

RIO + 20
National Report
*A Green Economy and Institutional Framework
for
Sustainable Development: The Guyana Context*



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- Guyana Association of Professional Engineers
- Guyana Forestry Commission
- Guyana Geology and Mines Commission
- Guyana Marine Turtle Conservation Society
- Guyana Tourism Authority
- Iwokrama International Centre for Forest Conservation and Development
- Ministry of Agriculture
- Ministry of Amerindian Affairs
- Ministry of Finance
- Ministry of Health
- Ministry of Housing and Water; Central Housing and Planning Authority
- Ministry of Natural Resources and the Environment
- National Agriculture and Research Extension Institute
- Office of Climate Change
- Office of the President
- Pan American Health Organisation-Guyana Office
- Pesticides and Toxic Chemicals Control Board
- Private Sector Commission
- Red Thread (Women's) Organisation
- United Nations Development Programme-Guyana Office
- United Nations Population Fund
- University of Guyana, Tain Campus
- University of Guyana, Turkeyen Campus
- Water Users Association
- Women Across Differences
- World Wildlife Fund-Guianas
- Wildlife Unit

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Paulette Bynoe, PhD; MPhil B.A.

Acronyms and Abbreviations

ACTO	Amazonian Cooperation Treaty Organization
CARICOM	Caribbean Community
CBD	Convention on Biological Diversity
CDB	Caribbean Development Bank
CHM	Clearing House Mechanism
CI	Conservation International
CoP	Conference of the Parties (to the CBD)
CSBD	Centre for the Study of Biological Diversity
EEZ	Ecological-Economic Zoning
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
ERP	Economic Recovery Programme
FAO	Food and Agriculture Organisation
GAHEF	Guyana Agency for Health Sciences Education, Environment and Food Policy
GDP	Gross Domestic Product
GEF	Global Environment Facility
GFC	Guyana Forestry Commission
GMO	Genetically Modified Organisms
GoG	Government of Guyana
GRIF	Guyana REDD Plus Investment Fund
HIES	Household Income and Expenditure Survey
IDB	Inter-American Development Bank
IPED	Institute of Enterprise Development
LCDS	Low Carbon Development Strategy
LMO	Living Modified Organisms
MEAs	Multilateral Environmental Agreements
MONRE	Ministry of Natural Resources and the Environment
MoU	Memorandum of Understanding
NAREI	National Agricultural Research & Extension Institute
NBC	National Biodiversity Committee
NBAP	National Biodiversity Action Plan
NBC	National Biodiversity Committee
NCERD	National Centre for Education Research and Development
NCS	National Competitive Strategy
NCSA	National Capacity Self Assessment
NDS	National Development Strategy
NEAP	National Environmental Action Plan
NEEAC	National Environmental Education and Awareness Committee
NEES	National Environmental Education Strategy
NFAP	National Forestry Action Plan
NFP	National Forest Plan
NGO	Non-Governmental Organization
NPC	National Parks Commission
NPAS	National Protected Areas System
NTFP	Non-timber Forest Product
PAHO	Pan American Health Organisation
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
SCBD	Secretariat of the Convention on Biological Diversity
SEES	School of Earth and Environmental Sciences
ToR	Terms of Reference
UG	University of Guyana
UNCBD	United Nations Convention on Biological Diversity

UNCCD	United Nations Convention to Combat Desertification
UNCED	United Nations Conference on Environment and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFPA	United Nations Population Fund
UNFCCC	United Nations Framework Convention on Climate Change
WWF	World Wildlife Fund

SECTION 1 BACKGROUND AND METHODOLOGICAL APPROACH

1.1 Introducing Guyana

Guyana, the only English speaking South American country, has a land area of approximately 215,000 sq. km and is bordered by Venezuela on the west and northwest, Suriname on the east, Brazil on the south and southwest and the Atlantic Ocean in the north (See Figure 1). Guyana has a relatively stable population of approximately 763,719 persons (2007 figure according to the Bureau of Statistics).

Guyana remains primarily an agriculture and resource-based economy in terms of its production base, but its Gross Domestic Product (GDP) is now more heavily weighted in an expanding services sector - combined services average 60% plus of the GDP in 2010. Per capita GDP has risen from US\$ 1,694 in 2006 to US\$2,501.7 in 2010. The country also enjoys exchange rate stability as well. US\$ to G\$ has been steady at US\$ 1 = G\$ 200 for most of the decade of the 2000s.

One of Guyana's most valued natural assets is its forests: the national forest cover is approximately 87 percent of the country with more than 8 percent designated as Protected Areas (Guyana Forestry Commission, 2012). Moreover, Guyana is one of the countries with the highest biodiversity in the world, with 1,168 vertebrate species, 1,600 bird species, and one of the richest mammalian fauna assemblages of any comparably sized area in the world.¹ Geologically, Guyana is part of the Guiana Shield, a geomorphologic complex that is little known, but extremely rich biologically.

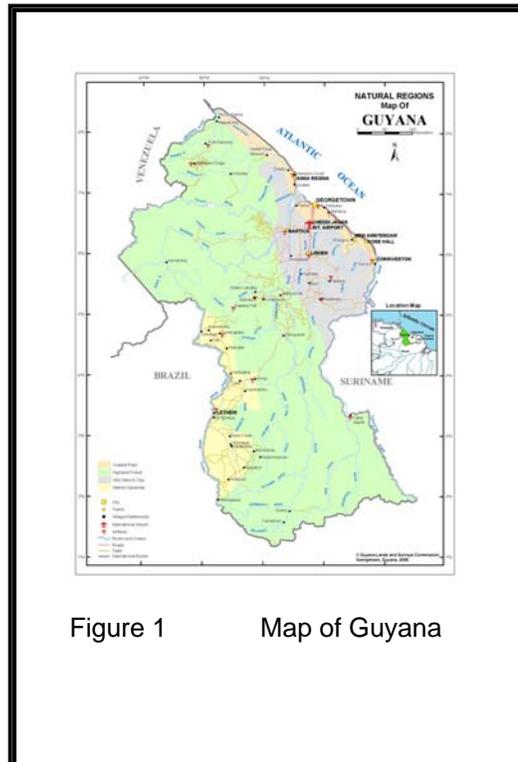


Figure 1 Map of Guyana

1.2 Background to Rio Plus 20 Report and Methodological Approach

Guyana has decided to participate in the national preparatory process in advance of the United Nations Conference on Sustainable Development (UNCSD) scheduled for Rio de Janeiro in June 2012. Thus, financial support has been received from the United Nations Department of Economic and Social Affairs (UNDESA) for a national consultation workshop in advance of the Rio+20 Conference. The aim is to build national capacity to allow Guyana to participate more fully in the Rio+20 process, as well as to ensure continuing efforts to implement the outcomes of the conference.

In keeping with the Terms of Reference (ToR; see Appendix 1) of the Consultancy the national preparation process consisted of three consecutive and interlinked phases which contributed to the preparation of an

¹ EPA. 2000. National Biodiversity Action Plan (NBAP) 2007 – 2011. EPA, Georgetown.

output document (this **National Report**²), while building capacity on the issues. These three phases entailed: the preparation of a stock-taking report based on interviews, consultations and desk review; the facilitation of a multi-stakeholder meeting to report on the issues of the UNCSD; and the documentation of outcomes from both the stocktaking exercise and multi-stakeholder meeting.

The relevant documentation, which includes national strategies, plans, policies, capacity needs assessments, national progress reports (for example, the Millennium Development Goals, the Multilateral Environmental Agreements) and practical experiences, was reviewed and synthesised are identified under ‘references’ of this National Report.

In an effort to gather contextual information, in-depth interviews were conducted with representatives of major stakeholder groups including government ministries and agencies, private sector, women, youth, non-governmental organisations and international donor agencies. A list of guiding questions was provided by UNDESA (See Appendix II). Key informant interviews (see Appendix III) were supplemented with reporting on the priority sustainable development themes (Agriculture, Transport, Energy, Climate Change, Biodiversity, Land degradation, Water), plus social issues contained in the Millennium Development Goals Report on Guyana 2011.



The conceptual framework for the analysis was based on the questions provided by UNDESA, and discussed in the context of the three globally recognized pillars of sustainability: Economic Sustainability, Social Sustainability, Environmental Sustainability, plus the concept of a green economy which, to a large extent, would determine the success of future national initiatives on sustainable development. Additionally, specific principles of sustainable development (Principles 3, 4, 10, 11, 17, 20, 21 and 22 of the Rio Declaration on Environment and Development, 1992³ were used as a point of reference, as these addressed issues such as integration of environment and development in decision-making, citizens (women, private sector, indigenous people, local government), and environmental legislation (See Appendix IV).

1. Summary of Workshop

A multi-stakeholder workshop was held in Georgetown on March 10, 2012 with the view to discuss and move towards consensus on a national assessment of progress, remaining gaps, experiences and opportunities pertaining to the themes of the UNCSD. The event was attended by 73 persons representing government ministries and agencies, private sector, women, non-governmental organisations and international donor agencies.

There were two main sessions: Session 1 provided the opportunities for the delivery of remarks by the following officials: Mr. Joslyn M^c Kenzie, Permanent Secretary of the Ministry of Natural Resources and the

² The Final National Report is the product of the stock-taking process, plus the stakeholders’ comments provided during key informants interviews (of 30 persons), and the multi-stakeholder meeting held in Georgetown on March 10, 2012.

