GUYANA’S REPORT

for the
Third International Conference on
Small Island Developing States

Final Draft

Government of Guyana

June, 2013
Acknowledgements

The Guyana Sustainable Development Bureau is highly appreciative of all the individuals and organisations that have assisted in the preparation of this report. We thank the Ministers, representatives of the Ministries, other Governmental agencies, Non-Governmental agencies and groups, private sector groups and international organisations. Special thanks are extended to the persons who participated at the Multi-Stakeholder Consultation on May 14, 2013.

We acknowledge the support provided by the United Nations Department of Economic and Social Affairs (UNDESA) and the United Nations Development Programme (UNDP) – Guyana Office. Special gratitude is extended to Ms. Khadija Musa, UNDP Resident Representative (Guyana) and Ms. Chisa Mikami, Deputy Resident Representative (Guyana).

We are grateful for the technical support provided by the Office of Climate Change, the Ministry of Natural Resources and the Environment and the Guyana Forestry Commission.

We express our deep appreciation to Ms. Gitanjali Chandarpal, Coordinator of Guyana’s preparations and report for the Third International Conference on SIDS; Mr. Andrew Bishop, Guyana’s Lead Negotiator on Climate Change; Mr. Brian Johnson, Administrative Assistant at the GFC, and the Consultant, Ms. Lucina Singh for their dedicated efforts in the completion of the Report.

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<tr>
<td>ADF</td>
<td>Amerindian Development Fund</td>
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<td>AOSIS</td>
<td>Alliance of Small Island States</td>
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<td>BCH</td>
<td>Biosafety Clearing House</td>
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<td>BPOA</td>
<td>Barbados Plan of Action</td>
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<td>CAP</td>
<td>Conservancy Adaptation Project</td>
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<td>CARICOM</td>
<td>Caribbean Community</td>
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<td>CCCCC</td>
<td>Caribbean Community Climate Change Centre</td>
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<td>CDC</td>
<td>Civil Defence Commission</td>
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<td>CDCC</td>
<td>Caribbean Development and Cooperation Committee</td>
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<td>CDM</td>
<td>Comprehensive Disaster Management</td>
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<td>CDPs</td>
<td>Community Development Plans</td>
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<td>CFL</td>
<td>Compact Fluorescence Lights</td>
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<td>CI</td>
<td>Conservation International</td>
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<td>CIDA</td>
<td>Canadian International Development Agency</td>
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<td>COP</td>
<td>Code of Practice</td>
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<td>CRFM</td>
<td>Caribbean Regional Fisheries Mechanism</td>
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<td>CSME</td>
<td>Caribbean Single Market Economy</td>
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<td>D&amp;I</td>
<td>Drainage and Irrigation</td>
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<td>DFID</td>
<td>United Kingdom Department for International Development</td>
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<td>DRM</td>
<td>Disaster Risk Management</td>
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<td>East Demerara Water Conservancy</td>
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<td>EEZ</td>
<td>Exclusive Economic Zone</td>
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<td>EITI</td>
<td>Extractive Industry Transparency Initiative</td>
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<td>ENSO</td>
<td>El Niño Southern Oscillation</td>
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<td>EP Act</td>
<td>Environmental Protection Act</td>
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<td>EPA</td>
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<td>EU</td>
<td>European Union</td>
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<td>EU-FLEGT</td>
<td>European Union’s Forest Law Enforcement Governance and Trade</td>
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<td>FAO</td>
<td>Food and Agriculture Organisation</td>
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<td>FTAs</td>
<td>Free Trade Agreements</td>
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<td>GATS</td>
<td>General Agreement on Trade in Services</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GEA</td>
<td>Guyana Energy Agency</td>
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<td>GEF</td>
<td>Global Environmental Fund</td>
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<td>GENCAPD</td>
<td>Guyana Environmental Capacity Development Mining Assistance Programme</td>
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<td>Guyana Forestry Commission</td>
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<td>Guyana Geology and Mines Commission</td>
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<td>GINA</td>
<td>Government Information Agency</td>
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<td>GIS</td>
<td>Geographic Information System</td>
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<td>Guyana Livestock Development Authority</td>
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<td>GLSC</td>
<td>Guyana Lands and Surveys Commission</td>
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<td>GMRP</td>
<td>Guyana Mangrove Restoration Project</td>
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<td>GoG</td>
<td>Government of Guyana</td>
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<td>GPAS</td>
<td>Guyana Protected Areas System</td>
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<td>GSA</td>
<td>Guyana School of Agriculture</td>
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<td>GWI</td>
<td>Guyana Water Incorporated</td>
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<td>HIPC</td>
<td>Heavily Indebted Poor Country</td>
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HWMAQ  Hazardous Wastes/Materials and Air Quality Management Unit
IBSE  Inquiry Based Science Education
ICT  Information and Communication Technology
ICZM  Integrated Coastal Zone Management
IDB  Inter-American Development Bank
IFM  Independent Forest Monitoring
INC  Initial National Communication
IUU  Illegal, Unreported, Unregulated
kW  kilo Watt
LCD  Low Carbon Development
LCDS  Low Carbon Development Strategy
LED  Light Emitting Diodes
M&E  Monitoring and Evaluation
MCYS  Ministry of Culture, Youth and Sports
MDG  Millennium Development Goals
MEAs  Multilateral Environmental Agreements
MOA  Ministry of Agriculture
MOAA  Ministry of Amerindian Affairs
MOFTIC  Ministry of Foreign Trade and International Co-operation
MOH  Ministry of Health
MONRE  Ministry of Natural Resources and the Environment
MOU  Memorandum of Understanding
MRVS  Monitoring Reporting and Verification System
MSE  Micro and Small Enterprise
MSI  Mauritius Strategy for Implementation
MSSC  Multi Stakeholder Steering Committee
MW  Mega Watt
NBF  National Biosafety Framework
NBSAPs  National Biodiversity Strategies and Action Plans
NCS  National Competitiveness Strategy
NCSA  National Capacity Self-Assessment
NDCs  Neighbourhood Democratic Councils
NDIA  National Drainage and Irrigation Authority
NDS  National Development Strategy
NEAP  National Environmental Action Plan
NGHO  New Global Human Order
NGOs  Non-Governmental Organisations
NHSS  National Health Sector Strategy
NREAC  Natural Resources and Environment Advisory Committee
NTFP  Non-Forest Timber Products
OAS  Organisation of American States
OCC  Office of Climate Change
ODA  Official Development Assistance
OLPF  One Laptop per Family
OPM  Office of the Prime Minister
PA  Protected Area
PAHO/WHO  Pan American Health Organisation/World Health Organisation
PAMS  Protected Area Management System
PEA  Public Education and Awareness
PRSP  Poverty Reduction Strategy Paper
PSPs  Permanent Sampling Plots
PUC  Public Utilities Commission
RCM  Regional Coordinating Mechanism
READ Rural Enterprise and Agricultural Development Project
REDD+ Reducing Emissions from Deforestation and Forest Degradation
RMMS Routine Maintenance Management System
S&T  Science and Technology
SD  Sustainable Development
SEES School of Earth and Environmental Sciences
SEFPs State Forest Exploratory Permits
SFPs State Forest Permissions
SIDS Small Island Developing States
SLM Sustainable Land Management
SNC Second National Communication
SVEs Small and Vulnerable Economies
SWITT Single Windows for Trade Transactions
TSAs Timber Sales Agreements
TTPDB Trade Transactions Public - Private Dialogue Body
UAEP Unserved Areas Electrification Programme
UG University of Guyana
UN United Nations
UNCBD United Nations Convention on Biological Diversity
UNCCD United Nations Convention to Combat Desertification
UNCED United Nations Convention on Environment and Development
UNCSD United Nations Conference on Sustainable Development
UNDESA United Nations Department of Economic and Social Affairs
UNDP United Nations Development Programme
UNEP United Nations Environment Programme
UNFCCC United Nations Framework Convention on Climate Change
USAID United States Agency for International Development
VPA Voluntary Partnership Agreement
WCLs Wood Cutting Leases
WFS World Food Summit
WTO World Trade Organisation
WWF World Wildlife Fund
1 Background

Guyana is a tropical country, situated on the north-eastern coast of the continent of South America between 1 degree and 9 degrees north latitudes, and 56 degrees and 62 degrees west longitudes. It is bounded on the north by the Atlantic Ocean, on the east by Suriname, on the south and southwest by Brazil and on the west by Venezuela.1

Guyana is considered part of the Caribbean through its historic ties and is a member of the Caribbean Community (CARICOM). Though located on the mainland, it is classified as a Small Island Developing State (SIDS) due to its low-lying coast. The country has an area of 214,970 km² and a multi-ethnic population of approximately 765,000.

Four main natural geographic regions exist in the country: the Coastal Plain, the Hilly Sand and Clay Region, the Highland Region, and the Rupununi Savannahs. The Coastal Plain lies about 1.4 m below mean high tide level and is protected by natural and man-made sea defences. It is 430 km long and varies in width from 5 to 40 km. Most of the population resides on the coastal plain which consists of the most fertile lands in the country.2

Guyana is well endowed with natural resources including fertile agricultural lands, diverse mineral deposits, and an abundance of tropical rain forests. The agriculture sector (mainly sugar and rice), for which 95% is concentrated on the coast, is one of the most important sectors to the economy, both in terms of foreign exchange generation and the number of persons employed accounting for 35% of the Gross Domestic Product (GDP) in 2004. Mining (gold, diamond and bauxite) and forestry also contribute significantly to the GDP which has continued to grow over the last decade.3

Guyana’s climate has traditionally been uniform and characterised by high temperatures, humidity and heavy rainfall with temperatures along the coast of an average high of 32°C and a low of 24°C; humidity is around 70% year round and rainfall averaging 250 cm annually with two rainy seasons on the coast (May-June and December-January) and one in the southernmost region (April-September). The major weather system is the Inter-tropical Convergence Zone and the major climate system is the El Niño Southern Oscillation (ENSO)4

Within the last decade, Guyana has experienced unpredictable changes in weather patterns characterised by severe El Niño in 1997-8 and extreme levels of precipitation on the coast in 2005 and 2006 resulting in widespread flooding along the coast to the extent that several areas were declared disaster areas.5

Guyana’s threats from natural disasters come mainly from flooding due to the low-lying nature of its coast.

1.1 Background on the Third Conference on SIDS

Guyana has undertaken preparations for the Third International Conference on SIDS.

The First Conference on SIDS, which was held in 1994, produced the Barbados Programme of Action (BPOA) while the Second Conference held in 2005, resulted in the Mauritius Strategy of Implementation (MSI) for the Further Implementation of the BPOA.

More recently, the United Nations Conference on Sustainable Development (UNCSD), also referred to as RIO+20, called for, “the convening in 2014 of a Third International Conference on SIDS”. The Conference seeks to:

a) Assess the progress to date and the remaining gaps in the implementation of the BPOA and the MSI building on, inter alia, existing reports and relevant processes;

b) Seek a renewed political commitment by all countries to effectively address the special needs and vulnerabilities of SIDS by focusing on practical and pragmatic actions for the further implementation of the BPOA and MSI, inter alia, through mobilisation of resources and assistance for SIDS;

c) Identify new and emerging challenges and opportunities for the sustainable development (SD) of SIDS and ways and means to address them including through the strengthening of collaborative partnerships between SIDS and the International Community; and

d) Identify priorities for the SD of SIDS for consideration, as appropriate, in the elaboration of the post-2015 United Nations (UN) development agenda.

1.2 National Preparations for the Third International Conference on SIDS

The Government of Guyana (GoG), with support from the United Nations Department of Economic and Social Affairs (UNDESA) and the United Nations Development Programme (UNDP) - Guyana Office, has facilitated national preparations for the Conference.

Guyana's national preparations took an approach where the process consisted of three major inter-linked phases. The phases include:

1. A stock-taking process to gather background information. Data was gathered through several sources including interviews, national reports and documents, policies, strategies and action plans, inter alia. Many sectors also provided updates on key areas. A background document was prepared after the stock-taking exercise to outline key areas related to the process.

2. A multi-stakeholder consultation was held on May 14, 2013 on issues related to the general objectives of the Conference. The background document was distributed to participants to assist in the discussions.

3. The preparation of a national synthesis report, to be used in the regional and global preparatory processes.
1.3 Report on the Multi-Stakeholder Consultation

The Multi-Stakeholder Consultation was held in Georgetown on May 14, 2013.

The event was attended by 70 participants who represented a wide range of stakeholders relevant to the SD process. These included representatives from various governmental, non-governmental organisations (NGOs), international organisations, academic institutions and private sector agencies.

The Consultation sought to discuss and have consensus on issues related to the expected outcomes of the preparation process; i.e. progress and gaps in the implementation of the BPOA and MSI; practical and pragmatic actions for further implementation; new and emerging challenges and opportunities for Guyana’s SD; and priorities for the post-2015 UN development agenda.

The main segments of the Consultation included:

i) Remarks by Mr. Navin Chandarpal, Adviser to the President on SD, Science and Technology (S&T)
ii) Remarks by Ms. Khadija Musa, UNDP Resident Co-ordinator
iii) Remarks by Honourable Robert Persaud, Minister of Natural Resources and the Environment
iv) Presentation on the Issues by Mr. Navin Chandarpal
v) Presentation on the main thematic areas of the BPOA and MSI by Ms. Gitanjali Chandarpal, Coordinator of Guyana’s Preparations and Report for the Third International Conference on SIDS
vi) Discussions moderated by Mr. Andrew Bishop, Guyana’s Lead Negotiator on Climate Change

During the discussion segment of the Consultation, participants provided comments, raised issues and identified recommendations in relation to the expected outcomes of the process. The key points raised are listed in Appendix 1.
Speakers and Participants at the Multi-Stakeholder Consultation

Hon. Robert Persaud

Ms. Khadija Musa

Mr. Navin Chandarpal

Mr. Andrew Bishop

Ms. Gitanjali Chandarpal

Participants at the Workshop
2 Guyana’s Socio-Economic Context

Guyana remains primarily an agricultural and resource based economy in terms of its production base, but its GDP is now more heavily weighted in an expanding services sector with a combined services average of 60% plus of the GDP in 2010.6

Domestic macroeconomic stability remains challenged by external conditions, including persistent sloth in the global economic recovery and volatile commodity prices. High prices for imported commodities especially oil, and unfavourable movements in prices for exported commodities such as minerals and certain food items complicate the achievement of sustained growth and stability. (PRSP, 2011)7

Over the past decade, increasing efforts have been made to diversify Guyana’s economy, for example through ecotourism and aquaculture. Additionally, efforts have been made to modernise traditional sectors (agriculture, especially the sugar industry) to improve economic productivity over the long term.8

Guyana has made good progress towards eradicating extreme poverty and hunger. Guyana’s Millennium Development Goal (MDG) Report (2011) has indicated that the country has met the target of halving the proportion of people who suffer from hunger and has improved its performance in reducing poverty and increasing employment.9

The Report indicated that nutrition levels have improved; malnutrition among children was 11.8% in 1997 and in 2008, data showed that 6% of under-five children in 2008 experienced mild to moderate malnutrition and less than 1% suffered severe malnutrition. There have also been substantial improvements in access to sanitation.10

Guyana records overall steady progress towards the MDG of combating HIV/AIDS, malaria and other diseases.11 (See Box 1)

Access to adequate and affordable shelter remains a priority for the country. Government has distributed approximately 82,000 house lots between 1993 and 2009, and continues to prioritise the expansion of access to housing to the lowest income groups.12

Guyana is among 18 countries which have met the MDG Goal 1 to halve the proportion of hungry people (between 1990-92 and 2010-2012). For this achievement Guyana received an Award from the FAO on June 16, 2013.

