Development Goals
NBG	National Bureau of Gender Policy
NBS	National Biodiversity Strategy
NEAP	National Environmental Action Plan
NGO	Non-Governmental Organization
NTFP	Non-Timbre Forest Products
NVM	National Women's Movement
OAS	Organization of American States
PAS	Pater Ahlbrinck Stichting
SPB	Stichting Basbeheer en Bostoezicht
STINASU	Foundation for Nature Conservation in Suriname
STOK	Stichting Toerisme Ontwikkeling Klaaskreek
UN	United Nations
UNDP	United Nations Development Programme
UN-ELCAC	United Nation Economic Commission for Latin America
UNFCCC	United Nation Framework Convention on Climate Change
VIDS	Association of Indigenous Village Leaders in Suriname
VPF	Women Parliament Forum
WSSD	The World Summit on Sustainable Development
WWF	World Wildlife Foundation

EXECUTIVE SUMMARY

Suriname is located on the north-eastern periphery of South America, north of Brasil, East of Guyana and West of French Guiana. With a land area spanning 163,820 sq km, most of its inhabitants populate the coastal region, with a majority of people living in or around the capital city of Paramaribo. The country is home to around 560,157¹ inhabitants, some of which are transient between borders. This is particularly the case of the Maroons who move between Suriname and French Guiana.

As environmental discourse becomes increasingly linked to human development, the incorporation of knowledge, perceptions, and practices through gendered dimensions are integral to their sustainable development. In particular, when we look at divisions of labour and activities through gender, we are left with a substantial amount of differences between the roles men and women fulfill in society, and their uses of biological diversity within it. However, women's roles and knowledge have been somewhat ignored in the broader scope of things. Therefore, it is imperative that awareness is raised and action is taken in the mainstreaming of gender-based knowledge within biodiversity conservation.

Biodiversity in the Guiana Shield region is linked closely to the livelihoods, cultures and traditions of the most vulnerable and marginalized peoples of this region. With the region spanning 2.5 million sq km, it houses 10-15% of the world's fresh water, and has the world's highest percentage of intact tropical rain forest of which 80-90% is still intact. Present data shows that 25 of these species exist only in Suriname, with 89 species belonging to the Surinamese river systems—including Marowijne/Mana and Corantijn watersheds—which extend into French Guiana and Guyana watersheds.

There are approximately 1,300 animal species in the southwestern region of Suriname, which includes 46 species believed to have not been documented previously.

To manage the variety of ecosystems within this region, the United Nations Development Programme (UNDP) Guyana, has set up the Guiana Shield Facility (GSF) to act as a multi-donor funding system, which aims to support the conservation and sustainable development of these ecosystems.

At present, there are immediate threats facing the ecological integrity of the Guiana Shield, such as deforestation, legal and illegal mining, water pollution, poaching of wildlife, poverty and weak institutional capacity. As a result, local communities resort to short-term economic activities, which may not be sustainable or in keeping with cultural knowledge. In response to this, the UNDP, along with its partners, has developed a strategy for promoting long-term conservation and sustainable development in this eco-region. This is meant to build on more efficient approaches and increased resource mobilisation towards conservation and management of biological diversity.

Methodology

Data Collection: This research has been informed through field work conducted in August 2012, in the capital city of Paramaribo, and amongst the Saramakan & Aukan Maroons of Upper Suriname River, Abadokondre and Brokopondo Districts, and with the Amerindians of Para District in the villages of Powakka and Pierrekondre. These assessments were based on an initial pilot survey conducted amongst the Aukan Maroons of Abadokondre, near the town of Moengo, which gave important insight into how

¹ Population figure taken from CIA World Book from the most recent census conducted July 2012

the consultant needed to phrase questions, as well as how questions were being interpreted for the most part.

A small baseline study (N = 53) in the abovementioned areas was conducted. The consultant also relied on ethnographic fieldwork through participant observation, where the consultant stayed with families in their villages for several days and experiencing their everyday engagement with the environment and their communities. This report also draws upon key informant interviews with government officials, NGOs, International Organisations and academic institutions, working in Suriname. Particularly, the key informants represented a minute group who were engaging in gender, as well as those who were not necessarily engaging in gender, but dealt with biodiversity where gender dimensions were being played out.

Limitations & Constraints: These major constraints encountered were timing, and the timeframe in the field, as in the case of the former, the consultant has missed two opportunities to fly the the most remote villages in Suriname. One other constraint was that the cost of trips to the interior, in particular villages identified by key informants in Paramaribo, was above the consultant's budget. Finally, this consultancy was largely affected by the languages spoken by the locals, and the use of an interpreter who was not professionally trained. As a result, there were instances when his method for asking a question was to show how he felt towards the questions.

International Frameworks for Gender Mainstreaming

The International Frameworks through which Gender Mainstreaming and Biodiversity mentioned are:

- The Beijing Declaration and Platform for Action
- Convention on the Elimination of All Forms of Discrimination Against Women
- Agenda 21
- UN Declaration on Rights of Indigenous Peoples
- The World Summit on Sustainable Plan of Implementation
- The Millennium Development Goals
- United Nations Economic and Social Council Resolution 2005/31
- The Leipzig Declaration and the Global Action Plan for the Conservation and Sustainable
- Utilization of Genetic Resources
- Convention on Biological Diversity
- Rio+20 (2012)

National Framework for Gender mainstreaming

At the regional and national levels, Suriname commits to gender mainstreaming vis-à-vis the support of various programmes of the Organisation of American States (OAS), the Caribbean Community and Common Market (CARICOM), and the UN Economic Commission for Latin America (UN-ELCAC). As a result, the Ministry of Domestic Affairs has been put in charge of gender policies in the country. More specifically, this is managed through the National Bureau for Gender Policy (NBG), which is the Gender Management System of the government, which resulted from The Beijing Platform for Action. There are several resources under which this has been conceptualised within the Surinamese context, such as the Conservation Action Plan 2001-2005, which has been restructured and will be incorporated in the Development Plan 2012-2016.

National Framework for Biodiversity

In Suriname, the government has made commitments to several international frameworks towards biodiversity. These commitments are meant to develop and execute various policy measures for the sustainable conservation of biodiversity in the region. This national vision was culminated from a series of mandates, with one of the more significant ones being the UN Convention on Biological Diversity

(CBD), which was signed by 150 countries at the Rio Earth Summit in 1992. This Convention recognises that biological diversity is a culmination of plants, animals and micro organisms as they exist in their environment. However, it also acknowledges that people are a crucial driving force for its conservation as they depend on the environment for food security, fresh water, shelter, and medicine, to name a few. In order to manage these needs, pressures and entities, Suriname has established a National Biodiversity Strategy (NBS). This strategy focuses on the “the national vision, goals and strategic directions to be pursued in order to conserve and sustainably use the nation’s rich biodiversity and biological resources and foster the sustainable management of its natural resources, and support the equitable sharing of the biodiversity related to services and benefits provided by the ecosystems” (Ministry of Labour 2006: 5).

Pressures

However, Biodiversity is under pressure due to significant anthropogenic activities as well as natural changes in the environment that are accelerating at a pace with which the environment cannot keep up. These pressures are Mining, Logging, Waste Management, Natural Disasters and Climate Change. As a result, it is important to turn towards those National Stakeholders who are addressing biodiversity and the pressures placed on them.

Current Impacts and Recommendations

The table shows the relation between the impacts and how we could sustain the development of their farms

Impact	Recommendation
Traditional knowledge is not being preserved or practiced, as experienced in Powakka, where young women and girls are no longer engaging in farming practices and you men and boys in hunting practices.	Incorporate national programme to engage wider and local cultures with traditional biodiversity. Implement local programmes to encourage the use of traditional practices. Engage the use of indigenous communities and organisations, such as VIDS.
Logging industry driving animals away and degrading environment’s capacity to sustain biodiversity. As a result, access to resources women gather, and those resources men and women use for divination purposes, particularly special medicinal and sacred plants are in decline.	Design and/or Strengthen reforestry through SBB, and the application of Forest Management Law. Strengthen timber concession management plans, timber inventories and national database, whilst making this transparent for affected women.
As women have to occupy a variety of roles, they no longer have time to engage in traditional practices, especially sustainable farming and resource management strategies, which could be time consuming.	Try to shift focus towards more traditional roles that will offer both economic security and time to maintain those traditional practices that sustainably manage and conserve the biological diversity.
Lack of Family Planning, shows Maroon women having many children (one woman had ten and was expecting another). This puts serious pressures on the environment and its resources. This is usually because men do not allow women to take contraceptive, as many children represent a sign of wealth.	Intensive education about family planning and those pressures too many children can have on the environment are needed for both men and women. This will allow for more women to be given the freedom to seek family planning. Involve Ministries of Health and Education.
IGAs which are meant to empower women through NTFPs offer women skills and income in the process of	Offer quality control and branding/marketing workshops in local language and ways of learning.

working with the materials, but when there is a lack of business training—marketing, branding, bookkeeping, etc.—there becomes a larger problem of sustainability. This is especially troubling as one women’s group in Pikinslee felt as though they were being set up to fail.	Make NTFPs more desirable through national promotion of these products.
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Impact	Recommendation
With the increased dependence on store bought commodities, less and less households are having home-grown gardens. This has serious implications when it comes to food security and passing down women’s traditional knowledge. This also eliminates one of the women’s main activities for establishing their ability to maintain their family, especially when the man leaves.	Initiate a home garden programme in schools, where students at all levels are responsible for a small garden. This will promote country-wide crop education, whilst maintaining traditional practices depending on the region. This will allow children to become more knowledgeable about certain plants and also provide sustainable measures in which to maintain and rejuvenate home garden practices.
These two main groups are often characterized together when addressing strategies for their betterment. However, both groups are different in their practices and epistemological and ontological systems. This is particularly so when looking at how men and women from both groups control and identify biodiversity.	Contextualise all information, tools, strategies for respective groups by working with communities. Look at the uses of specific plants, and the differences placed on their importance to society and uses. Look at various conservation strategies between the genders amongst both groups, and do a gender & cross-cultural analysis of the differences.
Men have been driven away from villages due to lack of jobs/IGAs in which their knowledge of biodiversity is no longer present. Women therefore, abandon these traditionally male roles—like hunting—and focus on commodities There is also the historical reason in which Maroons and Amerindians were driven out of their home village in the 1980s. The men left the villages, leaving the women to remain.	Offer training to both men and women in position like rangers, forest managers, and ecotourism guides. However, emphasise male-based roles that play to their traditional gender roles in society. They could also be organized into CBOs—e.g. Men fishing group through which shops purchase fish from them to sell. Offer remuneration for return to village, through a housing programme, and job offer
Due to climate change, a loss and change in certain plants and animals has caused villages to rely on supermarkets to provide supplements. Women are the ones most affected as men are allowed to move more freely in and out of the village, whereas women depend on their environment to provide for all their needs.	Detailed survey and analysis of this by interviewing elders and adults on changes to their environment and adaptation practices, so as to inform conservation and environmental agencies how to act. Work on replanting and reharvesting diminished crops and wildlife. E.g. Kwalamasamutu’s project with the blue frogs.
Heavy reliance on supermarkets does not motivate the younger generations to practice traditional conservation methods. This is evident in the decreasing number of farms in Powakka, which many women have abandoned in place of depending on male family members to provide. In addition, they no longer have a means for independent food security.	Appeal to communities through consultation, engagement with Captains, Graanmans, and Chiefs to encourage women to farm and to use that as a vehicle for economic empowerment, and men to hunt and fish responsibly. Arrange for partnerships between businesses and communities/farms to provide produce to local businesses.

Impact	Recommendation
According to the HDR, Suriname has a current 2011 Adult literacy rate of 93.3%. The difference between the literacy rate between adult males and females is 95.49% versus 93.77% in 2008. For Maroons and Amerindians, this number is lower, especially amongst women.	Run programmes through already established institutions, such as schools church, CBOs, and government programmes. Use the local way of communication. Establish a training/education unit as part of the GSF/programme in order to facilitate proper access to information. Try to have this implemented at a national level through Ministry of Education
Lack of animals in natural habitat and degradation of traditional access to biodiversity affects women in access to wildlife for domestic purposes & accessibility to clean water. For men, the issues lie in lack of animals for hunting practices.	Appeal to corporations to promote Free, Prior and Informed Consent through already implemented standards. Better communication and consultation between mining companies and local communities, to assist in management in access to biological resources.
Lack of animals in natural habitat and degradation of traditional access to biodiversity affects women in access to wildlife for domestic purposes & accessibility to clean water. For men, the issues lie in lack of animals for hunting practices.	Pressure government to clamp down on illegal mining, whilst educating locals how to deal with these pressures. Promote ethical mining best practices, such as the Alliance for Responsible Mining's Fair-trade and Fair-minded standards which target ASMs. [SEE LEGAL LARGE-SCALE MINING RECOMMENDATION]
Pollution of waterways through tailings, which affect biodiversity. These cause women, in particular, to have to travel greater distances in order to access clean water for drinking. These small scale mining operations are notorious for the use of metallic mercury	Governments could promote similar policies like the Global Mercury Project, where best practices and pollution prevention measures that limit the mercury contamination of waters from ASMs through cleaner technologies, training, development of regulations and capacities within the government. Ultimately, the government needs to have stronger regulations against these illegal ASMs.
Women led CBOs suffered from lack of knowledge to cope with various environmental issues, such as worm infestation. This also trickled into their management processes.	Offer community workshops on how to further engage with new pressures on the environment. Plastic waste, proper management of resources, how to deal with illegal and legal mining and logging,

Impact	Recommendation
Men are often not considered in national and local economic empowerment strategies within their own village. As a result, they migrate from their communities to find work. This is due to women-centred approaches to development.	Work with NGOs like Man mit Man to promote income generating activities that speak to a man's traditional role—such as clearing farms, hunting, etc—and training in which they can also contribute or continue to contribute to the economic empowerment and conservation of the biodiversity.
Amerindian and Maroon women are often marginalized as is seen in access to education and wealth. As a result, they are often left to scrape by in order to provide for their family without any support.	Strengthen women's involvement in all aspects of decision-making processes, and their economic empowerment opportunities.
Men and women lack understanding of waste management of non-biodegradable materials. As a result they burn these materials or throw them in their natural environment in the water and forests.	Have integrated or gender-divided workshops on waste management. Appeal to traditional waste management strategies that exist in their everyday lives. For women, look at household waste; for men address larger waste strategies such as river waste management.
Men in Pikinslee identified lack of wood carving practices, which also managed and monitored the reforestation of certain trees. Women in Powakka have lost a lot of traditional knowledge associated with wild plants and their uses for domestic and medicinal purposes.	Implement activities in schools and communities in which traditional knowledge continues to be a part of the education of children. This will have to be contextualized. This way gender differentiated activities are maintained, with importance being placed on both. Set up Shaman/Traditional Medicinal Apprentice Programme to preserve knowledge of medicinal plants.



SECTION I: INTRODUCTION

1.1 Introduction

Biodiversity in the Guiana Shield region is linked closely to the livelihoods, cultures and traditions of the most vulnerable and marginalized peoples of this region. With the region spanning 2.5 million sq km, it houses 10-15% of the world's fresh water, and has the world's highest percentage of intact tropical rain forest of which 80-90% is still intact. To manage the variety of ecosystems within this region, the United Nations Development Programme (UNDP) Guyana, has set up the Guiana Shield Facility (GSF) to act as a multi-donor funding system, which aims to support the conservation and sustainable development of these ecosystems.

