



**WWF-Guianas Project Report on Marine Biodiversity and Forest
Governance**

Legislative Review of the Environmental Laws of Guyana in relation to the
2020 CBD targets

FINAL REPORT

28th June 2017

Prepared by Mrs. Alicia Elias-Roberts, Legal Consultant
Attorney-at-law and Lecturer, University of the West Indies

© WWF

Contents

I.	Acronyms and Abbreviations	4
II.	Executive Summary	6
III.	Guyana - Country Profile	7
IV.	Summary of relevant environmental laws: Legislation and Regulations	9
1.	Relevant Legislation	9
(i)	The Constitution	9
(ii)	Environmental Protection Act, No. 11 of 1996 (Cap. 20:05)	11
(iii)	Forestry Commission Act, No. 20 of 2007	13
(iv)	Forests Act, No. 6 of 2009 (Cap 67:01)	13
(v)	Protected Areas Act, No. 14 of 2011	14
(vii)	Iwokrama International Centre of Rainforest Conservation and Development Act, 1996	18
(viii)	Plant Protection Act, No. 9 of 2011	19
(ix)	Guyana Geology and Mines Commission Act, No. 9 of 1979 (Cap. 65:09)	19
(x)	Mining Act, 1989.....	20
(xi)	The Petroleum Act, 1986	21
(xii)	Hydro-Electric Power Act Cap 56:03 and (Amendment) Act, no. 14 of 2013.....	22
(xiii)	Wild Birds Protection Act, 1990 (Cap. 71:07)	23
(xiv)	Pesticides and Toxic Chemicals Control Act No. 13 of 2000	24
(xv)	Amerindian Act, No. 6 of 2006.....	25
(xvi)	Maritime Zones, No. 18 of 2010	26
(xvii)	Fisheries Act, 2002 (Cap. 71:08)	27
(xviii)	River Navigation Act, 1891 (Cap. 50:01)	30
(xix)	Shipping Act, No. 7 of 1998 (Cap. 49:01)	30
(xx)	Sea Defence Act, 1933 (Cap. 64:02).....	30
(xxi)	State Lands Act, 1903 (Cap. 62:01)	30
(xxii)	Roads Act, 1909 (Cap 51:01)	31
(xxiii)	Motor Vehicles and Road Traffic Act, 1940 (Cap. 51:02).....	31
(xxiv)	Town and Country Planning Act, Chapter 20:01.....	31

(xxv)	Occupational Safety and Health Act, No. 32 of 1997	32
(xxvi)	Labour Act.....	33
2.	Relevant Regulations	33
(i)	Environmental Protection Regulations, 2000.....	33
(ii)	Wildlife Management and Conservation Regulations, 2013.....	35
(iii)	Species Protection Regulations, 1999	36
3.	Relevant environmental legal principles and norms applicable to marine biodiversity and forest governance	36
(i)	Sustainable Development	37
(ii)	The principle of prevention of environmental damage	37
(iii)	The principle of transparency, access information, public participation, consultation, fact-finding	37
(iv)	Precautionary principle.....	37
(v)	Polluter Pays Principle (Principle 16 Rio Declaration).....	38
V.	Law Reform: Draft Bills and Regulations.....	38
VI.	Matrix that identifies legislative gaps for meeting the 2020 CDB targets	39
VII.	National Policies and Strategy Documents	43
VIII.	Strengthening institutional framework and the identification of possible barriers to the implementation of the 2020 CBD targets	46
IX.	Recommendations for the removal of institutional barriers, inclusive of a probable timeframe are as follows:	47
X.	Linkages and Synergies with other Multilateral Environmental Conventions	48
(i)	Convention on Biological Diversity.....	50
(ii)	Caribbean Environmental Programme (CEP) under the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean	51
(iii)	Protocol Concerning Pollution from Land-Based Sources and Activities (LBS).....	51
(iv)	Protocol Concerning Specially Protected Areas and Wildlife (SPA).....	51

(v) The Amazon Cooperation Treaty..... 52

(vi) Convention on International Trade of Endangered Species 52

(vii) UN Framework Convention on Climate Change (UNFCCC)..... 52

XI. Conclusion and Summary of major findings..... 54

XII. Appendix..... 57

1. “We are ‘fed up’ of water pollution - *Kamarang residents*” Kaieteur News, Dec 23, 2013..... 57

2. “Pollution caused by mining will not be tolerated - *Min. Broomes*,” Kaieteur News, Feb. 6th, 2017 59

3. “Former army chief heads body to tackle illegal wildlife exports, hunting,” Kaieteur News, Jan. 8th, 2015 60

4. Bill to curb illegal trade of wildlife passed, Guyana Chronicle, Aug. 9, 2016 ... 61

I. Acronyms and Abbreviations

CARICOM	Caribbean Community
CBD	United Nations Convention on Biological Diversity
CHM	Clearing House Mechanism
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CoP	Conference of the Parties (to the CBD)
CSBD	Centre for the Study of Biological Diversity
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EITD	Education, Information and Training Division
EPA	Environmental Protection Agency
EU	European Union
FLEGT	Forest Law Enforcement, Governance and Trade
GEF	Global Environment Facility
GFC	Guyana Forestry Commission
GINA	Government Information Agency
GoG	Government of Guyana
GGMC	Guyana Geology and Mines Commission
IUCN	International Union for the Conservation of Nature
Iwokrama	Iwokrama International Centre for Rain Forest Conservation and Development
ICZM	Integrated Coastal Zone Management
MPA	Marine Protected Area
MSP	Marine Spatial Planning
NAREI	National Agriculture Research and Extension Institute
NBAC	National Biodiversity Advisory Committee
NBSAP	National Biodiversity Strategy and Action Plan
NDS	National Development Strategy
NEAP	National Environmental Action Plan

NFAP	National Forestry Action Plan
NFP	National Forest Plan
NGO	Non-Governmental Organization
NPC	National Parks Commission
NPAS	National Protected Areas System
NRMD	Natural Resource Management Division
PAC	Protected Areas Commission
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
SCBD	Secretariat of the Convention on Biological Diversity
TAC	Treaty for Amazonian Cooperation
UG	University of Guyana
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WRI	World Resources Institute
WWF	World Wildlife Fund, Inc.

II. Executive Summary

This report was conducted for the World Wildlife Fund, Inc. (WWF) and forms one of the components of the Marine Biodiversity and Forest Governance (FLEGT/REDD+) Project. In April 2017 the WWF hired a consultant to prepare this report with four main objectives which are, namely:

- (i) to provide information on the United Nations Convention on Biological Diversity (CBD) Gap Analysis Report on Guyana;
- (ii) to assess the national legislation in Guyana and current progress towards the 2020 CBD targets;
- (iii) to provide information on a legislative review covering instruments, principles and legal norms in force with regard to marine management and biodiversity in Guyana; and
- (iv) to promote information exchange between Government officials and various stakeholders, capacity building and knowledge generation.

This report is critically important in completing one of the necessary steps in the process of designating 10% of Guyana's EEZ as an MPA, as indicated in the Marine Biodiversity and Forest Governance (FLEGT/REDD+) EU Project document. Guyana was among the 168 countries which signed the United Nations Convention on Biological Diversity in June 1992 at the Rio Summit and subsequently ratified the Convention in August 1994. Guyana has since prepared and submitted five national reports to the CBD.¹ In its fifth CBD National Reports (2014) it stated that *no progress has been made towards meeting Aichi target 11 for 2020 (10% coastal & marine areas protected) and further action is required against 4, 6, 10 & 14*. The overall objective of this report is to provide information to assist Guyana to meet the Aichi targets and to promote increased marine protection and strengthened governance to safeguard biodiversity and enhance food security, protect livelihoods, increase resilience and support socio-economic development in line with regional ambitions. Delivering the specific objective will contribute to the overall objective of the project: that by 2030, priority marine species and habitats in Suriname and Guyana 'Eastern Gate to the Caribbean' are effectively protected and ocean resources are managed in an equitable, sustainable and integrated manner.

During the month of May 2017 the consultant visited Guyana and met with senior staff and legislative drafters at the Attorney General's Chambers, Ministry of Legal Affairs and the Acting Commissioner at the Protected Areas Commission (PAC). Interviews were conducted with various stakeholders to gather information on the status of laws relevant to the project and many reports, laws, and other materials were obtained, including several reports from the Environmental Protection Agency (EPA). Based on information and documents received the consultant conducted a review of the relevant laws and included analysis and recommendations on the legislation. In a few cases the consultant drafted various amendments to the laws regulating the marine environment

¹ See <https://www.cbd.int/reports/search/> for 5 country reports from Guyana to the CDB covering the periods 1994-1999, 2000-2003, 2004-2006, 2007-2010, and 2011-2014; and 3 NBSAP.

and biodiversity in Guyana. The drafts were emailed to legislative drafters at the Attorney General's Chambers in Guyana for feedback. Some of the feedback were incorporated in the proposed amendments. The views expressed in this report herein are those of the consultant and do not necessarily reflect the views of the donor agencies supporting the activity nor the WWF.

The legislative review undertaken here is extensive and provides commentaries including analysis and recommendation on various legislation in Guyana related to marine biodiversity and forest governance. The various pieces of legislation under review can be placed in five broad categories as legislation relating to:

- (i) the marine environment;
- (ii) the management and conservation forest resources;
- (iii) species protection;
- (iv) prohibition and curbing pollution; and
- (v) the extractive industries, including gold mining, logging, petroleum exploration, etc.