³ http://www.unesco.org/education/information/nfsunesco/pdf/RIO_E.PDF

Environment (MoN&RE) and Chair of the session; Mr. Navin Chandarpal, Advisor to the President on Sustainable Development; Ms. Khadija Musa, the United Nations Development Programme (UNDP) Country Representative; followed by Honourable Robert M. Persaud, Minister of Natural Resources and the Environment. The key messages made by the speakers are presented in Box 1.

Box 1 Key Messages from Multi-stakeholder workshop

- Post Rio 1992 saw the build- up of ideas on how to link the gap between those who have a strong view on environmental protection issues and those who saw the need for development. Further, the Rio declaration and Agenda 21 sought to harmonise development and environmental protection, particularly the conservation and sustainable use of the natural resources of our planet.
- Guyana has maintained the view that sustainable development is not simply about balancing development with environmental issues alone. Importantly, it's a more holistic requirement in which the economic base of our country, the social practices and policies need to fit into that; hence the early efforts of the National Development Strategy and subsequently the Poverty Reduction Strategy Paper. Great emphasis has been placed on creating that economic framework that will allow us to be able to deliver for the meeting of the social needs of the people of our country.
- A green economy does not replace sustainable development but there is a growing recognition that achieving sustainability rests mostly entirely on getting the economy going right in order to advance the Millennium Development Goals and to meet the legitimate development aspiration of our people
- The re-strengthening and reforms of institutional framework should among other things integrate the three pillars of sustainable development and promote implementation of Agenda 21.
- The Low Carbon Development Strategy that was developed by Mr. Bharrat Jagdeo, the Former President of Guyana captured what we have achieved and has given us a vision in terms of sustainable development.
- Guyana's economy has grown: per capita income has increased substantially, social indicators such as maternal health, infant mortality and all the other indices and indicators of social development were identified. Therefore, since Rio, the nation managed to correct and improve all of these economic and social indicators. Additionally, sustainable development has been mainstreamed in key strategies such as: the National Development Strategy, Poverty Reduction Strategy and the National Competitiveness Strategy.

Session 2 was chaired by Mr. Andrew Bishop, Lead Negotiator in the Office of Climate Change. The session was dominated by two activities, namely, a presentation on the highlights of the Stock-taking Report by the Consultant, Dr. Paulette Bynoe, followed by comments and questions from various stakeholders. A summary of issues and comments is presented in Box 2 below.

Box 2 Some Issues raised by Stakeholders.

- The need to strengthen the report in relation to the social and economic pillars.
- Consultations should also be conducted in the less accessible Amerindian villages.
- There should be a special section that deals with health; as human health is critical to achieving sustainable development.
- The indigenous communities need training in order to be fully involved in these strategies.
- Lots of consultations and other work has been done by Iwokrama with CI, Office of Climate Change, Guyana Forestry Commission, GGMC, EPA to raise awareness and provide a forum for the discussion of issues related to REDD Plus.
- The Report should give some important concrete examples that have been implemented from the legislations of these Agencies. These examples include situations where people have either empowered themselves along with the State, NGOs etc. For example, the NRDDDB which has done tremendous work in the North Rupununi, Guyana Marine Turtle Conservation Society which drew attention to the decimation of turtles in the Shell Beach area, The National Working Group on the Millennium Development Goals which is a State, Public and Community based initiative, and the Wai Wai community.
- In the area of Scientific Research an important point is the Biodiversity Centre of Excellence as it indicates that there is a strategic plan to get involved in a higher level research work.
- The document needs to be strengthened to have a more people-centered approach.
- Stocktaking is a very important element under the sustainable development theme having being coined some twenty years ago. A two week timeline would not give justice to such a complex process.
- Gaps did not elaborate on enforcement and legislation that exists with respect to use of resources.
- The environmental condition of the city does not reflect environmental consciousness of people.
- There is need to have a clear understanding that development must take place
- With regards to social development there have been several programmes ranging from health, education and transportation.

At the conclusion of the workshop, participants were told that they could forward additional comments to named officials of the MoNRE until March 22, 2012 and that a follow-up national consultation will be held on Guyana's final position and report to the UNCSD. A commitment was made by the Consultant to review and amend the stock-taking Report (as far as practicable) in response to comments submitted by stakeholders.

SECTION 2 KEY SUSTAINABLE DEVELOPMENT ACHIEVEMENTS SINCE 1992 (POST RIO)

This Section of the National Report examines the achievements made by Guyana since Post Rio in relation to the achievement of sustainable development, which is assessed on the basis of three inter-related concepts: economic sustainability, social sustainability, and environmental sustainability. Specific attention is given to institutional development and a green economy.

2.1 Economic Progress

Guyana remains primarily an agriculture and resource-based economy in terms of its production base, but its GDP is now more heavily weighted in an expanding services sector - combined services average 60% plus of the GDP in 2010.

The Bank of Guyana (2012) Reports notes that, with the exceptions of 2003 and 2005⁴, Guyana's economy has been posting positive growth rates for over a decade. The report also shows that the macro-economic environment has been strong in recent times. There have been stable prices during the period 2006-2009 (except for 2006, when the country implemented the Value Added Tax (VAT)) - measured by the Consumer Price Index (CPI) declined from 8.2 % in 2005 to 4.5 % during 2009 and has remained single digit. Per capita GDP has risen from US\$ 1,694 in 2006 to US\$ 2501.7 in 2010. The country also enjoys exchange rate stability as well. US\$ to G\$ has been steady at US\$ 1 = G\$ 200 for most of the decade of the 2000s.

The country's underground economy has shrunk from an estimated of 47% of economic activity during the 1990s (Faal, 2003), due to reforms such as the value added taxes and the recent rebasing of the GDP. Moreover, the fiscal deficit and current account deficit expressed as a % of GDP declined continuously from 12.5% and 19.1% in 2005 to 3.7% and 11.3% respectively during 2010, while the country's net international reserves surged to US\$724.4 million at the end of 2010 from US\$160.5 million at the end of 2005. In addition, between the period 2006 and 2010, the country again witnessed high levels of foreign investment, like it did during 1991-1997, while remittances continued to outstrip foreign investment inflows.

Over the past decade, increasing effort has been made to diversify Guyana's economy, for example, through ecotourism and aquaculture in order to reduce the level of dependence on timber harvesting and mining. Additionally, efforts have been made to modernise traditional sectors (agriculture, especially the sugar industry) to improve economic productivity over the long term.

2.2 Social Progress

In the area of poverty reduction some progress has been made: extreme poverty decreased from 28.7 % in 1993 to 18.6 % in 2006; unemployment rate fell from 11.7 % in 1992 to 10.7 % in 2006. Direct efforts have been made to reduce the unemployment problem, particularly among women and youth: female unemployment rate decreased from 18.1 % in 1992 to 13.9% in 2006, while the percentage of youth who constitute the labour force increased from 8.7 % to 15.8% over the same time period (MDG Goals: Guyana Progress Report 2011.)

⁴ Between December 2004 and January 2005, Guyana experienced unprecedented rainfall which led to severe flooding on the coast, resulting in the displacement of 70,000 households and economic damage in excess of 57% of the GDP. See Poverty Reduction Strategy Progress Report 2005.

Over the last two decades, increasing financial investments have been made in the area of health infrastructure to provide greater access to health care to a wider cross section of the population; as a result, mortality rate has decreased from 120 per 1000 live births in 1991 to 17 per 1000 live births in 2008; malaria infection decreased from 5,084 per 100,000 persons in 2005 to 1,541 persons per 100,000 in 2008; and the prevalence of HIV/AIDS in the population has decreased from 7.1 % in 1995 to 1.1 % in 2009. Guyana has taken measures through the project “Reducing Unplanned Pregnancies among Adolescent/Teenage Mothers and Enhancing the Quality of their Lives”⁵ which aims to reduce the number of unplanned pregnancies among teenage girls through awareness sessions based on Youth Empowerment, Personal Development, Family Planning/SRH/HIV AIDS and Income Earning Skills, among other components. Additionally, the Ministry of Education has developed a policy on delivering Health and Family Life Education to primary and secondary schools through the provision of training materials for teachers, counsellors and youth officers. This has increased the capacity of teachers to deliver Sexual Reproduction and Health (SRH), Gender and Sexuality Education training materials. In addition, SRH and gender education is integrated into technical and vocational institutions targeting out of school adolescent and youth, through the Adult Education Unit of the Ministry of Education.

With respect to water supply (which is essential to health), 88. % of households in Guyana can access potable water supply, and the quality of water has improved in administrative regions where water treatment plants have been established (for example, between 2008 and 2010 Regions 2, 3 and 5 received this facility). On the other hand, 84 % of households have access to toilets or improved pit latrines. On the whole, Guyana also has adopted a more structured approach to health by means of a National Health Strategy so that at every three years priorities are set for the health sector. In recognition of the need for human resource capacity building⁶ in the health sector, the Ministry of Health has embarked on a number of training programmes, such as radiography assistance, environmental health assistance, laboratory assistance, dental assistance, among others. In addition, the Ministry of Health, in collaboration with the Pan American Health Organisation has recently developed a National Health Sector Disaster Plan to address threats posed by natural hazards and climate change, and in particular, flooding. In the building of hospitals, the building is subject to a hospital safety index to improve the design of hospitals to take into consideration the whole aspect of the green economy, disaster risk management and climate change.

According to the MDG Goals: Guyana Progress Report (2011), the country faces a number of challenges in its efforts to achieve the MDGs. Chief among these are: (i) Guyana’s geographical terrain and the difficulty in accessing remote areas where infrastructure is not developed fully; (ii) multi-cultural nature of the Guyanese society, and in particular, the different religious backgrounds which affect the development of strategies to address social issues such as HIV-AIDS; (iii) human capacity constraints in relation to adequate numbers and skills levels in the health and education sectors; (iv) lack of adequate data to facilitate cost effective monitoring and evaluation systems; and (v) insufficient finances/financial gap.