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Guyana has made very good progress towards promoting gender equality and the empowerment of women. (Guyana’s MDG Report, 2011)\textsuperscript{13}

Overall, the lack of adequate and predictable financing has been, and still, is an important constraint in meeting the MDGs. The flow of resources from developed to developing countries, including Guyana, has simply not been sufficient to support the achievement of the MDGs. (Guyana’s MDG Report, 2011)\textsuperscript{14}

**Box 1: Guyana’s Progress in combating HIV/AIDS, malaria and other diseases**

(Guyana’s MDG Report, 2011)

- Prevalence of HIV/AIDS in the population decreased from 7.1\% in 1995 to 1.1\% in 2009.
- Access to antiretroviral drugs has more than quadrupled in five years, representing an increase from 18.4\% in 2004 to 83.5\% in 2009.
- Prevalence of malaria decreased from 5,084 per 100,000 persons in 2005 to 1,541 per 100,000 persons in 2008.
- Prevalence of tuberculosis shows tentative signs of a decline with a reduced death rate of 15.7 per 100,000 persons in 2004 to 11.1 per 100,000 in 2008.


3 Guyana’s Framework on Sustainable Development and SIDS

At the UN Conference on Environment and Development (UNCED) in 1992, Guyana expressed its full commitment to the RIO Declaration and Agenda 21. In 1993, the Cabinet created the Natural Resources and Environment Advisory Committee (NREAC) to coordinate Guyana’s implementation of the RIO Conventions - the UN Framework Convention on Climate Change (UNFCCC), the UN Convention on Biological Diversity (UNCBD) and the UN Convention to Combat Desertification (UNCCD), and the overall management of the country’s natural resources. This was followed by the development of the first National Environmental Action Plan (NEAP) in 1994 and the development of national policies for key sub-sectors.

Simultaneously, there were major initiatives to revive the economy and advance social welfare with the aim of alleviating poverty and creating better living conditions for the people.

In subsequent years, the main elements of Guyana’s SD path were expressed in a number of National Policy Initiatives. The major ones are listed below:

- The National Development Strategy (NDS)
- The Poverty Reduction Strategy
- Implementation of the MDGs
- The Low Carbon Development Strategy (LCDS)
- The National Competitiveness Strategy (NCS)

Many national institutions, policies and programmes and projects that have been developed over the years have helped Guyana to achieve its SD objectives in relation to the three pillars of SD – economic development, social development and environmental protection. A key institution to that effect is the Environmental Protection Agency (EPA), which was established in 1996 to oversee the effective management, conservation, protection and improvement of the environment.

More recently, in 2011, the Ministry of Natural Resources and the Environment (MONRE) was created to further strengthen the management of natural resources and environmental governance.

To provide effective coordination of SD initiatives in Guyana, the National SD Bureau was created in 2013. The Bureau is chaired by the President of Guyana and involves relevant Ministers and Heads of Agencies. It facilitates stakeholder involvement through the National SD Forum.

3.1.1 National Development Strategy

In 1993, Guyana started preparation of its NDS. Its formulation was truly participatory, with the involvement of over 200 professionals from Government and civil society, including NGOs, the business community and University of Guyana (UG), working in over 23 technical groups.

During its preparation, and after the completion of the first draft in 1996, its formulators visited several regions of Guyana to learn about the people’s wishes, hopes and aspirations directly from them, and to obtain ideas for the solution of their local problems. The NDS was subsequently revised and updated in 1998 and 1999, by an independent group of members of civil society, then tabled in Parliament in August 2000 and again in August 2001.
3.1.2 Poverty Reduction Strategy Paper

The Poverty Reduction Strategy Paper (PRSP) is directly linked to the NDS in the areas of economic policy, good governance, infrastructure development and improvement in social services with the objective of reducing poverty. However, the NDS has limitations which are addressed in the PRSP. The NDS is a strategy for development that spans a 25-year period and contains broad and general ideas of the way forward. However, it does not contain an action plan for implementation; costing; financing requirements; and sources of financing. In contrast, financing is available for the implementation of programmes in the PRSP. The PRSP not only provides a strategy for poverty reduction in the medium term but also sets priorities and provides an action plan for implementation.

Like the NDS, the PRSP was developed through a broad consultative process. The process of public consultations was launched on June 18, 2001 with over 200 consultations, consisting of 109 community consultations, 98 target group consultations and more than 8,400 participants from each of the 10 regions of Guyana.15

A revised PRSP was prepared for the period 2011-2015. This revised PRSP rests on the following pillars: broad-based, low-carbon led job creation economic growth; accelerated investment in physical infrastructure in support of growth strategy; stronger governance, institutional, and regulatory structures; accelerated investment in human capital and primary health; and special intervention programmes to address regional and demographic pockets of poverty.

3.1.3 Implementation of the MDGs

Guyana has produced three reports on the status of implementation of the MDGs in 2003, 2007 and 2011. These reports indicate that there is continuous progress in reaching these goals and highlight measures to achieve greater levels of success.

3.1.4 Guyana’s Low Carbon Development Strategy

In June 2009, the GoG launched its LCDS; a national strategy which seeks to create a low deforestation, low carbon, climate resilient economy with the major objective of transforming the economy of Guyana while combating climate change.

A major pillar of the LCDS is the conservation and sustainable management of Guyana’s forests in an effort to reduce global carbon emissions and at the same time attract payments from developed countries for the climate services that the forests provide to the world, which will be invested to foster growth and development along a low carbon emissions path.

Guyana’s LCDS is an integrated strategy which encompasses each of the three pillars of SD. It aims to mainstream SD initiatives, including efforts to combat climate change, reduce climate related risk and propel implementation of measures to adapt to climate change.

The LCDS is based on national development needs and priorities, and was developed through a national consultation exercise during which vulnerable groups such as indigenous peoples, forest users and dependent communities, women and youth were engaged in the development of the strategy. A Multi-Stakeholder Steering Committee (MSSC) was established to oversee and guide the implementation of the LCDS.

Guyana is working along with a number of partners to support the implementation of the LCDS. The Guyana-Norway partnership has been one of the main catalysts in moving the LCDS from its development to implementation. Guyana and Norway signed a Memorandum of Understanding (MOU) in 2009 in which Norway committed to providing financial support of up to US$250 million by 2015 for results achieved by Guyana in limiting emissions from deforestation and forest degradation, which will support the implementation of Guyana’s LCDS. As of December, 2012, contributions from the partnership totalled US $115 million.

The LCDS is in its implementation phase. In March, 2013, an addendum to the LCDS was launched indicating new projects and initiatives to be implemented.

3.1.5 National Competitiveness Strategy

The NCS is a partnership between the Government and Private Sector which recognises the dual responsibilities that each must play in delivering enhanced national competitiveness and greater economic growth. It is the expression of the need for a practical, action-orientated, solution-driven approach to working that is embedded in a close collaborative relationship between Government and the Private Sector.\textsuperscript{16}

**Key components of the Policy include:**

- **Core Policies** which are economy wide measures aimed at cutting across most sectors of the economy and improving competitiveness.
- **Sector Policies** which are sector strategies to address the particular obstacles and opportunities facing enterprises on a sector specific basis.
- **Strategic Sub-Sector Policies** that aim to target centres of dynamism which provide the greatest opportunities for growth and diversification therefore avoiding the spreading of effort and resources too thinly.

4 Progress to date and the remaining gaps in the implementation of the BPOA and MSI

4.1 Climate Change and Sea-level Rise

Guyana has signed and ratified the UNFCCC and acceded to the Kyoto Protocol. The country has taken proactive steps to support the implementation of the Convention. Guyana prepared its Initial National Communication (INC) to the UNFCCC in 2001 and the Second National Communication (SNC) in 2012. The preparation of the Third National Communication has been initiated.

The Office of Climate Change (OCC) was established within the Office of the President in 2009 to coordinate all climate change activities. Previously, a National Climate Unit was established within the Ministry of Agriculture (MOA) in 2007 to coordinate such activities.

As noted, Guyana’s LCDS, which was launched in 2009, is as a national strategy which seeks to create a low deforestation, low carbon, climate resilient economy with the major objective of transforming the economy of Guyana while combating climate change. It was developed through a broad based consultation and was updated in 2013.

The development and implementation of the LCDS remains one the most significant steps taken to address climate change.

Under the upcoming ‘Climate Resilience, Adaptation and Water Management Initiatives’ of the LCDS, up to US$100 million will be allocated to improve Guyana’s capacity to address climate change. It will likely include some or all of the following measures:

- Upgrading infrastructure and assets: This will help to protect against flooding through urgent, near-term measures (See Natural and Environmental Disasters section).
- Hinterland Adaptation: This will include the development, reproduction and distribution of plant varieties and crop management techniques that are suitable for Hinterland communities, thereby ensuring the sustainability and further development of their livelihoods. In addition, all-weather roads and bridges and new drainage and irrigation (D&I) systems will be constructed, with a focus on particularly vulnerable areas.
- Adaptation Readiness Programme: This is expected to support initiatives aimed at significantly revamping Guyana’s early warning system and improving the timely and accurate collection and dissemination of data and information on weather-related events and their impacts on the ground.

A key project under the LCDS relates to ‘Supporting High Potential Low Carbon Sectors’. Building on the priority diversification opportunities identified in Guyana’s NCS, up to US$30 million will be allocated to assist in the development of priority low carbon sectors.
Overall, significant progress has been made in addressing climate change adaptation and mitigation in Guyana. Many sectors have already begun to integrate policies, plans and programmes that address different aspects of climate change.

Many public awareness, education and training programmes and activities on climate change have been implemented. An LCDS Stakeholder Education, Awareness and Outreach Plan has been developed.

Progress has been made in the area of Reducing Emissions from Deforestation and Forest Degradation Plus (REDD+) and in improving the energy sector. Several climate change studies, plans and vulnerability assessments were done to examine options for mitigation and adaptation.

At the international level, Guyana has played a key role in the UNFCCC negotiations on REDD+, as well as in the interim REDD+ Partnerships. The country also works along with negotiating groups such as the Coalition for Rainforest Nations and the Alliance of Small Island States (AOSIS).

Guyana has initiated a series of bilateral partnerships to build capacity to address climate change and the wider areas of the LCDS, for example, the Guyana-Norway partnership. The country also works along with several local, regional and international organisations such as the Caribbean Community Climate Change Centre (CCCCC).

The Hydro-meteorological Service continues to observe and archive Guyana’s weather and climate and provide meteorological information. New projects and initiatives have been implemented including a Doppler digital radar which was set-up to improve weather monitoring and forecasting in Guyana. Through the support of regional institutions such as the CCCCC, automatic hydro-meteorological stations were procured.

Guyana, like other developing countries, faces a number of challenges in implementing its obligations under the UNFCCC. These challenges include the availability of resources - technical, physical and financial - to put in place adequate measures to mitigate the causes and, more importantly for Guyana, the consequences of climate change. (Guyana’s SNC, 2012)17 Despite these challenges, Guyana has made significant strides in addressing climate change.

**Sea-level rise**

Sea-level rise is one of the major effects of climate change for Guyana. The country’s coast where approximately 90% of the population resides is about 0.5 to 1m below mean sea level and is highly prone to flooding. Therefore sea defences and D&I need to be significant and continuous investments. (PRSP, 2011)18

A systemic programme has been executed to strengthen and maintain sea defence structures. A Shore Zone Management System for monitoring, planning and management of the coastal zone is being implemented, and a new Sea and River Defence Policy was developed to streamline government actions in this area.

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Capacity building initiatives include training of staff in surveying, data management and mangrove management. A Geographic Information Systems (GIS) unit has been set-up to support the assessment of the sea defence structures and roads.

Several other key initiatives have been developed in partnership with other sectors. (see Natural and Environmental Disasters section)

4.2 Natural and Environmental Disasters

Guyana has experienced several disasters over the years that were mainly due to flooding. The country is highly vulnerable to increases in the incidence of these floods in light of the anticipated impacts of climate change.

In January-February 2005, Guyana experienced the highest rainfall record since 1888, which resulted in the most severe flooding in the country's history. These rains were not associated with the usual weather systems affecting Guyana, but rather with influences from the southern hemisphere. (ECLAC, 2005)\(^1^9\)

A combination of extended heavy rainfall, malfunctioning drainage structures, and high tides contributed to the accumulation of between three and five feet of water in some areas.\(^2^0\)

The disaster claimed the lives of 34 persons\(^2^1\) and affected 62% of the total population. Severe damages were estimated at 60% of the GDP of 2004.

The Civil Defence Commission (CDC), the national disaster management organisation in Guyana, has embarked on a Comprehensive Disaster Management (CDM) programme. The reform process will involve among other measures, the revision of the outdated National Disaster Preparedness Plan, implementing disaster preparedness legislation and upgrading infrastructural facilities.


The CDC has developed several policy documents and plans, and has undertaken several key initiatives to support disaster management. These include: initiatives to support the strengthening on national and local capabilities for Disaster Response and Risk Reduction; a Damage Assessment and Needs Analysis Plan, Policy and Framework; a draft Integrated Disaster Risk Management Plan and Strategy; a Strategic and Implementation Plan for the CDC; a National Early Warning Systems Protocol; a National Programme of Action; a National Multi-Hazard Preparedness and Response Plan (2012); a National Flood Preparedness and Response Plan; a Disaster Risk Management Policy Document; and an Environmental Management Plan and Health Sector Emergency and Management Plan.


Flood management remains one of the most important areas in disaster management. As shown above, several Disaster Risk Management (DRM) initiatives are being implemented to support flood management. Structural measures are being implemented to reduce the impacts of flooding in Guyana. These include the construction of canals, improvement of sea defence structures, and the restoration of mangroves along the coast.

Investments have been made in procuring equipment for maintenance and improvement of D&I systems and rehabilitation works were carried out for about 1500 miles of canals/drains, 300 structures and 120 miles of earthen embankment. (PRSP, 2011)²²

The National Drainage and Irrigation Authority (NDIA) has been upgrading its infrastructure to cater for 2.5 inches and above rainfall. The economic cost of these activities is extremely high.