At present, there are immediate threats facing the ecological integrity of the Guiana Shield, such as deforestation, legal and illegal mining, water pollution, poaching of wildlife, poverty and weak institutional capacity. As a result, local communities resort to short-term economic activities, which may not be sustainable or in keeping with cultural knowledge. In response to this, the UNDP, along with its partners, has developed a strategy for promoting long-term conservation and sustainable development in this eco-region. This is meant to build on more efficient approaches and increased resource mobilisation towards conservation and management of biological diversity.

As it pertains to the inhabitants of this region, the communities in this area have abundant traditional knowledge related to biodiversity management, especially in regards to enhancing, maintaining, preserving, and sustainably using the resources within their natural environment. Not only do these people—especially Amerindians—acknowledge the importance of these practices for the maintaining of climatic harmony, but international organizations have strongly advocated the importance of their knowledge and traditional practices for adapting to the impacts of climate change. At the same time, more emphasis has been put on the importance of biodiversity to individuals as varying according to gender.

Women and men play different roles in biodiversity management, based upon their social roles and power relations—gender is shaped by culture, social relations and natural environments. For this reason, the need to incorporate gender dimensions into our understandings of biodiversity and its conservation, sustainable use and the sharing of benefits is at its crucial point. This has been recognized within the MDGs as they emphasize clear linkages between gender equality, biodiversity conservation, poverty alleviation and sustainable development.

Preserving ecosystem functions will benefit stakeholders at local, national and global levels, but in order to do so there must be an integrated system in which all members contribute. Hence, gender mainstreaming, particularly at the local level, is crucial to this process. In particular, gender mainstreaming of women is a political, environmental and social process that would enable women to participate equally with men, whilst contributing in women-specific knowledge as to how to utilize biodiversity in fulfilling their specific needs. By preserving the local natural livelihood resources, the local inhabitants will make a significant contribution towards poverty alleviation and resource management.

1.2 Suriname: A Country Perspective

Suriname is located on the north-eastern periphery of South America, north of Brazil, East of Guyana and West of French Guiana. With a land area spanning 163,820 sq km, most of its inhabitants populate the coastal region, with a majority of people living in or around the capital city of Paramaribo. The country is home to around 560,157 inhabitants, some of which are transient between borders². This is particularly the case of the Maroons who move between Suriname and French Guiana.

Although the population comprises of Hindustani, Creole, Javanese, Maroons, Amerindians, Chinese and whites, the inhabitants of the interior are mainly the Amerindian (2%) and Maroon people (10%)—descendents of escaped African slaves who established independent communities in the interior. These two groups occupy the rainforest, which covers 80% of the country, and have been engaging with the biodiversity in the area for centuries. Although they enjoyed somewhat of an autonomy, during the mid-1980s the Maroons began to flee the country, during the period known as the Suriname Guerilla War or Hinterland/Interior Wars. This period occurred as a result of an anti-government rebellion of the Maroons in this area. Led by Bouterse's ex-body guard, Brunswijk, who is a Maroon from Moengo, formed the Surinamese Liberation Army (commonly called Jungle Commando) which clashed with Bouterse's government in a violent war. In Bouterse's efforts to suppress the insurgency he ordered the burning of Maroon villages and the killing of Maroons in the areas the insurgents were believed to be housed. As a result, the country saw a mass migration of men from their villages to French Guiana.

Today, there are three culturally distinct Amerindian groups—Akurioes, Trios, and Wajanas—and six Maroon groups in Suriname—namely The Saramaka, Paramaka, Aukan, Kwinti, Matawai and the Aluku—all of which have been able to maintain a certain level of autonomy—politically, and socio-economically. However, there are significant setbacks when it comes to land rights and these two groups.

The country's land formation features are attributed to the cause of Suriname's ecological and forest diversity. These land formations have been divided into five broad ecological zones (Ministry of Labour 2006: 5):

1. The Marine Zone, including all off and near shore environments;
2. The Young Coastal Plain, including coastal beaches, estuaries, mudflats, mangrove communities, and swamp and coastal forest environments;
3. The Old Coastal Plain, including higher sandy ridges, inland swamps, wetlands and forests;
4. The Savannah Belt, including a mix of open grasslands, xerophytic (dry) forest, deciduous forest and rainforest communities occurring in intermittent and isolated bands;
5. The Interior Forests, including wet tropical lowland and sub-montane forests, some elevated massifs, and the majority of Suriname's accessible mineral resources.

These various land formations are also home to around 481 species of fish that live in "the fresh and brackish inland waters of Suriname" (Mol et al 2012: 263). Present data shows that 25 of these species exist only in Suriname, with 89 species belonging to the Surinamese river systems—including Marowijne/Mana and Corantijn watersheds—which extend into French Guiana and Guyana watersheds.

² Population figure taken from CIA World Book from the most recent census conducted July 2012

There are approximately 1,300 animal species in the southwestern region of Suriname, which includes 46 species believed to have not been documented previously.

1.3 Methodology

This research has been informed through field work conducted in August 2012, in the capital city of Paramaribo, and amongst the Saramaka & Aukan Maroons of Upper Suriname River, Abadokondre and Brokopondo Districts, and with the Amerindians of Para District in the villages of Powakka and Pierreikondre. These assessments were based on an initial pilot survey conducted amongst the Aukan Maroons of Abadokondre, near the town of Moengo, which gave important insight into how the consultant needed to phrase questions, as well as how questions were being interpreted for the most part.

A small baseline study (N = 53) in the abovementioned areas was conducted through the use of a questionnaire (See Annex 3). The consultant also relied on ethnographic fieldwork through participant observation, where the consultant stayed with families in their villages for several days and experiencing their everyday engagement with the environment and their communities.

This report also draws upon key informant interviews with government officials, NGOs, International Organisations and academic institutions, working in Suriname. Particularly, the key informants represented a minute group who were engaging in gender, as well as those who were not necessarily engaging in gender, but dealt with biodiversity where gender dimensions were being played out.

This assessment used primary sources (interviews, participatory fieldwork, and household surveys) and secondary data sources (International, regional and national biodiversity policies and plans, programme inception reports, programme progress reports, related government documents, local societal documentation, and other appropriate organisational records and available literature). This assessment has also applied qualitative and quantitative approaches to source, process and analyse the data and interpret the findings.

Most importantly, the main source of data collection came from the interviews with the abovementioned indigenous groups occupying the interior of Suriname, through a comprehensive gender perspective, by which a theoretical approach and an interconnected inclusion of gender perspectives is sought. As a result, this report has utilized key informant interviews, integrated with relevant unobtrusive techniques, which will address the area of gender, livelihoods, and biodiversity and their implementation and corresponding structures.

This evaluation focuses on providing (a) an independent assessment of the relevance, efficiency, effectiveness, and future of the project; and (b) evidence based recommendations to enable the UNDP GSF to engage in effective policymaking, capacity building, programming and implementing strategies.



1.4 Limitations and Constraints

Two of major constraints were the timing and the amount of time spent in the field. For one, the week before the consultant arrived and the week after the consultant left Suriname, there several visits were scheduled by Conservation International and UNDP to fly into remote areas of the country, which would have allowed the consultant to garner insight into remote Amerindian and Maroon villages. Instead, the consultant was restricted to travel around Paramaribo, Moengo and the Upper Suriname River up until Pikinslee. At the same time, there was a Handicraft Festival where women and men who were constantly engaged in income generating activities (IGAs) through timber and non-timber forest products.

One other constraint was the cost of trips to the interior, in particular villages identified by key informants in Paramaribo, was above the consultant's budget. This was due to the fact that most of the villages identified where gender mainstreaming was being played out within biodiversity programmes, such as Conservation International's mapping project, were only accessible by chartered plane or boat. The latter required the consultant to travel for a six to eight days along the Suriname River, which did not correlate with the timeframe of the consultancy.

It was also very difficult to get into contact with many of the key government officials, due to schedules, so the consultant had to compensate by sending questions via email. Finally, this consultancy was largely affected by the languages spoken by the locals, and the use of an interpreter, in one case, who was not professionally trained. As a result, there were instances when his method for asking a question was to show how he felt towards the questions, thereby influencing the way the interviewees responded.

Finally, the most surprising limitation throughout this research was the limited accessibility to men in the villages visited. Most men, particularly in the Maroon communities, were working outside of the village, which made it difficult to garner interviews with them. On most occasions the men interviewed were passing through the village to visit family members, or men who had established a business in the village together (this was the case for one group of men who ran the Maroon Museum in Pikinslee). This in itself let towards final interpretations and analysis of how gender is played out, but has also hindered the richness of the data collected, as the ratio between women to men interviewed was 2:1.

1.5 Objective

The main objective of this consultancy is to carry out a study on main gender issues related to biodiversity conservation in Suriname, in order to generate detailed data to strengthen national level efforts to improve the strategic orientation of GSF activities. At the same time, the research is meant to provide backstopping strategies for the GSF unit.

The purpose of this particular assignment, therefore, is to provide in-depth analysis and insight as to how gender issues are played out within the scheme of biodiversity conservation in Suriname, so as to build upon both national and regional approaches to the GSF's mandate. At the same time, the rights of the indigenous and maroon peoples, who live within the areas of study, have not had their rights systematically addressed in the context of land rights, biodiversity conservation and lack of public services and attention. With this lack of attention, comes the lack of recognition of the indigenous and maroon traditional knowledge of how to manage the environment that the government has for so long focused on, without acknowledging those who inhabit it. This is even more evident in the prevailing land tenure laws, which give these marginalised people no leeway to access land.

In a sense, this assessment also acts as a tool to measure future impacts of the current UNDP GSF Integration Agenda vis-à-vis a comparative approach between literature and actual experiences by the key stakeholders. Comparisons between current structures and international and national policies and case studies relating to gender mainstreaming and biodiversity conservation have also been considered. In addition, checklists addressing the following key considerations:

- 1) The design of the study;
- 2) The data collected (disaggregated by sex);
- 3) Cross-cutting stocktaking needs;
- 4) Threats to conservation and sustainable use and underlying causes from a gender perspective;
- 5) Priorities from gender perspective; and
- 6) Access and benefit sharing at different levels, will be addressed (the checklists are not limited to the above mentioned categories).

Finally, this assessment is meant to lend to those areas of engagement that need to be further explored, developed and implemented. Therefore, this report offers a plan of action for capacity building for effective engagement and strategies.

1.6 Structure of Report

This report is divided into five sections (not including conclusion). In the following section, the national gender equality and conservation practices will be examined in light of the international and conceptual frameworks on gender mainstreaming. This is followed by an analysis of gender issues and gender integration in biological diversity conservation in Suriname. To do this, an in-depth look at the qualitative and quantitative data will be considered in order to provide sound backstopping and policy strategies. Section four (4) looks at the ways in which Gender mainstreaming can be integrated into National Biodiversity Conservation Strategies. The next section is an Impact/Risk Matrix that looks at the current impacts on communities and biodiversity, those recommendations that may alleviate the issue, and the risks attached to these recommendations.



SECTION II: GENDER MAINSTREAMING: A NATIONAL & INTERNATIONAL PERSPECTIVE

2.1 Why Gender Mainstreaming Matters for the GSF

The Guiana Shield region is of great importance to the global battle against climate change. Hence its conservation and effective management are of even greater importance to this initiative. With 10%-15% of the world's freshwater reserves, the proper management systems for its conservation can only thrive upon maximum resource integration of knowledge by the 'experts' of the region. Specifically, when we understand the way in which the men and women exhibit differences and similarities in their knowledge, perspectives and practices concerning the quality of the environmental integrity of the region. Failure to address these gender dimensions when considering capacity gaps in the conservation of biodiversity is therefore detrimental to the success of the project, producing negative outcomes on household welfare, agricultural activities, environmental sustainability and gender equality. Furthermore, it has been deduced that "project results are superior when gender considerations are integrated into the design and implementation of projects" (GEF 2008: 5).

In order to strengthen the capacity of GSF's future partnerships as it moves forward to fund projects that offer further conservation of the biological diversity, assuming a gender dimension would offer further safeguarding in GSF's long-term objectives. Considering a gender focus also allows for greater understanding of certain aspects of the region, such as gender issues as it pertains to equitable access to resources and productive assets, education and access to information, workload, food security and meaningful participation and engagement, which will ultimately lend to GSF's ability to address national and overarching regional environmental issues. As it is also GSF's goal to support the exchange of knowledge and capacity building to enhance the conservation and sustainable development of the Guiana Shield eco-region, it must consider those cross-cutting issues from a multi-dimensional perspective—i.e. both male and female perspectives. Through this the focus, the GSF will be able to monopolize on a strengthened capacity through which to influence policy development.

2.2 International Framework for Gender Mainstreaming and Biodiversity

One can define Gender Mainstreaming as a strategy through which gender equality is promoted. The concept of bringing gender issues into the mainstream of society was first proposed at the Third World Conference on Women in Nairobi in 1985, but was established as a global strategy for promoting gender equality in the Platform for Action adopted at the United Nations Fourth World Conference on Women, held in Beijing (China) in 1995. Also emanating from this is the Beijing Declaration. Both of these documents establish a strategy and responsibilities for the State.

2.2.1 Beijing Declaration and Platform for Action

The Platform for Action warns that: "the human rights of women, as defined by international human rights instruments, will only be dead words unless they are fully recognized, protected, applied, and effectively enforced, at national legal and practical levels..." (Paragraph 218). It highlights the necessity to ensure that gender equality is a primary goal in all area(s) of social and economic development. Furthermore, Strategic Objective K.2 states that it is action must be taken to initiate and maintain the integration of gender concerns and perspectives into policies and programmes for sustainable development.

As it pertains to biodiversity, in the Platform for Action, Strategic Objective K specifies its commitment to the active involvement of women in environmental decision-making at all levels. This further calls upon all levels of Governments to take all necessary steps to integrate gender concerns and perspectives in policies and programmes for sustainable development, encourage "the effective protection and use of the knowledge, innovations and practices of women of indigenous and local communities, including practices relating to traditional medicines, biodiversity and indigenous technologies," and to ensure that these are all being "respected, maintained, promoted and

‘preserved’³” (Strategic Objective K.1., Point 253). In addition, this framework advocates that mechanisms to assess the impact of development and environmental policies on women be strengthened or established at the national, regional and international levels.

2.2.2 Convention on the Elimination of All Forms of Discrimination against Women

Along with this the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), adopted in 1979 by the UN General Assembly, plays an important part when considering gender mainstreaming. This is due to the role CEDAW plays in its advocacy for women’s rights and its protection, much of the legal international framework towards gender mainstreaming stems from CEDAW’s policies.

Firstly, CEDAW defines discrimination against women as: “any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil, or any other field” (Article 1). As it pertains to biological diversity, CEDAW requires for all States Parties to take all appropriate actions against the discrimination of women in rural areas, and to involve them in all aspects of the development and implementation of development and community activities at every level (Article 14.2).

2.2.3 Agenda 21

Agenda 21 was adopted at the UN Conference on Environment and Development, in Rio de Janeiro held in 1992. This outlines a plan for exercising sustainable development, and includes an entire chapter on gender related issues. This non-binding, voluntarily implemented action plan is an action agenda for the UN, other multilateral organizations, and individual governments to operate at all levels.

Section II of Agenda 21 pertains to the Conservation and Management of Resources for Development. This includes combating deforestation, protecting fragile environments and conservation of biodiversity. More specifically, Agenda 21 recognises the importance of women’s knowledge and traditional practices, especially as it pertains to the role women play in biodiversity conservation (Section 24.2 (c)). This was reaffirmed at Rio+20 (2012) in their outcome document, *The Future We Want*.

2.2.4 UN Declaration on the Rights of Indigenous Peoples

Addressing Indigenous Peoples, in particular, is the UN Declaration on the Rights of Indigenous Peoples (DECRIPS) of 2007, which proscribes the discrimination of women (Article 22). More specifically, DECRIPS states that all the rights outlined in its declarations are equally guaranteed to both male and female indigenous people (Article 44).

