



Government of the Co-operative Republic of Guyana

Ministry of the Presidency

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# ASSESSMENT OF THE POLICY FRAMEWORK



## Strengthening Technical Capacities to Mainstream and Monitor Rio Convention Implementation through Policy Coordination

### Policy/ Legal Regulatory Expert

FEBRUARY 2018



United Nations  
Convention to Combat  
Desertification



United Nations  
Framework Convention on  
Climate Change

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## Acronyms

BUR	Biennial Update Report
CBO	Community Based Organization
CDC	Civil Defence Commission
CEO	Chief Executive Officer
CHPA	Central Housing and Planning Authority
COP	Conference of the Parties
COTED	Council for Trade and Economic Development
CRSAP	Climate Resilience Strategy and Action Plan
CYEN	Caribbean Youth Environment Network
DoE	Department of Environment
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
EWS	Early Warning System
FLEGT	Forest Law Enforcement, Governance and Trade
GAHEF	Guyana Agency for Health Science Education, Environment and Food Policy
GDP	Gross Domestic Product
GEA	Guyana Energy Agency
GFC	Guyana Forestry Commission
GGMC	Guyana Geology & Mines Commission
GHG	Green House Gas
GIS	Geographic Information Systems
GLSC	Guyana Lands & Surveys Commission
GSDS	Green State Development Strategy
IDB	Inter-American Development Bank
iNDC	Intended Nationally Determined Contribution
LCDS	Low Carbon Development Strategy
MoA	Memorandum of Agreement
MNR	Ministry of Natural Resources
MNRE	Ministry of Natural Resources and the Environment
MoP	Ministry of the Presidency
MoU	Memorandum of Understanding
MRV	Monitoring Reporting and Verification
NAP	National Action Programme
NAREI	National Agricultural Research and Extension Unit
NBAP	National Biodiversity Action Plan
NBSAP	National Biodiversity Strategy and Action Plan
NC	National Communication
NCERD	National Centre for Education Resource Development
NDC	Nationally Determined Contributions
NGO	Non-Governmental Organization
OCC	Office of Climate Change
PAC	Protected Areas Commission
PRAIS	Performance, Review and Assessment of Implementation System
PSC	Private Sector Commission
SLM	Sustainable Land Management
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification
UNFCCC	United Nations Framework Convention on Climate Change
WWF	World Wildlife Fund.

## 1.0 National Circumstances and Background

### 1.1 Country profile<sup>1</sup>

Nestled between Suriname to the east, Venezuela to the west and Brazil to the south, Guyana is located on the northern coast of South America, with 430 kilometers of Atlantic coastline to the north.

Its 215,000 square kilometer terrestrial territory is characterized by diverse physiographic regions. The low-lying coastal plain is about 50 km wide and 430 km in length, with fertile alluvial soils, but lies about 1.4 m below mean sea level. This plain gives rise to undulating hills of sand and clay, underlain by bauxite and kaolin. Much of the remainder of the country is forested highlands, with two savannah regions interspersed.

Owing to its location relative to the equator, Guyana enjoys two wet and two dry seasons, though the regularity and intensity of these have been changing in recent decades. Climate change and sea level rise makes this region particularly vulnerable to adverse impacts.

Guyana has a relatively small population, approximately 765,000 (Bureau of Statistics), giving it a very low population density of 3.5 persons per square kilometer. The vast majority of the population (90 percent) live on the coastal plain, where most of the infrastructure also exist. Some 9 percent of the population are Indigenous Guyanese, who reside mainly in hinterland villages and settlements.

Although population growth is close to zero (outmigration balancing natural increase), internal rural to urban migration has led to increasing pressure on urban and peri-urban land, resulting in land use and urban social issues.

Guyana's economy is characterized by primary production, mainly in the agricultural and extractive sectors. Agriculture is concentrated on the fertile flat coastal plain, and consists of rice, sugar, and other crops, with fishing accounting for an important part of food production and export.

Guyana possesses approximately 18.5 million hectares of pristine forest, accounting for 85 percent of the country. Because of responsible forestry practices over the last century, Guyana boasts among the lowest deforestation rates in the world, approximately half of one percent. Some 12 percent of the country is designated as Protected Areas.

Gold mining is also another important economic sector. The high price of gold on the world market within the last two decades resulted in significant investments in this sector and activity on the ground. Mining is also the main driver of deforestation and forest degradation and associated biodiversity loss.

The large tracts of flat land with Class 1 and 2 soils, extensive savannahs and abundant freshwater supplies from hundreds of rivers and creeks, a 200 mile Exclusive Economic Zone with extensive fisheries resources, vast hydropower potential and offshore hydrocarbon reserves are excellent fundamentals for Guyana's future economic development.

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<sup>1</sup> Information in this section was derived from the Gazetteer of Guyana, National Forest Plan, and the Census of Guyana 2011, Bureau of Statistics.

However, Guyana is faced with adaptation challenges with respect to climate change. Its low-lying coast, where most of its population reside and where its infrastructure and food production are concentrated, is particularly vulnerable to sea level rise, and also to climate variability. This is not only a very costly consideration, but is one which will have to be addressed for many decades, if not centuries, to come.

## 1.2 Guyana and the three Rio Conventions

Prior to the landmark Rio Earth Summit Guyana had no environmental legislation, environmental policy or environmental strategy. There was no statutory requirement for impact assessments of large projects. Institutionally, a Guyana Agency for Health Science Education, Environment and Food Policy (GAHEF) was established in 1988, but it tended to focus more on health than on environmental issues. In preparation for the 1992 Earth Summit in Rio de Janeiro, a National Environmental Profile was prepared.

Guyana participated in the June 1992 Summit, where three major conventions were agreed – the Convention on Biological Diversity (UNCBD), the Convention to Combat Desertification (UNCCD) and the Framework Convention on Climate Change (UNFCCC).

Guyana ratified the UNCCD in 1997, and today some 195 countries are Party to the Convention. The UNCCD seeks to combat desertification, land degradation and mitigate the effects of drought.

Guyana ratified the UNCBD in 1994 and today some 195 countries are Party to the Convention. The overall objective of the UNCBD is the conservation of biological diversity, the sustainable use of its components; and the fair and equitable sharing of benefits arising from genetic resources.

Guyana ratified the UNFCCC in 1994, and today, some 195 countries are Party to the Convention. The ultimate objective of the UNFCCC is to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

The obligations will be addressed in greater detail below.

## 1.3 The Project

This project is part of a larger project entitled ***Strengthening Technical Capacities to Mainstream and Monitor Rio Convention Implementation through Policy Coordination***, which is being implemented by the Ministry of the Presidency, Department of Environment (MoPDoE). The objective is to strengthen technical capacities for mainstreaming and monitoring the achievement of the Rio Convention objectives.

Additionally, the project seeks to strengthen the collection and management of data and information for improved monitoring, including the technical capacities to use data and information to create knowledge at both the national and sub-national level.