The LCDS will support the upgrading of infrastructure and assets to protect against flooding through urgent, near-term measures. The Cunha Canal Rehabilitation Project will improve the ability of the GoG to manage water resources in the East Demerara Water Conservancy (EDWC). Another key project being implemented to support flood management is the Conservancy Adaptation Project (CAP).

### 4.3 Management of Waste

One of Guyana’s major environmental challenges is solid waste management.

The Georgetown Solid Waste Management Programme is a major initiative to improve waste management. It has been on-going since 2007 and its main components include: rehabilitation, expansion and closure of the Le Repentir²³ landfill; treatment and disposal of health and hazardous waste; a study on healthcare and hazardous waste and acquisition of technical equipment; a community participation and public awareness programme; waste collection and disposal from participating Neighbourhood Democratic Councils (NDCs); design, construction and operation of the Haags Bosch Sanitary Landfill; and institutional strengthening and capacity building for solid waste management.

Several policy documents, plans and legislation guide waste management in Guyana (see Box 2).

Currently there is a Draft Solid Waste Act awaiting formal adoption. Additionally, draft Litter Regulations have been developed under the EP Act.

Several programmes have been developed to increase public awareness on improved solid waste management practices. For example, the EPA’s “Pick-It-Up” campaign serves as a clean-up drive.

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²³Formerly known as Mandela.
The EPA has created the Hazardous Wastes/Materials and Air Quality Management Unit (HWMAQ) to increase public awareness on the management of toxic substances, inter alia. Another key step to address hazardous waste management was Guyana’s accession to the Convention for the Control of Transboundary Movements of Hazardous Wastes (BASEL) on April 4, 2011.

As it relates to the mining sector, the Mining Act and Regulations require all scales of miners to adhere to strict provisions on environmental protection and safe mining techniques which include improved waste management techniques. Several Codes of Practice (COPs) were developed for small-scale and medium-scale mining and cover several areas including mine waste management and disposal and tailings management. (Refer to the Land use section for further details)

Some of the major constraints faced in waste management include: incomplete development of national policy and strategic plans on integrated waste management; limited technical capacity in the waste management field, limited financial resources to implement initiatives; and gaps in planning solid waste management projects resulting in delays and poor execution.

Stakeholders\(^{24}\) have suggested that waste water management needs to be specifically addressed effectively.

### 4.4 Coastal and Marine Resources

Guyana’s coast is home to most of the population and supports a number of economic activities due to the diversity of the coastal and marine ecosystem.

Consequently, degradation of water quality due to contamination from solid and other wastes and excess targeting of certain fish species are among the biggest threats affecting these resources.

There are many policies, plans, strategies and legislation (see Box 3) that pertain to coastal and marine resources; in fact many of the initiatives pursued in managing biodiversity resources and natural and environmental disasters have positive effects on coastal and marine resources.

A number of initiatives that have been undertaken to protect coastal and marine resources include: programmes to reduce habitat destruction and associated impacts on coastal resources; effective management of Guyana’s coastal biodiversity to minimise and prevent the destruction of coastal

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\(^{24}\) Multi-Stakeholder Consultation (May 14, 2013) in preparation for the Third International Conference on SIDS.
habitats and protect Guyana’s coastal biological diversity; and promotion of sustainable initiatives in the marine and inland water resources sector.

Some major activities pursued to facilitate an integrated approach to managing the countries coastal and marine environment include:

- Development of the Integrated Coastal Zone Management (ICZM) Plan and formation of an ICZM Committee;
- Implementation of the Shore Zone Management System to better monitor, plan and manage the coastal area; and
- Execution of a number of hydrographic surveys.

Mangroves

The essential role that mangroves could play in the defence of the coastal zone, their role in carbon sequestration, and the increased risks posed by the predicted rise in sea level and the rising cost of maintenance of the sea defence structure have prompted a commitment on the part of the GoG to support the conservation, restoration and protection of the mangrove forest.

In 2010, the Minister of Agriculture through provisions of the Guyana Forestry Act declared all species of mangroves in Guyana as “Protected Trees”; a fine is imposed for the illegal cutting of the trees.

In the same year, a National Mangrove Management Action Plan was developed to support the protection, rehabilitation and effective management of Guyana’s mangrove ecosystems. To support the implementation of the Action Plan, the Guyana Mangrove Restoration Project (GMRP) was set up in 2010. It supports the areas of administrative capacity development, research, community development and capacity building, mangrove restoration (replanting), monitoring, and awareness and education.

Some of the major achievements in mangrove management thus far include: the formation of a Mangrove Action Committee; development of a mangrove monitoring plan and a GIS based monitoring system; construction of a geotextile breakwater facility; and public awareness programmes.

Additionally, in 2011, Shell Beach which has the largest intact stretch of mangroves on Guyana’s Coast was declared a Protected Area.

Although, many initiatives are underway, there are several prevailing issues that affect effective mangrove management. These include the following:

- The need for a coherent policy or strategy for management;
- Limited legislation and enforcement to protect mangroves;
- Inadequate resources to promote public awareness, education and training activities;
- Inadequate capacity to extend research and data collection;

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• Limited assessments or inventories of mangrove resources; and
• Limited coordination of mangrove management activities.

**Fisheries**

Guyana is a party to the UN Convention on the Law of the Sea and the Food and Agriculture Organisation (FAO) 1993 Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas.

Being a member of the Caribbean Regional Fisheries Mechanism (CRFM) has afforded Guyana the opportunity to participate in the yearly scientific meetings and to also conduct assessments of the country’s Seabob stocks (a shrimp species of great economic importance). Guyana endorsed the CRFM’s Castries Plan of Action and the Common Fisheries Policy.

The Fisheries Department of the MOA is engaged in several initiatives including on-going training activities to improve the management of fisheries resources. Some of the initiatives include:

• Updating of the Marine management plan with emphasis on the FAO Code of Conduct on Responsible fisheries.
• Working towards Marine Stewardship Council Certification for the Seabob industry. Several training and awareness programmes were carried out to support this initiative.
• Aquaculture production techniques training facilitated by the Guyana-Brazil Technical Cooperation programme.
• Negotiations with the industrial fleet. It envisioned that by the end of 2013, monitoring systems would be in place.

Some specific constraints as it relates to fisheries management include: limited resources; limited specialised staff in the field; limited capacity to conduct research and stock assessments for marine fisheries; limited monitoring of the Exclusive Economic Zone (EEZ); traceability issues; and Illegal, Unreported, Unregulated (IUU) Fishing.

**General Constraints**

The overarching issue with coastal and marine resources management in Guyana is that even though it is included in national policy there is not enough focus on this area. Additionally, the following issues compound the situation: inadequate human resource capacity; limited technical and financial resources; limited capacity to update national inventories of coastal and marine resources; inadequate resources to control and prevent anthropogenic activities that impact negatively on coastal resources; lack of a comprehensive coastal and marine resources legislation; and inadequate enforcement and implementation of legislation.

**4.5 Freshwater Resources**

Vast improvements in access to safe drinking water have been made, which place Guyana ahead of its MDG target. (See Box 4)
Survey data in 2006 found that 91% of households had access to safe drinking water when compared to 83% in 2000, and an estimated 50% in 1991.\textsuperscript{29}

Over the years the focus in the water sector has been on technical measures such as the construction of new treatment plants; drilling of new wells; upgrading of distribution networks and sewer system rehabilitation.

Investments have also been made in the Hinterland to improve access to potable water. Initiatives include the installation of photovoltaic pumping systems and the construction of trestles and potable water wells. Access to potable water is now at 71% for hinterland communities.

The major pieces of legislation governing fresh water resources are the EP Act (1996), the Environmental Protection (Water Quality) Regulations (2000) and Water Act (2002).

A National Water Council is responsible for the development and oversight of implementation of the National Water Policy and the Integrated Water Resources Management Plan.

The Ministry of Housing and Water has overall responsibility for the water and sanitation sector. However, the provision of water and sewer services throughout the country has been delegated to the Guyana Water Incorporated (GWI) with policy direction and oversight provided by the Ministry.

The Public Utilities Commission (PUC), a multi-sectoral regulatory body, is charged with overseeing issues of price and quality of services provided by all public utilities.

Several other agencies directly involved in the water and sanitation sector in Guyana include: the Hydro-meteorological Service, EPA, Ministry of Health (MOH), Ministry of Local Government and Regional Development and the MOA. The EPA continues to manage pollution control, while the Hydro-meteorological Service monitors the quantity, quality and abstraction rates of Guyana’s surface and groundwater resources.

Even though there have been many achievements in the sector, many issues still exist. Stakeholders\textsuperscript{30} have identified the following major gaps:

- There is no strict legislation to safeguard freshwater, coastal and marine resources, and watershed management; and
- Absence of finalised national standards to govern effluent discharge to support regulations.

### 4.6 Land Resources

Guyana is highly endowed with flat and fertile land resources which make it one the primary agricultural producers in the Caribbean. To administer its vast land resource, the Guyana Lands


\textsuperscript{30}Multi-Stakeholder Consultation (May 14, 2013) in preparation for the Third International Conference on SIDS.
and Surveys Commission (GLSC) was established by statute. The GLSC has developed modern and automated systems for land administration, surveys, and computerised mapping. The Commission has also executed a countrywide programme of land tenure regularisation, providing security of tenure for thousands or rural households, and developed lease arrangements that foster gender equality. A Dispute Resolution Committee has also been set-up to address land tenure issues.

The GLSC is currently implementing a ‘Development of Land Use Planning’ Project, which entails the preparation of a Draft National Land Use Plan and four regional land use plans. The Commission is also engaged in the following: review of legislation on land use planning and drafting of land use regulations; upgrading of a lease management system and cadastre; use of GIS to provide estimates of available land, land based resources and present land uses; updating of topographic maps; and capacity building for staff in the areas of GIS and remote sensing and database management.

In the area of land management, Guyana ratified the UNCCD on September 24, 1997. Guyana prepared its first, second, and third National Communication to the UNCCD and in 2006 prepared its National Action Programme to Combat Land Degradation. Key land degradation issues facing Guyana include those related to floods and droughts; salt water intrusion along Guyana’s coast; and issues related to natural resource utilisation in the mining, forestry and agriculture sectors.

A Capacity Development and Mainstreaming for Sustainable Land Management (SLM) project was successfully executed under the UNCCD, with interventions in capacity building, mainstreaming, investment studies, and adaptive management.

The main constraints facing the GLSC include inadequate funding to support the upgrading of equipment and software and to support the continuous training of staff in technical skills.

4.6.1 Mining

The Guyana Geology and Mines Commission (GGMC) is responsible for monitoring and enforcing the Mining Act and Regulations in all mining concessions and operations.

The Mining Act (1989) is the main legislative instrument for managing mining in Guyana, including associated health and safety and environmental impacts. It allows for three scales of operation based on area: small, medium and large. Mining activities are also influenced by the Amerindian Act (2006) and the EP Act, inter alia.

While mining has had positive impacts on the economy and national development, the industry has also been responsible for a number of environmental and socio-economic impacts.

In March 2005, new mining regulations on the environment were enacted and they require all scales of miners to adhere to strict provisions on environmental protection and safe mining techniques. For small and medium scale operations, particular features include: the required use of mercury in closed circuits; the submission of environmental management plans as well as contingency and response plans; the rehabilitation of mined out sites; and the required use of settling ponds.

In 2003, several detailed COPs for the small-scale and medium-scale mining industry were prepared under the Guyana Environmental Capacity Development Mining Assistance Programme

31A Mining Information Toolkit for Guyana. 2012.
(GENCAPD) project covering 6 areas including: Mercury Use, Mine Reclamation, Mine Effluents, Contingency and Response Plans, Mine Waste Management and Disposal, and Tailings Management. These COPs are linked to the environmental regulations. The GGMC is starting to make these developed COPs a part of the toolkit of every mine operator.

The country is building upon national standards, by engaging with international bodies such as the Extractive Industry Transparency Initiative (EITI)\textsuperscript{32}. In May 2012, the GoG and the EITI signed an MOU, and an EITI scoping study started subsequent to this. Guyana intends to submit an application to EITI after this study.

The GGMC has increased its monitoring and enforcement activities and has put measures in place to have officers stationed at strategic locations throughout all of the mining districts in Guyana.

Support is given to miners through technical assistance and guidance, alongside the establishment of miners’ committees to facilitate the process. GGMC has developed programmes to build institutional capacity in environmental management. Plans are underway to develop a mining school to promote sustainable mining and will emphasise increased environmental awareness of miners.

The Government has prioritised stronger enforcement and sustainability standards to prevent mining from causing environmental degradation and excessive forest loss. A Special Land Use Committee was established in 2012 to co-ordinate cross-sectoral planning on sustainable land use, and to give guidance for harmonising Mining and Forestry in the context of the LCDS.

GGMC is also working in collaboration with the Guyana Forestry Commission (GFC) and other relevant agencies to reduce deforestation and to promote the rehabilitation of mined out sites via landscaping and re-vegetation.

4.6.2 Forestry

Guyana’s forest covers approximately 85\% of the country, estimated at 18.39 million hectares, and contains over five Gt CO\textsubscript{2} in above ground biomass (GFC, 2011). Guyana has maintained a deforestation rate below the range of 0.02\% and 0.056\% over the past 20 years, even though logging, mining, agriculture, and infrastructure related activities have been on-going for centuries. This is mainly attributed the sustainable nature of forestry operations.

The GFC is the lead agency in forest management and has been improving the dynamics of sustainable forest use through its roles in environmental protection and awareness, scientific research and combating climate change through REDD+.

The GFC allocates state forest land for sustainable timber production via Timber Sales Agreements (TSAs), Wood Cutting Leases (WCLs) and State Forest Permissions (SFPs). State Forest Exploratory Permits (SFEPs) are allocated mainly for exploratory purposes.


The key policies enforced within the forestry sector in accordance with existing legislation are: the National Forest Policy Statement 2011 and the National Forest Plan 2011. These were revised to reflect the dynamic thrust of forestry in Guyana and cover areas of forest monitoring and forest management, as well new and emerging areas such as REDD+, and new bilateral and multi-lateral cooperation.

The GFC monitors and regulates the activities of forest concessions to ensure that strict sustainable forest management rules and guidelines are implemented and that forest legislation is implemented effectively by operators.  

One of the most advanced technical successes within the forestry sector is its work on REDD+ to advance the LCDS and to secure payments for forest carbon through a REDD+ mechanism. The GFC conducted technical work to support the LCDS including assessments under Monitoring Reporting and Verification Systems (MRVS) and REDD+ Readiness.

The Government has prioritised building a foundation of strong regulations and standards enforcement, so that industry growth in the years ahead will be built from a base that can meet emerging global demand for high quality products.