Many of the legislation covered overlap in the five categories and that made their review all the more relevant to this report. The legislative review is followed by an analysis of subsidiary environmental legislation. Then a review of various policy documents is undertaken. This is followed by a discussion of relevant environmental legal principles and norms applicable to marine biodiversity and forest governance. There is a matrix which outlines the gaps between the various laws and the 2020 CBD targets. The matrix summarises the legislative review and analysis and puts it together in a table format. Following this is a discussion about various institutions and their mandates and recommendations on how their operations may be streamlined to make them work more efficiently. Next there is an examination of the linkages and areas for synergies between the CDB and other Multilateral Environmental Conventions that Guyana is a signatory to. This is followed by the conclusion and a summary of the major findings.

This report serves to provide information to help improve public awareness in Guyana on the country's biodiversity. Its potential audience is therefore relatively wide and includes the government, major stakeholders and decision makers as well as members of the general public.

III. Guyana - Country Profile

Guyana is situated on the northern coast of South America and is approximately 215,000 square km in size. Of that land area, the larger part (about 78 %) is covered by natural forest, 17% consists of savannah and scrub, and 5% comprises areas under cultivation, settlement or that was cleared of forest. The country's territorial sea extends

12 nautical miles from the coastal limit and its Exclusive Economic Zone extends 200 nautical miles into the Atlantic Ocean, making up an area of 138, 270 square km.

Guyana is part of the Guiana Shield, a distinct eco-region of the larger Amazon Basin. The Guiana Shield alone has over 3000 vertebrate species made up of 1,168 fresh water fish, 269 amphibians (54% endemics), 295 reptiles (29% endemics), 1,004 birds (7.7% endemics), and 282 mammals (11% endemics).² Guyana is centrally positioned within the Guiana shield, containing much of its representative ecosystems and biodiversity, while still featuring many endangered Amazonian species. This biological richness is all the more significant considering that the Amazon houses approximately 10% of the world's known biodiversity and is the world's largest remaining tract of tropical rainforest.³

The Coastal Plain is situated north of the Guiana Shield which has yielded most of the country's soils consisting of deeply weathered Precambrian rocks. The Coastal Plain itself is of sedimentary origin and accounts for about 7% of the national land area. It is on this strip that most of the industrial cultivation of sugarcane, rice and other crops is carried out.⁴ The richest soils, consisting of clays and interspersed with sand ridges, are found here and occur for the most part below sea level. The rest of the coastal plain consists of mangrove forests and swamps. The mangrove forest constitute the forest type in the country most in need of conversion.

Guyana has a population recorded at the last census in 2012 of approximately 747,883 persons.⁵ Agriculture and extractive industries are the primary contributors to Guyana's economy and over the last two years, there has been average economic growth of 5 percent annually. Per capita Gross Domestic Product (GDP) has risen from US\$ 1,694 in 2006 to US\$ 3,496.3 in 2013. Agriculture, forestry and fishing sectors accounted for approximately US \$67,579 million of the GDP in 2012 while mineral production declared value was US \$40,411 million of the GDP.⁶ More recently Guyana has embarked on oil and gas exploration and it is estimated that production should begin in 2020. On June 15th the Minister of Natural Resources, Raphael Trotman informed the National Assembly that a Petroleum production licence was issued to ExxonMobil for the Liza Field in the Stabroek Block.⁷ The Liza phase 1 development plan is designed to produce up to 120,000 barrels of oil per day and this should bring significant earnings to Guyana's GDP.

Biodiversity plays a very important role to Guyana in maintaining the extensive forest cover of the country, the savannahs, and the various aquatic habitats. The agricultural sector is the major economic beneficiary of biodiversity and the industry contributes more than 35% of the GDP and about 43% of foreign exchange earnings. Two of the top three sources of foreign exchange and employment in the country are

² Protected Areas Commission Guyana: Strategic Plan 2016-2020, 2016.

³ Ibid.

⁴ Guyana: Fifth Report to the Convention on Biological Diversity, 2014

⁵ Guyana's National Biodiversity Strategy and Action Plan (2012-2020), 2014.

⁶ Ibid.

⁷ "Exxon gets production licence, MPs in fiery debate on petroleum bill," Stabroek News, June 16, 2017, p. 13.

Agricultural crops (rice and sugar). Fisheries and forestry contribute an additional 6% and 5%, respectively to GDP, but there is potential for development in both these industries along with that of wildlife. The biological resources of the country are therefore important and linked to the future development of the economy and the population.

IV. Summary of relevant environmental laws: Legislation and Regulations

Several pieces of legislation were developed to ensure that Guyana's environment is protected and there is a sustainable use, conservation and protection of the natural resources. The legislation relevant to biodiversity and marine protection are highlighted below and after each law a summary of recommendation and analysis is provided. It must be noted that two of the most relevant legislation under review are the Environmental Protection Act of 1996 and its subsequent amendments and the Protected Areas Act of 2011.

It must be highlighted that the laws under review below can be grouped into the following five broad categories:

- (i) Laws relevant to the marine environment, such as the Environmental Protection Act, the Sea Defence Act, the Fisheries Act and the River Navigation Act;
- (ii) Laws relevant to the forest resources, such as the Environmental Protection Act, the Forest Act, and the Protect Areas Act;
- (iii) Laws relevant to species protection, such as the wild Birds Protection Act, the Species Protection Regulation and the Wildlife Conservation and Management Bill;
- (iv) Laws relevant to the prohibition and curbing pollution, such as the Pesticides and Toxic Chemicals Control Act; and
- (v) Laws relevant to the extractive industries, covering gold mining, logging, petroleum exploration, etc.: these include the Mining Act, Guyana Geology and Mines Act, the Petroleum Act, etc.

1. Relevant Legislation

(i) The Constitution

Only a few states in the Commonwealth Caribbean have enshrined a right to a clean environment in their written constitutions. The Guyana Constitution is one of the few exceptional states that protects this right. The constitutional laws in Guyana are very liberal and advance in this respect. Several other Constitutions in the Commonwealth Caribbean have provisions from which an implied right to a clean environment has been inferred but there is no expressed provision regarding protection of the environment. For instance, in the Constitution of Trinidad and Tobago, the word "environment" does not appear. Trinidad and Tobago have a number of legislation that protects the environment.⁸

⁸ See, Trinidad and Tobago Environmental Management Act, 2000.

The Constitution is the supreme law of Guyana. It outlines the branches and powers of Government, and several important constitutional office holders as well as establishes qualifications and times for elections, lists basic human rights and sets up independent institutions to protect these rights. All the laws made by Parliament must be in keeping with the provisions of the Constitution and any law that is in conflict with the Constitution is unconstitutional. In other words, laws that are inconsistent with the constitution are not valid.

Since Guyana obtained independence in May 1966, there have been many significant constitutional amendments. In 1970 amendments were made proclaiming Guyana a Co-operative Republic and the British Monarch was replaced by a Ceremonial President elected for a fixed term. The 1980 Constitution identified the President as the Head of State and the Supreme Executive Authority and established a system of local democratic organs. There have been several amendments to the 1980 Constitution.⁹

In the preamble of the Guyana Constitution it provides that the Guyanese people proclaim the Constitution in order to, *inter alia*:

Acknowledge the aspirations of our young people who, in their own words, have declared that the future of Guyana belongs to its young people, who aspire to live in a safe society which respects their dignity, protects their rights, recognises their potential, listens to their voices, provides opportunities, ensures a **healthy environment** and encourages people of all races to live in harmony and peace and affirm that their declaration will be binding on our institutions and be a part of the context of our basic law; ... and

Demonstrate our commitment to protect our natural environmental and endowment.

A number of Articles in the 1980 Guyana Constitution expressly provides protection of the environment as well as an obligation that is placed upon citizens to improve the environment. Article 25 provides a duty to improve the environment and states: "Every citizen has a **duty to improve the environment** and protect the health of the nation." Article 36 provides for **land and the environment** and states: "The well-being the nation depends upon preserving clean air, fertile soils, pure water and the rich diversity of plants, animals and eco-systems." There was an amendment in 2003 in which Article 149J - 'The environment' was included and it provides:

- (i) **Everyone has the right to an environment that is not harmful to his or her health or well-being.**
- (ii) **The State shall protect the environment, for the benefit of present and future generations, through reasonable legislative and other measures designed to -**
 - (a) **prevent pollution and ecological degradation;**
 - (b) **promote conservation; and**

⁹ <http://parliament.gov.gy/constitution/>

(c) secure sustainable development and use of natural resources while promoting justifiable economic and social development.

- (iii) It shall not be an infringement of a person's rights under paragraph (i) if, by reason of an allergic condition or the peculiarity, the environment is harmful to that person's health or well-being.

Analysis and Recommendation: The Constitutional provisions in Guyana are very liberal and advance in that they expressly provide for the protection of the environment. The Guyana Constitutional provisions support the overall objectives of the Strategic Plan for Biodiversity 2011-2020¹⁰ in that it helps to mainstream biodiversity and protection of the environment at the level of highest laws at the national level. It also support the Aichi Target 2 because it consolidates/ harmonizes the legal frameworks and provides support to the sustainable use, protection and management of biodiversity resources. There are no recommendations to make any changes to the Constitution under this project.