2.2.5 The World Summit on Sustainable Development Plan of Implementation

The World Summit on Sustainable Development (WSSD) Plan of Implementation 2002 was adopted in Johannesburg and promotes the full participation and equal access to decision-making processes at all levels. It calls for gender mainstreaming on the basis that all forms of discrimination against women and the vulnerable and marginalised must be eliminated, whilst working towards improving the “status, health and economic welfare of women and girls through full and equal access to economic opportunities, land, credit, education and health-care services” (CBD).

³ I highlighted the term preserve, as this concept refers to keeping a social construct in a fixed state of being. As concepts, environments, and people change, so do the ways in which people interact with those concepts, individuals and things within their environment. As a result, the author proposes that this term be changed to ‘conserve’, as it supports the concept of epistemologies being transient.

2.2.6 Millennium Development Goals

The UN Millennium Development Goals (MDGs), borne from the Eighth plenary session of the UN General Assembly in 2000, identifies certain fundamental values that pertain to gender mainstreaming and biodiversity within its overarching commitment to respect the equal rights of all people regardless of race, sex, language and religion. Those aspects of the MDGs that pertain to this assessment refers to the assurance of equal rights and opportunities for women and men as is stated in Article 6. Furthermore, the MDGs commit to promoting equality and the empowerment of women as an effective means to combat poverty, hunger and diseases, whilst ensuring and securing sustainable development. It is also committed to securing the full implementation of the Convention on Biological Diversity as will be described later on in this section.

2.2.7 United Nations Economic and Social Council Resolution 2005/31

The United Nations Economic and Social Council (ECOSOC) adopted a resolution in 2005 that looked to ensure that there is a holistic integration of mainstreaming of a gender perspective in all policies and programmes of the United Nations (UN). This resolution calls for all levels of the UN to “intensify efforts to address the challenges involving the integration of gender perspectives into policies and programmes.” This includes, but not limited to, the development of action plans with clear guidelines on practical implementation of gender mainstreaming, ensuring continuous staff development through awareness raising activities and training on gender issues, the incorporation of a gender perspective into operational mechanisms, and the promotion of gender mainstreaming into key macroeconomic and social development policies and national development programmes.

2.2.8 Leipzig Declaration and the Global Action Plan for the Conservation and Sustainable Utilization of Genetic Resources

The Leipzig Declaration and The Global Action Plan point out the role of women in the conservation and development of genetic resources. They both point out an imbalance between women’s responsibilities for conserving nature, the disadvantages they face, and their under-representation in decision-making arenas (Articles 248, 249 & 250). By doing so, the Leipzig Declaration and The Global Action Plan desire to promote an equitable distribution of the benefits that come from the use of traditional knowledge.

2.2.9 Convention on Biological Diversity

Most importantly for gender mainstreaming and biodiversity, this paper turns mostly towards the Convention on Biological Diversity (CBD), which takes into consideration all international frameworks that pertain to gender mainstreaming and integrates it into their framework for conservation and sustainable use of biological diversity and the equitable sharing of its benefits. In the Preamble, CBD states that it recognises the “vital role that women play in the conservation and sustainable use of biological diversity and affirming the need for the full participation of women at all levels of policy-making and implementation for biological diversity conservation” (Paragraph 13). This is further reiterated in the Tenth Conference of the Parties (COP 10) Decision V/16, where it goes on to emphasise the need to strengthen this role and the participation of women of indigenous and local communities in the programme of work (Article 8[j]). Attached to this is Task 4 (e) under COP 10 Decision X/19, which recommends that the CBD promotes “culturally appropriate and gender specific ways in which to document and preserve women’s knowledge of biological diversity.”

As a result of these measures and concluding objectives, the COP decided to adopt a Strategic Plan for Biodiversity 2011-2020, urging Parties to create national and regional targets. These targets are then meant to be reviewed, updated and revised against the Strategic Plan whilst considering mainstreaming a gender perspective in order to promote gender equality and to mainstream gender considerations.

2.2.10 Rio+20 (2012)

All these major policies were re-examined in June 2012, under the major themes of a) Green Economies, and b) Institutional Framework for Sustainable Development. In Articles 236-244, the participating members reaffirmed and re-evaluated much of their approaches to Gender equality and women's empowerment. Here they noted that although there was progress on gender equality, there was still a significant need to integrate women further into social, economic and political context, whilst empowering them.

Through gender-specific activities and affirmative action, especially for vulnerable men and women, these international frameworks involve the acknowledgement and advocacy of gender equality throughout all aspects of policy development, capacity building, legislation, monitoring, resource allocation, and programme design and implementation (UN Women). In doing so, they have been the primary tools for "integrating a gender approach into the environment and development efforts" (GEF 2008: 8). This means that both male and female contributions to the biodiversity data must be incorporated in order for development interventions to be deemed effective. Policies and programmes that ignore the gender dimensions are, therefore, potentially detrimental to the progression of human development and conservation strategies, especially when coming down to the National level.

2.3 National Framework on Gender

At the regional and national levels, Suriname commits to gender mainstreaming vis-à-vis the support of various programmes of the Organisation of American States (OAS), the Caribbean Community and Common Market (CARICOM), and the UN Economic Commission for Latin America (UN-ELCAC). As a result, the Ministry of Domestic Affairs has been put in charge of gender policies in the country. More specifically, this is managed through the National Bureau for Gender Policy (NBG), which is the Gender Management System (Heemskerk et al 2011: 25). The Beijing Platform for Action (Fourth Conference on Women, 1995) proposed that this national institute be positioned as a high-priority under direct supervision of a minister and contains institutional mechanisms that that "facilitate decentralized planning, execution and monitoring, in order to enhance collaboration with NGO's and organisations within society" (Heemskerk et al 2011: 25).

In keeping with this, in 1997, the National Bureau Gender Policy was formed (although officially launched in 1998). The framework under which the NBG was prepared relied on various resources. These resources have been denoted below: the draft National Biodiversity Strategy documents developed in 1998 and revised in 2000, the speech of the Minister of Labour, Technological Development and Environment, H.E. Clifford P. Marica at WSSD (2002), the Draft National Biodiversity Action Plan of 2002, The Draft National Environmental Action Plan (NEAP), the Guiana Shield Conservation Priority Setting Workshop organized by Conservation International, IUCN-Netherlands Committee and UNDP in 2000, the Conservation Action Plan 2001-2005 and the draft Country Environmental Assessment prepared in 2005, The Forest Policy (2003) published in 2005 by the Ministry of Natural Resources, the Agricultural Sector Plan prepared by the Ministry of Agriculture, Animal Husbandry and Fisheries (LVV), the 5 draft reports on the Non-urban Environmental Sector (i.e. the Main Report, Marine Coastal Zone Management, Protected Area and Wildlife Management, Forest and Freshwater Resources and Mineral Resources) and the National Biosafety Framework (2005). These documents were developed through extensive analysis of existing data on biodiversity in Suriname, and

consultation with institutions, groups and stakeholders affected by policy and management decisions pertaining to biodiversity resources in Suriname and/or the Guianas.

With support from the UNDP, the Ministry of Labour, Technological Development and Environment contracted WWF Guianas to assist in developing the NBS for Suriname. WWF, in turn, with approval of ATM and UNDP,) recruited a team with international and national experts to develop the NBS in close consultation with key stakeholders.

Currently, there are three arms of the government which deal specifically with gender: The NBG, The Ministry of Domestic Affairs and the Integral Gender Action Plan (IGAP). The Ministry of Domestic Affairs leads the government in developing, implementing and communicating on the national gender policy, whereas the IGAP appeals to the Beijing Platform for Action 1995's Strategic Goal H.2, which advocated for the integration of gender perspective in jurisdiction, programmes, policies and projects. This is an action plan which resonates from the NBG, and outlines to the Surinamese government how to execute activities within the framework of the gender policy (Heemskerk et al 2011: 75). However, according to a senior government official, the Gender Plan of Action under CBD, has not yet been adopted in practice, which presents serious implications for national and local level entities.

There are several organizations that represent government, non-governmental and civil society organization whose programmes are meant to deal with biodiversity and gender. This has been annotated in Annex 1.

What was evident, however, was the fact that gender mainstreaming was not yet integrated in most national and local policies, strategies and action plans. Although there were numerous negotiations, particularly around the latest Development Plan 2012-2016, which held gender as a core theme, it was still being negotiated and discussed, and had not been implemented at the time of research. The latest plan recognises that gender plays a leading role in the main policy areas, such as access to resources, education and health. Gender equality, is also emphasised in the Development plan, according to the official, but there is a lack of gender experts in the country, which may present several challenges in effectively implementing and addressing the gender issues.

It is interesting to note that the leading positions within the government and international organisations are held by women, who occupy roles like Head of a Division, Deputy Director and Director. Even under the Cabinet of the President, the Environmental Coordinator is a woman. However, what was conveyed by this senior official, the head of CELOS and several UN Coordinators is that although there are women in head roles, there are only a handful who are knowledgeable about gender issues and gender mainstreaming.

2.4 Conceptual Framework on Gender Equality and Conservation

Forecasts show the continuing failure to reduce the grave environmental risks and deepening social inequalities, which threaten to reverse the global convergence in human development. This is shaped by the disparities in gender, particularly at the national level (HDR 2011: IV). These imbalances in are linked to “reduced access to clean water and improved sanitation, land degradation and deaths due to indoor and outdoor air pollution, amplifying the effects associated with income disparities. Gender inequalities also interact with environmental outcomes and make them worse. At the global level governance arrangements often weaken the voices of developing countries and exclude marginalized groups” (HDR 2011: IV). Therefore, gender is an important indicator for inequality in various sectors, especially in the environment sector. Therefore, reducing inequality is seen as integral to sustainable development and conservation of the ecosystem.

Women's and men's contributions to conservation and sustainably managing biodiversity are seldom acknowledged, as will be apparent in this report. This is partially due to the absence of gender-differentiated data on environmental projects, which tend to take a gender-neutral approach. This is

not to say that gender mainstreaming is merely about adding a “woman’s component or even a gender equality component into an existing activity” (ILO). Rather, it transcends an increase in women’s participation, as gender mainstreaming calls for an integrated approach to knowledge, experience and practices of men and women and how these can aid in the strengthening of social and institutional structures.

As both men and women play different roles in biodiversity management, projects that incorporate a gender lens offer clear perspectives on capacity gaps, resources and strengthening of programme measures towards effective management. This also identifies gaps in gender equality, as gender mainstreaming depends on sex-disaggregated data to establish strategies and policies “to close those gaps, devoting resources and expertise for implementing such strategies, monitoring the results of implementation, and holding individuals and institutions accountable for outcomes that promote gender equality” (GEF 2008: 8).

As a result, a gender-analysis approach is, therefore, that shift away from a women-centred approach which integrates gender concerns instead of women’s. This allows for a broadened analysis of programme strategies, problems, and solutions, so as to gain perspective on the relationships that occur within the immediate social environment. A gender mainstreaming approach is what has emerged; it assumes that all policies and programmes have the potential to impact the lives of both men and women, and not solely the lives of women, as women-centred approaches do. It also assumes that gender is integral to the processes under which these policies and programmes operate, as a result adding value to them (Saulnier et al. 1999: 5).

At the core of policy decisions, institutional structures and resource allocations within the gender mainstreaming framework is the incorporation of differential gender impacts, and not women-focused views and priorities. As the disparities between women and men vary depending on factors other than gender, a relational perspective on gender and culture⁴ is needed. This relational perspective then informs the process through which information is collected and analysed, which must consider the different needs and concerns of both men and women. Gender analysis may, therefore, be defined as the analytical framework through which gender issues are identified and systematically studied by looking at the relations between men and women and boys and girls, and the contextualisation of information when developing, implementing and evaluating policies and programmes (Saulnier et al 1999: 8).

The move towards a gender-based system, and away from a woman-centred analysis, allows for women to be contextualised within a wider scope, and not through a narrow point of analysis such as biological differences. By employing gender mainstreaming, gender can then be a tool for recognising women’s positions within their societies, and how those positions are transient due to changes in power relations and societal constructs towards them.

There has been some dispute as to whether gender mainstreaming is about gender equality or gender equity. This is an important aspect when developing a conceptual framework for gender mainstreaming. Equality can be defined as the shared benefit and treatment regardless of one’s situation or circumstances. Formal or legal equality “originated as the principle of offering everyone equal opportunities and treatment before the law” (Saulnier et al 1999: 8). For women to be treated the same as men, would only work if both are in identical situations and life conditions, which is not the case for the most part. Therefore, policies and programmes must go further beyond ensuring equal access, as this does not target the underlying social issues and relations that create inequality. As a result, formal

⁴ Culture includes the physical and social environments in which various interactions take place. These interactions relate to factors such as race, sex, age, socioeconomic status, religion, family type, and so forth. All of which dictate the complexities within a society.

equality processes often “perpetuates discrimination because it approaches discrimination as an individual problem,” and not a systematic one that stems from intentional differential treatment (1999: 8).

In retrospect to equality, and how it has evolved, a gender equity approach focuses on the differences as a matter of “dominance, subordination and material disparities between groups” (1999:9). Although equality is meant to end discrimination through the provision of equal opportunities and conditions for both men and women, gender equity focuses on the differences between women and men, and ensures that both benefit equitably. This requires that policies and programmes are designed to account for the differences in roles, priorities, constraints and needs for women and men. Gender equity does not assume that women and men come from the same point of wants, needs, goals and capabilities. Rather, it refers to *fairness*, through different approaches to men and women—they should be treated the same when appropriate and differently when necessary. A policy and programme that promotes gender equity guarantees that historical and social disadvantage are considered and ensures fairness. This is done by ensuring that women get what they need in a particular context, as opposed to what men have.

In the general sense, a gender mainstreaming strategy should initiate and sustain processes at multiple levels in order to, therefore, be deemed effective. These levels can be conceptualised at the organisational, local and national spheres. Of these, the GSF falls comes into play at organisational level through which it could influence the larger national context and sustain local level interventions. Within the organisation, gender mainstreaming can be seen as operating within several domains through which power relations are manifested in different ways. These domains fall into the:-

1. Technical Domain – this refers to the instruments, gender experts who develop gender-equitable systems, gender training modules, and guidelines and tools for integrating gender into the project cycle. In this domain unequal power relations can be seen in the ways concepts, discourses and methodologies are defined and shaped. This is buried within the decision-making processes as to what may be considered the key objective, and valid towards gender mainstreaming strategies.
2. Political Domain – this is where integration of gender equality into processes of planning and decision-making are institutionalised. Here power is determined through the access and control over resources and decision making processes.
3. Cultural Domain – this is where the environment and daily practices of the organisation are defined, shaped and validated. These are integral to gender mainstreaming as it is here that the gap between policy and practice emerges, and it is there that it can be negotiated. In relation to the power relations, value systems, attitudes and relationships that propagate gender inequality.

These all intersect to influence and inform the analytical frameworks and tools on gender and gender mainstreaming. However, development programmes continue to produce gender inequitable outcomes, which further signify the power struggles that encompass the transformations required for mainstreaming to occur. Therefore, gender mainstreaming strategies must operate with organisational change and transformations at its core. In particular, institutionalised hierarchies and epistemologies must sustain the political domain, whilst taking forward changes in the cultural and technical domains.

The following section looks at gender integration and biodiversity, outlining gender dimensions in the country. However, before we move on we must look at the national vision for biodiversity in order to understand how gender and biodiversity tie into or could further be integrated into the national perspective, and organisational strategies for integrating gender.