Since the LCDS was launched, significant work has already taken place towards the 2015 goal of aligning Guyana’s already strong laws and practices with international best practice in this field. Specifically, Guyana is investing heavily in supporting the forestry sector’s ability to trade in the global market place through the provision of three key capabilities:

1. **REDD+ Monitoring Reporting and Verification System (MRVS)**
   Guyana has progressed far in developing a national MRVS. Major progress in REDD+ is attributed to the implementation of the MRVS, specifically in the areas of Forest Area Change Assessment and Forest Carbon Stock Assessment.

2. **European Union’s Forest Law Enforcement Governance and Trade (EU-FLEGT) Voluntary Partnership Agreement (VPA) Agreement**
   The GoG sought to align domestic standards in the forestry sector with those of a global body to support the long term development of trade in sustainable forest products. To that extent, the Government aligned with the EU-FLEGT initiative. The GoG and the European Union (EU) are working towards concluding negotiations on a VPA by September 2015.

3. **Independent Forest Measurement (IFM)**
   Guyana has advanced its programme of work on implementing national level IFM. The use of an independent third party, by agreement with state authorities, provides an assessment of legal
compliance, and observation of and guidance on official forest law enforcement systems, based on agreed principles.\textsuperscript{37}

Finishing the development of these capabilities will be a focus to 2015\textsuperscript{38}.

To further support sustainable forestry practices, the GFC has developed a COP for Timber Harvesting. In order to promote non-timber use of the forest, the GFC has also developed COPs for the harvesting of non-timber forest products (NTFPs), such as Manicole, Kufa and Nibbi.

Two main constraints to further implementation of SD actions in the forestry sector are inadequate skilled persons in the field and insufficient financial resources.

4.7 Energy Resources

Guyana’s geographic characteristics have afforded the country many opportunities for renewable energy sources. To assist the country in managing its energy resources the Guyana Energy Agency (GEA) was established after the passing of the GEA Act in 1997.

Several national policies, plans, strategies and legislation guide the energy sector and the mandate and activities of the GEA (see Box 5). These are expected to contribute to reduced dependence on fossil fuels, increased awareness and knowledge on the benefits of renewable energy and development, national savings, the provision of energy services on a national scale and the development and utilisation of renewable sources of energy.

The Amaila Falls Hydroelectric Project is a major national initiative under the LCDS which aims to provide an affordable and reliable source of clean, renewable energy to meet Guyana’s energy needs. The construction of the plant has long been a priority of successive governments in Guyana. It is the largest foreign investment and infrastructure project in the history of Guyana.\textsuperscript{39}

The project involves the construction and development of a 165 MW hydropower plant; an electrical interconnection facility; and the upgrade and construction of an access road linking the project site to existing roads. As of March 2013, work on the access road to the project site is

\begin{table}[h]
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\textbf{Box 5: Policies and Legislation regulating Energy Resources} \\
\hline
\checkmark National Energy Policy (1994) \\
\checkmark Energy Sector (Harmonisation of Laws) Act (2002) \\
\checkmark Electricity Sector Reform Act (1999) \\
\checkmark Petroleum and Petroleum Products Regulations (2004) \\
\checkmark Hydroelectric Power Act and Regulations (1956) \\
\checkmark Hydroelectric Power Act (Amendment, 1988) \\
\checkmark Electricity Sector Reform Act (1999) \\
\checkmark Electricity Sector Reform Act (Amendment, 2010) \\
\checkmark Public Utilities Commission Act (Amendment, 2010) \\
\checkmark Public Utilities Commission Act (1999) \\
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nearing completion. The commencement of construction of the power plant will start later in the year, and the generation of clean energy is planned to commence in 2017.\textsuperscript{40}

GEA has been conducting research and pilot projects to develop alternative sources of energy such as hydropower, cogeneration, solar power, wind, biofuels, biogas and biomass.

A mini hydropower project with a capacity of 330 kW is under construction and proposals have been submitted for the rehabilitation of the Tumatumari and Moco-Moco facilities.

The GoG and the Government of Brazil have entered into an MOU for rendering assistance in reviewing and updating Guyana's remaining hydropower potential to meet future demand for energy and to explore options for the export of energy.

There are a number of initiatives undertaken to increase the use of solar power. Under the Unserved Areas Electrification Programme (UAEP), Hinterland Component, 11,000 solar powered home systems have been installed in almost 200 communities. The ‘Energy Access at community level for MDG achievement in Hinterland Area’ initiative has promoted the use of efficient wood stoves and solar cookers; over 500 solar cookers were distributed to five pilot communities.

Work has been done to promote the use of renewable energy in the rice and sugar industries. A 30MW bagasse based cogeneration operation was commissioned in 2011 and preparations are underway to establish a 20 kW pilot project which produces power from risk husk and a 20 kW power generation plant which produces power from wood-waste.

GEA has been looking into opportunities for increased biofuels production (biodiesel and ethanol) for export and local consumption. To date 28 small bio-digesters have been installed across the country. The Institute of Applied Science and Technology has been investigating different approaches for biodiesel production.

GEA also intends to conduct a feasibility study for landfill based waste-to-energy facilities and to explore the implementation of wind farms to supply energy to the national grid.

In relation to energy efficiency, one notably outcome from amendments to legislation is the exemption from import duties and value added tax on Compact Fluorescence Lights (CFL), Light Emitting Diodes (LED) lamps and renewable energy equipment.

A national incandescent lamp replacement programme was implemented and energy audits have been done for 20 public buildings. An energy efficient street lighting initiative has been undertaken, which will be testing LED and induction street lighting and developing a low cost solar powered system. Additionally, solar power for grid feed-in applications will be explored.

**Constraints**

There are several constraints affecting the energy sector’s efforts to fulfil its mandate effectively. These include limited finances, poor inter-agency collaboration and absence of legislation to guide new development.

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GEA plans to support the following:
1. Continuing its public awareness campaigns and increasing its dissemination activities.
2. Increasing the incentives for use of energy efficient and renewable energy technologies – both domestic and commercial.
3. Continuing its energy assessments/audits.
4. Investing in energy efficient street lighting such as solar and replacing photo-sensors.
5. The Energy Conscious Procurement Policy - In an effort to promote the procurement of energy efficient equipment and appliances for public buildings, GEA would be modelling and encouraging the adoption of procurement policies that include life-cycle energy costs.

4.8 Tourism Resources

Eco-tourism holds a lot of promise for employment and growth. With this in mind, the Government’s medium-term strategy to advance this sector centres on: improving air access transport; diversifying and expanding the tourism product; increasing market demand; upgrading skills and standards; investing in infrastructure and services; and making tourism investment attractive.41

To support the nature based tourism products and at the same time ensure sustainable use and conservation of the environment, a Protected Area Management System (PAMS) will be put in place. To this end, detailed planning will be developed to distinguish between zones suitable for different types of eco-tourism; determine general carrying capacities; identify sensitivities and limits of acceptable change; outline guidelines for development within the different zones; and specifying indicators to monitor activities and change.

The Iwokrama forest, a reserve of 371,000 hectares of rainforest, and its research centre are unique, providing a dedicated site in which to test the concept of a truly sustainable forest – where conservation, environmental balance and economic use can be mutually reinforcing. Eco-tourism is one of the important components of Iwokrama’s strategy for financial self-sufficiency.

There are several eco-tourism initiatives to improve livelihoods in Amerindian villages. In 2012, the Ministry of Amerindian Affairs (MOAA) financed eco-tourism projects for 19 Amerindian Villages and in 2013 20 villages will be receiving grants of $1.5million for the eco-tourism industry in their respective regions.

4.9 Biodiversity Resources

Multiple successes in the national quest to ensure environmental sustainability have been recorded. The country has satisfied the target of integrating the principles of SD into country policies and programmes and is committed to significantly reducing biodiversity loss.42

Guyana has signed on to and acceded to several conventions related to biodiversity (see Box 6). There are several national policies, plans, and legislation supporting biodiversity management in Guyana (see boxes 7 and 8).

Some major programmes and projects pertaining to biodiversity include:

- Preparation of the first and second National Biodiversity Action Plans. At this stage the third National Biodiversity Strategy and Action Plan (NBSAP) is being prepared.
- Preparation of the National Reports to the UNCBD; the fifth report is being prepared.
- A Biodiversity Clearing House Mechanism.
- Assessment of capacity building needs in 5 priority areas- Access to Genetic Resources and Benefit Sharing, Traditional knowledge Incorporation into Biodiversity Management, Initial Assessment and Monitoring Programs, including Taxonomy, Incentive Measures and Invasive Alien Species.
- Regional Access to Genetic Resources and Benefit Sharing Project.

Some of the major programmes and projects pertaining to Biosafety include:

- Regional Project for Implementing National Biosafety Frameworks in the Caribbean Sub-Region
- Continued enhancement of capacity building for effective participation in the Biosafety Clearing House (BCH Phase II)
- National Biosafety Framework (NBF) Project

Supporting Forestry and Agriculture Initiatives:

- Issuance of permits for animals entering the country by the Guyana Livestock Development Authority (GLDA).
- GFC has set up and maintains biodiversity reserves.

**Box 6: Biodiversity Conventions**


**Box 7: Biodiversity Legislation**

- Code of Practice for the Utilisation of Mangroves (2005)
- Code of Practice for Forest Operations (1996)
- Iwokrama International Centre for Rainforest Conservation and Development Act (1996)
- Guyana Forestry Commission Forest Bill (2009)
- Species Protection Regulations (1999)
- The Amerindian Act (2006)
- Environmental Protection Act (1996)
- Access and Benefit-sharing

**Box 8: National Policies and Plans on biodiversity resources**

- National Forest Policy (1997)
- National Forest Plan (1998)
- National Forest Action Plan (2001)
- Guyana’s National Policy on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation (2008)
- National Biosafety, Biotechnology and Biosecurity Policy (2007)
• In the forestry sector, TSAs and WCLs holders are required to set aside 4.5% of the total productive area of their concessions as a biodiversity reserve.
• Concessionaires are encouraged to set up Permanent Sampling Plots (PSPs) for research.

In 2006, Guyana commenced activities under the Guyana Protected Areas System (GPAS) Project-Phase I. The project effectively strengthened the base for several major developments in the country’s conservation history which resulted in the enactment of the Protected Areas Act (PA Act) and the declaration of the Kanuku Mountains and Shell Beach as protected areas in 2011 (increasing the number of national sites to four and the overall percentage of protected terrestrial area to approximately 6%).

The PA Act, 2011, was enacted in July 07, 2011 and came into force by commencement order on November 01, 2011. It provides the framework for the establishment and management of a national system of protected areas – including a mechanism for sustainable long-term financing (the National Protected Areas Trust Fund) and establishment of a Protected Areas Commission. GPAS Phase II activities are on-going and a financing agreement was signed for the implementation of GPAS Phase III.

These biodiversity initiatives have resulted in improved regulation of the international wildlife trade; and sustainable use of natural resources. Additionally, traditional knowledge is now increasingly being incorporated into biodiversity management.

Major constraints encountered in relation to implementation of activities include: limited financial resources and limited institutional, human and technical capacity to implement work programmes.

4.10 Transport and Communication

4.10.1 Transport

There have been several developments in the transportation sector in Guyana. Some of the major achievements include: expansion of the road network within Guyana and with neighbouring Brazil and Suriname; increased emphasis on roads located in the rural and interior locations; implementation of a Routine Maintenance Management System (RMMS); investments in road safety mechanisms; completion of the Berbice River Bridge and commissioning of the Takatu Bridge; upgrading of the Cheddi Jagan International Airport to the international standards on security and upgrading of the Ogle Aerodrome from a domestic to international airport; rehabilitation and maintenance work on airstrips in hinterland areas; renovation and upgrading of stellings and wharves across the country; and funding improvements to land and water transport services in villages thereby improving access to hospitals and health centres. 43

Under the LCDS, a Clean Transportation Programme will be implemented to examine low carbon transportation options for Guyana, and to quantify how they can benefit the economy.

4.10.2 Communication

The Information and Communication Technologies (ICT) sector in Guyana has witnessed innovation, growth and transformation in rural and urban areas over the last decade. One of the major accomplishments in this area was the development of a legal and regulatory framework to liberalise and modernise the ICT sector. This resulted in an increase of internet users and mobile subscribers; significant reductions of rates; improvement in mobile technologies; improved services and coverage in areas already with access; and expansion of services to unserved areas in hinterland regions.

An ICT for Development Strategy (ICT4D, 2006) was developed and it encompasses the use of ICT in socio-economic, international and human rights development. Additionally, an E-Government Unit was set-up and is tasked with developing a robust ICT infrastructure that will improve the connectivity within Guyana and increase access to international carriers.

Under the LCDS, several projects are being implemented to expand the digital economy and avoid a digital divide, these include:

1. **Fibre Optic Cable**: The Government is investing in enhancing broadband connectivity between the coast and the hinterland, as well as connections to Brazil’s telecommunications network via the first phase of the Government’s e-Governance initiative. As of March 2013, the main 560km overland fibre optic cable and repeater stations are nearing completion, and will provide the foundation for the next phase of work, which will include linkages to the hinterland, in particular the Rupununi.

2. **The One Laptop per Family (OLPF)**: This project is expected to provide internet-connected mobile computers to 90,000 families. As of March 2013, 26,832 laptops were distributed, with on-going training in their use.

3. **Telecommunications Liberalisation**: In an effort to modernise the sector, several pieces of legislation have been tabled in Parliament including the Telecommunications, Broadcast and Access to Information Bills.

4.11 Health

Guyana has made good progress towards eradicating extreme poverty and hunger; combating HIV/AIDS, malaria and other diseases such as tuberculosis; and improving access to sanitation.\(^{44}\) Priority is being placed on increasing access to facilities in hinterland regions, maintaining existing facilities and promoting up to standard sanitary practices. (Guyana MDG report, 2011)\(^ {45}\)

Several pieces of legislation and regulations guide the health care system in Guyana including the Ministry of Health Act (2005). Proposed legislative measures within the sector include the Revision of the Food Safety Regulations and the new Public Health Bill.

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In 2008, Guyana commenced the implementation of the National Health Sector Strategy (NHSS) (2008–2012) which was guided by the NDS and the PRSP and aimed to protect the most vulnerable. Key elements of the NHSS included: decentralisation of health services; strengthening of the skilled workforce; sector financing; performance management systems; and strategic information.

In 2012, Guyana commenced the development of a new strategy – Health Vision 2020 – which is strategically linked to achieving many MDGs. It includes aspects such as non-communicable disease; accidents, injuries and violence; and healthy environments (healthy city, communities, hospital, workplace and homes).

Several initiatives were undertaken to develop national behavioural change and public education to support health promotion and risk reduction. The mass media was used to support this effort.