(ii) Environmental Protection Act, No. 11 of 1996 (Cap. 20:05)

In 1996, the EP Act was enacted to implement the environmental provisions of the Constitution. The EP Act is Guyana's single most significant piece of environmental legislation because it expresses the national laws on important environmental topics such as pollution control, the requirements for environmental review of projects that could potentially impact the environment, and the penalties for environmental infractions. It also provides for the establishment of an environmental trust fund.

Most importantly, the EP Act establishes the Environmental Protection Agency (EPA), a body corporate, as the lead agency on environmental matters in Guyana.¹¹ The main functions of the Agency are to take such steps as are necessary for the effective management of the natural environment so as to ensure conservation, protection, and sustainable use of its natural resources. The EP Act also requires the EPA to take the necessary measures to ensure the prevention and control of pollution, assessment of the impact of economic development on the environment, and the sustainable use of natural resources. The EP Act outlines the legal requirement for environmental impact assessments for development projects considered to have significant impacts on the environment, inclusive of biodiversity.

Through this Act the EPA was mandated with the overall responsibility for natural resources management. The EPA is one of the agencies included within the Ministry of Natural Resources. The EPA was also designated the National Focal Point for the Convention on Biological Diversity. Subsequently the EPA created the Natural Resource Management Division (NRMD) to execute the agency's functions related to natural resources management as stipulated in the Act and fulfil Guyana's requirements under

¹⁰

¹¹ FAO, 2013

the Convention. The creation of NRMD demonstrates Guyana's commitment towards implementing the obligations under the Convention.

The GoG established the Education, Information and Training Division (EITD) within the EPA to execute the agency's function related to education and public awareness and subsequently a National Environmental Awareness Strategy was developed. The First National Report to the CBD secretariat recognised public awareness and education as one of the areas of great need for Guyana. NBAP I also identified and implemented specific projects on conservation education and awareness such as the inclusion of biodiversity into the school curriculum at various levels and trained a number of teachers to deliver the teaching modules. Local Non-Governmental Organisations (NGOs) such as Conservation International (CI) - Guyana, Iwokrama, and World Wildlife Fund (WWF) continue to promote biodiversity conservation and management and to stimulate public interests and involvement. Therefore, work in the area of conservation awareness and education has been the most effective with respect to the implementation of the Convention.

The interpretation section under the EP Act 1996 states that "natural environment" means all land, area beneath the land surface, atmosphere, climate, all water, surface water, ground water, sea, seabed, marine and coastal areas and natural resources, or any combination or part thereof..."¹²

Under regulations 68. (1) The Minister may make regulations for the purpose of giving effect to the provisions of this Act, and in particular but without prejudice to the generality of the foregoing, such regulations may contain provisions in relation to:-

- (a) standards and codes of practice with respect to the protection and rehabilitation of the environment and the conservation of natural resources;
- (j) protecting the coastal and marine resources;
- (o) prohibiting the dumping of waste into the marine environment;...

Analysis and Recommendation: The Guyana EP Act expressly provides protection of the marine and forest environment. The current regulations made under the Act cannot sufficiently deal with offshore petroleum exploration and production which have the potential to harm the marine environment. There is need for new regulations to regulate oil spills, and a contingency plan that outlines the approach to respond to oil spills and accidents offshore must be developed.

The EP Act supports the overall objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level. The Act provides for the management, conservation, protection and improvement of the environment, the prevention or control of pollution, the assessment of the impact of economic development on the environment, the sustainable use of natural resources and for matters incidental thereto or connected therewith. The EP Act supports the Aichi Target 1 because it expands and improves awareness, appreciation and communication on biodiversity and ecosystems. It also supports Aichi Target 2 because it consolidates/ harmonizes the legal frameworks and provides support to the

¹² Section 2, EP Act, 1996.

sustainable use, protection and management of biodiversity resources. The EP Act also supports the Aichi Targets 14 and 15 by improving the status of biodiversity by conserving ecosystems, species and genetic diversity and by restoring biodiversity and ecosystem services in degraded areas. There are no recommendations to make any changes to the EP Act under this project. While in the conclusion below it is recommended that there can be improved coordination between the EPA and other relevant agencies that regulate the marine environment and forest governance, these changes can be made by a change of policy and practice rather than laws.

(iii) Forestry Commission Act, No. 20 of 2007

The Guyana Forestry Commission Act 2007 repealed and replaced the Guyana Forestry Commission Act of 1979 and re-established the Guyana Forestry Commission. The Act provides specifically for the establishment, organization, mandate and functions and responsibilities of the Guyana Forestry Commission, the forestry authority in Guyana. The functions of the Commission as defined in the Act under section 5 include:

- to provide advice on various forest related issues and on formulation of forest policy;
- to prepare plans, codes of practice, and guidelines for the conservation and management of forests;
- to research, collate, analyse, prepare and disseminate data, statistics and other information about forests and all aspects of forestry including forest ecology and the use of forest produce; and
- to inspect, certify and accredit services for quality control of forest produce.

Analysis and Recommendation: The GFC Act outlines the work of the Forestry Commission which is important for forestry conservation and protection. The objective of the Commission as provided for under section 2 is to encourage the development and growth of forestry in Guyana on a sustainable basis. This objective is in line with the state's obligation under the CBD. As a result, there are no recommendations to make any changes to the GFC Act under this project.

(iv) Forests Act, No. 6 of 2009 (Cap 67:01)

This Forest Act 2009 consolidates and amends the law on forests¹³. It governs all activities that are carried out in the forest including mining and associated activities. The Act deals with the designation of State Forests and the award of forest concessions, sales of forest products, penalties and offenses, powers of forest officers and the protection of Amerindian rights, among other aspects. Under this Act a licence is required for petroleum prospecting or production in State Forests under the Petroleum (Exploration and Production) Act 1986 and no person shall engage in the following unless a mineral prospecting or mining licence has been granted under the Mining Act 1989:

- (i) enter and occupy state forest;

¹³ The Forest Act, Cap. 67:01 was repealed by the Forest Act, 2009 under sec. 83.

- (ii) cut, damage or take any forest produce or carry on any kind of forest operation; and
- (iii) carry out any kind of exploratory operation in a state forest

The Guyana Forestry Commission with the approval of the Minister is vested with the power for carrying out the purposes of the Act. This Act authorizes the GFC to, among other things:

- (a) grant Wood Cutting Leases, Timber Sales Agreements (Forest Concession Agreements) and State Forest Permissions to individuals and companies to fell and extract timber from defined tracts of State forests;
- (b) regulate timber harvesting, the conveyance of timber along public roads, and timber exports; and
- (c) regulate the rights and privileges of Amerindians in relation to State Forests.

The Act also outlines the ownership of forest produce and lists a number of offences and penalties that may arise as a result of violation of the law.

Analysis and Recommendation: The Guyana Forest Act expressly provides for sustainable forest management of State Forests under Part 2 of the Act. The Act also provides for Forest Conservation under Part 3. Section 22 of the Act states that the purpose of that part is to provide for the conservation and protection of biological diversity and protection of the forest from degradation, among other things.

Interestingly, section 23 provides for coordination with the EPA and provides that the EPA may declare a specified area of State Forest to be a specially protected area, and that declaration will not exceed 25 years. This Act was drafted and enacted before the Protected Areas Act of 2011 and therefore there is no mention of the PA Commission and their work, which is directly relevant to the Forest Act. In the conclusion below it is recommended that there can be strengthen coordination and streamlining of activities and functions between the Ministry of Natural Resources, the EPA, PA Commission and other relevant agencies that regulate the marine environment and forest governance, these changes can be made by a change of policy and practice rather than laws. As a result, there are no recommendations to make any changes to the Forest Act under this project.

Overall the Forest Act supports the objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level. The Act also supports the Aichi Target 2 because it consolidates/harmonizes the legal frameworks and provides support to the sustainable use, protection and management of forest resources. Further, the Forest Act supports the Aichi Targets 14 and 15 by improving the status of biodiversity by conserving ecosystems, species and genetic diversity and by restoring biodiversity and ecosystem services in degraded areas.

(v) Protected Areas Act, No. 14 of 2011

The Protected Areas Act was enacted in July 2011. The Act provides for the protection and conservation of Guyana's natural heritage and natural capital and

maintenance of ecosystem services through a national network of protected areas, the National Protected Areas System (NPAS). It provides for the establishment of a Protected Areas Commission to oversee the management of this network, the creation of national protected areas system and the establishment of a protected areas trust fund.

Under the NPAS, four areas of extraordinary biological value were designated legally Protected Areas: Kaieteur National Park, Shell Beach, the Kanuku Mountains, and the Iwokrama Centre for Rainforest Conservation. It also includes the National Park, Joe Vieira Park, the Zoological Park and Botanical Gardens. Guyana has opted to designate these areas as protected zones as a means of preserving them as pristine and undisturbed environments. Other areas proposed for protection include Mount Roraima and Orinduik Falls.¹⁴ Currently, only 5.5% of Guyana's land area is designed as protected areas. The Government has indicated that in considering its international commitment to meet the targets under the CBD, the Ministry of Natural Resources will work closely with PAC to fulfil the Government's longstanding commitment to the Wai Wai Village of Kanashen and support its request to become Guyana's first Indigenous Protected Area under the PA Act.¹⁵ The addition of Kanashen to the national system of protected areas will add 625,000 hectares of rainforest and will bring the protected areas landscape to 8.5% of Guyana's landmass.