The project has four components as follows:

1. Strengthening institutional capacities to mainstream and monitor Rio Convention implementation through development policies, programmes and plans.
2. Strengthening technical capacities for mainstreaming and monitoring Rio Conventions

3. Improving awareness of global environmental values to enhance appreciation of how addressing global environmental obligations under the Rio Convention contributes to addressing important and immediate socio-economic development priorities.
4. Updating of the National Capacity Self-Assessment

At the end of the project it is expected that institutional mechanisms would have been strengthened to more effectively access and create new knowledge that reconciles and institutionalizes global environmental priorities within national sustainable development priorities.

This consultancy will contribute to the overall project by assessing the policy and legal aspects of the implementation of the Rio Conventions.

#### **1.4 Outline of Report**

The first Section of the report will provide context and background by presenting a country profile, a background to the Conventions, and the larger project within which this work is framed.

Section 2 examines the three Conventions and the obligations that Guyana is required to fulfil.

In Section 3, the policies and strategies which Guyana has undertaken in response to its obligations are analysed.

Following this, Section 4 examines other initiatives which have been taken in meeting Convention obligations.

Areas where further work is needed is then identified in Section 5.

Section 6 makes an assessment of issues which constrain the fulfilment of obligations.

Section 7 offers recommendations for policy interventions.

The obligations, policy/strategy responses and actions taken have been analysed individually. Areas for further work, constraints and recommendations are presented as a synthesis.

## 2.0 The Rio Conventions and the obligations of countries

### 2.1 Background to the three Rio Conventions

Prior to the landmark Rio Earth Summit Guyana had no environmental legislation, environmental policy or environmental strategy. Institutionally, GAHEF was established in 1988, but it tended to focus more on health than on environmental issues.

Guyana participated in the June 1992 Summit, which was attended by 172 National Governments, including 116 Heads, and thousands on non-State observers. At this Summit, three major conventions were agreed – the Convention on Biological Diversity (UNCBD), the Convention to Combat Desertification (UNCCD) and the Framework Convention on Climate Change (UNFCCC).

The UNCCD entered into force Dec 26, 1996. Guyana ratified it on June 26, 1997, and today some 195 countries are Party to the Convention. The UNCCD seeks to combat desertification, land degradation and mitigate the effects of drought.

The UNCBD entered into force December 29, 1993; Guyana ratified it August 29, 1994 and today some 195 countries are Party to the Convention. The overall objective of the UNCBD is the conservation of biological diversity, the sustainable use of its components; and the fair and equitable sharing of benefits arising from genetic resources.

The UNFCCC entered into force March 21, 1994. Guyana ratified it August 29, 1994, and today, some 195 countries are Party to the Convention. The ultimate objective of the UNFCCC is to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

### 2.2 Guyana's obligations under the Rio Conventions

#### 2.2.1 *Convention on Biological Diversity*

As Party to the CBD, Guyana has several obligations. Firstly, and at a general level, Guyana is obligated to develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity. Guyana is also obligated to integrate the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.

There are a number of more specific obligations. The first set of these include:

- i. Establish a system of protected areas
- ii. Regulate or manage biological resources important for the conservation of biological diversity with a view to ensuring their conservation and sustainable use;
- iii. Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species.

Secondly, Guyana is required to monitor the components of biological diversity, and to maintain and organize data derived from identification and monitoring activities.

Thirdly, with respect to Research and Training, Guyana is required to establish and maintain programmes for education and training in the identification, conservation and sustainable use of

biological diversity; as well as promote and encourage research which contributes to the conservation and sustainable use of biological diversity

Guyana is required to undertake Public Education and Awareness, so as to promote the importance of and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programmes.

With respect to Access to Genetic Resources, Guyana is required to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of this.

Another important obligation relates to Aichi Target 11. Under this target, by 2020 at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area based conservation measures, and integrated into the wider landscapes and seascapes.

Finally, with respect to Reporting, Guyana is expected to present periodically to the Conference of the Parties (COP), reports on measures which it has taken for the implementation of the provisions of the CBD and their effectiveness in meeting the objectives of this Convention.

### ***2.2.2 Convention to Combat Desertification***

Under the UNCCD, Guyana is obligated to undertake a number of actions. Very important among these is the requirement to establish strategies, plans and policies aimed at mitigating the effects of drought, all in accordance with its national circumstances and capabilities.

In this regard, Guyana is expected to prepare, make public and implement national action programmes as a central element of its strategy to combat land degradation and mitigate the effects of drought.

Under the UNCCD, the purpose of national action programmes is to identify the factors contributing to desertification and practical measures necessary to combat desertification and mitigate the effects of drought. The Convention also requires that in preparing and implementing National Action Programme (NAP), Guyana should address the underlying causes of land degradation and paying special attention to the socio-economic factors contributing to desertification processes;

Guyana is also required to provide an enabling environment by strengthening, as appropriate, relevant existing legislation and where they do not exist, enacting new laws and establishing long-term policies and programmes.

With respect to capacity building, Guyana is obligated to promote capacity-building through the full participation at all levels of local people, particularly at the local level, especially women and youth.

Guyana is also required to promote education and public awareness by strengthening training and research capacity at the national level in the field of desertification and drought, and also and facilitate the participation of local populations, particularly women and youth in efforts to combat land degradation and mitigate the effects of drought.

Finally, Guyana is required to prepare and submit to the COP, reports on the measures which it has taken for the implementation of the Convention, including a description of the strategies and programmes and a detailed description of their implementation. To date, seven national reports have been prepared and submitted, the last one being in 2016.

### ***2.2.3 Framework Convention on Climate Change***

The UNFCCC stipulates a number of actions which Parties are obliged to undertake. The first of these is that Parties are required to develop, update and communicate national greenhouse gas (GHG) inventories of emissions of GHGs by sources, and removals by sinks.

A second obligation is that Guyana is required to incorporate climate change into relevant social, economic and environmental policies and actions.

A related obligation is that Guyana is required to formulate, implement, publish and update national programmes of measures it intends to take, or is taking or has taken, to mitigate climate change.

A fourth obligation is that Guyana is required to develop and elaborate integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas affected by drought and floods;

Fifthly, Guyana is required to promote and facilitate the development and implementation of educational and public awareness programmes on climate change and its effects; as well as public access to information on climate change and its effects.

Finally, in respect to periodic reporting, Guyana is required to submit to the UNFCCC Secretariat National Communications (NCs) containing the following elements of information:

- A national inventory of anthropogenic emissions by sources and removals by sinks of GHGs.
- A general description of steps taken or envisaged by the Party to implement the Convention;

These NCs are expected to be done every four years. Guyana is also expected to prepare and submit a Biennial Update Report (BUR) in the midterm of each NC cycle.

### 3.0 Summary of Actions taken in meeting Rio Conventions Obligations

#### 3.1 Convention on Biological Diversity

A major obligation under the CBD is the preparation and submission of a National Report documenting steps taken to implement the Convention. Since signing on to the Convention, Guyana has prepared and submitted five National Reports. The last one, 5NR, was submitted in 2015.

Guyana has acceded to two Protocols of the CBD. In 2008 Guyana acceded to the Cartagena Protocol on Biosafety, and in 2014 the Nagoya Protocol on Access and Benefit Sharing was acceded to.