4.12 Food Security

As noted, Guyana has made good progress towards eradicating extreme hunger. The country has met the target of halving the proportion of people who suffer from hunger and has improved its performance in reducing poverty and increasing employment. (Guyana’s MDG Report, 2011)\textsuperscript{46}

In fact, Guyana is among 18 countries which have met the MDG Goal 1 to halve the proportion of hungry people (between 1990-92 and 2010-2012) and also the World Food Summit (WFS) goal of having reduced by half, the absolute number of undernourished people (between 1990-92 and 2010-2012). For this achievement Guyana received an Award from the FAO on June 16, 2013.\textsuperscript{47}

A number of policy initiatives have been undertaken, such as the formulation of the Food Security Policy Document. The Sugar Action Plan was specifically developed in response to the EU’s sugar price cut and is aimed at generating economic growth by attaining sustainable improvements in the competitiveness of the sugar industry and promoting growth and development of specific non-traditional agriculture sub-sectors (beef, fruit and vegetables, fisheries and aquaculture). This Plan also addresses the provision of infrastructural and human resource development support to meet these objectives. (PRSP, 2011)\textsuperscript{48}

Throughout the years several major projects and initiatives have been developed to support the agriculture sector. These include: the Agricultural Diversification Project, the Rural Enterprise and Agricultural Development Project (READ), the Grow More Campaign, the Poor Rural Communities Support Services Project, and the MOA’s Aquaculture Policy Document and Strategic Plan for Inland Fisheries and Aquaculture.

The Guyana School of Agriculture (GSA) is engaged in a number of initiatives aimed at promoting food security. These include: development of post-harvest techniques; introduction of new techniques in crop farming; multiplication and distribution of breeding animals (swine, sheep, goat and cattle) and conducting product development training in communities under READ. GSA also


introduced a specialised course in water management. Some of their initiatives, especially in agro-processing have been joint ventures with the Private Sector.

Main impacts of agriculture initiatives have been: improved management of land, water, toxic chemicals, pesticides, crops, and livestock; adoption of better technologies in producing crops and livestock; enhanced capacity to manage various sectors in agriculture; building of social capacity at the community level to facilitate increased self-reliance; strengthening of rural services available to farmers; improved availability of safe, wholesome and affordable food; and the overall maintenance of strong food security. However, constraints such as land tenure issues, limited coordination among the relevant agencies in the agriculture sector and inadequate agricultural extension services hinder progress.

According to the PRSP, 2011\(^4\) in order to strengthen the agriculture sector in Guyana, Government will focus on five main areas: 1) expanding productivity within the sugar industry; 2) accelerating rice production and exports; 3) sustainable forestry and wood processing; 4) agriculture diversification and Caribbean Single Market Economy (CSME); and 5) expanding production and exports of fruits and vegetables. These areas will also support food security in Guyana.

4.13 Science and Technology

Guyana has recognised the critical need to advance its S&T capacity in all sectors.

A National Science and Technology Policy was developed in 2001 to highlight in a comprehensive manner, the key S&T needs in the various sectors and to develop an overall programme to meet those needs. It is currently being revised to cater for new conditions.

At the same time, the National Science and Technology Council which was established to coordinate this effort is to be re-organised to improve its outreach and effectiveness.

Even though the critical needs were identified, the financial and other resources required were well beyond the country’s means thereby hindering implementation.

Many sectors of the country are engaged in S&T programmes and initiatives.

In the education sector, for example, teachers are encouraged to use the Inquiry Based Science Education (IBSE) approach and the use of micro-science kits to promote hands-on learning in science. The initiatives in education have resulted in a consistent increase over the past three years of the numbers of students choosing to study science at the secondary level and an increase the awareness of the use of science in problem solving.

In the agriculture sector, there has been introduction of new techniques in crop farming. The GLDA has undertaken artificial insemination and embryo transfer initiatives to improve livestock. In an effort to promote the use of technology there has been the introduction of a Diploma in Agro-processing and Post-Harvest Technology; and practical training in post-harvest technology and food processing.

**4.14 Culture**

In recent years, there has been a growing level of cultural activities spanning the wide diversity of cultures in Guyana. The Ministry of Culture, Youth and Sports (MCYS) is the lead agency in the coordination and works in collaboration with other organisations to promote cultural activities.

Guyana is a party to number of international conventions related to culture. These include: the Convention on the Protection and Promotion of the Diversity of Cultural Expressions; Convention on the Protection of the Underwater Cultural Heritage; and Berne Convention for the Protection of Literary and Artistic Works. The country is also considering its response to the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage.

Some of the policy initiatives undertaken include drafting of the National Cultural Policy of Guyana; and a policy for archaeology and anthropology. Additionally, legislation pertaining to various aspects of culture is being reviewed.

Some of the major activities undertaken include, inter alia: planning and execution of the national festivals and events; institutionalised International Days; enhancing the delivery of educational and training programmes in arts, dance, theatre, literature arts, and culture; enhancing the delivery of heritage and conservation programmes, for example, developing a digital database of archival holdings; strengthening of heritage conservation programmes, for example, construction and enhancement of museums and establishment of new museums and exhibitions; hosting of special anniversary sessions and interactive language session for International Day of World's Indigenous People; and consolidating the National Inventory of Cultural Heritage.

There are several challenges on how to approach issues relating to heritage and cultural diversity. Recently, work has begun to create the framework for the designation of heritage sites and guidelines for a national museum policy. These initiatives have gone a long way in preparation but the policy framework for the more complex areas of intangible, oral and traditional cultural heritage are still to be developed.

Additionally, there is no up-to-date legislation in relation to archaeology and anthropology, film-making, copyright and patent, trade-marks or the entertainment industry. Some of these are presently under review and it is hoped that they will be enacted in the near future.

Some of the challenges to the sector include: inadequate funding, infrastructure and equipment; absence of benchmarks and quality assurance control mechanisms; lack of policy standards and guidelines; and inadequate human resource capacity.

**4.15 Human Resource Development**

Human Resource Development is a critical aspect of achieving the SD goals of a country. Guyana’s PRSP agenda for 2011-2015 is rooted in the Government’s medium-term vision that centres on investments in human resource development.

Overall unemployment rate in Guyana fell from 11.7% in 1992 to 10.7% in 2006; with direct efforts being made to reduce the unemployment problem, particularly among women and youth. These resulted in female unemployment rate decreasing 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.50

The initiatives in the health sector, especially those in the areas of disease control, nutrition and sanitation, have had positive impacts on human resources development.

Access to adequate and affordable shelter has been a priority of the Government which has a multi-pronged approach of facilitating property acquisition by low to moderate income groups, improving the living conditions of those occupying land in unplanned settlements, and providing appropriate care and re-integration services for homeless people.51 Government has distributed approximately 82,000 house lots between 1993 and 2009, and continues to prioritise the expansion of access to housing to the lowest income groups.52

A key priority towards the achievement of MDGs is increasing access to facilities in the Hinterland regions, maintaining existing facilities and promoting up to standard sanitary practices. Several projects are being implemented to support the development of rural and Hinterland communities.

Under the LCDS, several projects and initiatives have been developed and are being implemented to support Hinterland and Amerindian Development. These include: initiatives to facilitate and fast track the Amerindian land titling process, and the Amerindian Development Fund (ADF). The ADF is being capitalised to fund the socio-economic development of Amerindian communities, through the implementation of their Community Development Plans (CDPs), which identify the communities’ "own priorities to meet social and economic development objectives". As of March 2013, 166 Amerindian villages (including satellites), communities and settlements have produced CDPs, and in 2013, 27 villages are expected to commence the implementation of their CDPs.

Additionally, under the LCDS, an ‘Opt-In Mechanism’ is being developed to allow Amerindian communities (who choose to) to commit their forests to the financing model established under the Guyana-Norway Agreement.53

Other projects that support community development include the Micro and Small Enterprise (MSE) Development and Building Alternative Livelihoods for Vulnerable Groups Project which aims to address two of the major bottlenecks that constrain the development of MSEs and the ability of vulnerable groups to build alternative livelihoods in Guyana: limited access to finance and limited technical and business skills.

Many projects have a training component to further enhance skills of individuals since it is a key for sustainability. For example, the MOH has expanded training in the areas of Environmental Health. Additionally, the use of traditional knowledge and skills in environment and resource management is being supported through many initiatives and the use of traditional knowledge has been incorporated into biodiversity management.

The involvement of national stakeholders in policymaking, representation and programme implementation has evolved and can be found at the national, regional and community levels. For example the MSSC which oversees and guides the implementation of the LCDS includes representation from a wide range of stakeholders including the National Toshao’s Council and the Women’s Affairs Bureau.

Sector reports indicate that the lack of human resources, especially as it relates to specialised technical areas is hindering the implementation of many programmes and projects aimed at promoting SD.

4.16 Trade: Globalisation and Liberalisation

Guyana is heavily dependent on its export sector which forms a main pillar of the economy. The performance of the Guyanese economy is dependent upon the ability to diversify the productive base and to reduce Guyana’s exposure to external shocks including the erosion of preferences.

Guyana is a major exporter of commodities and is subject to the volatility of prices on the international market. Europe and the USA are among the major markets for Guyana’s exports of rice and sugar under preferential arrangements but preferential access is being eroded and the trade arrangements have been replaced, in the case of Europe, with new World Trade Organisation (WTO) compatible trade agreements.

Externally, oil price shocks and continued higher prices for food presented challenges to macroeconomic stability. The monumental changes in Guyana’s trade preferences, particularly as they relate to Guyana’s two prime commodities, rice and sugar, put increase pressure on external balances and this was a major challenge to Guyana’s goal of accelerating infrastructure growth to support economic expansion.

The National Trade Strategy (2003) and the NCS (2006) were specifically developed to deal with trade issues. The National Trade Strategy identified ways to improve the defence of Guyana’s national interests by improving identification of negotiating objectives, internal and external coordination, and by enhancing the Ministry of Foreign Trade and International Co-operation’s (MOFTIC) resources. The NCS (2006) is aimed at providing a strategic way forward for Guyana to expand and diversify its economic base in light of the challenges and opportunities presented by trade liberalisation and globalisation.

Other factors affecting Guyana’s trade are the advancement in the WTO negotiations, the reduction of tariffs and the development of a number of free trade agreements (FTAs) among countries which have given rise to unfair market competition. Developing countries are therefore seeking fair competition in markets in the developed countries.

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Developing countries, particularly Small and Vulnerable Economies (SVEs) have to be vigilant to guard against and safeguard what has already been achieved in their favour in the Doha Development Agenda of the WTO. Guyana is a part of the SVE group.

Guyana has been taking a proactive stance on trade related issues such as Preference Erosion; Special and Differential Treatment; Sanitary and Phytosanitary measures and SVEs, by collaborating with many other agencies and like-minded alliances both regionally and internationally. Guyana has also implemented the CSME and the Guyana-Brazil trade agreement.58

The country is also seeking to increase its competitiveness of the traditional industries as well as the productive capacity of exporters and has already begun devising measures in this respect.

There has been the creation of the National Coalition of Service Providers whose goals include, among other things, assisting policymakers in the development of positions to be pursued in General Agreement on Trade in Services (GATS) and other services negotiations.59

To address challenges with the import/export processes, the Trade Transactions Public-Private Dialogue Body (TTPDB) was established in 2010; and one of the key recommendations is the development of Single Windows for Trade Transactions (SWITT).60 SWITT will strengthen Guyana’s trade efficiency and export competitiveness and allow all parties or stakeholders involved in international trade transactions to submit standardised information and documents to a single entry point, to meet export, import and transit regulatory requirements.61

4.17 Sustainable Capacity Development and Education for Sustainable Development

Education plays a fundamental role in SD and capacity-building for the long term. Guyana has made excellent progress towards achieving universal primary education for both boys and girls with the net primary school enrolment rate being above 95% since 2000.62 Efforts have been made to improve the quality of education and training and to infuse SD ideas into education curricula.

A series of education, training and public awareness programmes and activities have been undertaken by a number of stakeholder agencies and institutions.63 For example, there are several education and awareness programmes developed on climate change and the wider Low Carbon Development (LCD). LCD is being introduced in the primary school curriculum and there are also television features on biodiversity awareness and climate change. Additionally, teachers are being trained in climate change.

A major accomplishment to improve the quality of education is the Teachers Training Programme by distance education. The MOAA has been able to facilitate more training of teachers via this

method. To improve education among Amerindian communities, the MOAA has also facilitated a number of other activities ranging from improving teaching facilities to helping with transportation to schools.

UG has established a School of Earth and Environmental Sciences (SEES) that offers undergraduate and postgraduate programmes and courses to develop skills needed for implementing SD initiatives. Also the Centre for Biodiversity Research (an LCDS project) is being developed as a dedicated research centre on Guyana’s rich biodiversity

### 4.18 Knowledge Management and Information for Decision-Making

There are growing demands from various stakeholders for information to support their activities. Some measures have been taken through bodies such as the Bureau of Statistics and Agency websites to meet those needs. However, these are not adequate and the need exists for the development of a more comprehensive and integrated system for knowledge management and information sharing for decision making.

While data is available for many areas to a great extent, it is generally very scattered, compartmentalised and not timely enough to be used meaningfully in planning. However, the developments in the ICT sector present a significant improvement for information sharing.

GIS is increasingly being used for information management. The GLSC, for example, has employed GIS and remote sensing to acquire estimates of available land, land based resources and present land uses. A GIS based monitoring system is also being used for mangrove management.

Some sectors including the MOH and the MOAA have information management systems in place. The MOH has a ‘Strengthening Strategic Information’ initiative which aims to develop strategic information capacity for data collection, analysis, and use in planning. The Management Information System at MOAA acts as a repository of issues affecting Amerindians. The MOAA also developed an Information Tracking System that records and tracks welfare issues that affects persons, inter alia.

### 4.19 Graduation from Least Developed Country Status

Guyana has moved from being a Heavily Indebted Poor Country (HIPC) to one that has achieved debt sustainability.

Official Development Assistance (ODA) is a major source of external funding and has shown an overall increase in volume over the past five years. Total foreign assistance to Guyana at the end of 2009 was US$173 million, which represents an increase of 19% from the 2004 level of US$145 million. (Guyana’s MDG Report, 2011)

Guyana depends on grants and credits from external and domestic sources to sustain social expenditures and bridge the fiscal gap and the country’s macroeconomic framework has benefited

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from several rounds of debt relief. Some of these grants which have been mentioned under the thematic areas have allowed for development activities at the community level. (IBD 2012)\textsuperscript{65}

Graduation has had some negative spin-offs on Guyana by reducing the country’s access to financing available to HIPC. This is an issue that should be addressed globally.

\subsection*{4.20 Enabling Environment and Implementation}

Guyana has made significant efforts to implement the BPOA and MSI actions, and to address SD on the whole. To a great extent, many national policies, plans, programmes and legislation are supportive of national SD objectives. Many strategies reflect the importance of addressing critical elements of SD such as macro-economic stability, poverty reduction, social development, environmental management, disaster management and climate change adaptation and mitigation.

The LCDS, for example, is significant national strategy that embodies the economic, social and environmental pillars of SD. It is a working example of a model which aims to protect and maintain the forests in an effort to reduce global carbon emissions and to address other aspects of climate change; and at the same time attract payments from developed countries for the climate services that the forests provide to the world, which will be invested to foster growth and development along a low carbon emissions path.