The PA Act highlights the importance of maintaining ecosystem services of national and global importance and public participation in protected areas and conservation, and it establishes a protected areas trust fund to ensure adequate financial support for maintenance of the network. Other functions of this Act include promoting national pride in and encouraging stewardship of Guyana's natural heritage, recognizing the conservation efforts and achievements of Amerindian Villages and Amerindian Communities, and promoting the recovery and rehabilitation of vulnerable, threatened, and endangered species.

Enshrined in the Act are penalties for individuals who invade a protected area without the permission from the Commissioner or the Minister. Second time offenders will be fined five hundred thousand dollars, two millions dollars and one hundred thousand dollars based on the situation and third time offenders can face up to five years imprisonment.

Analysis and Recommendation: The Guyana PA Act expressly provides for the conservation of biological diversity, natural landscapes, seascapes and wetlands to establish a PAC, NPAS, among other things. The Protected Areas Trust Fund (PATF) was established to support the management of the NPAS, which includes supporting sustainable resource use in PA adjacent communities. The PATF is governed by a Board of Trustees.

The PA Commission is currently involved in a marine spatial mapping project which will provide updated information on the marine environment including the EEZ in Guyana. This activity is directly related to one of the goals of this project, which includes designating 10% of Guyana's

¹⁴ Protected Areas Commission Guyana: Strategic Plan 2016-2020, 2016.

¹⁵ Ibid.

EEZ as a Marine Protected Area. The major question is whether this can be facilitated through this Act.

At first, it appears straight forward that 10% of the EEZ can be designated as a protected area under the PA Act. Section 5 of the Act provides that the Act applies to the EEZ and other maritime zones as defined under the Maritime Zones Act 2010. Further, “protected area” means under section 6 (x) “a geographically defined area of land **or sea** or both which is managed for conservation of biological diversity and the maintenance of ecosystem services.” (bold for emphasis).

Under part IV of the Act there are provision for establishing National Protected Areas. Here there are a few inconsistencies with the rest of the Act and this means that recommending 10% of the EEZ as a protected marine area under the PA Act is not clear. Section 25 states that “the Commission may recommend to the Minister that an area of **public lands** be declared a national protected area.” Section 33 of the Act also states that “the Minister may by order declare an area of **public lands** to be a national protected area.” Under section 6 “public lands” means “all lands vested in the State (whether as State lands or government lands or vested in any person in trust for the State.” Therefore, “public lands” do not include the sea or maritime zones.

As a result, it remains unclear whether the PA Commission can recommend to the Minister to designate 10% of Guyana’s EEZ as a Marine Protected Area under the PA Act. Therefore, it is recommended that section 25 of the Act be amended and the current section should be replaced with the following:

The Commission may recommend to the Minister that an area of public lands or sea or both be declared a national protected area.

It is also recommended that section 33 of the Act be amended and the current section should be replaced with the following:

- (1) The Minister may by order declare an area of public lands or sea or both to be a national protected area –
 - (a) upon the recommendation of the Commission; or
 - (b) if the Minister considers that it is appropriate to make the declaration in order to achieve the objectives of this Act.
- (2) An order made under subsection (1) shall-
 - (a) describe the boundaries of the area;
 - (b) apply a classification to the national protected area;
 - (c) include a copy of any map produced following a survey of the area carried out by or under the authority of the Guyana Lands and surveys Commission.
- (3) If there is no map as referred to in subsection (2)(c) the Commission shall, within a reasonable period of time of the Minister’s order, ensure that a survey is carried out to establish the boundaries of the protected area.
- (4) An order made under subsection (1) is subject to any rights that have not been terminated under section 30.

Further, it must be highlighted that the PA Act provides that the Minister must be provided with adequate information regarding the mineral and petroleum potential of the area recommended to

be established as a PA by the Guyana Geology and Mines Commission.¹⁶ The PA Act also provides that the Minister shall take this information into account before making a declaration. Hence, with the recent activities in Guyana's maritime zone, and as a new frontier for hydrocarbon exploration and production,¹⁷ the designation of an area as a marine protected area will take into consideration managing sensitive marine areas that require conservation and protection, as well as allowing for some sustainable use. This integrated approach to the management of Protected Areas is in accordance with the IUCN Managed Resources Protected Area category which is a core feature of the PA Commission's Strategic Plan and cuts across most of their strategic themes and objectives.¹⁸

The PA Act supports Guyana's policy objective to achieve the CBD Aichi 11 target of having at least 17% of the country's land and inland water and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

(vi) Kaieteur National Park Act, 1929

The Kaieteur National Park was created by ordinance No. 41 of 1929. The park has a size of 116.6 km sq. In 1999 the park was increased to maintain the integrity of its ecosystems as well as allow for effective management.¹⁹ It is extraordinary that in 1929 there is an Act that provided for environmental conservation of an area. The Act stipulates that it is an Act to constitute a certain area of land in the vicinity of the Kaieteur Fall on the Potaro River in the County of Essequibo a National Park and to provide for control of the said park and for the preservation of the natural scenery, fauna and flora of the said park

Analysis and Recommendation: The Kaieteur National Park Act is extraordinary in that it provided for conservation of a protected area of the environment since 1929. This is unique since the international environmental movement and discussions about sustainable development really gained international momentum in the 1960s and 70s.²⁰ It is amazing that Guyana, at the time British Guiana, saw the importance and had the impetus to protect a national treasure.

The Kaieteur Park Act supports Guyana's policy objective to achieve the CBD Aichi 11 target of having at least 17% of the country's land and inland water, especially areas of particular importance for biodiversity and ecosystem services, to be conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and

¹⁶ Section 31, PA Act, 2011.

¹⁷ See, <http://www.petroleum-economist.com/articles/upstream/exploration-production/2017/guyanas-new-crude-frontier> and <http://energyfuse.org/exxon-open-new-frontier-guyana-despite-geopolitical-friction/>

¹⁸ Protected Areas Commission Guyana: Strategic Plan 2016-2020, 2016.

¹⁹ National Parks Commission Annual Report (2010).

²⁰ See, International Institute for Sustainable Development, *Sustainable Development Timeline*, https://www.iisd.org/pdf/2012/sd_timeline_2012.pdf

other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

There are no recommendations to make any changes to the Kaieteur National Park Act under this project.

(vii) Iwokrama International Centre of Rainforest Conservation and Development Act, 1996

The Iwokrama International Centre for Rainforest Conservation and Development (IIC) is an international not-for-profit organisation, governed by an International Board of Trustees and managed by a professional team of around seventy permanent staff in Georgetown and at the Iwokrama River Lodge and Research Centre at Kurupukari. The IIC was established in 1996 under a joint mandate from the Government of Guyana and the Commonwealth Secretariat to manage the Iwokrama forest, a unique reserve of 371,000 hectares of rainforest, “in a manner that will lead to lasting ecological, economic and social benefits to the people of Guyana and to the world in general” and the Iwokrama International Centre for Rain Forest Conservation and Development Act 1996.

The Iwokrama forest 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. Drawing on its earlier work in sustainable forest management, the IIC is now, in close collaboration with the Government of Guyana, the Commonwealth and other international partners including the UK Company, Canopy Capital, developing a new approach to enable countries with rainforests to earn significant income from eco-system services and creative conservation practice.

Analysis and Recommendation: The Iwokrama International Centre for Rainforest Conservation and Development Act expressly provides for the conservation and protection of an important protected area in Guyana. As highlighted above, the PA Act designated the Iwokrama International Centre for Rainforest Conservation and Development as a protected area and that body maintains authority to manage the Iwokrama Programme Site under the Iworkama Act.

This Act supports Guyana’s policy objective to achieve the CBD Aichi 11 target of having at least 17% of the country’s land and inland water, especially areas of particular importance for biodiversity and ecosystem services, to be conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes. This Act also supports the general objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level.

There are no recommendations to make any changes to the Act under this project.

(viii) Plant Protection Act, No. 9 of 2011

This Act repealed the Plant Protection Act of 1919.²¹ It is an Act to regulate the importation and exportation of plants, planting material, and objects derived from them. This Act provides for the preservation, eradication and control of diseases and pests affecting plants. It is administered by NAREI.²² It provides that the Institute may prohibit, control or restrict the transport of any diseased plant or any plant appearing to be affected with any pest or disease. The Institute has other powers under the Act including the power to quarantine plants and/ or nurseries and to provide compensation in certain cases. Note that it is an offence for any person to obstruct or impede any person in the execution of any of the powers conferred by this Act or by regulations thereunder.

Analysis and Recommendation: The Plant Protection Act directly provides protection of the marine and forest environment through its laws on plant protection. This Act supports the general objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level. It also supports the Aichi Targets 9 that by 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment; and Target 13 that by 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

There are no recommendations to make any changes to the Plant Protection Act under this project.

(ix) Guyana Geology and Mines Commission Act, No. 9 of 1979 (Cap. 65:09)

The Guyana Geology and Mines Commission Act was enacted in 1979 and authorized the government to establish the Guyana Geology and Mines Commission (GGMC). The GGMC is within the Ministry of Natural Resources. The GGMC promotes and regulates the exploration and development of the country's mineral resources. The GGMC is responsible for the implementation of the Mining Act 1989, which establishes the legal framework for the utilization of mineral resources in Guyana. The GGMC has a dedicated Petroleum Unit charged specifically with regulatory supervision of the oil and gas sector; however, petroleum related activities occur in other divisions, such as the Geological Services division and the Environment Division.