⁵ The Project is funded by the United Nation Population Fund (UNFPA). Information provided by the UNFPA-Guyana Office.

⁶ According to information received from the Ministry of Health, 300 doctors are expected in Guyana in 2013.

2.3 Institutional Arrangements for Sustainable Development: Progress Since 1992

Policy framework for decision-making

Guyana's institutional framework for sustainable development for integrated planning and decision making, environmental and natural resources management has been strengthened since the Rio Summit (1992) and can be gleaned from several national policies, plans and strategies including Integrated Coastal Zone Management Action Plan (2000), National Development Strategy 2001-2010, National Climate Change and Adaption Policy and Implementation Plan (2001), National Poverty Reduction Strategy (2001-2005), National Environmental Action Plan (2001-2005), National Protected Area Strategy (2005), Guyana's National Policy on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation (2008), and the National Agriculture Sector Climate Change Adaptation Policy (2009), among many others. These strategic documents provide reference points of the work programmes of individual ministries and agencies and provide a strategic decision-making framework within bodies, such as the Natural Resources and Environment Advisory Committee (NREAC), the Cabinet Sub-Committee on Environment and Natural Resources. The principal goals of each of these policy instruments are captured in table 1 on the next page.

Legislative Framework

Guyana has made significant progress in terms of development of legislation as a 'command and control' mechanism for promoting effective environmental management and protection and the sustainable use of Guyana's natural resources. Chief among national legislation are: the Environment Protection Act (1996) and accompanying regulations including the Species protection Regulations (1999), (Hazardous Wastes Management) Regulations (2000), Noise Management Regulations (2000), Air Quality Regulations (2000), Water Quality Regulations (2000), Authorisation Regulations (2000); the Guyana Revised Constitution (2003), the Wildlife Conservation and Management Regulations (2008); the Amerindian Act (2006); the Mining Amendment Regulations (2005); the Guyana Forestry Commission Act (2007) and the Forest Bill, (2009), and the Protected Areas Act (2011), among others. Moreover, a number of guidelines have been prepared for Reviewing and Conducting Environmental Impact Assessments, Mining, Sand Blasting, Water Sampling; and for Conducting Biodiversity Research, among others, while Codes of Practice have been prepared for specific sector activities, including mining and forestry. The success of national legislation to promote environmental sustainability has been constrained mainly by institutional capacity (financial, technical and human resource) for continual monitoring and enforcement.

Table 1 National Strategies and Action Plans

National Strategies/Action Plan	Year	Decision -Making Function
Integrated Coastal Zone Management Action Plan	2000	Provides overarching planning framework for the sustainable use of coastal resources as well as strengthening of institutions.
National Development Strategy 2001-2010	2001	Provides a framework for national planning and captures a number of cross-sectoral issues such as environment, forestry, agriculture, mining, tourism and fisheries, among others.
Guyana Climate Change Action Plan	2001	Provides reference point for national programmes to help mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change
National Climate Change and Adaption Policy and Implementation Plan	2001	Provides a very useful point of reference in the process of identifying key issues of Guyana's Coastal Plains with regards to potential climate change impacts, capacity building, and the institutional and legislative framework. Further, it informs the types of interventions that are necessary at the sectoral level to ensure that Guyana's response to the threat of climate change is planned.
National Poverty Reduction Strategy	2001-2005	Provides the most strategic planning framework at the highest level of national planning with the principal objectives being: (i) to attain the highest rates of economic growth that are possible; (ii) to eliminate poverty in Guyana; (iii) to achieve geographical unity; (iv) to attain an equitable geographical distribution of economic activity; and (v) to diversify the economy.
National Environmental Action Plan	2001-2005	Provides framework for integrating cross-sectoral environmental concerns into the wider context of Guyana's economic and social programme
National Protected Area Strategy	2003	Provides framework for establishing an integrated national system of protected areas
National Land Use Plan (Draft)	2005	Provides the framework for coordination among the land uses, as well as, facilitates integration of land use and the preparation of a National Land Use Plan.
Fisheries Management Plan	2006	Sets out guiding principles, goals, legal and institutional framework for the conservation and sustainable development of Guyana's fisheries resources.
National Biosafety Framework	2007	Provides framework for controlling and monitoring Genetically Modified Organisms (GMO) and Living Modified Organisms (LMO) while preventing adverse effects on the conservation and sustainable use of biological diversity in Guyana.
NBAP II	2007-2011	Provides general planning process for biodiversity use and conservation and within the same framework of NBAP I, plus emphasises more stakeholder involvement.
Guyana's National Policy on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation	2008	Articulate a national policy on Access and Benefit-Sharing that is consistent with other national policies and regulations, and with international treaties to which Guyana is a contracting Party.
National Capacity Self-Assessment (NCSA) Guyana Implementation of Action Plan	2009	Incorporates priority work of the MEAs into annual work programmes of the Focal Point Agencies: Environmental Protection Agency, National Climate Unit, and Guyana Lands & Surveys Commission.
National Agriculture Sector Climate Change Adaptation Strategy	2009-2018	The goal of this Strategy is to more effectively reduce the risks posed by climate change and position the agricultural sector to adapt through technical innovation and diversification to increase its competitiveness and sustainability by 2018.
National Mangrove Management Action Plan	2010	Fosters a coordinated approach to policy formulation, planning, institutional cooperation and implementation of actions and activities for mangrove management.

Organisational Framework

Since 1992, there has been a notable increase in the re-structuring or creation of agencies and ministries to address issues related to natural resource management and sustainable development in Guyana (See table 2 below). These decision-making and implementation institutions have strengthened the national governance framework for sustainable development, although, their work programmes have been constrained by financial and human resources (a recurring theme in this Report). However, in particular, the most recently created Ministry of Natural Resources and the Environment (MoNRE) that was established in 2011 has been a most ‘welcome’ development according to stakeholders since a more strategic and collaborative approach to planning for natural resource management and sustainable use is envisaged. Appendix V provides a sample of stakeholders’ perspectives on the MoNRE.

Table 2 List of Key Organisations

Year	Organisation
1996	Environmental Protection Agency (EPA)
1999	Guyana Lands and Surveys Commission (GL&SC)
1998	Guyana Energy Agency (GEA)
2001	Ministry of Tourism, Industry and Commerce (MinTIC)
2002	Guyana Tourism Authority (GTA)
2011	Ministry of Natural Resources and the Environment (MNR&E)

In addition to the principal ministries and agencies, various committees have been established at a more strategic policy decision making level to formulate and review and promote synergy among the above mentioned policies, strategies and action plans. These include a Multi-Stakeholder Steering Group, a Guyana Parliamentary Sector Committee on Natural Resources, the Natural Resource and Environment Advisory Committee and, more recently, a Protected Areas Commission Board of Directors.

At a more technical level, the University of Guyana, the School of Earth and Environmental Sciences (SEES), the Faculty of Technology and the Faculty of Agriculture and Forestry continue to provide tertiary interdisciplinary and multidisciplinary training programmes for nationals to help build human capacity within the lead agencies for natural resources management in Guyana. Further, the President of Guyana retains Cabinet responsibility for Sustainable Development. His Excellency is supported in this aspect by the Adviser on Sustainable Development. In this way oversight of development activities can be done with maximum attention to environmental and other concerns.

2.4 Progress on the Multilateral Environmental Agreements

Over the past twenty years Guyana has acceded to / and ratified a number of Multilateral Environmental Agreements (MEAs). Brief highlights are provided in table 3 below.

Table 3 National Progress on MEAs

Major Multilateral Environmental Agreements (MEAs)	Date of Accession Signed or/and Ratified	Highlights of Implementation Progress	Comment
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	May 25, 1977	<p>Review of the Species Protection Regulations in 2008 and subsequent preparation of the Draft Wildlife Import and Export Bill to be tabled in Parliament.</p> <p>Establishment of annual export quotas in keeping with the requirements of Article IV of the Convention.</p> <p>Periodic review of the annual export list to determine validity of scientific names and whether there have been any taxonomic changes.</p> <p>Enforcement training - to bring awareness to officers of the Enforcement Agencies about the provisions of CITES.</p> <p>Stakeholder engagement – engagement takes place through meetings with the Guyana Fauna Exporters Association Inc and annual general meetings with the wildlife exporters to discuss challenges in the industry and other relevant trade issues including new developments in CITES.</p>	<p>Gaps lie in the legislation in the current form and the draft bill seeks to address those gaps and to elevate Guyana to a Category I level (Guyana is currently Category II).</p> <p>Monitoring and enforcement remain a challenge.</p>
UN Convention Biological Diversity (CBD) – Signatory	August 29, 1994	<p>Design of Guyana Protected Areas Systems Project (GPAS). Under GPAS Phase I, forty-six (46) Sub-projects were developed through small grants⁷</p> <p>Under GPAS Phase II, the Protected Areas Commission was established in 2011.</p> <p>National IAS inventory/database, a Thematic Report, an Assessment report and a Strategy and Action plan have been prepared and endorsed by EPA Board.</p> <p>The Biodiversity Clearing House Mechanism was designed and operationalised.</p>	

⁷ The aim is promote the conservation of ecosystems and the enhancement of livelihoods of various Amerindian communities living in or in close proximity to protected/proposed protected areas – Kaieteur National Park, Kanuku Mountains and Shell Beach Intervention Areas.