The country has made significant efforts to harmonise the national environmental policy framework. However, constraints still remain.

Government has committed to redouble efforts to meet the MDGs and has outlined a number of initiatives to improve the quality of education, health, housing and water services.\textsuperscript{66} Additionally, there will be special intervention programmes to improve the poverty situation in the country.\textsuperscript{67} These efforts will complement SD actions.

Some of the major areas related to the SD enabling environment and implementation are discussed below.

\subsubsection*{Finance}

Government has been increasing investments and resource allocations into promoting overall development of the country including those activities that are considered key in fostering SD such as poverty alleviation, capacity building for natural resource management, and development of integrated policies and strategies.

Overall, however, significant increases in financial resources are required to support the Country’s achievements of its SD objectives.

\begin{itemize}
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National Institutions and Administrative Capacity

As noted, many national institutions have been developed over the years to pursue Guyana’s SD objectives. A key institution includes the newly established MONRE which was created to further strengthen the management of natural resources and environmental governance. It was established to have oversight responsibilities for forestry, mining, wildlife, environmental management, protected areas and land management. The EPA (which falls under the MONRE), is an important environmental regulatory agency in Guyana that plays a major role in SD.

The National SD Bureau was specifically set-up to coordinate SD initiatives in Guyana with a broad focus across the economic, social and environmental pillars of SD.

Guyana’s National Capacity Self-Assessment (NCSA) report, 2007\(^{68}\) examined national institutional capacities to implement the UN Conventions’ obligations. The report highlighted key deficiencies that included: lack of skilled personnel; inadequate financial resources; need for updating and revising certain legislation as well as regulations; inadequate network with stakeholders; and the need for more decentralisation and empowerment for natural resources management at local level.

In some cases there are overlapping mandates in management. While attempts are being made by many agencies to strengthen inter-agency linkages, at the institutional level there is need for improved coordination of the responsibilities and mandates among various sector agencies.

Capacity Building

Capacity building is addressed in many sectors in different ways.

Several donor-sponsored initiatives with local institutions are seeking to bolster capacity and enhance collaboration among agencies. Capacity building is provided through many local, regional and international institutions, NGOs and mechanisms, and in some cases through international conventions to which Guyana is signatory.

Guyana has partnered with many international organisations such as Conservation International (CI) and World Wildlife Fund for Nature (WWF) to build capacity in technical areas.

Some other International Partners that provide technical cooperation include: UN Partners, the Pan American Health Organisation/World Health Organisation - PAHO/WHO; the Organisation of American States (OAS), the United States Agency for International Development (USAID), the Canadian International Development Agency (CIDA), the United Kingdom Department for International Development (DFID), the Inter-American Development Bank (IBD), the EU, and the World Bank.

The country is also engaged in effective partnerships with other countries such as India, China, Norway and Cuba, inter alia.

Guyana has developed linkages with Caribbean SIDS and SIDS in other regions through involvement in CARICOM, the Caribbean Development and Cooperation Committee (CDCC), the Caribbean Regional Coordinating Mechanism (RCM) and AOSIS, inter alia.

\(^{68}\)Environmental Protection Agency (Guyana), Global Environmental Facility, United Nations Development Programme. 2007. *National Capacity Self-Assessment in Guyana: Cross-Cutting Capacity Issues*. 35
Guyana has also been actively involved in the work of the UN Commission on SD which served to oversee the implementation of Agenda 21.

**Legislation**

Several pieces of legislation have been enacted and some existing legislation have been revised to support SD. Despite this, improvements are needed in strengthening Guyana’s legal framework to support SD efforts in areas such as the legal and regulatory environment (development and enforcement of policies and laws).

In environmental management there is fragmentation of existing laws and gaps in national level coverage of UN Conventions within the legal and regulatory framework.

**Governance**

Good governance is essential for SD. Many important measures have been undertaken to improve governance practices in the country.

There has been increased involvement of national stakeholders in policymaking, representation and programmatic implementation at the national, regional and community levels. For example, the National Stakeholders Forum was created and includes members from religious organisations, labour movements, business sector, women’s organisation and the National Toshoas Council.

Guyana has also continued to fulfil its obligations to a wide range of International Treaties to which it is a Party.

In an effort to promote sustained economic growth the GoG undertook several reforms to promote inclusive government; public accountability and transparency; rule of law including the administration of justice; Local Government and compliance with international agreements and treaty obligations. (PRSP, 2011)

Inclusive Governance is now enshrined in Guyana’s constitution (2003) and has been supported by a number of parliamentary and legislative reforms. One of the major reforms was the establishment of four parliamentary sectoral committees to monitor and oversee all areas of government policy, performance and administration as it relates to 1) economic services; 2) social services; 3) foreign relations and 4) natural resources

Special attention has been given to Local Government to provide greater involvement of residents in the development of their communities.

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Monitoring and Evaluation

Guyana’s MDG Report, 2011\textsuperscript{74} indicates that with regards to monitoring and evaluation (M&E) capacity, current and previous progress reports have been limited by data availability and quality.

Many institutions play a key role in monitoring different aspects of the implementation of the BPOA and MSI.

The GoG, through the Ministry of Finance, is currently implementing a five-year National Action Plan for M&E, which started in 2011, at key government Budget Agencies. The M&E work is ongoing in two pilot ministries (Health and Education) and implementation in other agencies will be phased over a four year period.\textsuperscript{75} Training on key concepts of M&E has been done.\textsuperscript{76}

The establishment of the National SD Bureau is one key measure in place than can support SD monitoring.

However, in the pursuit of achieving the environmental sustainability targets, challenges exist with respect to the institution of adequate M&E mechanisms, and linking the achievement of these targets within mainstream socio-economic policy planning and development. Some of these include the following:

- Need for relevant targets and indicators specific to country conditions and goals;
- Need for sound methodological and/or statistical frameworks for deriving indicators;
- Low levels of integration of environmental sustainability issues in national policy, planning, and budgetary frameworks;
- Weak coordination of relevant environment monitoring agencies;
- Issues with data, specifically inaccessibility, lack of affordability, lack of reliability and quality assurance; and
- Limited financial and technical capacity to monitor and collect data.


5  **Practical and pragmatic actions needed for the further implementation of the BPOA and MSI**

A wide range of actions are required to further support the effective implementation of the BPOA and the MSI. To be effective, such actions need to be realistic, practical, timely and affordable to the country.

The enabling environment to support frameworks related to the implementation of the BPOA and MSI actions should address important areas including environmental management and financial, institutional, legislative and regulatory mechanisms.

Well-functioning trade, financial and governance systems can yield enormous economic and development benefits for Guyana, which would support the achievement of SD objectives. The mobilisation of resources and partners for implementation of specific projects and actions is also crucial to success.

Capacity building efforts are very important and Guyana should identify the capacity building challenges and areas for improvement at an early stage in development processes. Guyana should maximise on benefits from regional and international programmes and initiatives where these are available.

For development in SIDS to be truly sustainable, social and economic issues must be given prominence in the 2015 development agenda. Social and human development issues including poverty, food security, quality of education, sanitation and health services are critical issues that should be addressed effectively in national SD strategies.

Guyana like many other SIDS share similar circumstances especially as it relates to increased vulnerabilities to environmental, social and economic threats. The MSI recommends that ‘International institutions, including financial institutions, should pay appropriate attention to the particular needs and priorities of SIDS’.

The International Community could support Guyana through increased financing and capacity building by supporting local capabilities, institutions, and national systems, inter alia. They should also recognise the diversity of circumstances that exist within developing countries and the need to avoid a one size-fits-all approach.

**5.1 Policies, Plans, Programmes and Legislation**

Current national policies, plans, programmes and legislation provide the necessary foundation to support the effective implementation of the BPOA and MSI actions. They serve as a starting point for the development and implementation of integrated planning systems and processes.

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Despite efforts to regulate natural resources, conflicts still occur among sectors. Policies and programmes should be designed to reduce such conflicts. The recent establishment of the MONRE should serve to improve this situation.

To support further implementation, more work needs to be done on developing integrated approaches to support the management of key areas including waste, land, coastal zones, disasters, freshwater resources and mangroves. It may be useful to explore regional approaches to policy development for some areas including coastal and marine resource management.

Some policies may need to be strengthened and finalised, and new policies may need to be developed for some specific sectors. For example, a proposed solution to strengthening S&T initiatives is the finalisation of the S&T Policy.

Further actions are needed to support the mainstreaming of programmes and actions to address key issues such as natural disasters and climate change into national and sectorial policies, programmes and projects.

Policy, project and programme designs should be flexible and should be supported with specific legislation where relevant.

Strengthening and harmonisation of Guyana’s legislative framework to support SD actions are needed. This can include enacting new legislation or updating current legislation to support such actions.

Also, there is a need to ensure compliance with environmental laws. However, to be effective this has to be further backed with training and adequate resources for enforcement and monitoring. The EP Act, for example, regulates a wide range of activities. However, to be effective, there is a need for increased capacity to strengthen monitoring and enforcement.

Appropriate environmental regulations, standards and procedures should be developed to support SD actions in key areas such as effluent discharge and waste management.

The development of an SD Policy and Action Plan for Guyana may help to support the overall coordination of SD initiatives.

5.2 Finance

The mobilisation of resources at the national level to meet SD goals and priorities is a major challenge. Many sectors have identified the lack of adequate and predictable financing as a major constraint in implementation of the BPOA and MSI actions and the overall accomplishment of MDGs of the country.

Timely and robust funding is needed to further support implementation of SD at all levels nationally, especially as it relates to reducing vulnerabilities. Examples of areas that require continuous investments are climate change adaptation, and the strengthening of sea defences and D&I structures.

The flow of resources from developed to developing countries, including Guyana, has simply not been sufficient to support the achievement of the MDGs. (Guyana’s MDG Report, 2011)
Although the country has benefitted from the financial mechanisms of several Multilateral Environmental Agreements (MEAs) such as the UNFCCC, there is still a need for significant improvements in the area of global financing for climate change and other areas.

Guyana should support measures that effectively maximise the benefits and impacts of the financial and technical assistance from regional and international institutions and mechanisms, and also through international conventions. Operational mechanisms should be reviewed and/or developed to ensure the fullest possible coordination among Guyana, donors, and relevant International Organisations and NGOs.

Guyana could also explore various financial channels for funding, and the use of appropriate economic instruments and innovative financial mechanisms. Among possible innovative financial mechanisms, small-scale grants and micro-enterprise loans for SD activities at the community level should be explored. It is also useful to explore the use of regional development banks or international investment funds to finance investments in programmes.

The Rio+20 Outcome report\textsuperscript{78}, recognises that SD should be given due consideration by the programmes, funds and specialised agencies of the UN system and other relevant entities, in accordance with their respective existing mandates. The International Community should increase support to Guyana and other SIDS to address their SD challenges.

ODA is a major source of external funding and developed countries should take concrete steps to increase the ODA to countries like Guyana to support the achievement of their development goals and targets. The International Community needs to make a more concerted effort to ensure that developed nations discharge their longstanding commitment to raise ODA to 0.7 percent of Gross National Income, a commitment that remains woefully underachieved to date.

Guyana should take steps to optimise the benefits from these sources of aid including the harmonisation of donor procedures, untying aid, increasing absorptive capacity and other such measures, which are particularly important when providing ODA to countries with limited capacity, such as SIDS.

The International Community should simplify procedures to improve access to existing funds and financial mechanisms, such as the relevant operational programmes of the Global Environment Facility (GEF) and development banks, and also take steps to support the development of insurance and re-insurance schemes to support developing countries in light of the increasing frequency and intensity of natural disasters and climate change related events.

5.3 Trade

Guyana faces a number of fundamental challenges with regard to successfully defending its economic interests in international trade negotiations.

Key factors affecting Guyana’s trade include the advancement in the WTO negotiations, the reduction of tariffs and the development of a number of FTAs among countries which have given rise to unfair market competition.

\textsuperscript{78}United Nations. 2012. \textit{RIO+20 "The Future We Want"}.
A threat in the near term to Guyana achieving its PRSP objectives is the worsening terms of trade of its external sector. In the medium term Guyana faces both external and internal risks to the attainment of the objectives outlined in its PRSP (2011)\textsuperscript{79}.

Continuing higher fuel prices pose real risk to macroeconomic stability through higher inflation and inflationary expectations and rapid changes in trade preferential agreements have been effected and will continue to pose a systemic risk to the external sector and the affected industries.

On the external side, adverse terms of trade; slowdown in the global economy particularly in North America; and shortfall in external financing may undermine macroeconomic stability and poverty reduction.

The SVEs remain committed to the multilateral process and continue to seek the required flexibilities in the WTO in areas relating to fisheries subsidies, services, aid for trade, and agriculture and trade facilitation among others. Other emerging issues of concern to small economies are the impact of climate change on trade and the growth and development of economies.

Guyana’s PRSP (2011)\textsuperscript{80} indicates that over the next five years, Guyana will deepen its reforms to make the country an attractive location for investors. A key measure to be taken includes the implementation of SWITT.

The NCS (2006)\textsuperscript{81} outlines the following actions and activities as essential in developing the trade sector:

- Enhance knowledge and understanding of trade, business and investment issues within relevant agencies;
- Facilitate the flow of trade information between public institutions;
- Facilitate implementation of commitments and obligations;
- Assess civil society’s role in the trade negotiation process;
- Develop a civil society outreach programme; and
- Strengthen the Private Sector’s capacity to advocate its interests in the trade negotiation process and the development of policies affecting the business enabling environment.

The International Community, particularly the developed countries, need to be consistent in their commitments to provide favourable environment for SIDS by removing the processes arising from the discussion at forums such as the WTO. Special measures for the weaker economies must be addressed. They should play a greater role in enhancing the delivery of coordinated, effective and targeted trade related technical assistance and capacity-building programmes.

Unless the trade issues which impact negatively on SIDS are addressed, many of the gains will be rapidly eroded.

5.4 National Institutions and Administrative Capacity

Many sectors require strengthening of their administrative and institutional structures to ensure the realisation and proper implementation of SD actions.

Appropriate national measures for institutional development should be adopted to integrate environmental and socio-economic considerations into national and sectoral development planning in order to achieve SD.

Increased capacity building both within agencies and among agencies is an important aspect of addressing SD. Equipping these institutions, including environmental agencies, with adequate financial and human resources is one of the most pressing issues. Additionally, supportive legislation, policies and plans, and effective training programmes and M&E systems are important.

In many cases, sectors have outlined new and specific types of training and resource development needs that are required to address new and emerging challenges. It is important to consider additional resources required to support such challenges.

Guyana should seek to maximise opportunities provided by regional and international mechanisms which support capacity building in areas such as training.

Effective inter-agency collaboration is an important aspect of addressing SD. It is important to define the roles and responsibilities of key players especially as it relates to cross-cutting areas that require an integrated approach such as DRM and climate change adaptation and mitigation.