2.5 National Vision for Biodiversity

In Suriname, the government has made commitments to several international frameworks towards biodiversity. These commitments are meant to develop and execute various policy measures for the sustainable conservation of biodiversity in the region. This national vision was culminated from a series of mandates, with one of the more significant ones being the UN Convention on Biological Diversity (CBD), which was signed by 150 countries at the Rio Earth Summit in 1992. This Convention recognises that biological diversity is a culmination of plants, animals and micro organisms as they exist in their environment. However, it also acknowledges that people are a crucial driving force for its conservation as they depend on the environment for food security, fresh water, shelter, and medicine, to name a few. In order to manage these needs, pressures and entities, Suriname has established a National Biodiversity Strategy (NBS). This strategy focuses on the “the national vision, goals and strategic directions to be pursued in order to conserve and sustainably use the nation’s rich biodiversity and biological resources and foster the sustainable management of its natural resources, and support the equitable sharing of the biodiversity related to services and benefits provided by the ecosystems” (Ministry of Labour 2006: 5).

This Strategy aims to identify tangible activities and strategic avenues through which the NBS could maintain and develop traditional societies within the growing economic climate of Suriname and conserve the environment in which they reside through a wider Biodiversity Action Plan (2006-2020). In order to enable legislation for biodiversity protection in Suriname several institutions were put in place. With commitments to The CBD, The Convention on International Trade in Endangered Species of Wild Fauna and Flora, The Wetlands (or Ramsar) Convention, and The World Heritage Convention (WHC), these government had put out a Declaration, *Regeringsverklaring* 2005 – 2010, which was meant to dictate an efficient and effective approach to environmental management. Its overall goal is to protect, conserve, improve and rehabilitate the quality of the ecosystem, and to establish sustainable practices vis-à-vis the development and integration of national environmental policy into the development policy, the formulation of regulatory mechanisms through which international environment agreements could be measured, and the promotion of environmental awareness and sustainable production.

But, how does this all translate into a gender-based approach? Currently, as mentioned earlier in this section, gender is only now being implemented within all aspects of national and local policies, strategies and action plans. Gender mainstreaming, when initiated at all levels, will allow for an integrated approach through which policies and programmes can be fully informed. This was also evident in the fact that the current Climate Change Action Plan and the National Disaster Plan does not account for gender (in)equality in their mandates. In the case of the National Disaster Plan, this was evident during the May 2006 Flooding Impact reports which does not take into account how men and women were affected differently as a result of it. At present, there is little being done on gender, with only Conservation International and the UN showing significant gender mainstreaming approaches to their programmes. However, the new Development Plan (to be released by the end of the year) will have a very strong gender-focus to policy and programme.

There were two NGOs that approached their objectives through mainstreaming a gender perspective. The first was the Saramakaa Museum in Pikinslee, where a group of men were the driving force, but it also incorporated the knowledge and practices of women in gender-differentiated economic generating activities (this will be further explored in the section below). The second was a plastic waste management stichting that employed both men and women in their interior and urban locales to address waste issues and to help manage these wastes by tackling the harmful practices by both genders in the disposal of non-biodegradable materials.

A further analysis of the national conservation policies vis-a-vis gender mainstreaming will be addressed in Section IV of this paper. It is now important to go into the gender differences when approaching biodiversity, and how these differences are played out at the local level.



SECTION III: GENDER INTEGRATION & BIODIVERSITY CONSERVATION IN SURINAME

3.1 Outlining Gender Dimensions in Suriname

Before continuing further, it is imperative to consider the extent to which gender perspectives were played out throughout Suriname. This is particularly necessary as it sets the tone for how important gender integration is. As a result, this section is formulated on the responses from key informants. Therefore, what follows is an analysis of gender roles as it pertains to the larger Surinamese ecosystem by first looking at main household and industrial activities that were the most visible.

To begin, Suriname, during the hinterland wars, experienced a dramatic change in the dynamics and arrangement of rural areas, especially amongst the Maroons and Amerindians, who occupy the interior landscape. During this time, many of the male Maroons fled from their home village, leaving women and children behind. As a result, what has become most visible is the change in women's roles, which has had a serious impact on their workload. Besides the traditional role of women as "managers of household resources" (Heemskerk et al 2011 :), women are also engaged more in small-scale farming, as key managers of this resource. During fieldwork, it was discovered that all the men participated in agricultural practices at the first stage. This was usually locating land and clearing. Male figures were entrusted with these tasks due to their knowledge of the landscape, soil type, and best conditions under which a farm could flourish. However, after this women were the main users and producers, along with their children. They were the ones who engaged in the environment and those pressures of having to cope and manage limited resources at times.

The carrying out of main responsibilities such as collecting drinking water and firewood, providing daily meals, raising children, gathering food and herbs, and small-scale agricultural production all fall on the women in Suriname.

This section relies heavily on the ethnographic fieldwork and a statistical survey conducted by the consultant, and will be the basis for the rest of the paper's analysis. As the Maroons and Amerindian communities engage with the environment very closely, it is important that we look at the types of knowledge men and women possess as it pertains to biodiversity, and their actions in relation to it.

As mentioned in the methodology, fieldwork was conducted in five areas: Abadokondre, Powakka, Klaaskreek, Pierrekondre and Pikinslee. There was one survey conducted in Abadokondre, where the respondents were meant to answer a series of questions relating to their uses and perspectives on the environment. The remaining villages were used for semi-formal to informal interviews with key informants identified by village leaders and activists. As much of the responses were similar for both Amerindian and Maroon communities, I will make distinct references to villages when there are distinctive responses.

The respondents totaled 53 for the survey, with a mean age of 41, with a minimum age of 20 years and a maximum age of 70 years. Out of the 53 respondents the number of men amounted to 18 (34%), whilst the women comprised the rest of the group. The reason that the amount of women to men is so disproportionate is due to the availability and accessibility to men in the various villages. In the Maroon community in Abadokondre, there were only five males present in the village during the two days of surveying. It was not until the final day—Saturday—did several other men arrive into the village as the consultant was leaving. This limitation has been considered in my analysis, but at the same time this is reflective of the way in which villages have become dominated by the female presence, due to transmigration of male adults into mining villages, French Guiana and Paramaribo.

3.2 Examining Gender Differences in Biodiversity Research: Gender-disaggregation of data

This section begins by offering suggestions that enable researchers to integrate gender and existing research methods through the collection and separation of data and statistical information by gender to enable comparative analysis/gender analysis. As mentioned in my limitations beforehand, due to time and the limited availability and accessibility to men.

3.2.1 Gender and Education

It is first necessary to contextualise the education levels of the people interviewed in this study. As education is free until **Year Six**⁵, 68%⁶ of the informants stated that they studied up until this year (N=36)⁷. There were seven (7) people who went on to further studies, with only two finishing high school. Of the two, one was an Amerindian woman, and my host in Powakka, who wanted to further her education at University level. This was also the case in Abadokondre, where people between 25-36 years were back in high school to finish their high school education. These amounted to five men, who were going to evening school nearby, facilitated by the Catholic Church.

GENDER	N	No Formal Education		Below Year 6		Up Year 6		Some High School		All High school		Higher Education	
		#	%	#	%	#	%	#	%	#	%	#	%
Men	18	0	0	1	5.6	11	61	5	27.8	1	5.6	0	0
Women	35	2	5.7	7	2	25	71.4	0	0	1	2.9	0	0

Table 1 Showing Distribution of Formal Education through Gender

This data reveals much about the equal access to education in the interior regions of Suriname, as well as the cultural attitudes towards it. The men all stated that education was given to both men and women, but due to the responsibilities of the women, especially as men were the ones who left the village, they had to tend to the families and the home. This was especially the case amongst the Maroons, as most men worked outside of the village their families resided. In contrast, three women stated that men were given priority over women, which was why more men had access to more education. One of the women who finished Year 6, but did not go to High School stated that her younger brother was sent to high school, but she was kept back as that was part of their culture. However, all stated that most of the constraints towards access of education came from a financial standpoint, and the ability to afford it.

The one man interviewed who stated that he studied below Year 6, later qualified that he had continued his education in French Guiana, as his family fled and remained there during the Interior Wars. This is important to note, as many women, especially in Pikinslee, would go over to French Guiana to have their children, and to reap the benefits of the social security and national programmes. As a result, children from the village were being sent over to reap the benefits of the French formal educational system.

In Pikinslee, the women who were involved in the local *stichting* did not go to school when they were younger, but were now in government sponsored & NGO education programmes. The Chair of this *stichting* noted that there were other women who were not involved in a CBO who were also enrolled.

⁵ Students are about 12 years old when they leave at year 6.

⁶ The actual percentage was 67.9%

⁷ In the initial draft, this number was 39. However, this was with the inclusion of some who stated that they finished high school, but when analysing the years the age they stated they left school, this would not have been the case.

3.2.2 Knowledge on Biodiversity

Before initiating in any discussions about the concept of biodiversity conservation, it was necessary to understand whether the respondents (N=53) knew of the term and its meaning. Those who had heard the term ‘biodiversity’, or *biodiversiteit* in Dutch, accounted for 17% (N=9) of informants, with only 5. 7% (N=3) being able to give a full definition. Those who did hear of the term were mostly male, with the exception of two women. One Maroon woman knew the term, due to the fact that she worked for an NGO or *stichting*, and was the local manager of an ecotourism village. As a result, she had come across the term in various partnership meetings and capacity building workshops. There was one other Amerindian woman, who knew what biodiversity was as she was the *bashya* of an Amerindian village as well as a leader of a national NGO that participated in forums on Indigenous issues at national and international levels.

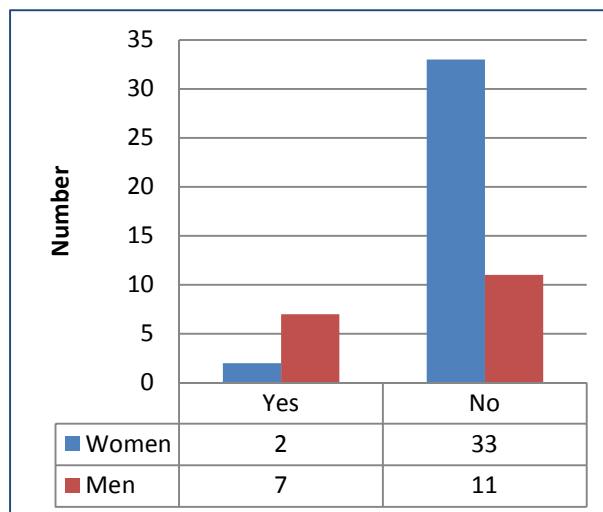


Chart Showing distribution of knowledge on biodiversity

Of the men who had heard of biodiversity (N=7), one was able to give a clear definition of what entailed. However, the other six men said that it was related to plant life, which showed partial understanding of the term.

This is not to say that the people interviewed did not understand or know about the concept. All fifty-three respondents (N=53), understood what biodiversity meant once it was defined. All understood what plant and animal life meant, and could describe the environment in which they would function.

3.2.3 Access to biodiversity

Both men and women had equitable access to biodiversity due to equal importance placed on the roles of both genders in maintaining and using them. Women had access to and controlled the biological resources as they pertained to subsistence farming, home gardens and some fishing activities. Men, on the other hand, controlled and managed biological resources as it pertained to Timber for construction, hunting and some fishing. These individual responsibilities will be further described in the sections below.

3.2.4 Domestic uses

It has been noted that the majority of plant species used by humans are cultivated or gathered for their medicinal, culinary, nutritional and aesthetic values (Howard 2003: 4; Posey 1999). However, it is not widely annotated these uses vis-à-vis gender disaggregated data. It is even more rarely indicated how domestic tasks such as “gardening, plant gathering, post-harvest preservation, storage, and processing of food, medicinal, fuel and fibre plants,” which are most often tasks assigned to women and girls (Howard 2003: 4). This was evident for both the Amerindian and Maroon



women who were solely involved in domestic tasks, with the exception of the bush doctors/medicine men, who were key male figures in prescribing medicinal plants to heal ailments. In their case, they were seen as specialists, and exhibited extensive knowledge of the forest. In fact, it is with this type of knowledge that studies have focused on when it comes to domestic uses of biodiversity. As a result, little has been done to incorporate female epistemologies. Most importantly, the use of biological diversity in domestic traditions is an everyday occurrence which formulates most of the ways these people form their cultural identities and conserve their environment. One case of this is the use of local wild plants for the treatment of ailments, and the replanting of trees in order to sustain their domestic needs. In Powakka, a key informant identified the following plants growing naturally around her house and their uses. These have been identified below.

Plants	English Common Name	Scientific Name	Uses
Anesi wiri	Marigold Pepper	<i>Piper marginatum</i>	For fevers and flu
Sibiwiwiri	Sweet-broom, goatweed or scoparia-weed	<i>Scoparia dulcis</i> L. (Scrophulariaceae)	Exhaustion, laziness, and tiredness
Sauersack/sirsak	Soursop	<i>Annona muricata</i>	Use of leaves in water for headaches, migraines and other pains related to the head & sinus
Kulur	breadfruit	<i>Artocarpus Altilis</i>	Good for blood circulation
Guajaba (wiwiri)	Guava	<i>Psidium guajava</i>	Diarrhea
Neem	Indian Lilac	<i>Azadirachta indica</i> Adr. Juss. (Meliaceae)	Pregnancies
Cocos	Coconut	<i>Cocos nucifera</i>	High blood pressure
Wanasuro (bush papaya)			For cuts
Sopropo wiri	Bitter Melon, bitter gourd or bitter squash	<i>Momordica charantia</i> L. (Cucurbitaceae)	Heart, Malaria and blood sugar

Table 2. Showing Use of Medicinal Plants

These plants are important for culinary, ritualistic, spiritual and medicinal purposes. This was identified by all the villages visited. In all of these processes, what is highly significant and yet mainly overlooked is the change in how women and households depend on these plants. As roles change, so do their dependence on biodiversity. This is a principal reason why people's maintenance of biodiversity has slowly decreased, as some villages have stopped planting—plant biodiversity is also lost in these cases. Yet there are still people who are heavily involved in conserving these plants. In Powakka, the woman I was working with was in the process of weeding around the plants that were vital for medicinal purposes. She said that this was important in order for those special plants to thrive. In addition, the women in Powakka and Pikinslee use traditional techniques and knowledge during agricultural practices—in planting, harvesting and storing—which contribute to ethnobotanical knowledge which are vital to the management and conservation of these resources. However, much of this has been lost as all of the households visited had refrigerators—helped by the fact that the government has offered free electricity to these places several hours a day. It is also important to think about the fact that a lot of these plants are gathered within 'women spaces'. For example, home gardens are the space of women, and not men, and can tell us a lot about food source. The importance of home gardens for biodiversity conservation has only recently had little recognition (Watson and Eyzaguirre, 2001). As a result, gardens "represent a 'genetic backstop', preserving species and varieties which are not economical in field production and are planted small-scale" (Howard 2003: 4; Niñez, 1987). These home gardens have also been noted to be a great way in which to keep this knowledge in constant movement

from generation to generation. Only one man stated that he had a garden, because his wife was in the capital city, so he had to tend to it.

3.2.5 Agricultural Practices & Plant Diversity

In Suriname, Maroon and Amerindian women are involved mostly in subsistence agriculture. However, men are still involved and play an important role when it comes to selecting a site for a new farm, and in the clearing of the new farm. An initial survey of ten households revealed that women and men are engaged in a wide variety of activities related to farming, seed selection and preservation, and the collection, processing, preparation (and in some cases marketing) of edible and medicinal plants. Of the 35 women, 19 had active farms. Those who did not have farms were located in Abadokondre, as this village was devoid of much of its male population, who had left to go into the gold mining, or had fled to and remained in French Guiana during the Hinterland Wars.