With regard to the development of legislation to conserve and protect biodiversity, Guyana has enacted the following:

- Environmental Protection Act of 1996
- Forest Act of 2009
- Protected Areas Act of 2011

Wildlife Management and Conservation Regulations were Gazetted in 2013, and in 2016, a Wildlife Management and Conservation Act was assented to.

In the area of policy development relative to biodiversity, Guyana has adopted a policy on Access to Genetic Resources and fair and equitable Sharing of Benefits arising from their utilization. The 2011 National Forest Policy contains statements that relate to biodiversity.

With regard to strategies for biodiversity conservation, National Biodiversity Strategy and Action Plan (NBSAP) has been developed. This is a revision to the earlier version, and spans the period 2012 – 2020. In addition, Guyana has developed a Protected Area Strategy which seeks to conserve biodiversity within designated Protected Areas.

With respect to Plans relating to Biodiversity, in addition to the NBSAP, Guyana has prepared a number of Plans. These are:

- National Environmental Action Plan
- Coastal Zone Action Plan
- National Mangrove Action Plan
- National Forest Plan
- National Protected Areas Plan
- National Land Use Plan

Significant progress has also been made at the institutional level. In 2011 the 3. Environmental Protection Agency (EPA) and other environment related institutions were brought under a single Ministry – the Ministry of Natural Resources and the Environment (MNRE). The exception is the Office of Climate Change (OCC) which remained under the Office of the President. In 2016, the Department of Environment was created and was given responsibility for the EPA, Protected areas and Wildlife. Both the DoE and the OCC are under MoP.

With regard to in-situ conservation, a Protected Areas Commission has been established by statute, and two new PA's – Kanuku Mountains and Shell Breach – have been established. The

Protected Areas Commission (PAC) has developed a Strategic Plan and a National Protected Areas Trust Fund has also been established.

Ex-situ conservation initiatives has been initiated between the EPA and the National Parks Commission, and with the Guyana Forestry Commission (GFC).

With respect to Capacity building, biodiversity is including in undergraduate and post graduate programmes at the University of Guyana. The GFC Forestry Training Center also includes biodiversity in its training programme.

Public education and awareness is promoted in a number of ways. The EPA has a Division dedicated to education and awareness. A newsletter is published on a regular basis, and flyers and brochures are prepared. Environmental clubs are promoted and there is outreach into the school curriculum. The EPA website is also used to disseminate information and messages.

Under Aichi Target 11, at least 17 per cent of terrestrial and inland water should be conserved. Currently, the area covered by Kaieteur National Park, , Iwokrama Rainforest reserve, Konashen Conservation area, Kanuku Mountains and Shell Beach together account for 8.6 percent of the terrestrial area. Guyana's Nationally Determined Contribution to the UNFCCC of another two million hectares of land for PA's, when implemented, will enable Guyana to meet the target of 17 percent.

A more detailed outline of achievements with respect to implementation of the NBSAP and Aichi targets, is detailed in Guyana's Fifth National Report.

### **3.2 Convention to Combat Desertification**

A major obligation under the UNCCD is the preparation and submission of National Reports to the Convention Secretariat. Guyana submitted its initial Report in 2000, followed by subsequent submissions in 2002, 2006, 2010, 2012, 2014 and 2016. Compliance in this area has been outstanding.

A second obligation is to establish strategies, plans and policies aimed at mitigating the effects of drought and land degradation. While there is no SLM policy, there is a draft land use policy with a SLM component t, but this has not yet obtained Governmental approval. There is a Water Resources Management Policy, a Disaster Risk Management Policy and a River and Sea Defence Policy. There is also a DRM Strategy and a Waste Water Strategy. A Drainage and Irrigation master Plan is being implemented.

Another major obligation is the preparation of a NAP. Guyana prepared its NAP in 2006. The NAP spelled out, as required, the issues, priorities and proposed actions at that time. Subsequently, the UNCCD adopted a 10-year Strategic Plan and required Parties to align their NAP's to this overarching Plan. Guyana prepared and submitted its Aligned NAP in 2015.

Under the Aligned NAP, eleven priority programme areas are identified, and for each Actions are prescribed. These programme areas are consistent with obligations under the UNCCD. The status of each of these is summarized below.

The first programme area is rational planning and management of land resources. In response to this, a National Land Degradation Assessment was done in 2008 and drivers identified. A national land use policy was formulated, and the element of sustainable land management

(SLM) was incorporated. Regional land use plans were prepared for Regions 6, 9, parts of Regions 10, 7 and 2, and also for the Linden-Lethem Road Corridor and the Soesdyke-Linden corridor. In addition, national building codes have been developed.

The second programme area is the harmonization and rationalization of legislation to remove overlaps, promote coordination, information exchange and institutional synergies. While it cannot be claimed that legislation has been harmonized, regulations have been drafted to support regional land use planning. In addition, a Memorandum of Understanding has been developed and signed among the Ministry of Natural Resources, Agriculture and Public Works aimed at harmonizing inter Agency work relating to the management and monitoring of coastal activities. Cross-sectoral committees, such as the Land Reclamation Committee and the Mangrove Action Committee have been formed, with active participation by Non-Governmental Organizations (NGOs). With regard to information systems and exchange, Geographic Information Systems (GIS) have been created in the Guyana Lands & Surveys Commission (GLSC), GFC, Guyana Geology & Mines Commission (GGMC) and the EPA. The Ministry of Natural Resources (MNR) has created a centralized GIS Unit, housed in the GFC, which records information pertinent to land degradation.

A third programme area is financial resources. A Medium-Term Investment plan was developed, as well as a Funding Needs Assessment for SLM. Lower order expenditures are met by in-kind contributions from the GLSC and sister Agencies which collaborate in the NAP work programme.

A fourth programme area is public education and awareness. A multi-pronged approach has been taken by the focal point. Consultation workshops and training have been mounted and brochures prepared and distributed. Training in Disaster Risk Management has been conducted at the community level. A Teacher's kit and video have been prepared to assist in integrating SLM into school curricula. The GLSC website is also utilized for promoting SLM.

The fifth programme area is Capacity Building. Training workshops were conducted under the SLM project on areas such as early warning systems, watershed management and Geographic Information Systems. The Geography programme at UG offers land use planning, land evaluation and urban and regional planning. NGOs such as World Wildlife Fund (WWF), Conservation International and Iwokrama also offer capacity building and contribute to understanding of SLM.

The sixth programme area is traditional knowledge. This type of information is not readily or easily quantified and captured, and so is not well accounted for. Some best practice information is stored in Performance Review and Assessment of Implementation System (PRAIS) reports. The community Monitoring Reporting and Verification (MRV) activity in the North Rupununi also captures best practices. Amerindian village management plans, such as being prepared in the South Central Rupununi presents opportunity for utilizing best practices and traditional knowledge.

A seventh programme area is the promotion of regional aspects of preventing land degradation. Guyana participates from time to time in the Regional Action Programme of the Latin America and Caribbean Grouping, and has participated in a regional initiative on Early Warning System (EWS) in Latin America.