		National Biodiversity Research Information System (NBRIS) is being developed.	
UN Convention to Combat Climate Change	Signed in June 1992, ratified in August 1994.	<p>Development of an Energy Policy which seeks to reduce national dependence on fossil-based energy sources, encourage and support new investments in use of renewable sources of energy biomass⁸ and biofuels, solar, wind, tidal and industrial and non-industrial by-products, and promoting rational and efficient use of energy.</p> <p>Development of a National Climate Change Action Plan (2001), National Climate Change Adaptation Policy and Implementation Plan for Guyana; Guyana Initial and Second National Communications to the COP, 2002, 2011; Integrated Coastal Zone Management Action Plan, 2000; and a mitigation exercise by the EPA and CIDA/SENES to monitor the rice and wood sectors.</p> <p>Inventory of greenhouse gases was conducted for five major sectors: energy, industry, agriculture, land use and forestry and waste</p> <p>A number of studies were funded through the GEF Caribbean Planning for Adaptation of Climate Change and Mainstreaming and Adaptation to Climate Change projects including: A Coastal Vulnerability Study of Guyana, 2000; a National Agriculture Sector Adaptation Strategy to address Climate Change in Guyana, 2008 and a training workshop on “Adaptation to Climate Change in the Agriculture sector” for key governmental officials representing 19 Caribbean countries.</p> <p>Development of Early Warning System (EWS) such as the Doppler Radar System, which forecasts rainfall in real time.</p>	High cost for climate change adaptation requires significant additional funding.
UN Convention to Combat Desertification	June 1992; 1997	<p>Amendment of the Mining⁹ Act in 1989 and the Mining Environment Regulations (MER) by Parliament in 2005; development of a Code of Practice for Environmental Mining; implementation of training programmes in environmental management systems and environmental management.</p> <p>A National Action Programmes has been development and many activities, including the preparation of a Sub-Basin Water Shed management Plan for the Demerara Watershed; establishment of a national database on natural resources based on Geographic Information System (GIS) technology; establishment of a</p>	<p>Approval of the draft Land Use Policy is pending. This Policy will set the overarching framework for sustainable land management.</p> <p>There is need for capacity building and institutional strengthening of the GLSC and related Agencies to meet UNCCD obligations.</p>

⁸ Bagasse, rice husks, wood waste, wood, and plant and animal residue.

⁹ Mining is the primary driver of deforestation in Guyana.

		land use planning process in a pilot area based on a participatory approach; and development of policy guidelines and legislation with regard to natural resources management and land use planning.	Harmonising of legislation and institutional framework for sustainable land management and land use planning is on-going.
Convention for the Control of Transboundary Movements of Hazardous Wastes (BASEL)	April 04, 2001	Establishment of the Hazardous Wastes/Materials and Air Quality Unit in 2011. Preparation of a draft Hazardous Wastes (Export and In transit Import) Management Regulations.	Draft Hazardous Wastes (Export and In transit Import) Management Regulations to be finalised with technical assistance from Basel Convention Regional Centre
Stockholm Convention	September 2007	Passage of the Pesticides and Toxic Chemicals Control Act in 2008 that provides for a national chemicals management framework and the formation of the PTCCB. Completion and endorsement of National Chemicals Management Profile (NCMP) to guide the importation, storage, trade, usage by the diverse spectrum of end users. Implementation of a National Chemicals Management Strategy ¹⁰	Development of its National Implementation Plan for Guyana is overdue.
Cartagena Protocol on Biosafety	March 18, 2008; June 16, 2008	GEF-funded Project “Continued enhancement of building capacity for effective participation in the Biosafety Clearing House Phase II and two national workshops help to build institutional capacity. National Biosafety Coordinator has been identified and ToR for National Coordination Committee prepared.	.
Cartagena Convention (and its three Protocols)	July 14, 2010	Development of a local-level National Programme of Action (NPA) for the reduction of land-based sources of pollution the town of Linden in 2007. Development of interim Guidelines for industrial effluent discharge into the environment, with the aim of establishing the maximum permissible limits for the discharge of relevant parameters are established for different industries, according to the Environmental Protection (Water Quality) Regulations, 2000 Processing of listing protected areas under the	Additional financial resources required for effective implementation.

¹⁰ Based on principles derived from the Strategic Approach for International Chemical Management (SAICM) initiative and International Conference on Chemicals Management.

		SPAW Protocol. The EPA is currently reviewing the guidelines to prepare the Country report for submission to the SPAW Secretariat.	
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Source: National Stock-taking Reports and direct communication with the Focal Points.

Focal Points for each of the MEAs mentioned in table 3, have been established to manage the implementation of activities to meet specific obligations of the MEAs, for example, the EPA is the Focal Point for Basel Convention, SPAW Protocol and the Protocol on Land-based pollution of the Cartagena Convention, the Protocol on Biosafety of the UNCBD, CITES, as well as the Conventions under the Pesticides Board and the Vienna Convention. The appointment as Focal Point for the Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region (Cartagena Convention) is still pending.

2.5 Supporting Outreach Programmes

Over the past twenty years, there has been notable progress in the building of partnerships between the GoG, local and national non-governmental organisations (NGOs), civil society and local communities. This has resulted, in part, to collaborative management of Guyana natural resources, as evident in the initiatives/outreach programmes captured fewer than six major headings, which are highlighted in summary table 4 below.

Table 4 Summary of Outreach Programmes

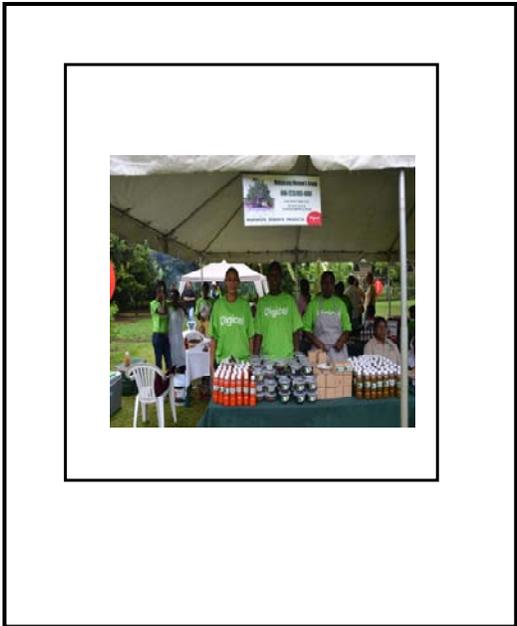
Areas of Focus	Fresh Water and/or Marine Ecosystems Management	Forest Resources Management and / or Protected Areas Management	Alternative Sustainable Livelihoods	Public Environmental Awareness/Education/Training	Advocacy related to Rights of Indigenous People/Women/ Youth	Technical Capacity Building, Natural Resource Monitoring and Research
Agency/Organisation						
Amerindian NGOs, including Amerindian People's Association (APA), Guyana Organisation for Indigenous Peoples (GOIP), The Amerindian Action Movement of Guyana (TAAMOG)			•	•	•	•
North Rupununi District Development Board (NRDDB)			•	•	•	
Conservation International-Guyana		•	•	•		
Environmental Health and Community Organisation (EHCO)				•	•	•
Guyana Marine Turtle Conservation Society (GMTCS)	•	•	•	•		•

Iwokrama International Centre for Forest Conservation and Development	•	•	•	•		•
World Wildlife Fund-Guianas	•	•		•		•

Source: Guyana’s Rio Plus 20 Stock-taking Report, plus desk review of reports.

Local and Indigenous Participation¹¹

Empowered groups and communities have been directly involved in initiatives that support sustainable development at both the local and national level. Chief among these are indigenous communities, women and the private sector. Indigenous peoples in Guyana account for approximately 10 % of the population and occupy 14% of the country’s land mass. Traditional knowledge has been an important part of Guyana’s land management historically with the accompanying cultural traditions. Emphasis is placed on traditional knowledge and experiences as evidenced by partnerships with local and international NGOs and local communities which promoted and strengthened traditional knowledge and skills, e.g. Iwokrama and CI who through Community Resource Evaluations would assist in the documentation of resources and practices in Amerindian communities. Importantly, WWF –Guianas provided technical and financial support for the local communities in the North Rupununi to develop an Arapaima Management Plan to arrest the problem of depleting stock of the population (*Arapaima gigas*). This Plan, which was approved in 2010, aims to support the recovery of the population, while facilitating sustainable harvest of the Arapaima.



Since 2004, the BHI (which is essentially the brainchild of the NRDDDB (mentioned in tale 4) launched a local radio station in 2004 called Radio Paiwomak (FM 97.1), with financial and technical support from UNESCO, as the first hinterland radio station in Guyana. The radio station affirms the culture and tradition of the Makushi people by producing and broadcasting programmes highlighting local culture and issues about the environment and biodiversity. Some of these programmes are in the local language (Makushi), and the station serves nine communities in the area.

Local coastal communities (particularly the women) have been actively involved in the Guyana Mangrove Restoration Project which aims to promote among Guyanese a commitment to the protection and development of sustainable mangrove forest that have been under natural (relating to the cycle of erosion and accretion) and anthropogenic (associated with socio-cultural and economic factors) threats for more than two decades. The overall objective is to respond to climate change and to mitigate its effects through the protection, rehabilitation and wise use of Guyana’s mangrove ecosystems through processes that maintain their protective function, values and biodiversity while meeting the socio-economic development and

¹¹ This information is obtained from Guyana Fourth Report on the Fulfillment of obligations to the UNCBD. 2010.

environmental protection needs in estuarine and coastal areas. To this end, local communities have participated in replanting exercises, monitoring, community discussions and public education and training sessions.