Action	Women	Husband	Children	Other Male Kin	Other Female Kin	Unrelated Women	Unrelated Men
Clearing	1	9	0	7	0	0	2
Planting	19	1	13	0	12	0	0
Harvesting	19	4	15	2	13	0	0
Transporting	11	8	3	12	5	1	9
Selling	8	2	0	5	0	0	9

Table 3 Showing Gender Division of Labour within Farming Activities from Women Informants.

This table above demonstrates the distribution of labour as it pertains to farming. As is very clear, the farm is a woman's domain, with men coming in to assist in the woman's role to control and manage the biodiversity that the farm produces. Although men are the main decision-makers in the location of the farm, women are the main decision-makers as to what is planted, as they are the main controllers of plant diversity in this arena.

Understanding both men and women's influences on plant biodiversity is key to this study, as it is essential to working with locals in conservation of plant genetic resources, especially those plants that are integral to interior society livelihoods. Amongst the communities visited, it was evident that women were the main holders of certain types of knowledge about plants, through their daily work and relationship with agriculture.

Men, on the other hand, had similar and different types of knowledge about biodiversity within the agricultural setting. On the surface, they knew what would be planted seasonally, but most of the men with the exception of two (2), explained what the planting process was like, the pressures on the crops and the traditional and adapted techniques used in cropping. The women were the ones who gave this information up. Instead, the men who were involved in planting (N=8 out of N=18) stated that their responsibilities were to know the area to clear. This involved soil typography and understanding the fertility of the land for planting. In addition, the men were able to catalogue which areas were already used by other families for farming, and the length of time an area of land needed to rejuvenate as they used the slash and burn method. This method in itself takes a great deal of specific knowledge, as mentioned above. Therefore, men's primary responsibilities were played out in pre-production activities, namely the selection and clearing of the land in preparation for the production activities.

Action	YES	NO
Clearing	8	0
Planting	1	7
Harvesting	1	7
Transporting	5	2
Selling	2	6

Afterwards, as indicated earlier, women were the main players in farming, particularly in the production activities. All the women who planted stated that they were responsible for the selection of crops, the planting, the collection and preservation of seed varieties, and the harvesting of the crops in a sustainable manner so that re-growth could occur.

During post-production activities, women were still involved in the transportation and selling of their crops, with 11 women stating that they transported their crops from farm to home and market, and eight stating that they sold their crops themselves in their immediate villages or in the nearest town.

It was clear that women were the sole managers of food (including those hunted or fished by men), as all 19 women stated that they were responsible for the storage and distribution of their crops within the household, community, and larger district. However, men had equal access to these rights, but saw them as part of the woman's responsibility and cultural domain, which feeds into the customary rights to resources, as will be explained in the latter part of this section.

3.2.6 Non-Timber Forest Products (NTFP) and Economic Empowerment

The use of NTFP was observed in Pikinslee, where calabash products were used to economically empower women, whilst the men were heavily involved in timber products in the form of wood carvings. Although both men and women engage in NTFP for various practices, such as medicinal uses, it was amongst the women who dealt with these products for economic gain. The Chair of the *stichting* that was involved in the calabash production was a key player in decision-making processes, and was seen as a successful and progressive woman. She described that they knew the exact time to find the calabash, and used this medium due to its abundance and seasonality. Although the exploitation of NTFP has been deemed as a sustainable way to exploit the forest, unlike logging, these resources if not extracted sustainably, can cause serious ecological consequences (Havinga 2006: 7; Peters 1996). However, the harvest intensity did not exceed the capacity of a population to replace, as the Chair of the calabash women's group pointed out, they tried to use the calabash that had already fallen and were useable or the calabash that were ready to be harvested from the trees. She also pointed out the trees that were nearby, which were full of calabash. She mentioned that they did not want to overharvest them, as she began to notice the change in climate which was affecting the calabash.

3.2.7 Gender and Animals

Those communities dependent on hunting and fishing for human livelihoods saw a clear separation of gender roles and knowledge when it came to hunting. Both men and women fish, but only men hunt. Of all the men interviewed, 72% (N=13) stated that they still hunted. None of the women stated that they hunted or that they wanted to hunt. As one woman stated "that's men's work!" This is a very integral element as men possessed the knowledge of the natural habitats of animals and their migratory patterns. However, with increased disruption to the natural habitats of integral animals to both Amerindian and Maroon people—mainly pakira, pingo and coconie⁸—have changed their migratory patterns, and habitat. In Pikinslee, Pierrekondre and Klaaskreek, it was noted that there were certain animals that were no longer prevalent in the area due to intense logging and illegal gold mining. An artisanal miner and hunter from Klaaskreek noted that a major decline in certain game, particularly the pakira. He attributed this with the small scale gold mining, and the fact that they needed to clear large acres of land, which also polluted the rivers.

All the women surveyed in Abadokondre stated they fished in the rivers, with everyone stating that they fished at least once a week. The most common fish was *aweifi*. However, most people bought fish in this area, especially red snapper.

⁸ Pakira was described to be a Peccary; pingo was described as a bush pig (smaller than pakira), and a coconie is a rabbit.

3.2.8 Gender and Waterways

Women manage water resources for domestic, productive, and sanitation and hygiene purposes. In all the villages it was witnessed that women were constantly off to the water sources, where they washed clothes and dishes, fished, collected drinking water, and bathing. They used it to travel, and depended on it for most of their social needs. However, it was noted that because of pollutants in the water people were no longer drinking the water in Klaaskreek. This was also because many houses had intermittent running water, which they depended on, with less reliance on the river for traditional uses. In the case of Klaaskreek, the presence of an ecotourist beach places pressures on this resource, with littering quite prevalent. However, both men and women share knowledge about sanitation and hygiene for good health, especially when it comes to the water source. As a result, many households in Klaaskreek and Pikinslee, and most households in Powakka, were actively collecting rainwater. In total the percentage of households that said that they depended on the river or creek for drinking water was 69% amongst men and 49% amongst women. However, all the women stated that they depended on rainwater at some point for drinking.

It was necessary to include water within the scope of biodiversity conservation, as marine life was a key element to people living in these villages. All were located on or near a body of water, where they depended on it for the abovementioned activities. Also, none of the women stated that they used the river to play in [for recreational purposes]. They all stated that they used it in terms of household responsibilities. In addition, women are key to reducing food insecurity in these communities, given their knowledge of “crop production, local biodiversity, soils and local water resources, they are often excluded from decision-making processes in new agricultural water management approaches and other projects and initiatives on natural resource allocation” (Wahaj 2007: 3). This is evident in the fact that men will prefer to use water to irrigate on cash crops whilst women use it to grow staple household needs. This reality has often been ignored in irrigation development projects and has led to gender inequity in access to productive resources. It has also resulted in the partial or total failure of irrigation schemes.

It has also been documented that women have traditionally played a major role in managing and maintaining communal water supply. This was evident in all communities as the women observed using the water supplies had much control over its social and domestic uses. There were also no non-biodegradable materials near their washing area.

However, there are immense pressures placed on the environment by mining companies and forestry agencies. Hence, the following sections focus on these pressures in order to gain further insight as to how the environmental climate is.

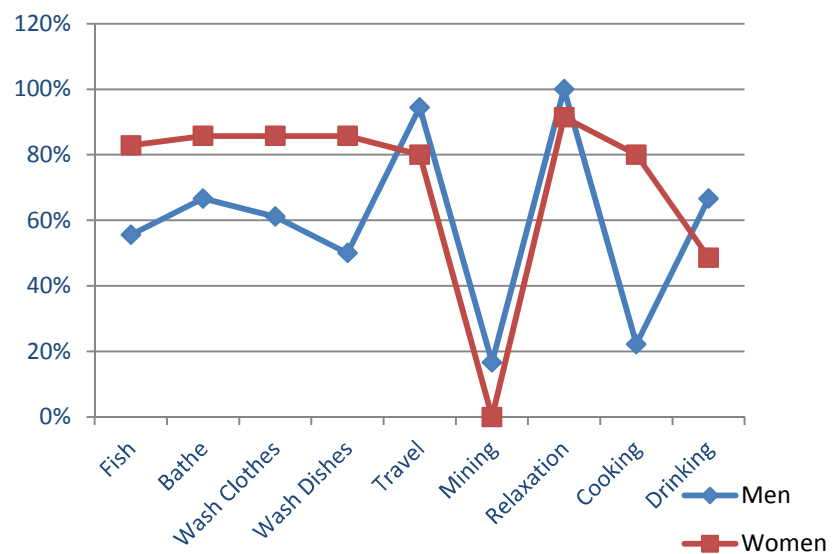


Chart 2 showing % of distribution of use of water source

3.3 Implications of Decision-Making Processes

In all the above-mentioned biological resources, it is evident that men and women hold different rights to the ways in which they can access and control these resources. As it pertains to farming practices, men control and hold customary rights in decision-making processes within the pre-production phase, whereas women exercise their traditional knowledge and decision-making freedoms during production. The lines as to whether men or women have more of a say in the post-production phase (i.e. selling), is still up for debate, as three(3) of the men interviewed stated that they or their wives sold their produce, of them two(2) stated that they decided where they and their wives would sell. There were nine (9) women who stated that they did not sell their crops at all, the other ten (10) did. During my interview with the women, of the nineteen (19) women who farmed, six (6) stated that they were the sole decision-makers as to where the crops would be sold, whilst one (1) woman stated that her husband was the main decision-maker, and another who stated it was a joint effort. Of the ten (10) who did sell three (3) stated that they did not have to make any decisions in the selling process.

However, men occupied the main decision-making arena as it pertained to general access and control of biological resources and socio-political strategies. In Abadokondre, it appeared that women had more decision-making liberties, as there were no men around. However, none of the villages had female Captains or Chiefs, as all stated that this was reserved for men. However, in the Amerindian communities, it was more common to find a woman occupying the role of an assistant decision-maker.

Since women's participation in decision-making is generally lower than that of men, specific strategies are generally required to ensure that women's voices are heard. However, in the villages I conducted fieldwork, women stated that they participated in general meetings, and did not have issues within the communities when it came to decision-making. This was attributed to the already established gender roles, which determined who had the right to make decisions on certain aspects of society. As a result, it appeared that there was gender equity being experienced locally.

However, as it pertained to decision-making processes on a national level, both men and women felt that NGOs, governments and international organisations were not involving them at any level. This was expressed by several women and men in Abadokondre, Pierrekondre and Pikinslee.



SECTION IV: PRESSURES

This section deals with the anthropogenic and natural pressures that are being placed on the biological diversity in the immediate environments of the Maroons and the Amerindians. These main pressures come from mining, logging, waste management, natural disasters and climate change. Following an analysis of this, there will be an analysis of national conservation policies and programmes by mapping the main stakeholders involved in biodiversity conservation and their use and capacities of gender mainstreaming in order to deal with these pressures.

4.1 Mining

One of the main industries in Suriname is mining—both large scale and small-scale artisanal mining. More troubling is the current Mining Decree of 1986's lack of protection towards indigenous and Maroon rights, except for Article 25b, which states that “the request for an exploration concession must contain: —a listing of the villages of tribal peoples on and near the requested terrain” (Heemskerk et al 2011: 144; Republic of Suriname 1986: 16). There is no indication of legal protection, and villages are more often than not required to accommodate mining operators and title holders. There is neither anything stated in the Mining Decree that required consultation with villages prior to issuance of titles. As noted by Heemskerk (2009), mining title holders rarely give notification to villagers prior to activity.

These are usually illegal and semi-illegal operations. These mining sites are mostly operated by Brazilian and Maroon men, with some having a very strong female presence. Small-scale farming has been allowed to flourish in Suriname, due to its overall tolerance by the State. Between 1998-2008, this was quantified through the rising trend of purchasing gold from ASMs, which amounted to 13 tonnes/year (Heemskerk et al 2011: 146; Healy 2010). During this period, there was an estimated 12-15 thousand people working as small-scale miners (Heemskerk 2011; Taken from Stichting Planbureau Suriname 2003), whilst nearly as many work within the small-scale operations as service providers in. These service providers offer services such as delivery of goods, transportation, sex work, repair and maintenance of machinery, food provision, and laundry services (Heemskerk 2011; 2009). Of these workers about 5-10% represents women, whose roles vary from mine owner and/or supervisor to sex workers. Women represent the majority of cooks, and all of the sex workers; they are also well represented as bar and restaurant operators. As few women move from their original village with their families to the mining villages, those who do so operate a variety of businesses, such as pharmacies, hotels, beauty salons and bars. In other villages, the numbers of women are much less, with them mostly working in the sex trade (Heemskerk 2011: 146). It is important to note that the majority of small-scale miners have been identified as Brazilians, which is another dimension one must consider when addressing key issues on capacity building and project development.



Due to the current price of gold, royalties from gold mining have created a boom in the Surinamese economy—both formal and informal. In large-scale mining, Gross Rosebel and Iam Gold have two of the largest concessions in the country, with one of the villages studied within its territory—that one being Klaaskreek. However, with Iam Gold, it has limited the local population's freedom to move in and out the concession, which was once their ancestral/traditional agricultural and hunting ground (Heemskerk et al 2011: 145). As a result, Maroon women in the region were restricted from doing their everyday activities, such as



farming, gathering food, and collecting medicinal plants. Out of the 10 people I spoke to in Klaaskreek, none of them had a farm, with all attributing this to the loss of their parents' or their farm lands. The two women interviewed in Klaaskreek who worked on the mining site, stated that they worked as a laundry and cleaning woman and as a cook. As these women were not highly educated, they occupied two of the lowest paid unskilled jobs (Heemskerk et al 2011: 145).

4.2 Logging

Logging is also another industry that is booming in Suriname, where men are the main players. They tap into their knowledge about the forests, for the most part, whilst attributing to its degradation. This is not to say that people are not aware of their impacts, as on several occasions, during semi-formal interviews, the respondents would attribute negative environmental impacts to logging activities. This was the case in Pierrekondre, where the nearby logging concession was blamed for the disappearance of vital wildlife.

Logging related activities, however, employ around 5% of the Suriname workforce and covers about 2.5 million hectares. There is also the Forestry Law of 1992, which “formally 45 recognizes the customary rights of the tribal peoples of the interior” (Heemskerk et al 2011: 146). However, many of these indigenous and Maroon villages are situated in or on the periphery of a logging concession. Yet, measures to safeguard areas from deforestation have emerged through the governmental Forest Management and Forest Supervision Foundation/*Stichting Bosbeheer en Bostoezicht* (SBB) who have advised against the issuance and renewal of concessions in areas where villages have been established. Also, North Suriname has been closed for logging. However, Indigenous and Maroon communities are not guaranteed their continued access to their surrounding environment, as these communities do not have rights to the lands they use, manage and conserve (Heemskerk et al 2011: 146). Any destruction to these lands is devastating, especially for women, who are particularly impacted disturbance to the availability of agricultural lands because they are responsible for the subsistence plots, which provide the largest share of family food. The destruction of hunting grounds affects men and their families. Because women are less likely than men to earn cash income, they have fewer options to compensate for the loss of harvests by buying city produce.

4.3 Waste Management

Waste management in the interior regions was a problem, especially the disposal of non-biodegradable waste. In both Klaaskreek, Powakka & Pierrekondre, the consultant witnessed waste management

collection of both biodegradable and non-biodegradable waste. However, the non-biodegradable waste was the hardest to manage, as locals faced several barriers in maintaining a proper management system. This was more evident on the Upper Suriname River, where rubbish mounds had formed in the river near the banks. This was also witnessed on the beaches of Bena Strand in Klaaskreek, where tourists would leave their plastic bottles on the beach. However, the managers of Bena Strand had waste management services incorporated into their operating strategies.