An eighth programme area is the need to alleviate poverty and improve quality of life. While it is difficult for the focal point to make significant impacts here, it can be noted that initiatives such

as bee-keeping in mangrove areas, community based tourism in Amerindian communities and non-timber forest products promote alternative livelihoods. The Amerindian Development Fund established under the low carbon development strategy (LCDS) also supports village based plans and projects aimed at improving livelihoods.

The ninth programme area is food security and management of agriculture. The Ministry of Agriculture has developed a, Agricultural Strategy that promotes diversification and agro-processing through value added activity. The National Agricultural Research and Extension Institute (NAREI) is leading research into new vegetable production through hydroponics. Land for all scales of agriculture is being made available by lease through the GLSC. Large scale opportunities exist in the Canje Basin and the Intermediate and Rupununi savannahs.

The tenth programme area is sustainable management of natural resources and drainage basins and watersheds. Under the NBSAP measures have been identified to protect biodiversity, including through protected areas. Mangrove restoration is being implemented along the coast, and a Land Reclamation project with Ministry of Natural resources.

A National Integrated Water Resources Management Policy and a Waste Water Strategy have been prepared. A Drainage and Irrigation Master Plan is being implemented. The East Demerara Northern Relief Structure has been constructed and has enhanced protection against flooding on the lower East Coast of Demerara. The Cunha canal is expected to come on board to add to flood relief. Water Users Associations are being utilized to involve farmers in the flood and irrigation management of their areas.

The final programme area is Early Warning systems and Emergency Planning. Several policies and plans have been prepared. These include:

- National Disaster Risk Management Policy.
- National Integrated Disaster Risk Management Implementation Strategy.
- National Integrated Disaster Risk Management Plan.
- National Multi-Hazard Preparedness and Response Plan.
- Integrated Disaster Risk Management Guidelines.

### Institutional arrangements

During the preparation of the NAP, a National Steering Committee was established. This comprised representatives of the major related Agencies, including the GLSC, GFC, GGMC, EPA and Civil Defence Commission (CDC). Since 2014, a national project Board was established, with representatives widened to include the Ministries of Indigenous Peoples Affairs, Local Government, Finance, Natural Resources, the Presidency, OCC, Central Housing and Planning Authority (CHPA), PAC and Private Sector Commission (PSC).

The CDC is the lead Agency for Disaster Management. It has established a Volunteer Corps and has overseen training countrywide. In addition, EWS framework and Protocol have been prepared.

### **3.3 Framework Convention on Climate Change**

With respect to policy and strategy obligations, a number of national policies and strategies are in place. LCDS was developed in 2009, and served to guide climate change actions in subsequent years. More recently, a Green State Development Strategy approach has been

adopted, and a framework document has been prepared. This will go to consultation in the months ahead and subsequently inform a full Strategy. A Climate Resilience Strategy and Action Plan (CRSAP) has been developed, and is being reviewed currently to bring it in line with NAP's as prescribed by the UNFCCC.

There is a Forest Policy and Forest Plan which promote forest conservation and sustainable management of forests. An Energy Policy has also been prepared, and a Road Map for transition to Renewable Energy is under preparation.

A major obligation under the Convention is the submission of NCs and BURs. Guyana's Initial Communication was prepared and submitted in 2002. The second NC was submitted in 2012. These NC's addresses the required elements, including GHG estimation by sources, removals by sinks and steps taken in fulfilling the requirements of the Convention.

The OCC has begun the process for preparation of the Third NC. Work on a BUR has also been initiated.

From an institutional standpoint, Guyana established the OCC within the Office of the President in 2010, and named the OCC as the focal point for UNFCCC implementation in Guyana. The OCC is currently under MoP and serves as the National Focal Point for climate change, including UNCCC implementation.

The OCC has begun a process of developing a Strategic Plan for the Office and a Climate Change Policy with assistance from the CDB. The policy is expected to provide, among other things, overarching guidance to sectors agencies to help them develop sector plans. The strategy will provide medium and long term direction for the work programme of the Office.

The implementation of REDD Plus actions, including related technical support, is undertaken by GFC. GHG inventories for forest mitigation are actively undertaken, and a robust Measurement, Reporting and Verification System for REDD Plus is well on its way to full development. A Forest Reference Level has been formulated and has undergone iterative technical reviews by the UNFCCC.

With the installation of a Doppler Radar facility, there have been improvements to weather forecasting capabilities. Training in climate and weather takes place periodically.

With funding from the US, work has been initiated that will establish a Climate Data Node which will collect information to create metadata and eventually a data repository for the OCC. The process of collecting the data has commenced. In addition, OCC expects to begin a partnership with UG through which students can undertake research in areas where OCC has an information need.

Public education and awareness is an important aspect of UNFCCC obligations. Following the launch of the LCDS, the OCC was engaged in extensive countrywide education and awareness campaigns. These stretched across all 10 Regions and targeted both urban and rural areas, and coastlands and hinterland. Direct consultations were augmented by brochures, flyers, radio and TV messages.

Initially these efforts were geared towards an understanding of climate change, the LCDS and REDD Plus. Later campaigns focused on specific areas such as climate change mitigation and adaptation.

The OCC has recently established a Communications Unit. In 2017, the Office worked closely with the Caribbean Youth Environment Network (CYEN) – Guyana, in conducting outreaches to schools. Activities in 2017 also included the development of Public Service Announcements for TV and radio, posters and flyers.

OCC plans to work closely with the National Centre for Education Resource Development (NCERD) in its public education and awareness thrust. OCC is also engaging the Inter-American Development Bank (IDB) on a project that will target climate change in the school curriculum.

In an initiative with the Japanese Partnership, OCC will prepare a regional climate change awareness video, which will be aired on television and be used for discussion with pilot projects in Bartica (renewable energy) and Region 9 (water management). The project will also provide the opportunity for secondary schools to participate in a regional youth climate change forum in Jamaica, through a competitive process.

## 4.0 Guyana's National Policy and Strategy Framework

### 4.1 National Biodiversity Strategy and Action Plan

Guyana's first National Biodiversity Action Plan (NBAP) was prepared for the period 1999-2004. A second NBAP was prepared for the period 2007 – 2011. In 2014, a NBSAP<sup>2</sup> was prepared for the period 2012 – 2020. The NBSAP sets out a vision and goal, the national priorities and the strategic objectives, and provides guidance for actions to achieve the objectives.

The vision as set forth in the Plan is that by 2030 biodiversity is sustainably utilised, managed and mainstreamed into all sectors contributing to the advancement of Guyana's bio-security, socio-economic and low carbon development. To this end, the goal is that by 2020, biodiversity is valued, effectively conserved, protected and restored where appropriate, delivering significant benefits and contributing to climate change mitigation and adaptation in a way that is acceptable nationally and globally.

Key challenges identified in the Plan include overlapping legislation, absence of a policy, technical capacity, limited baselines, absence of a monitoring system and financing for implementation.

The NBSAP identifies four thematic areas - forests, agriculture, coastal resources, and marine and freshwater resources.