The International Community should assist Guyana in building its administrative and institutional capacity to implement BPOA and MSI actions.

5.5 Human Resource Development

Human resource development is an important aspect of SD.

Inadequate human resources affect the implementation of many programmes and projects aimed at addressing SD. Increased employment opportunities and strengthening the quality of education are major areas for improvement. Training and capacity building are also central to this process. Addressing issues related to migration of highly skilled persons out of the country is also key.

The emergence of new global challenges such as climate change will increase the vulnerability for many especially the poorest. Development plans should continue to include measures and programmes to reduce such vulnerabilities.

Overall, it is important to incorporate socio-economic considerations into the mainstream of decision-making and planning mechanisms of government. It may be useful to examine population dynamics to identify new vulnerabilities or strengths\(^2\). The use of data collection tools such as the National Census should provide vital information that can be used to accomplish this.

\(^2\)Recommendation made at the Multi-Stakeholder Consultation (May 14, 2013) in preparation for the Third International Conference on SIDS.
The development of Hinterland Communities is a key national priority. Several programmes and initiatives have been supporting these efforts including those under the LCDS. It is important that such efforts are continued.

There is a role for all stakeholders in addressing SD challenges. The involvement of national stakeholders in policymaking, representation and programmatic implementation has evolved and mechanisms should be put in place to ensure their continued involvement at the national, regional and community levels. The continued involvement of women, youth, indigenous and local communities, NGOs and the Private Sector is important to this process. Community-based efforts and participation should be emphasised.

The International Community should play a stronger facilitating role in the development of human resources in Guyana. This can extend to programmes that strengthen expertise in key areas relevant to SD. They should increase efforts to reduce vulnerabilities related to food security, natural disasters, climate change and other areas.

### 5.6 Public Education and Awareness

Public education and awareness (PEA) activities are necessary for the achievement of SD objectives.

PEA programmes are essential at all levels of society and should facilitate effective participation of key stakeholders including local communities and youth. This will lead to improved implementation of SD actions.

To that effect, special emphasis should be placed on developing PEA programmes that are tailored for different issues and different target groups to enable their effective participation. Continued efforts are required to support and develop effective programmes that involve a wide range of media.

Many issues including climate change, disaster management, solid waste management, energy conservation and water resource management require special focus. Heightened awareness and understanding of the value and benefits of resources will help to contribute to improved management practices.

Increased efforts are required to improve the quality of education and training, and to infuse SD approaches into educational programmes and material including the school curricula.

Guyana should capitalise on capacity building opportunities that are available through regional and international agreements and programmes.

Increased international support should be provided to strengthen PEA and outreach programmes.

### 5.7 Knowledge Management and Information for Decision-Making

Overall, data collection and management is a challenge. For example, national data remains compartmentalised and not timely enough to inform effective planning.
A key recommendation made at the Multi-Stakeholder Consultation relates to the development of a National Database to manage data such as the findings of studies and other relevant information that could be used to guide socio-economic analysis, planning and development, inter alia. This would also help to prevent duplication of efforts and could be made accessible through the internet.

It is important to identify data gaps and then further categorise data under different thematic areas. The Bureau of Statistics and other data collection agencies have a central role to play in data collection in Guyana, and should be equipped with the necessary resources to fulfil their mandates effectively.

While many programmes are in place to support information management and sharing, a more comprehensive and integrated system should be developed to support effective and informed decision making.

Where relevant, sectors should seek to increase the use of databases, vulnerability indices, GIS and other information systems.

To improve public participation in the process, the strengthening of networks for the dissemination of information is also key.

Further enhancement of the ICT sector will serve to improve information sharing. Once properly implemented, ICT applications have the capability of connecting our more remote regions, easing human resource constraints and facilitating the transfer of knowledge and technical expertise.

The International Community should provide increased support for the establishment of national and regional information and database centres, programmes and initiatives to support the exchange of scientific information and data within the Caribbean. They should support the establishment and strengthening of centres of excellence for training and applied research within existing national and regional institutions.

5.8 Research

There is the need for further research on many areas that are relevant to addressing SD issues. This includes research to support assessments of the economic, environmental and social costs and benefits of different policies and programmes. For example, research into renewable energy transformations and energy conservation in key sectors.

Research is especially relevant when addressing new and emerging challenges such as climate change. Undertaking research and risk modelling for climate change and overall disaster management will help to provide guidance to development planning.

Guyana should invest in developing and continuing studies and research on biological resources, their management and their intrinsic socio-economic and cultural value. The development of the Centre for Biodiversity Research under the LCDS project can support such efforts.

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83Multi-Stakeholder Consultation (May 14, 2013) in preparation for the Third International Conference on SIDS.
It is vital to promote research and development in areas where endogenous technologies and traditional practices have great success, but it must be ensured that mechanisms are in place for the appropriate protection of intellectual property rights in accordance with relevant international conventions.

Many national institutions have programmes in place to support research. Further investments and support should be provided to enhance such programmes.

Increased coordination among sector agencies involved in research is needed. It is also important to identify synergies that may result in more effective approaches to mobilisation and use of resources.

Increased national, regional and international research cooperation and collaboration is very important.

International support is required to promote and enhance research capacities in Guyana.

5.9 Science and Technology

S&T is a cross-cutting issue that plays a central role in addressing many SD challenges. Further investments are needed to support S&T.

The PRSP (2011)\(^8^4\) and other key national strategies and reports provide recommendations to strengthen S&T in Guyana. Some of these include the following:

- Increasing the number of trained teachers in S&T.
- Supporting regional and national science exhibitions.
- Establishing a mobile science laboratory.
- Increasing scholarships for S&T disciplines.
- Incorporating S&T into national strategies.
- Reviewing S&T in relation to environmentally-sound technologies and SD.
- Incorporating indigenous technologies where appropriate.
- Improving mechanisms that support the sharing of S&T approaches and experiences in the Region.
- Conducting more technology needs assessment to identify areas for strengthening and capacity building in S&T.
- Increased science-based assessments in key areas.
- Programmes to encourage students to pursue studies in the S&T fields.

Improvements in S&T will help the country to develop more innovative solutions to address environmental challenges including those related to extractive industries activities, resource and energy conservation, disaster management and climate change actions, water resource management and waste management.

Increased support is required from the International Community to build S&T capacity in the areas identified above. Additionally, increased collaboration and partnerships are needed among local, regional and international research institutions, universities, governments, NGOs, and scientists.

5.10 Monitoring and Evaluation

M&E frameworks are central to SD planning and implementation. For the systems to be effective, they must be based on strong and accurate data.\textsuperscript{85} It is also useful in the specific context of M&E to articulate and clarify roles and responsibilities of key stakeholders.

Adequate resources should be provided to support national M&E frameworks. Further capacity building in data collection, analysis and management skills is imperative, as is the development of a manageable set of indicators. Follow up actions are also important.

There has been an evolution of monitoring tools specific to SIDS. This evolution has been based on lessons learned that an M&E framework needs to be user-friendly, developed through a bottom-up and consultative manner in a series of consultations involving national experts and agencies and then pilot testing at national level.\textsuperscript{86} Guyana can explore these approaches to determine the most suitable.

The Caribbean SIDS programme supported by the establishment of the RCM is a key initiative that monitors progress of the implementation of the MSI and BPOA in the Region. The strengthening of this programme is therefore an important regional consideration.

The International Community should provide increased support to Guyana to further develop its M&E framework.

5.11 Strengthened Partnerships

Broad-based partnerships that ensure involvement and participation of all relevant stakeholders including the Private Sector are important in addressing SD challenges, and should be supported.

The International Community should support the development and enhancement of different types of partnerships including public-private and South-South partnerships, and support improved coordination and collaboration among regional bodies and between the International Community and regional programmes.

The design of flexible, yet robust effective partnership platforms that facilitate North-South and South-South two-way knowledge transfers will play an important role in the near future.\textsuperscript{87}

\textsuperscript{87}Economic Commission for Latin America and the Caribbean. 2010. Caribbean Regional Report for the Five-Year Review of the Mauritius Strategy for the Further Implementation of the Barbados Programme of Action For The Sustainable Development of Small Island Developing States (MSI+5)
6 New and emerging challenges and opportunities for the sustainable development of the country and ways and means to address them

“We acknowledge that since 1992 there have been areas of insufficient progress and setbacks in the integration of the three dimensions of sustainable development, aggravated by multiple financial, economic, food and energy crises, which have threatened the ability of all countries, in particular developing countries, to achieve sustainable development.”

RIO+20 “The Future We Want”

The unique challenges facing SIDS within the context of SD were first formally recognised by the International Community at UNCED in 1992.

The First International Conference which was held in 1994 emphasised the reality that the SD efforts of SIDS had to be undertaken in an environment of major challenges arising from their special vulnerabilities.

The BPOA which was adopted by the Conference, identified these vulnerabilities and challenges and identified priority areas and specific actions necessary for addressing the special challenges faced by SIDS. The BPOA obtained an undertaking from the International Community to support, in financial and material terms, the efforts of SIDS and to create a more enabling global environment for the SD of SIDS.

Unfortunately, in the near two decades since the BPOA was formulated, many of the challenges have grown and new and emerging challenges have increased the difficulties for SIDS and other countries.

Among these global challenges are:
1. The multiple economic, financial, food and energy crises;
2. A hostile global trade environment;
3. The high incidence of inequality and poverty;
4. Worsening impacts of climate change and natural disasters; and
5. Increased resource use conflicts.

Many of these global challenges have affected Guyana’s ability to achieve its SD objectives.

The Minister of Finance in presenting Guyana’s 2013 Budget set out the impact of the global crisis as follows:

“Prevailing global economic conditions continue to be extremely unhelpful to small economies such as ours. Growth in global output has been persistently lethargic, with implications for both investor appetite for risk and consumer demand for our goods and services. Commodity prices continue to be unpredictable, with implications for our exporters and importers, and our producers and consumers alike. As a result, sustained recovery remains elusive in the Caribbean.”

Guyana in addressing many of the challenges identified above, can also take advantage of the opportunities that may arise from them. Some of these opportunities are discussed below.

1. Economic Diversification

Economic diversification is one of the key ways in which Guyana has been addressing global pressures.

The Minister of Finance further noted in his Budget presentation that in response to the global economic pressures (identified previously), Guyana took steps to diversify the economy with positive results. He noted:

“The performance of the Guyanese economy continues to vindicate our efforts over the years to diversify our productive base and reduce our exposure to external and other shocks. It is to our collective credit, policymakers, entrepreneurs, and households alike, that our country’s overall economic performance is no longer hostage to the fortunes of two or three dominant industries. Today, new and emerging sectors are creating jobs, generating incomes, and producing value added output, while the traditional industries maintain a significant presence on our productive landscape. Together, they make for a resilient economy, and more persistent growth into the long term.”

Through economic diversification, Guyana is exploring new opportunities in many areas including agriculture diversification, aquaculture development, eco-tourism and energy diversification.

2. Transformation into a Green Economy

Over the years, Guyana experienced major setbacks due to the severe impacts of climate change, especially through extreme weather events which have resulted in many severe cases of flooding in the country. As noted, in January-February 2005, Guyana experienced the highest rainfall record since 1888, which resulted in the most severe flooding in the country’s history.

Climate change will severely affect Guyana’s ability to achieve SD in the future.

As one of its major responses to climate change, Guyana developed its LCDS - a national strategy which seeks to create a low deforestation, low carbon, climate resilient economy with the major objective of transforming the economy of Guyana while combating climate change.

The LCDS is a major step towards transforming Guyana into a ‘Green economy’ in the context of SD and poverty eradication. The green economy is seen as one of the important tools available for achieving SD.

The LCDS is increasing opportunities in the following areas of development, inter alia:

- Sustainable forest management;
- Low impact mining;
- Renewable energy;
- Climate change adaptation, mitigation and disaster management initiatives;
- Agriculture diversification;

The concept of Green Economy focuses primarily on the intersection between environment and economy. It has been proposed as a means for catalysing renewed national policy development and international cooperation and support for sustainable development. (UNCSD, 2012)
• Hinterland development;
• ICT; and
• Building alternative livelihoods for vulnerable groups.

3. Integrated Approaches to Development

To address many of the prevailing new and emerging issues, especially those related to the environmental sector, many national policies, plans and programmes are being developed in a holistic and integrated manner. For example, there has been an increasing shift towards: integrated and sustainable management of natural resources and ecosystems, ICZM, integrated land use planning and integrated water resources management.

4. Mainstreaming of Sustainable Development

Over the years, efforts have been made by many key sectors to mainstream SD into their respective policies, plans and programmes, and decision-making processes.

5. Stronger partnerships

To address many of the prevailing new and emerging issues, many countries have recognised the value of stronger partnerships.

As discussed earlier, Guyana has been engaged in different types of partnerships which help to build capacity to address many SD challenges. For example, Guyana works along with several regional and international organisations and groups such as CARICOM and AOSIS to address common environmental issues. There have also been increasing public-private partnerships.
7 Priorities for consideration, as appropriate, in the elaboration of the post-2015 UN development agenda

The Third International Conference on SIDS will be held at a time when the effects of the global economic and financial crisis will still be strongly felt by both developed and developing countries.

For SIDS, the effects have already been very serious and compounded further by the adverse effects of climate change – a cross-cutting and persistent crisis which will continue to affect all countries and undermine their ability to achieve SD.

The United Nations Global Conference on the SD of SIDS in 1994 recognised that “Although they are afflicted by economic difficulties and confronted by development imperatives similar to those of developing countries generally, SIDS have their own peculiar vulnerabilities and characteristics, so that the difficulties they face in the pursuit of SD are particularly severe and complex”.

On that basis, the BPOA stated that “the implementation of the Programme of Action will require the provision of effective means, including adequate, predictable, new and additional financial resources in accordance with Chapter 33 of Agenda 21 to reflect the increased significance attached to sustainable development considerations in SIDS.”

The BPOA also identified the need for:
1. A supportive international climate;
2. Trade liberalisation with a view to enhancing access to markets for the exports of SIDS; and
3. The transfer of environmentally sound technologies, cooperation and capacity building.

Almost twenty years after the Barbados Global Conference, these commitments by the International Community have not been honoured in the manner identified. Generally, the International climate is not supportive. Trade measures have stifled the main economic trade lifelines of many SIDS as seen especially in the cases of the sugar and banana industries. The transfer of technologies to SIDS has been very limited and the access to technology has been difficult.

The Expert Group Meeting held at the UN Headquarters in New York on April 23-24, 2013 to discuss SIDS in the Post-2015 Agenda in its outcome report identified the following critical issues and priorities for SIDS:

- Social issues have not been given adequate attention in the development agenda, including through the MDGs. These issues include: social aspects of poverty, the importance of women’s issues including domestic violence and reproductive health and rights, social inclusion for all including youth and the disabled, decent employment, and quality education;
- Inequality in economic growth should be addressed;
- The crisis of climate change and the devastating severe weather that is one of its consequences needs to be addressed; and
- Good national and international governance is needed.