Other examples may be cited as (i) the Wai Wai of Southern Guyana (Konashen) involvement in the developing a management plan for their lands in the Konashen District (1.5 million acres), which is currently managed as a Community Owned Conservation Area., as part of a tripartite agreement between the GoG, CI and the local community; and (ii) the Rewa community owned ecotourism project in the Upper Essequibo Region of Guyana. This was made possible through the establishment of a Concession Community Fund (established by CI), which channels US\$10,000 annually to support a variety of environmentally sound, economically viable programmes.

The Involvement of Women

Over the years, women have been increasingly become involved in sustainable development initiatives in Guyana through the involvement of NGOs, political parties, and the National Commission on Women, and the Women Affairs Bureau. Importantly, in 2008, an Issue Paper on Women, Environment and Sustainable Development was developed to provide guidance on the mainstreaming of women in sustainable development efforts in Guyana. The success of this initiative has been hampered by financial resources and technical capacity within the Women Affairs Bureau to implement the recommendations. On the other hand, Women Across Differences (WAD)-an NGO launched in 1999 to enable women to empower themselves through access to social and economic resources, has been involved in several training programmes related to various themes such as: Personal Development (including gender socialization); Workers Rights; Community Facilitation; Positive Parenting Skills; Leadership Development; Project Management; Programme Implementation; Entrepreneurial Development; Community Organising; Family Enrichment Programmes; and Disaster Preparedness and Climate Change.

Importantly, the Makushi Research Unit (MRU) has been established by the North Rupununi District Development Board (NRDDB), Iwokrama and the University of Guyana Amerindian Research Unit as a research initiative in 1995 to study the ethnobiology of the North Rupununi. The Unit consists of predominantly women researchers from local communities who conduct enquiries on social, economic, and ecological aspects of life in the North Rupununi. The MRU plays an important role in understanding local knowledge systems and cultural affirmation. It is also a primary force in ensuring local communities in the North Rupununi are informed of research. The MRU has been recently supported by the Gender Equality Fund of the Canadian International Development Agency (CIDA). MRU projects include working with the Ministry of Education to develop Makushi language teaching in schools. The group published several books including “Makusipe Komanto Iseru” freely translated as “Sustaining the Makushi Way of Life”.¹²

These are only a few of the several initiatives of women in Guyana.

¹²Source: www.iwokrama.org

The Private Sector

The private sector in Guyana has always played a major role in Guyana's economic and social development and sustainability through direct local and foreign investments, development of technology, creation of employment opportunities which provide incomes that has helped to reduce, to some extent, poverty among the populace. In particular, the Institute of Enterprise Development (IPED)¹³ programme has successfully managed to empower thousands of young men and women by enhancing their skills in technical areas and by providing loans for persons to establish their own businesses. However, until recently, there was more hesitancy on the part of several private sector organisations to demonstrate their commitment to Corporate Social and Environmental Responsibility: for example, in a study conducted by Bynoe (2007), the private sector was not very supportive of the EIA since (according to them) it required too much time and financial resources, and was perceived as a hindrance to economic growth. Recently, however, the private sector has become more conscious and supportive of the need to protect the environment and prudently manage our natural capital; hence there has been greater involvement in national consultations on environmental regulations, representation on established committees concerned with natural resources management (e.g. the Multi-Stakeholder Committee); also a number of companies have been taking steps to achieve more sustainable forms of operations. Some examples include (i) Banks DIH that distributes wastes from the brewery across the country to feed livestock and have recently installed a waste water treatment plant; the Demerara Distilleries Limited has a methane producer; and Toolsie Persaud Company Limited has installed technology to prevent the emission of cement dust into the atmosphere.

In 2011, a National Working Group (NWG) was established by the public sector (through the Office of the President) and the private sector (through the Private Sector Commission) with the assistance of the UNDP to foster and facilitate partnerships and to support Sustainable Development Oriented Business Practices. The NWG is expected share information to enhance knowledge of the Millennium Development Goals (MDGs) and to contribute effectively towards their attainment.¹⁴

Public Awareness and Education

In an effort to enhance environmental protection and natural resources conservation in Guyana, a series of education, training and public awareness programmes and activities have been undertaken by a number of stakeholder agencies/institutions, including the Ministry of Education, the Guyana Energy Authority, Environmental Protection Agency, the School of Earth and Environmental Sciences of the University of Guyana, Pan American Health Organization, Conservation International and the Iwokrama International Centre and ECHO. Such activities which have benefited the nation as a whole may be summarized as follows:

- Development of educational materials such as booklets for school and farmers; and brochures on topics such as greenhouse gas and climate change, energy conservation, and biological diversity conservation, among others;
- Climate change workshops for various social groups including regional officers, health workers, public sector workers and hinterland communities.

¹³ IPED provides supervised loans and business development services to micro, small and medium sized business enterprises countrywide. For more information see <http://www.ipedgy.com/>

¹⁴ For more information see http://www.undp.org.gy/web/index.php?option=com_content&view=article&id=93

- Mounting of billboards at strategic locations and poster exhibitions at the National Library and the University of Guyana campus to foster awareness on mangrove protection, proper solid waste management etc.;
- Panel discussions on national television (both state owned and privately owned);
- Publication of newspaper articles;
- Broadcasting of climate change videos and movies on national television;
- Special public forums/for in observance of World Water Day, Earth Day, Guyana Environment Week and World Environment Day etc.;
- Infusion of environmental education in Cyril Potter Teachers' Training Programme;
- Development of specialised programmes and courses in environmental science and natural resources management at the University of Guyana;
- Teacher in-service training programmes (in the form of workshops); and
- Development of lesson plans and activity sheets on climate change and biodiversity conservation for Science and Social Studies Curricula in Primary Schools.

2.6 *Technical Assistance from the UN Systems*

Guyana's progress in the implementation of an institutional framework for sustainable development is largely credited to the technical assistance from the UN system entities (FAO, UNDP, UNFPA, UNEP and UNESCO), as can be gleaned from the highlights presented below.

- Development of national capacity to prepare policies and guidelines on access to resources and benefit sharing, strategic development plans, a land use plan and other instruments to guide and govern access to and use of Guyana's natural resources;
- Enhancement of capacity of indigenous communities and help empower them to develop plans to manage natural resources;
- Empowerment of women to organize themselves to access other services (health, education, credit, for example) as well as opportunities (e.g. paid employment at equitable rates) that would contribute to improvements in their well-being and economic independence.
- Reduction of policy barriers to developing renewable energy; innovative financing mechanisms for renewable energy products and projects; and increased human capacity.
- Provision of technical assistance to Monitoring, Reporting and Verification (MRV) associated with Reduced Deforestation and Forest Degradation (REDD) Plus initiative (mentioned under the sub-section on Green Economy);
- Sustainable Land Management initiatives related to capacity building, access to resources, technical expertise; water management;
- Factoring the value of biodiversity into national planning and to empower Government and local communities to better manage biodiversity and ecosystems (for example, through Green Commodity initiative);
- Provision of financial and technical resources for the implementation of obligations and National Capacity Self Assessments of major MEAs: (UNFCCC; UNCBD and UNCCD).
- Provision of support for the 2010 Population Census through institutional strengthening, plus participation in international meetings; and
- Provision of support for three programmatic areas: strategic information, policy research and analyses as well as advocacy and dissemination of public information in relation to children and women; improved access to quality health and education services for all children under five years.

2.8 Moving towards a Green Economy

In addition to the above mentioned sustainable development initiatives undertaken by the GoG, there is now a concerted effort to move the country towards a green economy. The United Nations Environment Programme (2011) provides an internationally recognized definition of a green economy as one that is low-carbon, resource efficient, and socially inclusive. Such an economy results in improved human well-being and social equity (through public and private investments) while significantly reducing environmental risks and ecological scarcities. Importantly, the development path of a green economy must maintain, enhance and, where necessary, rebuild natural capital as a critical economic asset and as a source of public benefits, especially for the poor whose livelihoods and security depend on nature¹⁵.

To date, there is no national definition of a green economy, however, Guyana's Low Carbon Development Strategy (LCDS, 2009; updated 2010) provides overarching national framework for the transformation of Guyana's current economy to that of a "low carbon economy". Specifically, it may be described as a strategic sustainable development policy initiative that sets out the nation's development trajectory to achieve a green economy, by encouraging a production and consumption shift in vital sectors (forestry, agriculture, mining, energy) of the economy. Solicited responses on the implication of a green economy in the Guyana context are captured in Box 3 below. The varying interpretations have congruence with respect to improved human well-being, reduced carbon footprint, and efficient use of natural resources.