The NBSAP also identifies several strategic objectives. These include:

- i. Improve the status of biodiversity by conserving ecosystems, species and genetic diversity and by restoring biodiversity and ecosystem services in degraded areas;
- ii. Promote the conservation, sustainable use and value of biodiversity into key productive sectors used for growth, expansion and diversification of the economy;
- iii. Expand and improve awareness, appreciation and communication on biodiversity and ecosystems;
- iv. Consolidate/harmonise policy, legal, regulatory, and administrative frameworks that support the sustainable use, protection and management of biodiversity resources; and
- v. Secure adequate resources from national, regional and international sources for the implementation of the Plan.

To achieve these objectives, several priority areas for action have been identified in the Plan. These include:

- i. Expansion of Protected Areas to meet UNCBD Aichi target goal of 17% of terrestrial area *in-situ* conservation in legal protection by 2020, and capacity building for planning, establishment and management of protected areas;
- ii. A National Protected Areas Trust Fund would be established which is expected to contribute significantly to the financial sustainability of these protected areas;
- iii. Rehabilitation and restoration of mangrove belts and degraded mined out areas;
- iv. Development of guidelines for responsible recreational fishing and better practices in ornamental fish collection and handling;
- v. Establishment of a fully functioning REDD+ Framework and a MRV system to support this framework; and

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<sup>2</sup>EPA. (2014). *National Biodiversity Strategy and Action Plan (2012-2020)*. Guyana.

- vi. Development of the EU Forest Law Enforcement, Governance and Trade (FLEGT) timber legality assurance system for Guyana.

The Plan also provides for the establishment of a monitoring and evaluation programme to assess progress in implementation of the Plan and results.

Several of these priority actions have been achieved including the National Protected Areas Trust Fund and work is in progress on the other actions.

#### **4.2 National Action Plan (Aligned) under the UNCCD**

There is no nationally approved Policy or Strategy on Desertification or Land Degradation. There is a draft Land Use Policy which was initially prepared in the late 90's under the Office of the President, and revised in 2004 and 2007 in GLSC, and revised further in 2012 and 2015 when it was submitted to the newly created MoP.

This draft policy has a section on SLM. It is being reviewed currently under the GLSC.

In the absence of a policy on land degradation, one can point to the aligned NAP under the UNCCD a guiding document on this thematic area.

Under the Aligned NAP, eleven priority programme areas are identified, and for each Actions are prescribed. These programme areas are consistent with obligations under the UNCCD, and will be discussed in a subsequent section.

#### **4.3 Low Carbon Development Strategy**

Although there is no climate change policy, there is LCDS as set forth under the UNFCCC. The concept of LCDS was first announced in 2008 by then President Jagdeo when he put forward that if the right economic incentives were provided, Guyana could deploy most of its forests in the fight against climate change. The vision of a new low emission economy sought to meet three challenges: 1) how to protect against climate change, 2) how to make forests worth more alive than dead, and 3) how to promote economic growth using clean energy and non-deforesting economic activities.

The strategy sought to secure financing for the avoided use of forests and forested lands, and using it for:

- Investing in strategic low carbon economic infrastructure, including a hydro-electricity plant at Amaila Falls; improved access to arable, non-forested land; and improved fibre optic bandwidth to facilitate the development of low carbon business activities.
- Nurturing investment in high-potential low carbon sectors, such as fruits and vegetables, aquaculture, business process outsourcing and ecotourism.
- Reforming existing forest-dependent sectors, including forestry and mining, where necessary, so that these sectors operate at the standards needed to sustainably maintain the forest.
- Expanding access to services, and creating new economic opportunities, for Amerindian communities through improved social services (including health and education), low carbon energy sources, clean water and employment which does not threaten the forest.

- Improving services to the broader Guyana citizenry, including improving and expanding job prospects, promoting private sector entrepreneurship, and improving social services with a particular focus on health and education.
- Protecting Guyana’s people and productive land from changing weather patterns.
- Investments in priority climate adaptation infrastructure can reduce the 10 percent of current Gross Domestic Product (GDP) which is estimated to be lost each year as a result of flooding.

Financing for this Strategy was initiated when Guyana and Norway signed a Memorandum of Understanding (MoU) in 2009 for results based payments for forest climate services up to \$US250 million. The flagship project was the Amaila Falls hydroelectric project; other projects included Amerindian development, Amerindian Land Titling, Information and Communications technology, climate resilience and adaptation, Micro and Small Enterprise and vulnerable groups, and a Center for Biodiversity Research.

To date Guyana has earned \$US190 million in payments.

#### **4.4 Green State Development Strategy (Framework)**

A draft Green State Development Strategy (GSDS) framework was been prepared by the MoP and made public in 2017. The strategy seeks to balance conservation with resource exploitation and environmental sustainability with economic development, The GSDS seeks to transition the economy towards a renewable, clean and cheaper source of energy, focus on coastal zone management, ecological integrity of forests, creation of ‘green’ enterprises and jobs.

The framework comprises of a vision, principles, central themes, and finance mechanisms.

The Vision is a green, inclusive and prosperous Guyana that provides a good life for all its citizens, based on low-carbon resilient development, a green economy, a sound education, social protection and social justice. The Vision is aligned to the 2030 SD agenda.

The Principles comprise six core values which seek to ensure an integrated approach to achieving wellbeing for all Guyanese. These are:

1. Social cohesion and inclusion. This will address human rights, multi-ethnicity and gender equality, non- discrimination and protection of vulnerable and marginalized population groups.
2. Well-being and education, which will address the moral fabric and seeks to improve the quality of living for all Guyanese, promoting sustainable lifestyles and protecting the environment.
3. Sustainable use of biodiversity and increased resource efficiency. This acknowledges the role that nature plays in Guyana’s economic and social structure, and decoupling economic growth from environmental degradation.
4. Decarbonisation and climate resilience. This seeks to transition to a 100 percent renewable country by 2025.
5. Sustainable finance. This will redirect and mobilising investments for economic activities that reduce the impact on environment.
6. Good governance. This seeks to ensure transparency and decentralized decision-making to the population and engaging civil society.

There are seven themes, which are basically the key sectors and enabling policies to protect natural resources and increase its value, guiding a green and inclusive industrial transformation, shifting to a more diversified economy, better education and governance ensuring that the gains from resource extraction are reinvested in the country and its people. These themes are:

1. Green inclusive, structural transformation. Key strategic areas here are:
  - Green resource extraction for sustainable development
  - Sustainable, productive, climate-resilient and diversified agriculture
  - Green, inclusive, high value-adding industrial development
  - Enabling business environment
2. Sustainable management of Natural Resources and Expansion of Environmental Services. This will involve:
  - Land use planning and natural resource management systems
  - Sustainable forest management - logging and non-timber forest product practices
  - Fresh water management
  - Traditional knowledge and practices
  - Resource extraction for sustainable development

This thematic area also encompasses the Protection, Restoration and Sustainable Use of Coastal and Marine Resources, where key strategic areas include:

- Coastal ecosystem services
- Fisheries management

- 3 Energy. This will seek to transition toward renewable energy and greater energy independence. Key strategic areas are:
  - Achieving affordable, reliable and clean energy services for all
  - Ensuring security and quality of energy for business growth
  - Increasing energy efficiency
  - Achieving 100% energy generation
- 4 Resilient infrastructure and spatial development. Two strategic areas will be pursued: Coastal Resilience and Sustainable Infrastructure, which involves:
  - Coastal Protection Infrastructure and Systems
  - Resilient, Sustainable and Robust Transportation Infrastructureand  
Inclusive and Green Urban Settlements, which involves:
  - Urban land-use regulation and infrastructure development
  - Municipal management and service operations
  - Municipal finances and financing capacity

- 5 Human development and well-being. This will be achieved through two strategic objectives:
  - Ensure Healthy and Socially Secured People
  - Access to Quality Education, Human Development and Green Skills

- 6 Governance and institutional foundations. This involves two strategic areas:
  - Transparency, Good Governance and Rule of Law
  - Knowledge Management, Information and Communications
  
- 7 International cooperation, trade and investment. The following are strategic areas to enhance international cooperation, trade and investment:
  - Biodiversity conservation, thru taking the lead within the context of Council for Trade and Economic Development (COTED)
  - Marine and border issues
  - UN Charter and Treaties

There are definite linkages between the GSDS Framework and the three Rio Conventions.

Theme 2 (Sustainable management of Natural Resources) and Theme 7 - (International Cooperation) have linkages with the UNCBD.

Theme 1 (Structural Transformation) and Theme 2 (Sustainable management of Natural Resources) and Theme 7 (International Cooperation) have linkages with the UNCCD.

Theme 3 (Energy transition) and Theme 7 (International Cooperation) have linkages with the UNFCCC.

#### **4.5 Nationally Determined Contributions under the UNFCCC**

In the run up to the Paris negotiations under UNFCCC, Guyana, like other Parties to the Convention, prepared its intended nationally determined contribution (iNDC). This document was prepared in consultation with the relevant Government Agencies, notably GFC and the Guyana Energy Agency (GEA), as well as with civil society. The iNDC was submitted to the UNFCCC ahead of the Paris COP December 2015.

Guyana's iNDC contained several proposed actions which aim to reduce emissions of GHG and increase removals. In so doing, these actions also aim to conserve and protect Guyana's biodiversity. These actions include commitments to:

1. Pursuing a green economic pathway;
2. Continuing to implement sustainable forest management;
3. Continuing with a high level of forest monitoring;
4. Reduced impact logging;
5. Avoided deforestation;
6. Improved mining methods;
7. Reclamation and reforestation of mined out areas;
8. Adding 2 million hectares of pristine forest to its system of protected areas; and
9. Promoting conservation concessions.

With the signing of the Agreement in April 2016, Guyana's Nationally Determined Contributions (NDC) became a part of the global agreement. With the entry into force of the Paris Agreement in November 2016, Guyana is now legally obligated to implement and report on progress made in implementing its NDC.

#### **4.6 Strategies and Plans Under Preparation**

Currently, several strategic and planning documents are being prepared or expected to commence preparation shortly.

The MNR is expected to prepare a new strategic plan for the period 2017 – 2020. This plan will supersede the older strategic plan of the predecessor Ministry of Natural Resources and Environment.

The GGMC is expected to commence preparation of a strategic plan for the same period. The existing unofficial plan is expected to be considered in the preparation of the new one.

The GGMC is also expected to commence preparation of a Mining Policy and any revised Regulations.

The GFC has commenced a process that will review its current Forest Policy Statement and National Forest Plan and prepare a new Forest Policy and Forest Plan. In addition, Draft Forestry Regulations are under review.

## 5.0 Assessment of Issues Which Constrain Efforts

In 2012 twenty years after the Rio Summit, a major challenge identified was the impact of international economic forces, such as the price of gold and its effect on mining and the environment. Reliance on fossil fuels, along with a very low renewable energy in the energy mix were also identified. Other challenges and constraining factors included climate variability, adequate human resources and bottom-up governance structures.

On the positive side, there are a number of areas where resources, tools and guidelines have helped Agencies in meeting some of their commitments. The establishment of Geographic Information Systems in two focal points – GLSC and EPA - has provided an up to date digital mapping facility to these Agencies. Although the OCC has no such facility inhouse, the GFC has a good GIS facility that takes care of the forest mitigation aspect of climate change.

In addition to GIS, the GFC and GLSC also have remote sensing analysis facilities. Satellite imagery is also available to the EPA.

The GFC considers its updated Forest Act as a useful resource, as well as modern guidelines which reflect areas of multiple use of forests.

Notwithstanding these positive aspects of available resources, tools and guidelines, there are several issues which constrain efforts to fulfil obligations and the implementation of the three Rio Conventions. These are principally the adequacy of financial resources, knowledge gaps, data availability, adequacy and management, and limited capacities.

### 5.1 Financial Resources

As was identified in 2012, financial resources remain a challenge. Implementation of the three Conventions requires substantial amounts of financial resources. Adaptation costs alone can run into the billions of dollars (GUY). Indeed, it has been recognized that adequate finance is among the main constraints to satisfying obligations. There is no budget item for climate change in the supporting Agencies, and the focal point itself does not receive much finances from domestic sources. The level of financing needs greatly surpasses the level of resources that can be expected from domestic sources. Meeting the obligations has tended to be financed through projects funded by donors. This is not, and cannot be accepted as, a sustainable approach in the long term.

### 5.2 Knowledge gaps

Meeting the Convention obligations requires a high level of knowledge and expertise. There are a number of important areas where there exists knowledge gaps and lack of capacity. These include areas such as

- GHG inventories of emissions from all more sectors and non-CO gases,
- Empirically derived emission factors,
- Tier 3 forest cover/type data,
- Effective data analysis and modelling, forecasting,
- Identification and classification of biodiversity,
- Conservation management
- Watershed management planning

- Operational definition of land degradation
- Soil carbon research
- Area classification for degradation analysis
- Developing early warning systems
- Degradation impact analysis, methodology for systematic observation
- Renewable energy development
- Designing and building drainage and irrigations systems and sea defences.

The issue extends beyond the technical to the policy level as well. There is a need to harmonize strategies and policies that relate to the three Conventions, and the downstream synchronization of programmes and plans. Resources to build capacity to undertake these actions need to be strengthened.

### 5.3 Data availability, adequacy and management

There areas of knowledge gaps cited above circumscribe types of data which are needed, and which constrain efforts to fulfilment the obligations. Such data and information would be required not only for factual reporting under the Conventions, but also for analysis and planning in the respective thematic areas.

#### Scattered Data sources and formats

Data exists in several places, such as the GFC, the Hydromet Service, GEA, Ministry of Agriculture, GGMC, etc. Further, the data and information exists in varying formats, and sometimes under varying software. There is a current lack of standardization regarding data collection. Each Agency collects data in a format convenient to that specific agency, and as such, the data may not be in a format useful to the OCC. If there is standardization in data collection, it will allow for a broader range of agencies to use that data.