Additionally the following key recommendations were identified:

- The social dimensions of SD should be addressed;
- Debt and access to global capital markets should be addressed;
- The existential threat of climate change should be addressed;
- Monitoring systems and the data underpinning them should be strengthened; and
- Advancement of high quality partnerships.

These elements should be incorporated into the new 2015 development agenda for SD in SIDS generally and in national policy to provide greater scope for the improvement of the lives of all Guyanese.

They should also be utilised in global processes to ensure that as a developing country we are provided with the type of support to which the International Community has given its firm commitments.

**Guyana’s Priorities**

Guyana calls on the International Community to drastically change their attitudes and honour their commitments to SD. We believe this demand needs to be firmly made at the Caribbean Regional Preparatory meeting, the Inter-Regional meeting and at the Third International Conference on SIDS. This is of paramount importance to the SD of SIDS.

We present below key priority areas for consideration.

**1. Reducing poverty and inequality**

Poverty impinges on all aspects of development—nationally, regionally and globally. Actions are therefore necessary at all levels.

In relation to the global fight against poverty and inequality, there is a good opportunity arising through the UN Informal Thematic Debate in July 2013 on “Inequality” which is being held as a step in the implementation of the UN Resolution on Promoting the New Global Human Order (NGHO). As the initiators of the NGHO Resolution, Guyana has a key role to play in the Thematic debate and to incorporate key elements of President Jagan’s NGHO into the UN post 2015 development agenda.

Guyana recommends the timely implementation of the UN Resolution on the NGHO and the inclusion of the NGHO principles in the UN post 2015 development agenda.

**2. Addressing the Social Dimension of Sustainable Development**

Guyana supports the Expert Group recommendations for supporting and creating opportunities for: employment; placing more emphasis on women’s empowerment and issues such as domestic violence; and strengthening of the quality of education and health services.

At a national level, we have recognised these issues and have started to put systems in place to have them addressed. In particular, we have made progress in legislation and programmes to address domestic violence, gender equality, the disabled, indigenous groups and trafficking in persons.
3. Addressing debt and access to global capital markets

Many SIDS are heavily burdened by huge financial debt. Repayments deplete a very large part of the country’s finances and greatly reduce what is available for development needs.

The International Community should consider reforms to the global financial architecture, to create an environment that encourages investment in the resiliency of SIDS.

We call for preferential treatment for highly vulnerable countries through debt relief in the form of write off, reduction or rescheduling as one form of international support for SD.

Guyana, like so many other SIDS, has experienced restricted access to concessional financing because of being categorised as a middle income country on the basis of GDP. We endorse the need for a differentiated treatment and access to concessional financing based on fair assessment of countries’ respective vulnerabilities and resilience to global impacts. We further support reforms to the global financial architecture which will create an environment that encourages investment in the resiliency.

4. Financing to support sustainable development initiatives

In committing to a SD pathway and a green economy, Guyana also believes that developed countries should bear the responsibility for most of the climatic and other environmental threats that impose constraints on poor countries like ours.

We therefore believe that the responsibility for ensuring sustainable and green development has to be guided by historical responsibility and equity of access to the remaining atmospheric space. To this extent, we call on our developed country partners to provide adequate and predictable financing to support SD initiatives, and to enable us to grow along a green trajectory, to improve the social and economic conditions, and to lift our population out of poverty.

5. Governance

We recognise that governance systems are important mechanisms for access to and delivery of support for implementation of SD initiatives. While national governance systems are under the direct control of sovereign governments, poor countries like Guyana are dependent on the multilateral processes when it comes to the establishment and effectiveness of international governance mechanisms. These processes are controlled by our more developed partners, and so we call for accelerated action in the establishment of international governance systems that provide for equitable access to and delivery of financial support to us as we aspire to pursue a green and SD pathway to social development.

In addition, the International Community should increase its efforts to reduce vulnerabilities related to food security, natural disasters, climate change and other related events.

6. Trade

We are concerned with the increased marginalisation of SIDS from the global trading system and SVEs in the global economic and financial system with the emergence of a globalised economy and
the formation of regional and global trading blocs.

The International Community, particularly the developed countries, needs to be consistent in their commitments as it relates to providing a favourable environment for SIDS by removing barriers to trade arising from decisions made at forums such as the WTO. Special measures for the weaker economies must be addressed.

They should play a greater role in enhancing the delivery of coordinated, effective and targeted trade related technical assistance and capacity-building programmes.

Unless the trade issues which impact negatively on SIDS are addressed, many of the gains will be rapidly eroded.

While progress has been made on several fronts, MDG 8 (develop a global partnership for development) has been lacking. Guyana reiterates its call for the International Community to fulfil the promise of MDG 8 especially a fair, rules-based non-discriminatory trading system, development assistance for the least developed countries and the sharing of new technologies.

7. **Human resource development**

A critical component of capacity development is the development of human resources. The International Community should play a stronger facilitating role in human resources development in Guyana. This can extend to programmes to strengthen expertise in key areas relevant to SD.

8. **Strengthening monitoring systems and the data underpinning them**

The lack of quality data and the means of obtaining them present a significant problem for Guyana. We place a high priority on capacity building in data collection, analysis and inference.

The International Community should provide increased support to Guyana to further develop its monitoring systems. This includes, but is not limited to early warning systems for DRM, weather monitoring systems, MRVS, remote sensing and field monitoring systems.

Increased support should also be provided for the establishment of national and regional information and database centres, programmes and initiatives to support the exchange of scientific information and data within the Caribbean. They should support the establishment and strengthening of centres of excellence for training and applied research within existing national and regional institutions.

9. **Science, Technology, Research and Innovation**

Developing countries need effective support from the developed countries to build their capacity in areas of Science, Technology, Research and Innovation.

Additionally, increased collaboration and partnerships are needed among local, regional and international research institutions, universities, governments, NGOs and scientists.
10. Technology Transfer to support Sustainable Development initiatives

Guyana calls for greater access to technology to enable us to increase productivity and efficiency.

We further call for technology that is appropriate to our regional circumstances, and for assistance that will allow us to penetrate the intellectual property rights barrier.

International cooperation and support for technology transfer to developing countries should be enhanced.

11. Public education and awareness

Increased international support should be provided to sensitise communities and individuals on SD and to strengthen PEA and outreach programmes.

12. Addressing the existential threat of climate change

Climate change is a global challenge that threatens all States. However, it is the most vulnerable who are the least capable to respond to these impacts. Guyana, with the vast majority of its population, infrastructure and food production potential lying below sea level, is among the most vulnerable in the world. Already, extreme weather events have produced devastating impacts on the economy. Even in the midst of socio-economic difficulties and adverse impacts, we have pledged to contribute to global mitigation through a REDD+ strategy. However, we support the need for a global agreement by 2015, including financing for adaptation and the development of a loss and damage mechanism to guard against future catastrophic events. We further call on the developed world to honour their historical responsibility and raise their level of ambition and reduce their greenhouse gas emissions to levels consistent with a global goal of well under two degrees.

13. Disaster management

As was indicated earlier, Guyana is among the most vulnerable countries in the world, with most of its population and infrastructure located on the low-lying coast which is below sea-level. Sea level rise and high intensity rainfall, both of which are on the increase, present ever growing threats of disaster. Management of disasters is therefore a high priority for Guyana. We are in the early stages of a comprehensive disaster management programme which will take much time and resources to implement. Finance for developing and implementing the programme will remain a priority.

14. Coastal Area Management

Owing to SIDS being Islands or Low-lying Coastal States, coastal zone management is critical to the efforts at disaster management as well as the sustainable utilisation of their coastal and marine resources.

There is an urgent need for the establishment and/or strengthening of programmes within the framework of the United Nations Environment Programme (UNEP) Global Programme of Action (GPA) and the Regional Seas programmes, to assess the impact of planning and development on the
coastal environment, including coastal communities, wetlands, coral reefs habitats and the areas under the national jurisdiction of SIDS, and to implement the Programme of Action.

15. Renewable Energy

Guyana recognises the adverse effects associated with the use of fossil fuels, as well as the high cost of importation. The country has enormous potential for hydropower, and feasible opportunities for biofuels, solar power and biomass energy. The development of Amaila Falls for hydropower is a key element in the LCDS. Cheaper and cleaner energy will remain a priority for us as we seek to move to sustainable and clean production. The link with technology transfer and SD financing is critical.

16. Advancing high quality partnerships

The SIDS meetings can provide opportunities to foster a new paradigm in development cooperation, e.g. public-private, SIDS-SIDS and other South-South partnerships and tripartite partnerships.

The International Community should support the development and enhancement of different types of partnerships and support improved coordination and collaboration among regional bodies and between the International Community and regional programmes.

Guyana also feels that much more needs to be done to improve the levels of cooperation among SIDS globally and at the regional level, and recommends:

- Strengthening of the Caribbean RCM in order to improve the cooperation efforts among Caribbean SIDS.
- Strengthening of AOSIS to provide stronger leadership in advancing the interests of SIDS in each of the three regions.

Integrating the Three Pillars of SD

Guyana re-affirms the need and the goal of integrating the three pillars of SD – economic development, social development and environmental protection. The follow up to RIO+20 also provides many opportunities for SIDS to contribute to the preparation of the Sustainable Development Goals to ensure that they truly reflect the integration of these three pillars of SD and reflect all the commitments made to SIDS by the International Community at all of the relevant global forums.

These opportunities will not automatically lead to concrete results. They will require strong political will by all leaders and other players in the national, regional and global processes.

At the national level, measures have to be identified within a framework that mainstreams SD in all national policies, programmes and plans.

At the regional level, regional governance entities such as CARICOM, Pacific SIDS, etc., will need to employ a common approach in which optimum use is made of the human, institutional and material resources available within the Region and concrete proposals are made to the International Community for support.
At the global level, there has to be a collective will and a concerted effort to ensure the fulfilment of commitments made to SIDS at all forums, covering all global processes, including the UN General Assembly and SIDS Ministerial Summit.

8 References


**Submission from Sectors**

Some information used in this report were provided by sector including Ministries and Government agencies.

**Websites**

http://post2015.iisd.org : International Institute for Sustainable Development
http://www.iwokrama.org/ : Iwokrama
http://mangrovesgy.org/ : Guyana Mangrove Restoration Project
Appendix

Appendix 1: Discussions at the Multi-Stakeholder Consultation

The Multi-Stakeholder Consultation was held in Georgetown on May 14, 2013.

The event was attended by 70 persons who represented a wide range of stakeholders relevant to the SD process. These included representatives from various governmental, NGOs, international organisations, academic institutions and private sector agencies.

During the discussion segment of the Consultation, participants provided comments, raised issues and identified recommendations in relation to process. A summary of these are listed below.

1. The passing of the Amerindian Act to protect the rights and welfare of Amerindians has resulted in reduced poverty in the Hinterland.

2. Commendable efforts have been made towards Hinterland development, especially in the area of providing renewable energy. The following activities were accomplished:
   - Distribution of 11,000 solar panels.
   - Completion of small hydropower projects.

3. Further development of Hinterland communities can materialise through the following:
   - Formulation of an energy plan for the Hinterland that utilises sustainable energy resources.
   - Investing revenues from natural resources into the development of the Interior.
   - Further infrastructural development in these areas.

4. The Ministry of Finance has implemented a National Action Plan for M&E, which started in 2011. Work was on-going in two pilot ministries (Health and Education).

5. It is important to address key issues such as the effects of budget cuts and gold and market prices on the LCDS.

6. It is also necessary to highlight the infrastructural gaps that exist. Overall there was consensus that there needs to be the strengthening of Guyana’s economic and social sustainability framework.

7. Some participants proposed the following recommendations to improve the social aspects of SD:
   - Assess the nature of inequality that exists in Guyana.
   - Address the connection between poverty and inequality.
• Evaluate the population dynamics to identify new vulnerabilities or strengths; including the impact of the Brazilian population in Guyana on SD. It was suggested that the recent census could assist with these analyses.
• Develop strategies for sustainable livelihoods, for both urban and Hinterland communities.
• Develop a people’s approach and response framework for SD.
• Set-up a committee to further highlight issues and assist in the development of communities.
• Increase participation of women in SD initiatives. This should assist in highlighting gender based issues that can affect SD.

8. The contribution of Micro, Small and Medium-sized entrepreneurs to SD is increasingly being recognised; and as such the following can be pursued to foster the development of these businesses:
   • Develop an integrated process for accessing finances; and
   • Establish a platform to enhance business development.

9. Guyana should move towards becoming a ‘Green Economy’. The country should support initiatives to encourage the ‘Greening of the City’ and develop green city and building plans which encourage the use of renewable energy, and also prohibit the use of reflecting tint in an effort to reduce impacts on birds; inter alia.

10. As it relates to Guyana’s legislative framework, participants indicated the following:
    • There are legislation deficits in the areas of integrated waste management; recycling and energy conversion; freshwater resources; coastal and marine resources; and watershed management.
    • The draft bill on solid waste management (2004) has still not been past.
    • An implementation audit should be conducted to determine what is planned and what was completed.

11. Data collection is a problem. Improvements in data management should include the following:
    • The development of a comprehensive National Database consisting of studies and other research material; it will prevent duplication of efforts. It would be most practical if these can be made readily available and accessible through the Internet.
    • The development of a specific database to support economic and social analysis, planning and development. This may be best managed by a statistical analysis department with the responsibility for economic and social planning.

12. There are a number of issues impacting environmental management in Guyana. It is important to identify key vulnerabilities such as the increased pressure on the coastal area and natural disasters such as flooding, in order to improve SD.

13. Conflicts between natural resources sectors still exist.

14. Continued land use planning is important.

15. A systematic way to measure the environmental impacts of tourism should be developed.
16. The use of mercury in gold mining should be addressed more effectively.

17. Increased emphasis should be placed on climate change risk modelling at the national and even regional levels. This is important since it can assist with adaptation and mitigation measures effectively.

18. The heights of the current sea defence infrastructure should be increased.

19. There needs to be improvements in the management of freshwater resources. An integrated management plan for freshwater resources should be developed, the Water Council should be resuscitated.

20. There should be increased access to clean water.

21. The sanitation and health issues that arise from floods should be addressed.

22. Waste management:
   - Waste management is a major issue in Guyana.
   - While legislation may be lacking, a draft solid waste plan is available.
   - An integrated waste management approach should be adopted.
   - Waste water management should be specifically addressed.
   - It is important to finance waste water management.
   - Continued efforts should be made to find innovative ways of converting waste from timber, rice and sugar cane into energy.

23. UG should play a role in SD.

24. The country should continue to engage in regional co-operation with the CCCCC.

25. Increased investments should be made into applied research.

26. To support progress in S&T, the S&T Council should be resuscitated, and the S&T policy should be finalised.