Box 3 Stakeholders' Views on a Green Economy

- *Green economy is similar to sustainable development where you improve the well being of humans while reducing the risk to the environment.*
- *Green economy would mean a small carbon footprint and minimal impacts. If mining was to go fully green, most miners would go out of business since going green is expensive. This will drive out the small scale miners and only leave the large scale miners. In Guyana this will mean using practices such as going back to wooden rather than concrete houses, minimizing the use of air conditioners etc.*
- *Green economy means using our natural resources in a way that does not affect the environment. It entails adequate waste management, natural packing, and minimizing carbon release into the atmosphere during production.*
- *Green Economy will include low carbon energy production, efficient lifecycle use of materials and more inclusive sharing of economic wealth. The tools to generate appropriate price signals may involve resource quotas, environmental taxation, investment in innovative technologies and strategic alignment of public subsidies.*
- *Green economy means using our natural resources in a way that does not affect the environment. It entails adequate waste management, natural packing, and minimizing carbon release into the atmosphere during production.*

¹⁵ UNEP (2011) Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication. A Synthesis for Policy Makers. http://www.uneo.org/greeneconomy/Portals/88/documents/ger/GER_synthesis_en.pdf

The LCDS sets out the national conditions under which Guyana would pursue a green growth trajectory as it (i) put its rainforest under long term protection once the right economic incentives are created; and (ii) use the payments received for forests climate services to re-orient the country's economy to a low carbon, environmentally sound trajectory. The overall goal of the Strategy is to provide "the world a working example of how immediate action can stimulate the creation of a low deforestation, low carbon, climate resilient economy" (LCDS, May 2010 version). The LCDS aims at the following:

- Investing in strategic low carbon economic infrastructure, 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, for example, the GoG is seeking new investment in processing activities that would facilitate greater production of higher-value wood products that meet international standards for export and simultaneously bring new capabilities in waste minimization and recovery, as well as market linkages to enhance export value of processed products;
- Reformation of existing forest-dependent sectors, including forestry and mining through legislation, action plans, enhancement of technical capacity in organizations, such as the GFC and GGMC, increased monitoring and enforcement, plus the creation of alternative sustainable livelihood opportunities;
- Expanding access to services, and create new economic opportunities for Amerindian communities;
- 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.

Guyana has already implemented a number of initiatives¹⁶ in support of the LCDS. Chief among these are:

- Guyana REDD Plus Investment Fund (GRIF) established in November 2009 as a mechanism for managing funds pledged by Norway and from other donors/investors; Independent verification for the second tranche of payment (US\$70 million) have been completed¹⁷;
- Establishment of a Steering Committee in November 2010 to oversee the activities of the GRIF; Institutional Strengthening of Agencies involved in implementation of the LCDS;
- Establishment of an Amerindian Development Fund¹⁸; commencement of infrastructural works for the Amaila Falls Hydro project; and Preparation of priority projects including the Hinterland Electrification Programme that has already been rolled with the distribution of solar panels to hinterland communities, and the One Laptop per Family initiative; and
- The Institute for Applied Science and Research (IAST), since 2006, has executed a project targeted at the production of biodiesel on a commercial basis in Guyana. The aim is to foster the adaptation of biodiesel and feedstock technologies so that by 2020 the country would derive 65% of its diesel demand from agricultural feedstock. To this end, the IAST has several initiatives, including: (i) construction of pilot demonstration facilities for ethanol and biodiesel, (ii) development of standards and testing capabilities for controlling the quality of bio-fuels; (iii) promoting investment in bio-fuels; (iv) provision of technical due diligence for proposals to develop bio-fuels.¹⁹ This development of bio-fuels is expected to have a significant positive impact on the transportation sector. At another level, the Ministry of Public Works has been involved in a research programme to upgrade and

¹⁶ For details see <http://www.lcds.gov.gy/component/content/article/38-front-page/192-progress-continues-in-implementing-of-the-guyana-norway-agreement.html>

¹⁷ Negotiations are underway for the third tranche payment.

¹⁸ The aim of this Fund is to provide grants for low carbon energy and economic or social investments in Amerindian villages.

¹⁹ <http://www.iast.gov.gy/departments.html>

modify the existing hybrid system (uses both utility and solar powers). Through this initiative, seven of the traffic signal systems by year-end will utilize solar energy as its primary source of power, and utility energy (Guyana Power and Light) as its secondary source. Once the solar energy becomes the primary source of power for the signals, the utility bill is expected to reduce by one-third of its current amount.

SECTION 3 GENERAL SUSTAINABLE DEVELOPMENT CHALLENGES, OPPORTUNITIES AND NATIONAL EXPECTATIONS OF RIO PLUS 20 AND BEYOND
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3.1 Challenges

Challenges which affect the achievement of sustainable development in Guyana over the twenty year (1992-2012) period may be highlighted as follows:

- Irregular enforcement of legislation;
- Almost all the interventions that are based on definitive policies are best judged as “Work in Progress”, as legislative interventions need to be implemented;
- Financial and human resource constraints (which are common pervasive gaps in earlier discussions on implementation of MEAs, etc.); and
- Greater integrated planning (to replace simple physical planning) to deal with environmental protection and sustainability, through continual strengthening of institutional arrangements such as the national Land Use Committee.

Additionally, Guyana still faces the challenges that have been elucidated in its 2004 Assessment Report on the Barbados Programme of Action Plus 10, though their magnitude has taken on new dimensions. For example:

- Guyana’s small and developing economy is still vulnerable to external shocks including the ongoing global financial crisis since we are connected and affected by the global market. The global financial shocks may increase the demand and price for certain commodities such as gold, and this may present a challenge in terms of how the resource extraction will be managed in the context of a green economy: more people are mining and more companies are looking to go into mining.
- Marketing Guyana’s natural resources and strategic geographic location to expanding international investments that will create jobs and reduce poverty, at the same time, protect the integrity of the environment.
- Finding the right mix of energy technology at an affordable price and in the process reduce the present heavy reliance on fossil fuels to meet current and future energy needs. Providing citizens with access to affordable, low carbon emitting energy sources will help accelerate economic and social development in Guyana. The bilateral agreement with Norway in support of the GRIF projects and the Amaila Falls hydropower project are important components of progress in this direction. The distribution of solar panels to hinterland communities also represents a shift from the use of fuels.
- Climate variability (El Niño phenomenon) and global climate change remains one of the main challenges to Guyana, though the Government of Guyana has to address the issue of flood risks disasters in a direct manner. Recent experiences indicate that both coastal and interior regions are under threat. The economic risks posed by these natural and human induced hazards are significant: for example, the 2005 floods (due to rainfall intensity not experienced in Guyana since 1888) affected 59 % of the country’s GDP (ECLAC, 2005). One direct challenge of climate posed by climate variability and climate change is food and water security, even though Guyana is doing well so far. IPCC projections warrant our attention to ensure sustainable human development.
- Guyana cannot develop without adequate human resources, given the fact that the country was found to have experienced the highest emigration in a sample of sixty-one (61) developing countries, with more than 70 % of migrants having some tertiary education (Carrington and Detragiache, 1998). Today, the figure is above 85 %. Many institutions (especially the EPA) with mandates for various

aspects of natural resources management have been negatively affected by a relatively high staff turn over the past two decades.

- If decision making and planning is to be sustainable the structures must reflect a more ‘bottom-up approach’. There also needs to be further strengthening of communities and their capacities to ensure ownership, control over these resources. This will create space for them to manage their resources at the local level. Additionally, greater advocacy especially from the local organizations and international organizations such as WWF and CI will encourage sustainable development practices, particularly in the logging and mining sectors, in Guyana.

3.2 Opportunities

Several opportunities are created by new and ongoing initiatives at the national levels. Chief among these are:

- i) The Guyana-Norway agreement for which the sum of US\$70 million has been deposited in the GRIF held by the Trustee, and will partly finance green initiatives.
- ii) The GFC is exploring financial opportunities that may be created by Payment for Ecosystem Services (PES). Already there is the Guiana Shield Facility project that is a critical to the process. Simultaneously, as discussed earlier the enabling environment is being created in terms of forest inventories, institutional capacity building through education and training programmes, Monitoring, Reporting and Verification (MRV) at national and community levels, among other things.
- iii) The several policies and strategies (LCDS, PRSP, NDS, NEAP, NBAP I and II etc.) plus pieces of legislation (EPA Act, Forestry Act, Mining Amendment Regulations etc.) that have been developed over the years.
- iv) Recently developed institutional agreements such as the National Land Use Committee and MoNRE.
- v) The on-going land titling process²⁰ has enhanced the capacity for local communities’ involvement in natural resource management.
- vi) The already developed Concept Note for a Biodiversity Centre of Excellence, which will increase national research capacity, among other things.
- vii) The Grow More Campaign and initiatives taken by NAREI to develop crops that will be able to adapt to the changing climate and those with high adaptability to natural disasters such as flooding e.g. the development of rice varieties that are of superior quality, etc.
- viii) Development of alternative energy sources such as hydropower, wind power, bio ethanol (such as that to be developed by Ansa McAL), solar etc.
- ix) The *Environmental Protection Act of 1996* established an Environmental Trust Fund which shall be used to fund the operations of the EPA and for purposes authorized under the *Act* and includes: protecting the environment and conserving natural resources; incentive measures for reducing environmental pollution; public awareness and education programmes to enhance the understanding environmental protection and natural resources management issues in Guyana.
- x) The establishment of a Sustainable Development Council that will include representative the Ministry of Finance, the State Planning Unit, Women’s Affairs Bureau, among others to provide a holistic and national institutional framework for planning for a green economy and

²⁰ Amerindians own 14% (approximately 3 million hectares) of Guyana’s land area. To date 96 villages have titles to their lands, while 11 villages do not have.

- sustainable development. Alternatively, the already established Multi-Stakeholder Group can be expanded and could then function as the Sustainable development Council.
- xi) Increased investment social and human investments through the kind assistance of international financial institutions and agencies including the Global Environment Facility, the Global Mechanism, UNDP, German Development Bank, IDB, CDB, UNEP, PAHO/WHO, UNEP/CEP (include in Acronyms and Abbreviations) etc. to finance and provide projects which seek to further prudent natural resource and environmental management in Guyana.
 - xii) Fostering partnerships between government, private sector and local communities to address global issues such as climate change adaptation and mitigation through local actions.
 - xiii) The National Environmental Education Advisory Committee may be resuscitated to address issues related to public awareness, perception, knowledge and attitudes and actions in respect of sustainable development.
 - xiv) Investment in scientific knowledge (through research and development) to deal with risks related to natural disasters and climate change.