What was evident was the fact that there were logistical, economical, operational and environmental issues, as was pointed out by Stichting Samarja—an environmental organization in Suriname with an integrated approach to environmental and waste issues. As pointed out by the director, Mr Alibux, it is very difficult to reach most of the interior communities to properly dispose of non-biodegradable waste responsibly, economically and safely, which poses a great threat to the environment. He has suffered this hurdle with a few of his projects in the more remote regions of the Upper Suriname River, but is confident that with more funding this could be achieved. He also stated that it was logistically inefficient, as the recycling plant is in Paramaribo, and the volume created by plastic bottles reduces the amount of bottles in weight that could be transported. As a result, bottles have begun to pile up near villages, which disheartened numerous villages from continuing to recycle. In addition to this, is the fact that most villages are only accessible via boat and/or aeroplanes, which makes this process even more difficult.

4.4 Natural Disasters

The most recent natural disaster occurred in early May 2006 when Suriname incurred severe flooding along the Suriname, Tapanahoni, Lawa, and Marowijne Rivers. As a result, an estimated 25,000 people in 175 villages were affected and suffered loss of land, houses and agricultural plots. It was also reported that three people died, all of who were children.

As was noted by the National Coordination Centre for Disaster Management/*Nationaal Coördinatie Centrum Rampenbeheersing* (NCCR), the analysis of effects does not differentiate between genders when looking at the following factors:

1. The number of people whose houses and agricultural grounds were flooded
2. Drinking water and sanitary facilities
3. Economic activities
4. Schools that were closed
5. Clinics that were closed

However, one can deduce that the loss of fields have affected women the most, due to their role as farm managers (Heemskerk et al 2011: 149). In Abadokondre, the most common response from the respondents as to why they thought it was important to protect the environment and its biodiversity was that the recent storm they endured could have wiped out their village if it were not for the tree cover, which they attributed to preventing this from happening.

4.5 Implications of Climate Change

It is necessary that this report addresses climate change as a separate section, which will build upon direct cases told to me.

Mrs Vreedzaam – Pierrekondre

It is evident that climate change has affected the way in which people live and negotiate their everyday lives. The pineapples which she grew in a nearby home garden were filled with brown spots and a duller colour to the fluorescent yellow she recalled as a child. “This is because the sun is too hot!” The change in temperature and increased rainfall, has severely affected villages and communities through the affect on crops, the unpredictability of the seasons and the soil, and the Many people in Suriname live close to the coast, or in places that are vulnerable to the threat of storms, flooding and rising sea levels.

Currently, DFID is helping governments in the Caribbean region to plan ahead for possible disasters and to integrate risk reduction into their policy and investment decisions, such as their climate change risk atlas in Suriname. This is to ensure that prior, informed knowledge as to what possible issues may appear is already considered. They are also mobilise resources to scale up their efforts and ensure development gains are not lost. We are also developing affordable insurance for small businesses and farmers to protect their assets and livelihoods when disaster strikes (DFID website: Suriname)

The newly-created agency, the Climate Compatible Development Agency, will consolidate and streamline climate change-related efforts by the various departments within Suriname’s government, rather than continue to operate on a piecemeal basis.

The agency will be tasked with a variety of responsibilities:

1. To coordinate the country’s policies on climate change mitigation and adaptation, as well as forest conservation.
2. To help Suriname win international funding for efforts related to those policies.
3. To lead the country’s Climate Change Fund.
4. To support a Climate Compatible Knowledge Institute.

Although the Agency is coming under way, it has yet to address a local-level incentive in which to assist the agency in its tasks, much less a gender-based approach to climate change, especially in the majority of the country where Amerindians and Maroons reside.

In its First National Communication to the United Nations Framework Convention on Climate Change (UNFCCC), the government of Suriname stated that sea-level rise will result in “increased erosion, large-scale inundation, loss of fertile land, reduction of freshwater resources, decline of biodiversity, and worsening of human health”. “Climate change is likely to result in changes in the hydrological cycle, including the intensity and distribution of rainfall, and drought. The combined effect of these changes makes the country vulnerable to climate change.

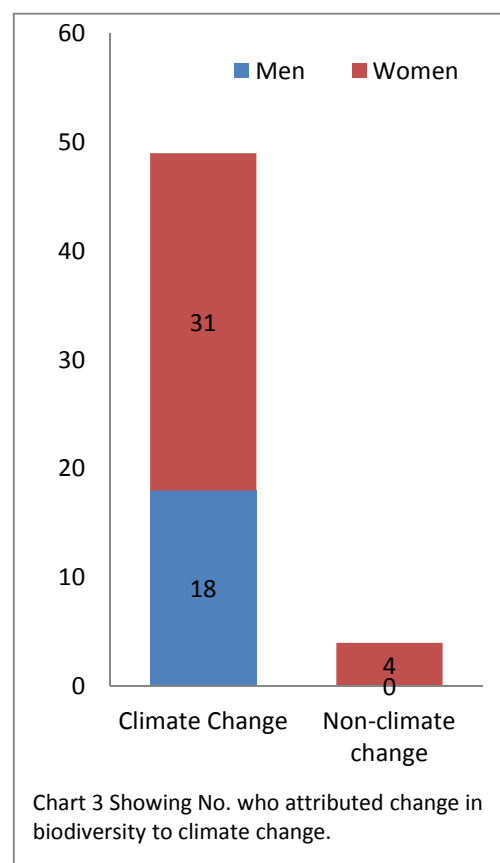


Chart 3 Showing No. who attributed change in biodiversity to climate change.

Still, despite this knowledge, there has been haphazard execution of adaptation projects. The largest projects included an ongoing carbon inventory that is being conducted on the forests of Suriname and the pilot project of the University of Suriname, as part of which black mangrove clones are being replanted alongside the muddy, eroded coastline of western District Coronie. Aside from that there were a few ad-hoc awareness campaigns conducted and videos produced.



4.6 Main National Stakeholders Addressing Pressures on Biodiversity

There are numerous stakeholders addressing the pressures of biodiversity, as has been documented in Annex 1. However, I wish to focus on a few of these National stakeholders.

4.6.1 The National Women Movement

In this stichting, women were encouraged to be empowered in all aspects. They engaged in IGAs, such as NTFP (e.g. calabash products), and soap making. This movement also advocated that a lot of women from communities, where they were economically and socially marginalized, would become trainers for the technical administration of the various systems. One in particular related to the water supply system, so as to improve the position of women. As a result, three villages are profiting from water installations, distributing filtered river water. Future plans include establishing and assisting pilot committees, and other water-related activities, such collecting and storing rainwater, to be used for drinking, watering, bathing and irrigation.

4.6.2 Stichting Samarja

As mentioned previous this is a waste management and environmental foundation. According to Mr. Alibux, its Director, it was necessary to engage women, and not only men, in the process of his foundation and social enterprise, as women understood how to operate in certain aspects of the projects as opposed to men. One significant observation was the transmission of knowledge from female trainer to young people, which is part of the foundation's educational services, was more effective than from male trainers, due to the traditional education roles in various interior villages.

4.6.3 Ministry of Domestic Affairs

This ministry is the leader in developing, implementing and communicating the national gender policy. As previous stated, this policy aims to eradicate gender disparities and discrimination. However, one obstacle is the fact that they have yet to implement the latest gender Development Plan, which was estimated to come into action closer to the end of the year.

4.6.4 Stichting Toerisme Ontwikkeling Klaaskreek

Also known as STOK, this NGO is an Ecotourism NGO based in Klaaskreek, but meant to work with Maroons throughout the country. Their projects vary from leisure facilities, such as the Bena Strand (beach) in Klaaskreek, to a soap making project in Upper Suriname River. The work in Klaaskreek was observed, and offered much information as to how this national stakeholder plays a crucial role in biodiversity conservation.

On the one hand, STOK has set up a set of jobs that would allow for women to gain experience in fields they would not have otherwise had been given a

4.6.5 Pas Ahlbrinck Stichting

This foundation was started in 1968 to promote and implement the sustainable development of the inhabitants of the interior through a series of integrated programme activities. They work mainly with Maroons and the Indigenous, through the traditional authority. It is one of the stichting's goals to support various gender-based organisations, agricultural groups and social enterprise entrepreneurs. To further their commitment to community needs, the foundation works on various biodiversity related projects, whether it be conservation or IGAs, through engaging all community members all the time to garner gender-based feedback for suitable solutions and approaches to various issues. They are currently active in 59 communities, and have projects relating to capacity building, economic empowerment, access to basic services and education and training.

4.6.6 Man mit Man

Is a Foundation that works to engage men and boys in gender policy. As a result, the foundation collaborates with female groups and the government on various projects, such as collaborations with the NVB on Project Domestic Violence Law, and Project Boys to Men, to provide boys 10-14 years with basic skills. This was done in collaboration with the UNFPA. Although, there has been no mention of work specifically with biodiversity, the premise of the foundation is to provide men with the right tools to function in better within their environments, which will add benefit to conservation projects in the long run.

4.6.7 Women's Parliament Forum

This group aims to bring awareness on the relationship between politics and gender to the wider Surinamese society. It advocates the increased representation of women in the political arena and wider decision-making processes, in order to garner a detailed perspective on gender needs. Currently, there are no actions taken to promote women in decision making and managerial positions by the government. As a result, the participation of VPF brings this to light in all aspects of government and society.

4.6.8 National Bureau on Gender

The NBG's task is to promote and monitor gender equality in Suriname. It does this in all arenas of the society obtain a central position as national machinery in the field of gender policy, with as its goal to develop, coordinate, implement, and convey national gender policy. The ultimate objective of such a policy is to achieve equitable development that offers equal chances to women and men.

4.6.9 Platform of NGOs for Women, Gender and Development

This NGO links all organisations pertaining to Gender and Development, which intersect with biological diversity stakeholders. This is an important NGO, as it offers a forum for information to be exchanged on programme and project best practices when taking a gender perspective focus. Furthermore it is an forum through which the advocacy for common issues, such as the National Gender Policy, can be debated and rectified.

4.6.10 Centre for Agricultural Research in Suriname

Also known as CELOS, this research institution fosters applied scientific Agroforestry Research and promotes NTFPs. They are currently working with local communities, both men and women, to build human capacity for generating and applying local knowledge in support of CELOS's Experimental

Forestry Plots. These Plots were established to develop innovative methods for sustainable timber production and general management of natural systems for the regeneration of tropical forests. In doing so, they have established community projects with involve the abovementioned activities, as well as NTFP activities such as natural oil and soap production for commercial and domestic purposes.

4.6.11 Foundation for Nature Conservation in Suriname

Otherwise referred to as STINASU, it is the leading and authoritative organisation on nature and conservation within Suriname. Its objective is to protect and conserve the natural integrity of the country through scientific research, education and sustainable eco-tourism vis-a-vis its national reserves (Brownsweeg and Galibi, eg.). It supports various projects and programmes, such as a conservation strategy on the coast to preserve the national marine turtle and bird fauna wildlife through a series of assessments and monitoring programmes whereby turtle nesting and poaching are being monitored, and bird fauna lists are being made of all protected areas in order to track birds. This is done through community involvement, but with no clear gender-based approach. Instead, it is evident that they depend on both local male and female perspectives, due to these community based research approaches for garnering information and monitoring.

4.6.12 Association of Indigenous Village Leaders in Suriname

The Association of Indigenous Village Leaders in Suriname (VIDS) is an association of indigenous village Captains from each of the thirty-five (35) recognised villages in Suriname. Its goal is to promote and defend the rights of indigenous peoples and support their sustainable development in Suriname. These rights have a significant footing in their Land Rights, and their ancestral traditions in protecting the environment and all things within it. As many of the leaders are women, as well as the director, there is emphasis on equal representation in this organisation and the ways in which they could protect their rights whilst maintaining and advocating the conservation of the forest. Mrs Vreedzaam, a leader in the village and participant of VIDS explained that she was encouraging a lot of traditional practices in the community to be sustained, whilst adapting to new pressures such as non-biodegradable waste.

4.6.13 Conservation International Suriname

Although this is an international organisation, Conservation International (CI) facilitates local NGOs to work on conservation strategies using indigenous knowledge and techniques. One major project that dealt with gender-based approach to conservation involved a mapping project, which was part of a larger conservation scheme, whereby men and women were asked to point to areas on a map that signified importance to them. This map was meant to be analysed so as to understand how men and women used the land differently and similarly, and what importance was placed on certain activities for the genders. This has not been analysed or released as yet. The overall goal of CI is to work with local communities and local NGOs to bring together the knowledge and expertise of local people with scientific knowledge. The director of CI was also the Manager for 'Women and Sustainable Human Development in Suriname' at UNIFEM, which has heavily influenced into the organisation's programmes.

There are many more main stakeholders, such as the Ministry of Labour, Technological Development and Environment and the Maroon Museum which have been explored elsewhere in this document (See Annex 1). What follows is a series of recommendations as to how national and local stakeholders can manage these anthropogenic and environmental pressures as they work towards gender mainstreaming conservation of biological diversity.



SECTION V: RECOMMENDATIONS

This section is based on the data acquired through the survey and ethnographic fieldwork amongst the Maroons and Amerindians, and through interviews with key informants at the national, international and local levels. It starts off with a recommendation for implementation of gender mainstreaming in the conservation of biodiversity in Suriname, then it goes further into this by looking at the recommendations through an impact/risk matrix.

5.1 General Recommendations

There are eight guiding principles for the implementation of gender-mainstreaming, which will be considered when looking at conservation strategies of biological diversity.

Firstly, we must **recognise** that gender issues are in all aspects of international, national and local management systems, operation policies, programmes and project design, implementation, evaluation and monitoring. At the national and local levels, this has been recognised, due to international discourse, but it has yet to be implemented. However, through recognition of this, the relevant actors can work towards its implementation in order to tackle the barriers of gender equity and equality.

The next guiding principle is **diversity and intersection** in the ways in which policies, programmes and projects affect men and women, as not all women and all men experience the same form of gender-based discrimination and marginalisation. We must also think of the different sub-groups of men and women, and the ways in which they experience gender-bias, as well as the variations in knowledge types. This could be looking at gender and age, or gender and locality.

Gender **equality** is another important implementation, as it requires the protection and promotion of human rights for all, and ensures the access to equal opportunities. This is important for the Surinamese context, as there needs to be a clear definition of what the rights are of men and women, regardless of ethnicity, in a way that all peoples can understand. This is not the case at the moment, so the case of equality is an abstract notion that does not exist in many communities.

The fourth implementation recommended is to promote **gender equity** specific measures that favour those disadvantaged by sex, in order to eliminate the discrimination and the disparities between the sexes as it pertains to access to resources and decision-making processes. As a result, equal opportunities and fairness is promoted.

One of the major recommendations is that there is individual and collective **empowerment** of adult men and women, as well as boys and girls, in which to meet their current needs. In particular, these needs involve proper waste management practices, access to profitable IGAs, and support processes that will increase women's and men's self-assurances to develop their own agendas. As of now, many of the women and men are asking for international agencies and governments to come and help them, but most did not know how they needed help to achieve their end goals.

The sixth guiding principle is **participation and parity**, whereby equal participation of both men and women (adult and youths) as agents of social, economic and political change promote further gender mainstreaming.

This participation can then lead into a stronger **partnership** between women and men, whereby empowerment becomes a mutual action between the two genders. This will, in turn, empower both sexes, giving both men and women equally pivotal roles in conservation strategies.

Finally, social justice is required for gender mainstreaming to thrive in national and local policies and programmes. This is even more evident in anti-poverty measures, which much work with gender mainstreaming activities—i.e. elimination of gender inequality—in order to truly be effective.⁹

⁹ UNESCO's Gender Mainstreaming Implementation Framework for 2002-2007: 9

Although these guiding principles appeal to the general recommendations, the following part of this section highlights specific impacts and recommendations that should be addressed within a gender implementation strategy.