Analysis and Recommendation: The GGMC Act indirectly provides protection of the forest and marine environment. The functions of the Commission need to be carried on in a manner that is streamlined with the various environmental policies of the government that incorporate sustainable development and biological diversity conservation and protection.

²¹ Section 23, Plant Protection Act, 2011.

²² National Agriculture Research and Extension Institute.

This Act also supports the general objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level.

There are no recommendations to make any changes to the GGMC Act under this project.

(x) Mining Act, 1989

The Mining Act makes provision for a system of mineral agreements and licences to regulate prospecting. It gives the Guyana Geology and Mines Commission (GGMC) the responsibility for establishing regulations for mining and quarrying operations. The Act provides for the conduct of geological and geophysical surveys in any part of Guyana including forested land held under leases, forest Concession Agreements and other permits issued by the GFC.

A mining licence is required in order to mine any mineral and is issued at the discretion of the Commissioner of GGMC with the Minister responsible for mining. By virtue of section 6 of the Act, all mineral resources within the lands of Guyana are vested with the State. Under section 2, “mineral” includes “ore or compound of any mineral, any metal and precious stone and includes any radio-active mineral, but does not include water or petroleum.” The Act also sets out the manner in which minerals should be prospected on a large, medium and small scale, steps in discovery of a mineral, the grant and enlargement of a mining area, and the collection and remission of royalties to the Guyana Geology and Mines Commission.

Section 135 of the Act provides that the Minister may make regulations for carrying out the purposes of the Act which includes regulations that will impact the carrying on of all operations and the execution of all works in a manner that supports conservation, and prevention of the waste and of minerals. The Act also has under its purview the granting of quarry licences and permission for geological or geophysical survey. The Act contemplates seizure and forfeiture of dredges, aircraft, and related machinery that are not registered or licensed. In addition, the Act makes provisions for the disposal of sanitary waste and the storage of poisonous substances in mining areas. Sections 76 and 77 of the Mining Act of 1989 details provisions for regulations related to safety in mines or quarries or in prospecting, mining or quarrying operations and the welfare of workers.

There is also a general savings clause as it relates to Amerindians and Amerindian communities who held rights in relation to prospecting, mining and quarrying of any mineral prior to the commencement of this Act.

Analysis and Recommendation: The Mining Act indirectly provides protection of the marine and forest environment. As mentioned above, the Minister can make regulations that will promote conservation of natural resources. This is in line with the objectives of the CBD. In a message by Hon Raphael G.C. Trotman M.P., Minister of Natural Resources of the Cooperative Republic of Guyana on the observance of World Environment Day 2017 – June 5, 2017 under the theme ‘Connecting People To Nature’ the Minister stated that the Ministry of Natural Resources has

established a Compliance Division that will not only support the enforcement of the regulations and laws in the natural resources sectors in mining and forestry but also address matters of the security nature, the country's wildlife and tremendous biodiversity.²³ This is a step in the right direction because effective enforcement of the laws regulating mining activities is an area that has been weak for a number of years.²⁴

This Act also supports the general objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level.

There are no recommendations to make any changes to the Mining Act under this project.

(xi) The Petroleum Act, 1986

The Petroleum (Exploration and Production) Act was enacted in 1986 to regulate the prospecting for and production of petroleum in Guyana, including the territorial sea, continental shelf, and exclusive economic zone. This Act identifies persons allowed to hold prospecting licenses, establishes the process for obtaining prospecting licenses, and specifies requirements for further resource development in the event petroleum resources are discovered. As mentioned above, the GGMC has a dedicated Petroleum Unit charged specifically with regulatory supervision of the oil and gas sector; however, petroleum-related activities also occur in other divisions, such as the Geological Services Division and the Environment Division.

In 2012, the Commonwealth Secretariat was commissioned by the Government's then Ministry of Natural Resources and Environment, now the Ministry of Natural Resources, to prepare recommendations to reform Guyana's regulatory regime that governs the upstream petroleum sector. In September 2015, the Minister of Governance (via the GGMC's Petroleum Unit) announced plans to upgrade the country's upstream oil and gas policy, which was originally crafted in 2012 and finalized in 2014. In June 2016, the Ministry of Natural Resources completed a new national oil and gas policy and announced pending revisions to the Petroleum Act. These revisions were due for consideration by Guyana's National Assembly before the end of 2016²⁵ but had not been presented for approval as of the date of this report. In early June 2017, Guyana's Government Information Agency (GINA) announced the Ministry of Natural Resources' plan to grant Production Licence to Esso Exploration and Production (Guyana) Ltd. and partners Hess and Nexen. GINA also reported that the Ministry of Natural Resources and other Ministries and Agencies are actively pursuing a number of undertakings on the policy, legislative and infrastructure sides to ensure that the country is prepared for the coming oil production and that the Ministry plans to conduct a national outreach

²³ GINA, June 5, 2017. See <http://gina.gov.gy/message-by-hon-raphael-g-c-trotman-m-p-minister-of-natural-resources-of-the-cooperative-republic-of-guyana-on-the-observance-of-world-environment-day-2017-june-5-2017-under-the-theme/>

²⁴ See Appendix newspaper articles on pollution from mining activities.

²⁵ Kaieteur News, June 9, 2016, See <http://www.kaieteurnews.com/2016/06/09/policy-finally-completed-to-guide-guyanas-developing-oil-and-gas-industry/>

program to provide information to the public and answer questions on the emerging oil and gas sector.²⁶

Analysis and Recommendation: As mentioned above the Petroleum Act is outdated and is currently under review to be amended. Note that there is a Petroleum Commission of Guyana Bill, 2017 available on the Ministry of Natural Resources Website.²⁷ The Act will establish a Petroleum Commission of Guyana, which shall be a body corporate. The main functions of the Commission is to monitor and regulate the efficient, safe, effective and environmentally responsible exploration, development and production of petroleum in Guyana. The Act does not define what is meant by “environmentally responsible exploration, development and production of petroleum in Guyana,” but it is hoped that qualified and competent experts will be appointed to the Commission who understand the obligations under the said phrase.

(xii) Hydro-Electric Power Act Cap 56:03 and (Amendment) Act, no. 14 of 2013

The Hydro-Power (Amendment) Act 2013 updated the Hydro-Electric Power Act of 1956. The Act provides for the grant of licences and authorises the utilization of the waters of Guyana for the purpose of generating electrical energy and for the conservation and preservation of the environment, flora, fauna, aquatic life and ecological habitat in areas surrounding hydroelectricity generating facilities. The 2013 Act provides that the Guyana energy Agency will administer the provisions under this Act. It address the greatly increased social awareness of environmental and social impacts and the greater lengths to which development projects are expected to go in contemporary society to avoid, mitigate, compensate for inevitable social and environmental impacts of any hydropower development. The Act also makes provisions for the establishment of hydroelectric reserve offset areas within which activities damaging to the environment are strictly prohibited.

Analysis and Recommendation: The Hydro-Electric Power Act of 1956 was outdated. The new Act of 2013 takes into consideration the obligations under the CDB regarding sustainable development biological diversity and its components and the conservation and protection of the marine and forest resources.

This Act also supports the general objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level. It also involved the GoG taking action now to decrease the direct pressures on biodiversity with regard to engagement of the energy sector. The CDB strategic plan provides that where trade-offs between biodiversity protection and other social objectives exist, they can often be minimized by using approaches such as spatial planning and efficiency measures. Where multiple pressures are threatening vital ecosystems and their services, urgent action is needed to decrease those pressures

²⁶ GINA, June 2, 2017. See <http://gina.gov.gy/government-of-guyana-expected-to-grant-production-licence-to-esso-exploration-and-production-guyana-ltd-and-partners-hess-and-nexen/>

²⁷ Ministry of Natural Resources, *Petroleum Commission Bill*, 2017. See, <https://www.nre.gov.gy/wp-content/uploads/2017/04/PETROLEUM-COMMISSION-BILL.pdf>

most amenable to short-term relief, such as over-exploitation or pollution, so as to prevent more intractable pressures, in particular climate change, from pushing the system "over the edge" to a degraded state. It is commendable that the GoG will be looking at projects that can provide a 'clean' source of energy or alternative energy, rather than the burning of fossil fuels, which has historically dominated the Guyana energy supply.

There are no recommendations to make any changes to the Hydro-Electric Power (Amendment) Act under this project.

(xiii) Wild Birds Protection Act, 1990 (Cap. 71:07)

The Wild Birds Protection Act protects listed wild birds in Guyana. This Act protects certain wild birds in Guyana. It contains two lists – birds that are absolutely protected, listed in the First Schedule of the Act, and birds that are protected some of the time, namely in what is termed the 'closed season'. Wild birds are defined in the schedule of the Act. It is an offence to wound, kill, expose for sale, and offer for sale or export wild birds that are absolutely prohibited. However, with regard to wild birds that receives protection only during a prescribed closed season, it is not an offence to wound or kill any wild bird for the purpose of procuring food and if done ten miles or more from a plantation. It is also illegal to expose or offer for sale, or purchase any of those wild birds recently captured or killed during the closed season.