3.3 Success Factors related to the Strengthening of Guyana's Sustainable Development Agenda

Guyana's success in achieving a green economy (premised on the principles of sustainable development) is dependent on several factors. Chief among these are the following factors that have identified by stakeholders:

- i. The creation of new (green jobs) and additional jobs through re-skilling Guyanese to reduce heavy dependence on natural resource extraction and within the context of Guyana Poverty Reduction Strategy.
- ii. Guyana national water safety initiative to making water more accessible to people particularly in the hinterland areas and overall continued progress in the social sectors particularly in areas of education, health and housing²¹, in light of the Millennium Development Goals (MDGs).
- iii. Securing technical and financial support²² for the global service that Guyana forest offers to the world through maintained high forest cover and low deforestation rate.
- iv. Implementation of the National Forestry Plan that supports sustainable harvesting in the forestry sector.
- v. Greater enforcement of the Environment Protection Act, especially as it relates to the role of environmental impact assessments and implementation of Environmental Management Plans as an effective means to ensuring 'green growth'.
- vi. The completion of the Amaila Falls hydro-electric project as a form of renewable energy.
- vii. Sustained participatory processes that provide opportunities for citizen participation in the national development process.
- viii. Sustained reduced impact on the environment in areas such as forestry and mining.
- ix. Empowerment (through education and training) of more community organisations and local government bodies to be engaged in collaborative natural resource management.

²¹ The national housing initiatives promote the use of low cost materials by low income groups.

²² If effective financing is not secured there may be increased pressure to depend only on existing extractive activities to satisfy social and economic development, and this may in the long term impact on the rate of deforestation and forest degradation.

- x. Enhanced technical capacity in sector agencies and the newly created MoNRE to deliver integrated planning and decision making.
- xi. National consultations should be held periodically to analyse implementation of national plans etc. analyse gaps and take decisive actions;
- xii. Sustaining strong advocacy at the local, national and international level for the financial compensation for maintain standing forests; and
- xiii. More environmentally friendly social behaviour of the general public and of industry.

3.4 The Main Lessons Learned

Over the past 20 years, four main lessons have been learned:

- Success in sustainable development requires a fiscal between fiscal, social and environmental policies.
- Adequate and predicable financial support, plus sound scientific research are building blocks of sustainable development at the national level.
- Integrated planning, close coordination, strong collaboration, and effective communication across key natural resources sector agencies, and related partners (like the Ministry of Amerindian Affairs, NGOs, academic institutions) are pivotal to the goals of sustainable development; thus the establishment of national committees and the provision of resources to implement recommendations from such bodies are cornerstones of success.
- The support and involvement of civil society (youth, women, private sector, community groups etc.) in partnership with the GoG provides the institutional collaborative framework that will guarantee success.

3.5 Expectations of the UNCSD in strengthening support for Sustainable Development

At the very least, Guyana expects the following outcomes from the United Nations Conference on Sustainable development 2012.

- i) Declaration of a ‘renewed’ and unequivocal commitment to sustainable development, as the path to a secured future for present and future generations.
- ii) International commitment to the Climate Change Adaptation Fund (2013-2020) based on the Copenhagen Accord. Once funds (already committed) are dispensed to the relevant countries, including Guyana, major national infrastructural works can be undertaken to reduce Guyana’s coastal vulnerability to floods and meteorological droughts. The idea here is for Guyana to build its capacity to invest in projects that support a ‘no regret’ policy and are aimed at achieving longer term sustainable development goals.
- iii) Despite the seemingly on-going global recession, International finance institutions should make a commitment not to reduce AID funding tied to the achievement of the MDGs, as this will seriously affect sustainable human development (and in particular, poverty reduction) in Guyana.
- iv) Technical assistance to finalise critical pieces of legislation (for example the Environmental Protection (Export of Hazardous Waste) Regulations, 2001); promotion of sustainable energy in Guyana; to provide training opportunities to build human resource capacities in key sectors: agriculture, mining, forestry, health and water.
- v) Development of the infrastructure for Payments for Ecosystems Services in Guyana as the financial compensation will help provide alternative livelihoods for people who illegally remove the mangroves, overfish, or are employed as artisanal gold miners, among others.
- vi) Continued financial and technical support by international agencies to strengthen national efforts (policy implementation, enforcement of legislation etc.) to achieve sustainable development.

- vii) Provision of guidance by the UN system to promote sharing of lessons learned in other countries with best practices with regard to sustainable development and green economy with the knowledge that the two are mutually dependent.

Conclusion

Undoubtedly, Guyana has made laudable progress in the pursuit of sustainable development, albeit there are still challenges, as experienced in other small developing economies. The national approach to sustainable development in Guyana is based on a commitment to ensure the integration of the three pillars of sustainable development in the national policy framework: the economic pillar is entrenched in the PRSP with inputs from the NDS (which has virtually been subsumed under the PRSP); the social pillar is entrenched in some aspects of the PRSP, but more closely aligned to the achievement of the MDG's; and the environmental pillar is based on LCDS, which is supported by the NCSA reports and implementation plan, plus the NEAP (2001-2005).

The stock-taking report acknowledges that notable progress has been made in the achievement of the MDGs that help promote social sustainability. Moreover, Guyana's economic performance remains solid, and based on the country's natural resource endowment, together with improved governance systems, has potential for expansion into new areas created by the LCDS. At the institutional level, the natural resource and environment sector has now evolved into a new Ministry (the MoNRE) which will help in terms of coordination and ensuring that the country has a more integrated approach to natural resources management. The country has also advanced in respect of its obligations to the three major MEAs: UNCBD, UNFCCC and UNCCD. Significant progress has been made in the area of natural resource management, sustainable land management, and disaster risk reduction. Specifically, the development of policies, strategies, action plans and programmes, coupled with greater monitoring and enforcement mechanisms for activities in mining, forestry, and agriculture have helped reduced land degradation and natural resource depletion, as well as minimised conflicts among resource users. The creation of strategic level decision making committees supported by the LCDS provides a unified approach to the pursuit of a green economy.

With continued financial and technical support from international financial donors and the sustained involvement of civil society, Guyana will continue to develop progressively along a green economy trajectory.

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Appendix 1 Terms of Reference



Terms of Reference

United Nations Conference on Sustainable Development (Rio+20)

National Preparatory Process

Preparation of the Sustainable Development National Report for Guyana

Background

Guyana has elected to participate in the national preparatory process in advance of the United Nations Conference on Sustainable Development (UNCSD) to take place in Rio de Janeiro in June 2012.

The United Nations Department of Economic and Social Affairs (UNDESA) is planning to support multi-stakeholder consultations in advance of the Rio+20 Conference. As part of the consultative process the UNDESA will support a national consultation workshop in Guyana. The intention is to build national capacity to allow Countries to participate more fully in the Rio+20 process, as well as to ensure continuing efforts to implement the outcomes of the conference. Participants at the workshop will be drawn from Government, NGOs, Private Sector, and Donor Organisations.

The national preparation process consists of three consecutive and interlinked phases. All three phases will contribute to the preparation of an output document while building capacity on the issues.

These three phases are:

- A. The preparation of a stocktaking report based on interviews, consultations and desk review;
- B. The facilitation of a multi-stakeholder meeting to address the issues of the UNCSD; and
- C. The documentation of outcomes from both the stocktaking exercise and multi-stakeholder meeting in a national report by the consulting team.

Consultant Activities

Under the overall direction of UNDESA and guidance of the United Nations Development Programme-Guyana (UNDP-Guyana) and the National Focal Point for the UNCSD, the contracted consulting team, will undertake the following, and will ensure that all pertinent themes of sustainable development are integrated, including such themes as health and education:

A) Prepare a stocktaking report

The stocktaking report should include, where possible intermediate objectives and activities, indicators and institutional frameworks for achieving the sustainable development goals.

For the preparation of the stocktaking report, the consulting team will conduct any additional interviews and consultations with national stakeholders necessary for the extended work, starting and ending with the national CSD Focal Point. Through this consultative process, the consulting team will obtain relevant contextual information from a number of stakeholders in government and national major groups and donor organisations. Furthermore, any other relevant documentation of national strategies, plans, policies, capacity needs assessments, and practical experiences will be reviewed and synthesized by the consulting team. A list of guiding questions is in Annex 1.

From this process, the consulting team will prepare a 20-30 page stocktaking report that will feed into the discussions to take place during the multi-stakeholder meeting.

B) Conduct Multi-stakeholder consultative meeting

In collaboration with UNDP-Guyana, multi-stakeholder meetings will be organised by the consulting team to discuss and move towards consensus on a national assessment of progress, remaining gaps, experiences and opportunities pertaining to the themes of the UNCSA.

Success of the consultative meeting will depend highly on active participation of the attendees. Therefore, it is imperative to invite knowledgeable and senior representatives of the following stakeholder groups to the meeting:

- Ministries of Natural Resources and the Environment (MNR&E), Housing and Water, Finance, Amerindian Affairs, Guyana Energy Agency and, as appropriate, representatives from other Ministries and Commissions;
- International and national donor institutions; and,
- Organisations representing major groups such as women, farmers, youth, trade unions and others.

The consulting team will facilitate the national workshop and the proceedings of the meeting will be prepared by the consulting team and circulated as part of the draft national report to Rio+20.