5.2 Impact/Risk Matrix

Issue	Impact	Recommendation	Potential Outcome	Potential Risks
Lack of Capacity Building	Women led CBOs suffered from lack of knowledge to cope with various environmental issues, such as worm infestation. This also trickled into their management processes.	Offer community workshops on how to further engage with new pressures on the environment. Plastic waste, proper management of resources, how to deal with illegal and legal mining and logging,	People have more incentive to act	Only small amount of people reached
Generational knowledge	Men in Pikinslee identified lack of wood carving practices, which also managed and monitored the reforestation of certain trees. Women in Powakka have lost a lot of traditional knowledge associated with wild plants and their uses for domestic and medicinal purposes.	Implement activities in schools and communities in which traditional knowledge continues to be a part of the education of children. This will have to be contextualized. This way gender differentiated activities are maintained, with importance being placed on both. Set up Shaman/Traditional Medicinal Apprentice Programme to preserve knowledge of medicinal plants.	Young men and women will continue to conserve and preserve biodiversity in a traditional way, whilst improving on these skills.	Programme might not get off the ground due to government's lack of resources and capacity to implement
Gender marginalization I	Men are often not considered in national and local economic empowerment strategies within their own village. As a result, they migrate from their communities to find work. This is due to women-centred approaches to development.	Work with NGOs like Man mit Man to promote income generating activities that speak to a man's traditional role—such as clearing farms, hunting, etc—and training in which they can also contribute or continue to contribute to the economic empowerment and conservation of the biodiversity.	More male knowledge in the village to add to a balanced gender-based knowledge system for conservation.	Not enough IGAs may be presented to the community, and as a result the most vulnerable groups will be favoured—i.e. women and children.
Gender marginalization II	Amerindian and Maroon women are often marginalized as is seen in access to education and wealth. As a result, they are often left to scrape by in order to provide for their family without any support.	Strengthen women's involvement in all aspects of decision-making processes, and their economic empowerment opportunities.	Less marginalization of women	If not dealt with properly, this could affect the good differences between men and women which are meant to inform the conservation process.
Waste Management	Men and women lack understanding of waste management of non-biodegradable materials. As a result they burn these materials or throw them in their natural environment in the water and forests.	Have integrated or gender-divided workshops on waste management. Appeal to traditional waste management strategies that exist in their everyday lives. For women, look at household waste; for men address larger waste strategies such as river waste management.	Cleaner environment to promote ecotourism and to save wildlife from being exposed. And defined responsibilities between genders	May lose traditional waste management processes.

Issue	Impact	Recommendation	Potential Outcome	Risk
Lack of education and access to information	According to the HDR, Suriname has a current 2011 Adult literacy rate of 93.3%. The difference between the literacy rate between adult males and females is 95.49% versus 93.77% in 2008. For Maroons and Amerindians, this number is lower, especially amongst women. ¹⁰	Run programmes through already established institutions, such as schools church, CBOs, and government programmes. Use the local way of communication. Establish a training/education unit as part of the GSF/programme in order to facilitate proper access to information. Try to have this implemented at a national level through Ministry of Education	More access to information in simple local language. Also, frequent meetings and assemblies to inform locals of	Non-literacy, isolation and complex terms may make learning processes more difficult for communities, especially if materials are not in the local dialect or language
Legal large-scale gold mining	Lack of animals in natural habitat and degradation of traditional access to biodiversity affects women in access to wildlife for domestic purposes & accessibility to clean water. For men, the issues lie in lack of animals for hunting practices.	Appeal to corporates to promote Free, Prior and Informed Consent through already implemented standards. Better communication and consultation between mining companies and local communities, to assist in management in access to biological resources.	Continued practice of to traditional hunting, fishing and farming lands, which also operate as conservation strategies.	Danger of fracturing relationship with government
Illegal small-scale mining I	Lack of animals in natural habitat and degradation of traditional access to biodiversity affects women in access to wildlife for domestic purposes & accessibility to clean water. For men, the issues lie in lack of animals for hunting practices.	Pressure government to clamp down on illegal mining, whilst educating locals how to deal with these pressures. Promote ethical mining best practices, such as the Alliance for Responsible Mining's Fair-trade and Fair-minded standards which target ASMs. [SEE LEGAL LARGE-SCALE MINING RECOMMENDATION]	Responsible Mining which will lend to Suriname's commitments to the MDGs and Human Rights standards. [SEE LEGAL LARGE-SCALE MINING POTENTIAL OUTCOMES]	Risk of fracturing relationship with government. Too far engrained in Maroon culture to change. Risk of not having enough resources
Illegal small-scale mining II	Pollution of waterways through tailings, which affect biodiversity. These cause women, in particular, to have to travel greater distances in order to access clean water for drinking. These small scale mining operations are notorious for the use of metallic mercury	Governments could promote similar policies like the Global Mercury Project, where best practices and pollution prevention measures that limit the mercury contamination of waters from ASMs through cleaner technologies, training, development of regulations and capacities within the government. Ultimately, the government needs to have stronger regulations against these illegal ASMs.	To protect international waters from mercury pollution and the widespread use of cleaner gold mining and extraction technologies	This sort of training and technology may be too expensive for governments and ASMs to implement and support.

¹⁰ Data taken from both 2011 & 2008 Human Development Indexes. Adult Literacy refers to people ages 15 and above.

Issue	Impact	Recommendation	Potential Outcome	Risk
Lack of Men	Men have been driven away from villages due to lack of jobs/IGAs in which their knowledge of biodiversity is no longer present. Women therefore, abandon these traditionally male roles—like hunting—and focus on commodities There is also the historical reason in which Maroons and Amerindians were driven out of their home village in the 1980s. The men left the villages, leaving the women to remain.	Offer training to both men and women in position like rangers, forest managers, and ecotourism guides. However, emphasise male-based roles that play to their traditional gender roles in society. They could also be organized into CBOs—e.g. Men fishing group through which shops purchase fish from them to sell. Offer remuneration for return to village, through a housing programme, and job offer	Balance in society and balance in types of knowledge about biodiversity conservation and management. More activities such as sustainable wood carving projects that could be sold on a wider scale, and are in keeping with conservation strategies.	Not enough jobs to accommodate a significant amount of men to return to village. Such societal dynamics may already be too engrained in society.
Diminishing resources	Due to climate change, a loss and change in certain plants and animals has caused villages to rely on supermarkets to provide supplements. Women are the ones most affected as men are allowed to move more freely in and out of the village, whereas women depend on their environment to provide for all their needs.	Detailed survey and analysis of this by interviewing elders and adults on changes to their environment and adaptation practices, so as to inform conservation and environmental agencies how to act. Work on replanting and reharvesting diminished crops and wildlife. E.g. Kwalamasamutu's project with the blue frogs.	Concrete evidence on climate change and ways in which to deal with them. Rejuvenation of diminishing resources	Initiative may cause over exploitation by the selling of harvested wildlife to foreigners.
Diminishing Food Gathering Practices (Farming, Hunting, Fishing)	Heavy reliance on supermarkets, does not motivate the younger generations to practice traditional conservation methods. This is evident in the decreasing number of farms in Powakka, which many women have abandoned in place of depending on male family members to provide. In addition, they no longer have a means for independent food security.	Appeal to communities through consultation, engagement with Captains, Graanmans, and Chiefs to encourage women to farm, and to use that as a vehicle for economic empowerment, and men to hunt and fish responsibly. Arrange for partnerships between businesses and communities/farms to provide produce to local businesses.	Increased Food Gathering Practices, and opportunities for economic empowerment for both men and women. Establish solid relationships with external networks of business and other markets.	Favouritism within the communities as to who gets access to business relationships.

Issue	Impact	Recommendation	Potential Outcome	Risk
Non-Timbre Forest Products not being profitable enough	IGAs which are meant to empower women through NTFPs offer women skills and income in the process of working with the materials, but when there is a lack of business training—marketing, branding, bookkeeping, etc.—there becomes a larger problem of sustainability. This is especially troubling as one women’s group in Pikinslee felt as though they were being set up to fail.	Offer quality control and branding/marketing workshops in local language and ways of learning. Make NTFPs more desirable through national promotion of these products.	NTFPs used as a sustainable way for women empowerment whilst causing minimal harm.	Potential lack of resources, and perception that this may not be a priority.
Diminishing in home gardens	With the increased dependence on store bought commodities, less and less households are having home-grown gardens. This has serious implications when it comes to food security and passing down women’s traditional knowledge. This also eliminates one of the women’s main activities for establishing their ability to maintain their family, especially when the man leaves.	Initiate a home garden programme in schools, where students at all levels are responsible for a small garden. This will promote country-wide crop education, whilst maintaining traditional practices depending on the region. This will allow children to become more knowledgeable about certain plants and also provide sustainable measures in which to maintain and rejuvenate home garden practices.	Every school in Suriname to engage home gardens. Increase in female-based knowledge of plants specific to the home garden.	This may not be considered feasible by government, school systems, etc. Climate change may deter students from engaging further due to failed crops
Generalizing Amerindian and Maroon Issues	These two main groups are often characterized together when addressing strategies for their betterment. However, both groups are different in their practices and epistemological and ontological systems. This is particularly so when looking at how men and women from both groups control and identify biodiversity.	Contextualise all information, tools, strategies for respective groups by working with communities. Look at the uses of specific plants, and the differences placed on their importance to society and uses. Look at various conservation strategies between the genders amongst both groups, and do a gender & cross-cultural analysis of the differences.	Amerindian and Maroon groups will be effectively represented in order to make informed decisions on integrated conservation strategies	This may take alot of resources that the government does not have.

Issue	Impact	Recommendation	Potential Outcome	Risk
Culture	Traditional knowledge is not being preserved or practiced, as experienced in Powakka, where young women and girls are no longer engaging in farming practices and you men and boys in hunting practices.	Incorporate national programme to engage wider and local cultures with traditional biodiversity. Implement local programmes to encourage the use of traditional practices. Engage the use of indigenous communities and organisations, such as VIDS.	National awareness & traditional practices returned with vigour.	Not enough capacity to do so. No indigenous or Maroon department to oversee this.
Forest Degradation and deforestation	Logging industry driving animals away and degrading environment's capacity to sustain biodiversity. As a result, access to resources women gather, and those resources men and women use for divination purposes, particularly special medicinal and sacred plants are in decline.	Design and/or Strengthen reforestry through SBB, and the application of Forest Management Law. Strengthen timber concession management plans, timber inventories and national database, whilst making this transparent for affected women.	Management of forest resources & restored access to plant diversity.	Government may have a larger agenda driven by economic strategy. Limited skilled tree-spothers.
Increased Workload	As women have to occupy a variety of roles, they no longer have time to engage in traditional practices, especially sustainable farming and resource management strategies, which could be time consuming.	Try to shift focus towards more traditional roles that will offer both economic security and time to maintain those traditional practices that sustainably manage and conserve the biological diversity.	Balance between traditional practices and economic generating activities.	Finding the right balance may be contextual depending on the village, which may not be feasible.
Family Planning	Lack of Family Planning, shows Maroon women having many children (one woman had ten and was expecting another). This puts serious pressures on the environment and its resources. This is usually because men do not allow women to take contraceptive, as many children represent a sign of wealth.	Intensive education about family planning and those pressures too many children can have on the environment are needed for both men and women. This will allow for more women to be given the freedom to seek family planning. Involve Ministries of Health and Education.	Reduction in births per household to a number that is manageable.	Activities may be opposed by community as a whole, or men in general.



VI CONCLUSIONS

There are often significant differences of priorities between women and men. For example, in a post-disaster situation women may place immediate priority on clean water and shelter while men may prioritize the re-establishment of economic activities. Both priorities are equally important, but demonstrate the need for an awareness of these differences in needs and wants, when formulating policies and programmes for the conservation of biodiversity.

6.1 Reflecting on Current National Practices

Currently, the national effort to mainstream a gender perspective into biological diversity may be deemed lacking. However, as the contents of the Development Plan, which has a gender focus is yet to be released, it is difficult to comment on policies that are in the process of changing. Therefore, as a strong recommendation, the consultant encourages that a revision of this document be considered after the release and implementation of the Development Plan. This is, also, the reason why more analysis on particular laws were not incorporated into this paper. However, there are a few good policies that could be applauded towards gender mainstreaming and away from a women-based approach.

At the **policy level**, Suriname has ratified two gender related treaties to date. The first being the CEDAW treating of 1979, which was signed by Suriname in 1993, and the second being the Inter-American Convention on the Prevention, Eradication, and Punishment of Violence against Women of 1994 (also known as The Treaty of Belem do Para), but was not sanctioned by Suriname until 2002. Suriname has also committed itself to the Beijing Declaration, which places gender mainstreaming as a central aspect of its mandate, and as a result the NBG was created, which is meant to develop policies and programmes vis-a-vis a gender-focused lens. This current government office that safeguards and provides policy advice on gender issues.

At the **programme level**, NGOs, such as the National Women's Movement (NVB) and Stichting Man Mit Man, and the Platform for NGOs for women, gender and development, play a central role in data collection and the execution of programmes aimed at promoting gender equality. As described in Section 4, NVB empowers women in areas where their voices are not being heard, and informs the larger forums for gender through their involvement with national-level programmes, such as the Women Economic Empowerment. The emergence of the NBG is also a good implementation as it operates as a gender management system, in order to assist the various gender focal points within the Ministries.

Finally at the **project level** there are several good practices, such as NVB's work on economic empowerment activities that take a women-based approach, but use it in a way to promote gender equity, such as Water filtration to allow for equal access to clean water, and the making of NTFPs to go towards the development of the community. However, as CELOS explained, it is difficult to put forth a serious case for gender-mainstreaming within projects due to the lack of gender experts in the country, as well as the lack of training on gender-based approaches.

6.2 Concluding Remarks and Recommendations

The strengthening of the institutional framework for gender mainstreaming by having a focal point to support developing, implementing, and monitoring is key to traditional conservation practices. Therefore, there is a need to identify and work on specific thematic issues with strong gender dimensions, such as sustainable forest management, indigenous peoples, and climate change adaptation (GEF 2008: 41). Hence, this paper ends with key action points for mainstreaming gender in

biodiversity conservation and management, which projects may benefit from when dealing with indigenous communities in Suriname and the Guiana Shield region as a whole. These action points emanated from discussions with key informants from international organizations, government and local CBOs. Most importantly, these action points mainly stem from the consultations with the Maroons and Amerindians, and will form the basis for the concluding analysis of gender mainstreaming in biodiversity conservation and management.

Firstly, in Suriname there has been no documentation of the differential knowledge between men and women as it pertains to biodiversity resources. Although Conservation International has already conducted a mapping project using gender disaggregated knowledge, this data has yet to be analysed vis-à-vis a gender lens. Although men and women share knowledge about the environment they also have different knowledge sets and systems in which they exist. Therefore, by noting this difference in knowledge and types of knowledge, it would be more effective for agencies working on conservation initiatives to take this information into consideration and incorporate that into their own practices.

It was also evident that another action point was that government and international agencies needed to acknowledge the role of women and men in the management of ecosystems—agro- and hydro-ecosystems. This goes hand-in-hand with the need to acknowledge and promote traditional knowledge in the management of local-level resources, which we see in the Pikinslee bush men's knowledge about medicinal herbs and plants, and Powakka women's knowledge about the wild herbs and plants.

It is necessary to increase both Amerindian and Maroon roles in decision-making processes as it pertains to biodiversity conservation. However, it is even more important to do this through gender divisions as well—i.e. men and women of both indigenous/marginalized groups need to be involved in these processes through access or increased access to information and equitable participation.