#### Data analysis and management

There is poor data analysis and management, and sometimes none at all. Currently, external consultants are engaged to undertake climate change modelling. In some instances, Agencies do not have a designated unit for data management. In addition, in some cases not all the information is documented, and so there is need for improvements in data management and storage. As a result, those seeking information from the agency are not able to acquire same easily. This presents a severe constraint in meeting obligations under the Conventions.

There is no centralized database facility. Whatever data exists tends to be located in several Agencies, and in varying formats. Consolidation and management of existing data pose a real constraint. In the area of traditional knowledge, this issue is even more challenging. Knowing what information exists and where is one challenge; obtaining it in a timely manner is another. With data scattered in different locations in varying formats, whether hard copy, electronic, tabular, narrative, reports, varying, software, the need for coordination in data collection, data sharing and data management emerges as a constraining factor for fulfilment of obligations.

The free and ready sharing of information is another constraining factor. While this occurs in varying degrees in the several agencies, there is no effective protocol that assures the timely and free sharing on data. Delays in obtaining information have consequences for the fulfilment of obligations.

With regard to GIS and other digital information and data, there has tended to develop a number of standalone system in individual Agencies. GLSC, GGMC, GFC, EPA all have GIS systems; the DOE plans to establish a digital information system, and OCC an information node. These systems are not all compatible, and so the information is not readily exchanged and used. A related challenge is that the old GIS policy from GLSC needs to be revised to take into account the current needs and issues relating to data among the Agencies.

#### **5.4 Limited Capacities**

Limited capacity is another constraint in the Agencies in attempting to fulfil obligations. Apart from the technical areas cited earlier, an important such area of capacity constraint is the ability to prepare funding proposals, project identification notes, project concepts, project proposals and other documentation key to making concrete progress. Consequently, these tasks are taken on by consultants funded by donors, and so the agenda tends to be influenced by external entities. There is also limited technical capacity to execute plans and policies.

In some Agencies, staff turnover at the middle levels has been a challenge, and affects the building and retention of capacity.

There is a capacity disconnect between mainstreaming at the national level and the capabilities of sector Agencies and Ministries. In addition, Agencies and Ministries are focused on implementing their work plans and inevitably have differing priorities from the OCC. Divergence of priorities is amplified in circumstances where the OCC requires substantial inter-Agency cooperation.

Related to capacity are the issues of succession and stability. In many instances, there may be a key individual in the Agency, so that when that person leaves, the accumulated skills and institutional memory are gone. There tends to be no succession plans in place to provide organizational stability and effective continuity in the Agencies.

## **6.0 Areas Where Further Work is Needed**

The Rio 20 Report of 2013 identified a number of gaps in fulfilling the obligations under the Convention. Research, Science, Technology and Integrated planning were identified as areas where further progress needed to be made. The availability of adequate financial resources was seen as an important gap. Implementation of policies and programmes, and strengthening of enforcement capacity were also identified as areas where more progress could be made. In addition, there was a need to further capture climate change impacts in Environmental Impact Assessment's (EIA's). Other areas where further work was needed included environmental education and consistent messaging on climate change.

Twenty years after the Rio Conventions were first established, there still remain several areas where further work is needed in order to fulfil obligations.

### **6.1 National Communications and GHG inventories**

Currently, with respect to national reporting to the UNFCCC, Guyana has submitted just two NC's since ratification. This is an area where improvement can be made. The third NC is under way. With respect to the BUR's which are expected in the intervening period between NC's, Guyana has not yet prepared or submitted any so far, and this also is an area where further work is needed. The first BUR is to be commenced shortly.

With respect to the preparation of a national GHG inventory, this is expected to be done every four years. Like the NC's, there is a need for these inventories to be done with greater frequency. The GHG inventory work tends to be linked to the NC work, and so with the NC's lagging behind, it is not surprising that the GHG work would have lagged also.

### **6.2 Mainstreaming into Policies and Programmes**

Incorporation of climate change actions into national policies, programmes and plans is a key obligation under the UNFCCC. There is an LCDS and a Biodiversity strategy. However, there is no national climate change policy and no approved National Adaptation Plan. The OCC has just initiated a process under which a climate change policy is to be prepared. The recent draft Climate Resiliency Strategy and Action Plan is to be reviewed and aligned into a National Adaptation Plan. Given the number of policies in the wider area of environment, there is also a need for harmonization among policy instruments. Further, there is a need for a mechanism to facilitate mainstreaming of climate change into sectoral plans and policies.

Further work is needed in the area of national programmes. The programme of activities under REDD Plus and the LCDS addresses forest mitigation. In the area of energy, an energy transition road map has been prepared, but this has to be implemented. There is no sector wide climate change-related programme as such in agriculture, mining or industrial sectors.

### **6.3 Institutional Arrangements**

With respect to institutional arrangements for climate change, there is an OCC and a REDD Secretariat under the GFC. However, there are no institutional structures for climate change in the sister institutions for energy, mining, agriculture and Public Infrastructure. Climate change tasks are undertaken when requested; they are not incorporated into the structure of operations of the Agency, and linkages with the OCC are not formally established.

There are two related issues. One is a lack of clarity as it pertains to institutional mandates, roles and responsibilities. It is felt that all Agencies may not be aware of their specific responsibilities with respect to these climate change projects that are publicized, and their expected roles in and meeting the country's UNFCCC obligations.

The other issue is inter-Agency coordination. There is a need for enhanced coordination among institutions, particularly since the OCC does not execute many of the UNFCCC commitments itself, but relies on other agencies to do so on its behalf. The MSSC facilitated coordination in the past, but it no longer performs this function. There is currently no formal intersectoral coordination mechanism presently for UNFCCC implementation.

#### **6.4 Data adequacy, collection, management and sharing**

##### **Lack of adequate data**

There is paucity if not unavailability of data required to fulfill Guyana's commitments to the Convention. In particular, there is a lack of country specific Emission factors (EF) and consequently reliance on proxy values. As such, there is a need for climate change research, including research for monitoring within the country, including at the University of Guyana. The need for adequate data and knowledge extends beyond climate change proper, into forest resources, biodiversity and land degradation.

##### **Standardized Data collection**

Much work remains to be done in ensuring that data collection is standardized. As was shown in the earlier section, data exists in several places and in varying formats, and sometimes under varying software. There is a current lack of standardization regarding data collection in the country. Each Agency collects data in a format convenient to that specific agency, and as such, the data may not be in a format useful to the OCC. Work is needed here.

##### **Data analysis and management**

There is poor data analysis and management, and sometimes none at all. Currently, external consultants are engaged to undertake climate change modelling. In some instances, Agencies do not have a designated unit for data management. In addition, in some cases not all the information is documented, and so there is need for improvements in data management and storage. As a result, those seeking information from the agency are not able to acquire same easily.

##### **Data sharing and exchange**

The Office of Climate (OCC) relies on other Agencies for data for its NC's and other work. Both climatological and sector related data are required by the focal point to meet its periodic reporting obligations. If the OCC is to have the information to meet its obligations, it would need to obtain it from the other Agencies, such as the Ministry of Agriculture, Public Infrastructure, etc. A mechanism for the free and ready exchange of such information between the agencies does not exist. There is no mechanism for bringing institutionally dispersed data together, such as a clearing house, or a central database. Consequently there is a gap in the free and ready exchange and access to climate change information. It is to be noted that an initiative has begun to establish a climate data node with the OCC as the central Agency, but this is likely to be meta data.