It should be highlighted that section 7 of the Act provides an exception and allows that the birds, although protected in theory, can be hunted in certain circumstances, and that no Amerindian is liable for an offence under the Act. Section 3 and 6 prohibit knowingly wounding or killing wild birds listed in the First and Second Schedule of the Act and establishes penalties.

Analysis and Recommendation: The Wild Birds Protection Act provides protection to certain wild birds. This Act has then traditional legal prohibitions against unauthorised exploitation of specified species and is considered outdated. The proposed amendment will contain much more comprehensive regulations including the implementation of obligations under the CDB regarding sustainable development biological diversity and its components and CITES.²⁸ The fact that no Amerindian is liable for an offence under this Act is inconsistent with many of the international obligations that the state has signed and ratified regarding the conservation and protection of biodiversity, and in particular wild birds. This Act will be repealed by the parliament of Guyana.

The Wildlife Import and Export Bill, which was tabled in the National Assembly in 2013, is currently being reviewed and revised. When the Wildlife Import and Export Bill is enacted it will repeal the Wild Birds Protection Act (1990).²⁹ However, the new government to date has not enacted the Wildlife Import and Export Bill but has tabled a new bill, which appears to be a revision of earlier Bill, as it provides for several of the same objectives as the previous Bill. The new Bill is

²⁸ Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973). Guyana ratified this Convention in 1977.

²⁹ Section 64, Wildlife Import and Export Bill, 2013.

*the Wildlife Conservation and Management Bill 2016, and it also repeals the Wild Birds Protection Act.*³⁰

This Act also supports the general objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level.

(xiv) Pesticides and Toxic Chemicals Control Act No. 13 of 2000

The Pesticides and Toxic Chemicals Control Act No. 13 of 2000, as amended in 2005 provides for the establishment of a Pesticides and Toxic Chemicals Control Board. The Act regulates the manufacture, importation, transportation, storage, sale, use and disposal of pesticides and toxic chemicals. It establishes requirements for registration, licensure, and trade in pesticides and toxic chemicals. It was amended in 2007 to provide rules for the exportation of pesticides and toxic chemicals. In accordance with the Act, regulations should be developed to include as follows:

- (i) Regulations for the health and safety of workers against the risk of poisoning by controlled products when working in connection with the use of controlled products or when working on land or in any premises on or in which controlled products have been or are being used, stored or manufactured; and
- (ii) Regulations imposing duties on the employers of workers, on the workers themselves and on others using controlled products and controlling and prohibiting sale, use, disposal and transportation of any toxic chemical or pesticide.

A ‘controlled product’ is defined in the Act as “any pesticide or toxic chemical.: ‘Toxic chemical’ means “any chemical, other than a pesticide, antiseptic, disinfectant, drug or preservative, which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals, and includes all such chemicals irrespective of their origin or method of production or use.”

In accordance with the Act, the following is mandated:

- (i) Registration of toxic chemicals and pesticides; and
- (ii) Licensing of persons wishing to import, manufacture and sell pesticides or toxic chemicals.

Analysts, Inspectors and Medical examiners may be appointed to support and enforce provisions of the Act. The functions of the Pesticides and Toxic Chemicals Control Board include:

- (a) the registration of Pesticides and Toxic Chemicals;
- (b) the issuance of licence to persons to import or manufacture registered pesticides and toxic chemicals; and

³⁰ Section 84, Wildlife Conservation and Management Bill, 2016. See <http://parliament.gov.gy/chamber-business/bill-status/wildlife-conservation-and-management-bill-2016/>

- (c) consideration and determination of applications relevant to the Act and dealing with all aspects of the importation, manufacturer, storage, transportation, sale, preparation for sale, use and disposal of pesticides and toxic chemicals.

Analysis and Recommendation: The Pesticides and Toxic Chemicals Control Act regulates toxic chemicals which pose a threat to human health and the environment. There are no recommendations to make any changes to this Act under this project.

This Act also supports the general objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level.

(xv) Amerindian Act, No. 6 of 2006

The Amerindian Act, 2006 provides for, inter alia, environmental protection and mining and forestry. With respect to environmental protection, the Amerindian Act supports the need for the communities to use their natural resources in a way that lends support to the concept of sustainability. Impact Assessments will have to be completed in accordance with the Environmental Protection Act.³¹

The main objective of the Act is to provide for the recognition and protection of collective rights of Amerindian villages and communities, the granting of land to Amerindian villages and communities and the promotion of good governance within Amerindian villages and communities. The Act provides that with regard to Mining and Forestry Amerindians will have a legal right to traditional mining with the consent of the Village Council and they must comply with the relevant legislation. With regard to forestry, the Village Council plays an integral role in determining who is allowed to use their land and on what terms.

Under the current Act, *non-Amerindians* must obtain permission before they can enter or remain in an Amerindian District, Area or Village, settlement or encampment. The Amerindian Act also addresses the protection of property and legal proceedings on behalf of Amerindians, employment of Amerindians, and prohibiting the supply of intoxicating liquor to Amerindians. Provision is also made for entering into written contracts with Amerindians. The Act further assigns to every Captain/Toshao the status of *ex officio* Justice of Peace in and for the district, area and village authority, which also allows the Captain (Toshao) to also serve as a rural constable. The Village Council is empowered to establish rules for their communities and set fines within the legal confines of the law. Notably, the money received due to the non-adherence of the rules, goes into the Village Council's account, not the Government's.

The Act makes provision for grants to communal land. Unlike the old Act, the new Act includes a process for the granting of land. For instance, a community can apply for land once they can prove that they have been living there for at least 25 years and the

³¹ Section 52, Amerindian Act, 2006.

Minister must commence an investigation and make a decision within 6 months. With regard to leases the Minister is not required to approve leasing of titled Amerindian land, as opposed to the 1st Act where the Minister is required to approve it. In the new Act, the communities are only required to seek the advice of the Minister.

Intellectual Property Rights of Amerindians are protected under the Act. With respect to the use of scientific research, the Researcher will, among other things, have to submit to the Village Council a copy of any publication containing material derived from the research.

Analysis and Recommendation: The Amerindian Act provides protection of the environment and it incorporates many of the provisions of the CBD regarding protection of indigenous peoples' right. See Article 8 (j) of the CBD which provides that each Contracting Party shall, as far as possible and as appropriate "subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices." The Amerindian Act also supports the United Nations Declaration on the Rights of Indigenous Peoples.³²

This Act support the Aichi Target 18 that by 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels. The Act also supports the general objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level.

There are no recommendations to make any changes to the Amerindian Act under this project.

(xvi) Maritime Zones, No. 18 of 2010

The Maritime Boundaries Act of 1977 was repealed and replaced by this Act. This Act also incorporated certain provisions of the UNCLOS³³ and the UNESCO Convention on the Protection of the Underwater Cultural Heritage 2001,³⁴ to provide for marine scientific research, maritime cultural area, marine parks and reserves and mariculture, the protection and preservation of the marine environment and for related matters.

The Act defines the internal waters, territorial sea, contiguous zone, exclusive economic zone and continental shelf of Guyana, defines the boundaries of those maritime zones and defines jurisdiction and rights of Guyana in respect of those zones. The Act

³² UN General Assembly Resolution 61/295 of 13 September 2007.

³³ 1982 United Nations Convention on the Law of the Sea, 1833 UNTS 3 / [1994] ATS 31 / 21 ILM 1261 (1982)

³⁴ 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage, 2 November 2001, Paris, France/

provides that Guyana, in the exercise of its sovereignty, has exclusive to the territorial sea subject to international law and UNCLOS. The Act provides rules for innocent passage, defines non-innocent passage and provides for measures in case of non-innocent passage. Transport of hazardous waste (including radioactive material) requires an authorization of the Minister responsible for the environment. Further Regulations may be made in this respect.

The Act provides that Guyana shall have the right to explore and exploit natural resources in the EEZ. Any other person may only do so under a written agreement with the government of Guyana. The President may designate areas of the EEZ for special purposes and make provision with respect to, among other things, natural resources and protection of the marine environment. The Minister may by Order declare an area within the territorial sea and the contiguous zone to be known as the maritime cultural area. Establishment of an eco-tourism or a marine park and reserve or a mariculture operation shall require a permit of the Minister (who may also establish such areas) and operations in such areas or mariculture operations shall not have negative effects on marine species. The Minister of Foreign Affairs in consultation with the Minister responsible for the environment may make Regulations for the protection and preservation of the marine environment and may make other Regulations for purposes of this Act.

Analysis and Recommendation: The Maritime Zones Act expressly provides protection of the marine environment.

This Act supports the general objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level. This Act can help Guyana achieve the Aichi targets 6 and 7 which provide that by 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits; and by 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

There are no recommendations to make any changes to the Maritime Zones Act under this project.

(xvii) Fisheries Act, 2002 (Cap. 71:08)

The Fisheries Act regulates fishing and related activities in Guyana's waters. The Marine Boundaries Act of 1977 established a fishery zone beyond and adjacent to territorial waters, i.e. beyond 12 nautical miles, and extending out to 200 nautical miles from land. On 23 February 1991, the zone became recognized as an Exclusive Economic Zone (EEZ) when the President of Guyana promulgated an order known as the Exclusive Economic Zone (Designation of Area) Order, 1991, as provided for in Section 15 of the Maritime Boundaries Act, 1997. The Fisheries Act of 1957 was redefined and adapted to be more relevant to current national and international requirements by the Fisheries Act, 2002.