Even more astonishing was the talk about climate change, especially amongst the Saaramacan men of Pikinslee. Their adaptation to climate change, as illustrated previously, is clearly an important tool for policy-makers to consider in environmental protection. Hence, this action plan speaks to the need for men's and women's adaptation to climate change to be recognized and considered.

Finally, it must be a priority to develop clear guidelines, tools and methodologies to mainstream gender in biodiversity conservation and management. Once gender has been systematically integrated into biodiversity research and policies, then we can identify gender gaps and inequalities in which to address. As the Guiana Shield, an eco-region of global significance, becomes increasingly threatened by the past and present pressures put on the environment by agents such as the presence of large international extractive industry companies, intensified agriculture, and misappropriation of land, those who become most affected are the people who understand the environment the most. In addition, due to a lack of institutional capacity in the region to deal with these pressures, efforts to combat these ecological problems have been unsustainable.

As this paper has identified, there needs to be both male and female contributions to biodiversity manage and conservation. However, it is with women that the consultant witnessed the most activity as it pertained to plant life and water resources, and with the men that wildlife management was integral. However, women are still considered the more marginalised of the two genders, and as a result it is necessary to conclude by offering some final recommendations:

- Prioritise the conservation of plant resources that are of the greatest importance to women, whilst attempting to reverse their degradation, such as changing culinary habits and pressure on women's time and land resources;

- Acknowledge and document the value of indigenous technical knowledge of biodiversity possessed by women and men;

- Recognise indigenous rights systems to plants and the fact that these rights systems are differentiated by sex;
- Guarantee indigenous women's full participation and decision-making capacity in conservation and management efforts and policies that affect them; and monitoring such efforts for their effects on these women's rights, status and welfare;
- Promote the dissemination of research on women's knowledge of ecosystem for our own knowledge.



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ANNEX

ANNEX 1 Current and Potential Biodiversity Stakeholders in Suriname

WHO	WHAT	WHY	HOW
ABI	Business association	specific task	support sust. use in business development
ACT(S)	Conservation NGO	specific task	support cons. & sust. use
aquaculturists	Industry with biodiv. impact	to be informed	impact reduction
artisanal miners	Industry with biodiv. impact	to be informed	impact reduction
ATM	Labor, Tech.Dev. & Environment Ministry	broad mandate	coordinate environmental action
BFN	CBO that supports NGOs	specific task	support sust. development
BGVS	Part of biodiv. user chain	to be informed	sust. use / impact reduction
BI	Bauxite sector regulator	specific task	regulate impact reduction / rehab
BMS	Industry with biodiv. impact	to be informed	impact reduction
BOG	Health Service	specific task	monitor / prevent disease
bushmeat sellers	Part of biodiversity user chain	to be informed	sust. use / impact reduction
CBS	Statistics Bureau	specific task	information dissemination
CELOS	Research Station	broad task	research & development
CI(S)	Conservation NGO	specific task	support cons. & sust. use
consultants	Consultants / bureaus	specific task	implement specialist studies
DBK	Soil Service	specific task	monitor soil
EBS	Industry with biodiv. Impact	to be informed	impact reduction
embassies	Representation foreign states	specific task	support development
ESSO	Industry with biodiv. Impact	to be informed	impact reduction
FOB	Development Fund	specific task	support sust. development
GHF	Environmental NGO	specific task	awareness / attitude change
GMD	Mining regulator	specific task	regulate impact reduction / rehab
granmans	Traditional chiefs	broad tasks	ensure protection rights
Gross Rosebel	Industry with biodiv. impact	to be informed	impact reduction
HI / customs	Trade & Industry Ministry	specific task	regulate import / export
horeca	Industry with biodiv. impact	to be informed	impact reduction
hunters	Part of biodiv. user chain	to be informed	sust. use / impact reduction
I(A)DB	Development Agency	broad task	support development
IOL	Teachers education institute	specific task	nature-related education
IRIS	Religious Council	to be informed	awareness / attitude change
JP – IPR unit	Justice & Police Ministry	specific task	develop IPR policy

WHO	WHAT	WHY	HOW
JSOOC	Training Center	specific task	nature-related training
KKF	Chamber of Commerce	specific task	support sust. use in business development
KPS	General law enforcer	to be informed	enforce law in general
labor unions	Labor unions	specific task	ensure protection laborers
lawyers	law firms	specific task	assist with legal work
LBB	Conservation & Wildlife	specific task	manage PAs & wildlife use
logging co.	Part of biodiv. user chain	to be informed	sust. use / impact reduction
LVV	Agro & Fisheries Ministry	broad mandate	agro & fisheries policy
MAS	Maritime Authority	specific task	regulate marine traffic
Meteodienst	Metereological Service	specific task	monitor weather
Milieubeheer	public space maintenance directorate	specific task	maintain public spaces
MINOV	Education ministry	specific task	develop education policy and law
NATIN	Nature-technical school	specific task	nature-related education
NH	Mineral Resources Ministry	specific task	policy on impact reduction / rehab
NIMOS	Environment regulator	specific task	regulate environmental impact
NL	Armed / defence forces	specific task	enforce law at sea
NMR	Environment Council	specific task	advise on environmental policy
NOB	Development Fund	specific task	support sust. development
NPO	Planning regulator	specific task	regulate and implement planning
OW	Public Works Ministry	specific task	develop public works policy
pet shops	Part of biodiv. user chain	to be informed	sust. use / impact reduction
PHS	Timber business association	specific task	support sust. use in business development
PLOS	Planning & Dev.Coop. Ministry	broad mandate	coordinate planning & cooperation
RGB	Land & Forest Ministry	broad mandate	land & forest use policy
rice growers	Industry with biodiv. impact	to be informed	impact reduction
ROB	Development commission	specific task	ensure development interior
Santour	Environmental NGO	specific task	awareness / attitude change
sawmilling co.	Part of biodiv. user chain	to be informed	sust. use / impact reduction
SBB	Forestry regulator	specific task	regulate timber & NTFP use
SBBS	Industry with biodiv. impact	to be informed	impact reduction
SCF	Conservation Trust Fund	specific task	support cons. & sust. use

WHO¹¹	WHAT	WHY	HOW
Name	Status/Mandate	Include because	Role in relation to CBD
soil/bedrock miners	Industry with biodiv. impact	to be informed	impact reduction
Staatsolie	Industry with biodiv. Impact	to be informed	impact reduction / rehab.
Stinasu	Nature Conservation support	specific task	implement PA operations
STS	Tourism regulator	specific task	regulate tourism
subsist. Farmers	Part of biodiv. user chain	to be informed	sust. use / impact reduction
Suralco	Industry with biodiv. Impact	to be informed	impact reduction / rehab.
SVSS	Environmental NGO	specific task	awareness / attitude change
SWM	Industry with biodiv. impact	specific task	impact reduction
TCT	Telecom, Transport & Tourism Ministry	specific task	develop tourism policy
Texaco	Industry with biodiv. Impact	to be informed	impact reduction
tour operators	Part of biodiv. user chain	to be informed	sust. use / impact reduction
traditional farmacies	Part of biodiv. user chain	to be informed	sust. use / impact reduction
UNDP office	Development Agency	broad tasks	support development
UvS	University	broad task	education & research
vegetable farmers	Industry with biodiv. impact	to be informed	impact reduction
VIDS	NGO Indigenous Chiefs	specific task	ensure protection rights
wildlife exporters	Part of biodiv. user chain	to be informed	sust. use / impact reduction
WLA	Hydrological Service	specific task	monitor hydrology
WWF(G)	Conservation NGO	specific task	support cons. & sust. use
Zoo	Zoological Garden	to be informed	public awareness wildlife / conservation

¹¹ This table has been modified from Suriname's NCSA Thematic Assessment in relation to the CBD: Pp 14-17. This table highlights all the possible stakeholders in relation to biodiversity, which provides an indication of their actual importance to the thematic discourse of gender. This is equally important, but requires further examination, and as a result has been added into the

ANNEX 2: National Biodiversity Strategy (NBS)

Suriname's NBS is based on the strengths and assets found within Suriname's natural, social, institutional and infrastructure environments. The Vision Statement has been adopted and describes the broad future biodiversity context to be realized in Suriname as follows:

This statement attempts to encompass the broad range of assets, values and issues that will affect the creation of social, institutional, and environmental context in Suriname in which biodiversity conservation represents a core tenet of national policy.

Several principles that frame the strategic objectives have been developed. These principles include the following:

- Incorporate biodiversity, cultural and nature conservation measures and values into national development plan, sector plans, business plans and practices.
- Establish and disseminate a clearly articulated and enforced national commitment to biodiversity conservation and inform society.
- Establish more equitable sharing of natural resources and their benefits.
- Create opportunities for existing and new industries to operate from sustainable development principles.
- Establish the financial and human resources to achieve and sustain the biodiversity vision.

The Vision Statement of Suriname's Biodiversity Strategy

We, the people of Suriname, value and protect our biological diversity, including all natural and cultural resources through equitable and sustainable use for present and future generations.

A national commitment to Suriname's biological wealth integrating all sectors of society will allow people to experience the full benefits of sustainable management and wise use while maintaining and enhancing the diversity of the country's cultural and natural heritage.

- Improve the capacity of people to value socially, economically and spiritually, and understand the benefits of all forms of biodiversity (including, for example, the rich diversity in agricultural systems).
- Education system that benefits awareness on biodiversity issues and the rich cultural heritage for all in Suriname, with special attention for all communities from the interior.
- Implement goal 7 of the millennium development goals (MDG) in order to contribute to the reduction of poverty
- Biodiversity conservation approach in the development of access to the interior.
- Strengthen the capacity and opportunity of residents and visitors to experience nature.
- Diminish or eliminate the threats from environmental pollution.
- Develop new and improved communication methods.

Each of these principles is intended to provide guidance to decision-makers, developers, and citizens in support of efforts to achieve the stated biodiversity vision for Suriname.

The guiding principles have been used to develop corresponding goals for the Suriname NBS.¹²

¹² Taken from the Ministry of Labour, Technological Development and Environment 2006. National Biodiversity Strategy. [Online] Available from: <http://www.cbd.int/doc/world/sr/sr-nbsap-01-en.pdf> [Last Accessed 27 August 2012]

ANNEX 3 UNDP/GSF SURVEY¹³

DATE _____

VILLAGE _____

INTERVIEWER _____

- 1) Name _____
- 2) Age: _____ years old
- 3) Gender : M F
- 4) What is your marital status: Married Separated Divorced Single Widow(er) Other
- 5) If you are married, do you have more than one spouse? YES NO
 - a. If YES, how many wives does your husband have (incl. you) _____
- 6) How many family members do you live with inside your house? _____
- 7) How many children do you have? _____ Girls _____ Boy
- 8) Do they all live with you? YES NO | If No, Who do they live with? _____
- 9) What are the ages of each child? _____
- 10) Do all your children attend school? YES NO
- 11) If No, Why? _____
- 12) What was the highest level of school completed:
Primary Some Secondary Secondary Diploma University Higher Degree None
- 13) Did you study the environment in school? YES NO
- 14) What is your employment status?
Full time paid Part-time paid Self employed Home duties Retired Unemployed
- 15) If employed, What do you do for work? _____
- 16) How long have you lived in the village? _____
- 17) If you were not born in the village, what made you come here?
Family Marriage Natural Beauty Job Peaceful Land Food Source Other _____
- 18) Does your family have a farm? YES NO (If No, skip to 22)
- 19) If Yes, what do you grow on the farm? _____

¹³ Several questions were deleted and replaced depending on the context and how the respondents interpreted the questions. Also, most of the questions were reworded to meet local concepts and understanding.

20) How far away is your farm from the village? _____

21) Who helps you on the farm? [✓ all that apply]

Action	You	Husband	Children	Other Family	Unrelated Women	Unrelated Men	No one	Other (specify)
Clearing								
Planting								
Harvesting								
Transporting								
Selling								

22) Do you have a home garden? YES NO

23) If Yes, what do you plant? _____

24) Who works on the garden? _____

25) Do you fish? YES NO If no, who _____ [Go to 31]

26) What types of fish do you catch? _____

27) How often do you go fishing? [Circle]

Once a week 2-3 times a week 4-6 times a week Few times a month Never Sometimes Don't know

28) Who do you go fishing with? _____

29) Where do you fish? Name rivers, or distance from the village _____

30) What do you do with the fish? Sell to community Sell to tourists Sell to other communities Give to your family Give to village Other _____

31) Do you buy fish? YES NO

32) Where/Who do you get your fish from? _____

33) What types of fish do you get? _____

34) Who in the family hunts? You Spouse Child Other _____

35) What animals are hunted [If there are more animals make notes elsewhere]

Name of Animal	Location of hunt	Use (e.g. food, tourism, etc)

36) Name THREE main foods you eat every day _____

37) How interested are you in your environment and the living things within it?

Very Interested Interested A Little interested Not Interested Don't know

38) How concerned are you about the loss of your environment and the living things within it?

Very concerned Concerned Somewhat Concerned Not Concerned Don't Know

39) Do you belong to a CBO/environmental group/volunteer group? YES NO

a. If YES, which one? _____

b. What do you do? _____

40) Are there threats to the environment? YES NO

41) If Yes, what have been the biggest threats to the environment, animals and plants?

42) What have been the main causes of these threats?

43) Has there been any training on the environment? YES NO

44) What is special to YOU about your Local environment? _____

(E.g. Marine life, Landscape, Diversity of wildlife, Diversity of Plants, People, Close-knit community, etc)

45) What do you use the river for?

Bathing Washing Clothes Drinking Recreation Food Travel Mining Other _____

46) For each of the following please indicate how important these issues are:

Statements	Very important	Somewhat Important	Not very Important	Not at All Important
Family				
Friends				
Natural Environment				
Work				
Religion				
Community				
Income				
Education				
Leisure time				
Tourism				

47) What animals are important to you? [List them] Why? _____

48) What plants are important to you? [List them under Medicine, Food, Shelter, Other] _____

49) What best describes your time in your local environment?

Recreation in nature Work on the land Land based business Spend time in the bush Land
Manager/Ranger Study the environment

50) Which of the following activities are undertaken on Your property? (Multiple Responses)

Sheep grazing Cropping Nature conservation native garden Pastures Cattle grazing Timber plantation Lodge
Other _____

51) What barriers/problems do you face in protecting your environment?

Government Lack of Time Lack of Finances Lack of Knowledge about Problem Doubts about Success Lack of
knowledge of Solution Lack of relevant skills Age or ill health Lack of specialized equipment Not interested
Other _____

52) Are you involved in an environmental organization? YES NO If yes, How Long? _____

53) Have you adopted any of the following land management practices which have benefited the natural environment?

Fencing Replanting Trees and Crops Animal grazing control Weed control Surface Water Management Animal
monitoring Other _____

54) What are TWO most important changes you would like to see in the local environment?

55) What does the term 'BIODIVERSITY' Mean to you? _____

_____ [If the do not know explain to
them that biodiversity relates to all living things within an area, such as plants, animals and humans]

56) What do you see as the benefits of protecting biodiversity in your area? _____

57) What problems do you think might happen if you started protecting the biodiversity in your area? _____

58) Would you like to learn more about biodiversity? YES NO

59) Do you think that there are enough people who know about biodiversity in the village? YES NO

For the last questions answer: Very Satisfied Satisfied Somewhat Satisfied Not Satisfied Don't Know

60) How satisfied are you with your standard of living?

61) How satisfied are you with your health?

N.B. These questions were altered as the pertained to the context of the interview. Some of these questions were not asked, whilst others were restructured and relayed in simple dialect.