The consulting team will prepare a workshop report. To facilitate preparation of this report, the Team shall include a rapporteur to cover workshop proceedings. The National Report shall be reviewed by the appropriate government agencies and the principal United Nations partners

C) Prepare a Draft National Report

A national report capturing the outcomes of both the stocktaking exercise and the multi-stakeholder meeting will be completed following the workshop. The questions that have been answered during these first two phases will now be presented in a succinct and focused manner. The report should address the UNCSA objective and the two new themes in the context of the traditional themes of sustainable development, the

present situation, experiences gained and aspirations of the country. The report should aim to provide a number of recommendations for the UNCSD. A list of guiding questions is in Annex 2. In addition, the Questionnaire for Member States on Experiences, Success Factors, Risks and Challenges with regard to Objectives and Themes of the UNCSD will guide the reporting.

The national report should:

1. Be a minimum of 20 pages, and be written in a clear, concise and readable manner;
2. Include a brief summary of the workshop;
3. Identify the key issues and barriers to addressing sustainable development including options for green economy, from the perspective of government, major groups and donors;
4. Propose institutional arrangements for sustainable development;
5. Focus on the proposed solutions to removing the identified barriers; and
6. Make recommendations to strengthen the national sustainable development agenda based on the multi-stakeholder dialogue and the outcomes of the workshop.

The report may be modified and adopted by the National Focal Point prior to submission to the UNCSD

Time Frame & Deliverables

The consulting team will deliver to UNDESA, UNDP and MNR&E the following:

- 1) First Draft the National Report, which includes an interim analysis and background no later than February 27, 2012
- 2) Workshop proceedings (report) – completed and submitted 2 weeks after the workshop or 16 March 2012
- 3) National Sustainable Development Strategy Report to be completed by March 27, 2012.

UNDESA contacts:

Latin America and Caribbean:

Thomas Hamlin, Technical Adviser, Division for Sustainable Development, hamlin@un.org

Appendix II Guiding Questions from UNDESA

- How can the new Ministry of Natural Resources and the Environment best integrate planning and decision-making to achieve sustainable development in Guyana?
- Has Guyana supported any of the Multilateral Environmental Agreements? Please list and provide details on responsible institution/Ministry, effect on policies and planning.
- What actions have been introduced in Guyana to strengthen political support for sustainable development? E.g. has the support to MEAs lead to sustainable development to be mainstreamed into development policies and planning?
- Has Guyana introduced or promoted integrated planning and decision making for sustainable development? If so, under what title (NSDS, PRSP, NCSA or NEAP, other)? What are the lessons from this experience?
- Are there specific industry sectors or resource areas (e.g., water, energy, biodiversity, transport, other) where national political commitment to achieve sustainable development goals has been especially strong? If so, what factors explain that commitment?
- Has national and local government in Guyana been actively involved in developing and/or implementing programmes/projects locally for Agenda 21? If so, where? What have the achievements been so far?
- What institutions have been developed for sustainable development in Guyana? Have changes been made to existing institutions in this context?
- Have the Ministry of Finance or important line ministries been engaged in public policy and planning for sustainable development? Is there for instance coordination across Planning, Health, Environment, Transport, and Energy agencies on transport and land use?
- What new and emerging challenges are likely to affect the prospects for sustainable development in the coming decade? What mechanisms have been put in place in Guyana to address these challenges: At the local level? At the national level?
- Is there a consensus among policy makers in Guyana on the meaning of the term green economy in the context of sustainable development and poverty eradication? If so, how is it defined?
- What would green economy mean in Guyana? Are there studies in Guyana that identify success factors, challenges or risks associated with green economy policies identified? Have green economy actions been taken so far in Guyana?

Appendix III List of Key Informants/Stakeholders

Name	Position	Organization
1. Ms. Aiesha Williams	Freshwater Coordinator	World Wildlife Fund- Guianas
2. Dr. Ashok Sookdeo	Director	Ministry of Health
3. Ms. Chrisel Shepherd	President	Ecotrust Society School of Earth & Environmental Science
4. Mr. Dale Beresford	Vice President	Guyana Trade Union Congress
5. Ms. Kim Halley	Treasurer	Guyana Trade Union Congress
6. Mr. Damian Fernandes	Natural Resources Specialist	Ministry of Natural Resources and the Environment
7. Mrs. Clydecia Spitzer	Multilateral Environmental Agreements Specialist	Ministry of Natural Resources and the Environment
8. Mr. Gavin Agard	Forestry Specialist	Ministry of Natural Resources and the Environment
9. Mr. Ashton Simon	Indigenous Relations Specialist	Ministry of Natural Resources and the Environment
10. Mr. Rawle Edinboro	Chief Planning Officer	Ministry of Housing and Water; Central Housing and Planning Authority
11. Ms. Fayola Azore	Planning Officer	Ministry of Housing and Water; Central Housing and Planning Authority
12. Mr. George Jervis	Permanent Secretary	Ministry of Agriculture
13. Mr. James Singh	Commissioner	Guyana Forestry Commission
14. Dr. Indarjit Ramdass	Executive Director	Environmental Protection Agency
15. Mr. Indranauth Haralsingh	Director	Guyana Tourism Authority
16. Ms. Jean Ramkhellawan	President	Guyana Association of Professional Engineers
17. Ms. Khadija Musa	Resident Coordinator/Resident Representative	United Nations/United Nations Development Programme
18. Dr. Lystra Fletcher-Paul	Guyana Representative	Food and Agricultural Organization (FAO)
19. Ms. Angela Alleyne	Assistant Representative-Programming	Food and Agricultural Organisation (FAO)

20. Dr. Marlene Cox	Vice Chancellor	University of Guyana, Turkeyen Campus.
21. Mr. Mohandatt Goolsarran	Director	Ministry of Education (National Centre for Educational Resource Development)
22. Mr. Navin Chandarpal	Advisor to the President on Sustainable Development, Science and Technology	Office of the President
23. Ms Patrice La Fleur	Executive Member Assistant Representative (Guyana)	Women Across Differences UNFPA Sub-regional office for the Caribbean/Guyana
24. Mr. Phillip DaSilva	Deputy Director	University of Guyana Tain Campus
25. Mr. Ramesh Dookhoo	Chairman	Private Sector Commission
26. Mr. Shyam Nokta	Head Advisor to the President on Climate Change	Office of Climate Change Office of the President
27. Mr. Wendell Alleyne	Environmental Manager	Guyana Geology and Mines Commission
28. Mr. Quincy Thom	Environmental Officer	Guyana Geology and Mines Commission
29. Mr. Darcy Waldron	Senior Environmental Officer	Guyana Geology and Mines Commission
30. Mr. Ryan Smith	Environmental Officer	Guyana Geology and Mines Commission
31. Mr. Yudhistir Prashad	Chairman	Water Users Association

Appendix IV Some Principles of the Rio Declaration on Environment and Development

- Principle 3** The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.
- Principle 4** In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.
- Principle 10** Environmental issues are best handled with the participation of all concerned citizens, at the relevant level.
- Principle 11** States shall enact effective environmental legislation. Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply.
- Principle 17** Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.
- Principle 22** Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices.

Appendix V Stakeholders' Views on newly created Ministry of Natural Resources and the Environment

- *The Ministry has a critical role in achieving a balanced approach to the utilization of the country's natural resources.*
- *An effective communication mechanism will be essential to this as well. Important will be the close collaboration of key agencies that have a role in forest utilization to bring into synergy these utilization activities to ensure that deforestation and forest degradation remains at a low level and that social and economic development take place at the same time to support the economy and local communities. This is already being implemented.*
- *The whole idea of the Ministry is for integrated planning and decision making. It could be an institution that can sit above all the various sectors and try to coordinate policy and decision making. The Ministry has to ensure that the planning in each sub- sector results in achieving this balance.*
- *The Ministry is responsible for the management of key sectors such as forestry and mining which have many challenges in relation to environmental protection and as such, has to ensure that the planning in each sub- sector results in achieving this balance.*
- *This Ministry is a good move since the various national environmental agencies would not be scattered here and there. Since they are all under one umbrella, they will be able to have synergies and information sharing so as to understand in the wider perspective what is happening as it relates to environmental issues.*
- *Now that there is the creation of the new Ministry , with respect to sustainable land management, stakeholders can work together, for example, the miner and forester can work together, and therefore, before the miner goes into an area the forester can take the economically viable trees before the actual mining takes place. Therefore, with these various projects, stakeholders can work together to achieve sustainability. With such integration, wastage can be prevented.*
- *Before the establishment of this Ministry, certain aspects of resource management were not targeted directly since there was little monitoring and evaluation as resources were utilized. With the establishment of the new Ministry we can measure to see whether or not there has been progress towards sustainability of our resources.*
- *This Ministry is a strategic move from the government. This means that there will be more focus on the natural resources and by extension on sustainable development; because sustainable development has been a core strategy for developing countries such as Guyana. This is for the general use of the resources that we have and for the practice of sustainable development. With the new Ministry, we can help to better coordinate activities of the country towards sustainable development. It's good that it covers mining, forestry etc. And now that the associated agencies are now under natural resources, protected areas are other projects can be well underway. So now that we have this Ministry, integrated planning can be achieved.*
- *The new Ministry brings a more focused approach to this area of natural resources and the environment, since it is concentrated in one person who would be able to guide policy, develop plans and work strenuously with international organizations and funding agencies to ensure we have a very sustainable approach to managing our natural resource such as plants and animals, gold and diamond mining, oil etc. By first integrating the different responsibilities of each line agency to ensure that existing overlaps in institutional mandates and operational mandates are removed.*