Section 33(1) of the Fisheries Act authorizes the Minister to make regulations for the carrying out of provisions of the Act and to prohibit the discharge of substances harmful to fish, among other regulatory powers. There is a Legal and Inspectorate Unit that is responsible to ensure the observance of all legal and administrative requirements by all entities in the fishery sub-sector and recommended appropriate changes to existing regulations which govern the Sector. The key responsibilities include: registration and licencing of fishing vessels, license and inspect fish processing plant, conduct enforcement and surveillance activities of fishing vessels, monitor the industrial fleet/artisanal compliance with licence conditions, Monitor and conciliate complaints and disputes at the centre and the regions, Issue export licences for fish and fish products, Ensure the collection of revenue under the Fisheries Act 2002 and Maritime Act of 1977, etc.

Analysis and Recommendation: The Fisheries Act provides protection of the marine environment. The regulation of fishing by licences, fees, charges, etc. provides a legal system that allows the state to regulate fishing in a sustainable manner. There are no recommendations to make any changes to the Fisheries Act under this project. However, it is recommended that better monitoring and enforcement of the law takes place. This will require enhancement of the capacity and capability of the staff in the Department of Fisheries and other regulatory agencies to make an effective change.

Also, it is recommended that the Minister declare a 500m safety zone around offshore oil and gas installations. The Minister can make such a declaration under section 33 of the Act. This safety measure can also be provided for under the new Petroleum Act in Guyana. This sort of safety measure is adopted in countries like the UK where a safety zone of an area extending 500 m from any part of offshore oil and gas installations is established automatically around all installations which project above the sea at any state of the tide. Subsea installations may also have safety zones, created by statutory instrument, to protect them. These safety zones are 500 m radius from a central point. Vessels of all nations are required to respect them.³⁵

Guyana's marine fishing activities are directed at exploiting its shrimp resources using shrimp trawlers, and its ground-fish resources using wooden vessels and a variety of gear by artisanal fishermen. There is limited exploitation of pelagic resources over the continental shelf and towards the continental slope. It is accepted that, of the shrimp resources, the prawn have been overexploited, while there is concern that the seabob (a smaller shrimp) and sharks are showing signs of overexploitation. At the same time, some deep slope species and pelagic species are underexploited.³⁶ Freshwater or inland fishing activities are conducted in the rivers, lakes, swamps and flooded plains for subsistence. The only commercial exploitation in this sector is for ornamental fishes. Aquaculture is pursued on a small scale on the coast in areas bordering the seashore, and in ponds.

During the past 35 years, a number of donor agencies have made contributions to fisheries development in Guyana. In the late 1970s, CIDA set the stage for such help by financing the study for, and then producing, a National Fisheries Development Plan (1979-1983). The European

³⁵ Under section 23 of the Petroleum Act 1987 UK, it is an offence to enter a safety zone except under the special circumstances provided under the Act.

³⁶ FAO, Guyana Country Profile, 2005. See <http://www.fao.org/fi/oldsite/FCP/en/GUY/profile.htm>

Community financed a study to determine aquaculture potential, enhance the data collection system and estimate the level of the by-catch of the shrimp industry.³⁷ In the early 1980s, the industrial sector, through an IDB loan of US\$ 12.7 million, expanded the trawling fleet by twenty vessels and modernized a processing plant. Simultaneously, through grant aid from the Government of Japan, a wharf, cold storage facilities and refrigerated trucks were obtained for Guyana Fisheries Limited. IDRC of Canada sponsored research on shrimp by-catch determination, utilization and product development.³⁸ The artisanal sector also benefited during this period. Loans from the European Community (1979) and from IDB (1980) to the Greater Georgetown Fishermen Cooperative Society provided for the purchase of fishing requisites to on-sell to small-scale fishers. Grant aid from CIDA through a Fisheries Line of Credit (1981) and Fisheries Equipment Facility (1984) also provided requisites for the small-scale fishers through their Cooperative Societies.³⁹ Development projects in this period commenced in 1984, when the Government of Guyana in cooperation with the Government of Canada (through CIDA) constructed seven fish port complexes, and one with the European Community, for the artisanal small-scale fishers at important landing sites along the coast of Guyana. These complexes provided ice, docking facilities, fuel depots, market areas, chandleries for the sale of fishing requisites, etc.

The 1990s saw a move to Technical Assistance rather than development projects. CIDA financed a Fisheries Technical Assistance Project (1993–1995) that produced a Fisheries Background Report (1994) and a National Fisheries Management and Development Plan (1995).⁴⁰ This assistance also provided training for staff of the Fisheries Department. FAO provided training and attachment studies through its programme to technicians in the Department of Fisheries in Guyana, and advised and facilitated the drafting of new National Fisheries Regulations through its Law Advisory Programme, and has been – through its Technical Cooperation Programme – assisting in the design and construction of a Freshwater Aquaculture Demonstration Farm and Training Centre.

With effective implementation this Act can help Guyana achieve the Aichi targets 6 and 7 which provide that by 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits; and by 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity. This Act also supports the general objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level.

³⁷ Ibid.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Ibid.

(xviii) River Navigation Act, 1891 (Cap. 50:01)

This Act provides for the safe and convenient navigation of the rivers of Guyana. In this regard, it provides for the appointment of an officer and other subordinate officers who are to supervise the navigation of rivers and ensure that regulations under the Act are complied with. The Regulations outline payment for certificates, registration on boats and their masters, control of the size, structure, navigation and mooring of rafts and the general prevention of any accidents in the navigation channel.

Analysis and Recommendation: This Act supports the protection of the marine environment. There are no recommendations to make any changes to this Act under this project.

(xix) Shipping Act, No. 7 of 1998 (Cap. 49:01)

This Act outlines the procedures dealing with shipping, trading by ships, registration and licensing of ships and proprietary interest in ships, and the certificate of registration for ships plying the rivers and seas of Guyana. It also lays down the tonnage requirements for both local and foreign ships. Additionally, it provides for the behaviour of the masters and mariners and their respective rights, duties, and liabilities as regards the carriage of passengers and goods by ships, collision between ships, salvage, rights, liabilities, claims, contracts and matters arising in respect of ships and for matters connected therewith and incidental thereto. The engagement and welfare of seamen and their occupational health and safety is also outlined in the Act.

Analysis and Recommendation: The Shipping Act indirectly provides protection of the marine environment. There are no recommendations to make any changes to the Shipping Act under this project.

(xx) Sea Defence Act, 1933 (Cap. 64:02)

This Act and its amendments is to make better provision for the maintenance and construction of Sea Defences. The Act establishes the Sea Defence Board which is charge with the responsibility to take any and such actions as to secure the maintenance of sea, rivers, and outer dams of properties that are near the river or sea shore.

Analysis and Recommendation: The Sea Defence Act provides protection of coast and indirectly protects the forest and the marine environment. There are no recommendations to make any changes to this Act under this project.

(xxi) State Lands Act, 1903 (Cap. 62:01)

This Act ensures the proper administration and regulation of lands, rivers and creeks of the State. It allows the President to grant leases or licenses for the use of State property. Section 3 (1) (f) provides that the President may “authorize the Commissioner of Geological Surveys and Mines to issue licences to occupy any State Lands for the

purpose of quarrying stone, or gravel.... or such other substance or thing found in those lands as the Minister may by order designate for the purposes mentioned in this paragraph without giving any exclusive right to occupy any specified part thereof..."

The provisions of this Act are relevant to companies involved in the extractive industries who may desire a lease, grant, license or permission from the President to conduct operations or to build major facilities or infrastructures such as factories in the interior region.

Analysis and Recommendation: The State Lands Act are subject to the Forest Act and Mining Act and therefore indirectly provides for sustainable development in of the forest resources in Guyana. This Act also supports the general objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level. There are no recommendations to make any changes to the State Lands Act under this project.

(xxii) Roads Act, 1909 (Cap 51:01)

This Act concerns the administration, maintenance and construction of public roads in Guyana. It also governs the movement of vehicles on land. Many provisions of this Act are critical in the management of the access road for projects in the extractive industries, such as gold mining or logging operations.

Analysis and Recommendation: The Roads Act is relevant to projects in the extractive industries and will have an impact on the conservation and protection of the forest environment. There are no recommendations to make any changes to this Act under this project.

(xxiii) Motor Vehicles and Road Traffic Act, 1940 (Cap. 51:02)

This Act and it subsequent amendments deals with the licensing, regulation and use of motor vehicles and the regulation of traffic upon roads. Similar to the Road Act, many provisions of this Act are critical in the management of the access road for projects in the extractive industries, such as gold mining or logging operations.

Analysis and Recommendation: This Act is relevant to projects in the extractive industries and will have an impact on the conservation and protection of the forest environment. There are no recommendations to make any changes to the Motor Vehicle and Road Traffic Act under this project.

(xxiv) Town and Country Planning Act, Chapter 20:01

This Act provides for the orderly and progressive development of land (which is specifically defined), Cities, Towns and other areas, whether they be urban or rural, for their preservation and improvement and for other related matters. The prescribed authority, responsible for effecting the provisions of the Act is the Central Housing and

Planning Authority established under the Housing Act Chapter 36:20. This Act would regulate any new settlement associated with operations under the extractive industries.