## 6.5 Effective Communication

With respect to national reporting to the UNFCCC, Guyana has submitted two NC's since ratification, a frequency which is not ideal. The third NC is under way. With respect to the BUR's which are expected in the intervening period between NC's, Guyana has not yet prepared or submitted any, though the first is to commence shortly.

With respect to the preparation of national GHG inventories, this is expected to be done every four years. There however is a persistent gap from the standpoint of frequency. The GHG inventory work tends to be linked to the NC work, and so with the NC's lagging behind, it is to be expected that the GHG work would lag also.

There is a need for better communication at the Inter-Agency level, particularly among the OCC and those agencies with some responsibility under the UNFCCC (GFC, GEA, EPA). In addition, there is a lack of communication between these public-sector agencies and the private sector. This is essential so that the latter are made aware of green projects in which they can invest.

Though the needs in public education and awareness are not as great as in other areas, further work is still needed. Public awareness and educational outreaches are done, but these tend to be intermittent and project tied. There is no comprehensive, ongoing programme, as would be desired, and so sustainability of initiatives has tended to be problematic.

## 7.0 Recommendations for Policy Interventions

Arising out of the analysis of areas where further work is needed and constraints to fulfilment of obligations, identified in earlier Sections, a number of recommendations may be offered.

### 7.1 Comprehensive Policy and Strategic considerations

It is essential that at the highest levels of policy and strategy, the interplay of biodiversity, land degradation and climate change be recognized and addressed in such a way that sectoral programmes and plans would be informed of the need (or requirement) to incorporate these considerations.

Given that the GGMC's Strategic Plan and the MNR's Strategic Plan are about to be revised in the near term, it is recommended that in the process of revising these instruments, that synergies among the Rio Conventions and coordination among Agencies be addressed.

Similarly, it is also recognized that the Mining policy, Forest Policy, Forest Plan and draft Forestry Regulations are being revised, and a new Climate Change policy is to be developed. It is therefore also recommended that in the process of formulating these policy instruments, synergies among the Rio Conventions and coordination among Agencies be addressed.

It must be noted that Guyana is now legally obligated to implement its NDC under the UNFCCC. Actions which are to be implemented relate to conservation and protection of forests and biodiversity. The NDC can therefore be a useful reference from which sector strategies and plans can be holistically formulated, ensuring that biodiversity is addressed in each.

Ultimately the GSDS will be the overarching policy and strategic architecture to guide decisions and actions pertaining to the implementation of the Conventions. In the consultations and development of this Strategy, every effort must be made to ensure that not only the Rio Conventions be actively supported, but that synergies among them be also promoted.

### 7.2 Coordination

There needs to be greater coordination and collaboration among the Rio Convention Agencies. Given that the need for coordination among Agencies is at the management level, it is recommended that senior officers of the Agencies meet monthly to discuss current issues, exchange information, and operate as a forum for higher order exchange of information, tabling of initiatives, conflict resolution, and for agreeing on efficient use of operational staff in a common geographical area.

It is recommended that such a meeting should be, not of Chief Executive Officers (CEOs) or Commissioners, but of officers at the level immediately below the Head of Agency. In order to make this somewhat formal, the establishment of such a group should be done by agreement at the Ministerial level.

The Memorandum of Understanding which was developed and signed by the MNRE, Agriculture and Public Infrastructure and be re-visited in an attempt to strengthen coordination among the three Convention Agencies. The MNRE's existing Strategic Plan addresses institutional arrangements and coordination.

### **7.3 Data and Information**

Efforts should be taken to improve the availability, accessibility and exchange of information and data relevant to the implementation of all three Conventions. It is recommended that an instrument be considered which would allow/provide for the GGMC, GFC, GLSC, EPA and PAC to share information, data, EIAs and other reports on a regular and routine basis. Such an instrument may be an exchange of memoranda between the Permanent Secretaries of the relevant Ministries, or a formal Memorandum of Agreement (MoA) among the Agencies, or a Cabinet decision.

It is also recommended that data sharing, access and security protocols be developed and adopted by the GGMC, GFC, EPA and GLSC particularly as it relates to the standardization and harmonization of data collected by each of these Agencies, including GIS data. This can be part of a larger effort to revise the existing GIS policy. The current GIM Unit can play an integral role in all of this.

A new GIS policy is being called for in many quarters. The old GIS policy needs to be revisited to take into account the current issues and needs among the Agencies.

The suggestion for a clearing house for information and data made some years ago is still relevant. The OCC is moving in this direction with respect to climate change metadata. In addition, some traditional knowledge is captured under the community MRV work being done in the North Rupununi, but there is room for this a mechanism to be developed to formalize this.

There is also a need to go beyond a clearing house to a central database standardized for collective access and use. This will necessitate harmonization among the software. In the longer term, consideration should be given to the establishment of a National Spatial Data Infrastructure that will link the several standalone GIS systems that currently exist in the Agencies. The ultimate objective is to establish an inter-agency platform that will allow greater access to and sharing of data.

### **7.4 Public Education and Awareness**

Public education and awareness needs to be ramped up so as to galvanize the participation of the general public and non state actors such as NGOs, Community Based Organizations (CBOs), local communities, etc. Focal Point and other relevant Agencies should programme education and awareness activities to occur on a regular and ongoing basis, and not ad hoc or intermittently. This should also be linked with initiatives to enhance local level monitoring.

Education and awareness also needs to address legislation and regulations, as many officials and other staff may not be aware of the range of laws and regulations that exist, and which in many cases obviate the need for new legislation.

### **7.5 Finance**

A greater level of financial resources should be sought and made available to the implementing Agencies. A two-pronged approach can be taken. One would be to ramp up efforts to secure external financing from financial entities under the UN Conventions and Regional financial institutions. The other is to gradually mainstream activities into Agency budgets and work plans, with the expectation that the proportion of domestic support will increase with time.

## 7.6 Monitoring and Compliance

The principal mechanism for monitoring is built into the UNFCCC obligation, that is, the periodic national communications and BUR's. These are intended, among other things, to take stock of where Guyana is in respect to meeting its commitments, and so are important tools for monitoring progress.

Similarly, while there is no compliance provision or mechanism contemplated or provided under the UNFCCC, progress undertaken is a measure of compliance, and so the periodic NC's and BUR's also serve the purpose of assessing compliance.

In view of these observations, no recommendation is made for any new mechanisms for monitoring or compliance.

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## Annex A: Stakeholders Consulted

1. Conservation International
2. Department of Environment
3. Environmental Protection Agency
4. Guyana Energy Agency
5. Guyana Lands and Surveys Commission
6. Guyana Marine Conservation Society
7. Guyana Manufacturers Services Association
8. Iwokrama International Center for Rainforest Conservation
9. National Tshao's Council
10. Office of Climate Change
11. Protected Areas Commission
12. World Wildlife Fund