Analysis and Recommendation: The Town and Country Planning Act is connected to operations that may have an impact on the forest governance and protection of the environment. There are no recommendations to make any changes to this Act under this project.

(xxv) Occupational Safety and Health Act, No. 32 of 1997

The Occupational Health and Safety Act 1997 contain provisions applicable to the regulation of health and safety in mines, logging operations and industrial establishments. The identification of the health and safety hazards during the operation of the proposed development must be seen as a key element for assessment. Section 6 of the Act provides for the registration of industrial establishments and particulars thereof. Under Section 52 the owner of an industrial establishment that is not a construction site must

- (a) ensure that –
 - (i) such health and safety facilities as are prescribed are provided;
 - (ii) any such facilities prescribed to be provided are maintained as prescribed;
 - (iii) the industrial establishment complies with the regulations; and
 - (iv) no industrial establishment is constructed, developed, reconstructed, altered or added to except in compliance with this Act and the regulations; and
- (b) furnish to the Authority such drawings, plans or specifications of any industrial establishment on such scale and showing such matters or things as may be prescribed.

A major weakness of the Occupational Safety and Health (OSH) Act is that it does not apply to workers on an offshore installation or platform. Section 2 of the Act provides that “industrial establishment” means a factory, shop, office, or workplace and any, building or other structure or premises appertaining thereto but does not include premises occupied for residential purposes only. There is also a definition of mine and logging operations, but no reference to offshore installations is made anywhere in the Act. Now that Guyana is a new frontier for offshore oil and gas exploration and production activities, the OSH Act should be amended to apply to workers on offshore installations.

Analysis and Recommendation: The OSH Act provides protection of human health and safety at work in certain situations and indirectly provides protection to the environment since the environment must be safe and healthy to promote the health of humans. However, the application of the Act is limited to mines, logging operations and industrial establishment but does not cover offshore installations. Therefore, it is recommended that the following section be included in the Act to expand the definition of premises.

“premises” includes any place, and, in particular –

- (a) any vehicle, vessel, aircraft or hovercraft;
- (b) any subterranean installation or installation on land, including the foreshore and other land intermittently covered by water;
- (c) any offshore installation and any other installation, whether floating or resting on the seabed or the subsoil thereof or resting on other land covered with water or the subsoil thereof; and
- (d) any tent or movable structure.

(xxvi) Labour Act

The Act and its provisions specify the conditions that an employer must observe in the contracting of employees. For example Part V specifies that the entire wages of the employee must be paid as money and not otherwise. However, in occupations where it is customary to make partial payment of allowances in the form of food, toiletries, housing etc. these are acceptable and not considered illegal, if both the employer and employee are agreed on such terms.

Wages should be payable either weekly, fortnightly or monthly, except otherwise agreed.

Analysis and Recommendation: The Labour Act covers protection of human resources and indirectly provides protection to the environment. There are no recommendations to make any changes to the Labour Act under this project.

2. Relevant Regulations

(i) Environmental Protection Regulations, 2000

Below is a list of several Environmental Protection Regulations from 2000 that fall under the Environmental Protection Act, 1996. The Litter Enforcement Regulations of 2013 were also made under the Environmental Protection Act, 1996.

a. The Environmental Protection Air Quality Regulations, 2000

The Environmental Protection Air Quality Regulations sets ambient air quality standards, reporting requirements, penalties for violations of standards, and permitting requirements for stationary and mobile sources. It regulates discharges that could be emitted during the Project, including smoke, particulates, and carbon monoxide (CO).

b. The Environmental Protection Water Quality Regulations, 2000

The Environmental Protection Water Quality Regulations focuses on setting effluent standards, reporting requirements, penalties for violations of standards, and permitting requirements for discharges. It regulates discharges of listed substances.

While Guyana is known as the land of many waters, many activities threaten the quality of water that is in its rivers, lakes and streams. Water pollution is indeed a growing problem in Guyana and this regulation attempts to curb the problem. Some

common causes of water pollution in Guyana are domestic waste, agriculture and industries. Some examples include industrial waste, sewage, mining activities, marine dumping, accidental oil leakage, chemical fertilizers and pesticides, leakage from sewer line, urban development, leakage from landfills, and animal waste.

The EPA is tasked with the role as regulator under the regulations to ensure that pollutants released from human activities are within allowable levels that will not adversely affect the health of humans, or other life forms. The regulations requires that any person who discharges or permits the discharge of waste be registered with the EPA. As such, persons involved in construction, installation, operation, modification or extension of any facility which discharges waste must register with the EPA to discharge waste into waterways. No one is allowed to discharge any effluent without being the holder of an Environmental Authorisation. Failure to comply with this requirement will result in the penalty of a fine of up to five hundred thousand dollars (\$500,000) and imprisonment for 6 months.

According to the Regulations, discharges of the following wastes are prohibited: any waste in toxic amounts, radiological or chemical wastes, any discharge that prevents navigation and anchoring, sewage discharge from water vessels, any other discharge that the EPA identifies as having a negative impact on human health and the environment. The EPA sets parameter limits of waste which can be discharged into any coastal or inland waters. These are the limits the water body can maintain without reaching unacceptable pollution levels. No facility is allowed to discharge any substance in concentrations greater than those set by EPA. The penalty for non-compliance is a fine of up to \$500,000 and 6 month imprisonment. The EPA also decides the point or source of discharge of effluent from any facility.

c. The Environmental Protection Hazardous Waste Management Regulations, 2000

The Environmental Protection Hazardous Waste Regulations outline the procedures and rules for transport, storage, treatment and disposal of hazardous wastes. These regulations are intended to ensure, through the environmental authorization process, that all operations that generate, transport, treat, store and dispose of hazardous wastes are managed in a manner that protects human health and the environment. The regulations allow for the provision of information on the types of facilities and quantity of hazardous waste generated, treatment standards and efforts to reduce the waste generated. An emergency preparedness plan is required for anyone who operates a hazardous waste facility. For the purposes of that regulation, hazardous material/waste is regarded as the following: Explosives; Organic peroxides; Poisonous substances; Infectious substances; Corrosives; Toxic gases; Flammable liquids; Flammable solids or waste solids other than explosives which may be readily combustible; Oxidising substances; Toxic substances which if inhaled or ingested may cause delayed or chronic effects; Eco-toxic substances which if released may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon systems; and materials capable, after disposal, of yielding another material which

possesses any of the characteristics aforementioned. The regulations establish penalties for violations of these requirements.

d. The Environmental Protection Noise Management Regulations, 2000

The EPA is responsible for the establishment of standards for permissible noise levels in industry, construction and other areas. The Environmental Protection Noise Management Regulations establishes the categories for which permissible noise levels are to be fixed and for noise avoidance and restrictions from multiple commercial and industrial sources including sound making devices, night clubs, equipment, tools, and construction activities. Tools and equipment includes pile drivers, steam shovels, pneumatic hammers, pumps, vent or valve devices and any other similar equipment. It should be noted that a regulated facility includes any offshore installation and any other installation, whether floating or resting on the seabed. Therefore, offshore oil and gas exploration projects and mining projects that may have an impact on the marine environment and forest resources will likely come under these regulations. The EPA has not established noise level standards. However, the Guyana National Bureau of Standards regularly publishes guidelines for noise emission into the environment.

e. Litter Enforcement Regulations, 2013

The regulations create a number of offences and penalties for depositing litter in public places and private premises. There are increased penalties for subsequent offence. The local authority and litter prevention warden are empowered to do several things under the regulations relating to enforcement of the obligations, such as commence prosecution against a person who has committed an offence under the regulations, issue a litter removal order, the power to remove derelict vehicles, disposal of derelict vehicles, etc.

(ii) Wildlife Management and Conservation Regulations, 2013

It must be noted that these regulations will be repealed and parts saved by the Wildlife Conservation and Management Act 2016 (when it comes into force).⁴¹ The Wildlife Management and Conservation Regulations, 2013 provides for the establishment of a Management Authority and the management and conservation of wildlife. It addresses issues including the capturing, gathering, collecting, hunting, killing and taking of wildlife. The Regulations cover the use of wildlife for any purpose, including as bush meat, research, and medicinal purposes. It also makes provisions for the classification of wildlife, as well as areas within Guyana. It provides a supportive mechanism cognizant of the national goals for wildlife protection, conservation, management and sustainable use.⁴²

⁴¹ Section 84, Wildlife Conservation and Management Bill, 2016. See <http://parliament.gov.gy/chamber-business/bill-status/wildlife-conservation-and-management-bill-2016/>

⁴² See Appendix newspaper article on the passing of the Wildlife Conservation and Management Act.

(iii) Species Protection Regulations, 1999

Similar to the Wildlife Management and Conservation regulations, these regulations will be repealed and parts saved by the Wildlife Conservation and Management Act 2016 (when it comes into force).⁴³ These regulations provide for the establishment of a Management Authority and a Scientific Authority in compliance with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). They also provide for wildlife protection, conservation, and management.

(iv) The Mining Environmental Regulations, 2005

These regulations are part of the wider Mining Regulations made under the Mining Act 1989. They deal with all aspects of environmental management in mining and are for all miners including holders of Large Scale Prospecting and Mining Licences. These regulations require a permit for the use of poisonous substances such as cyanide. A processing fee as well as a brief description of the activities for which cyanide will be used must be provided to the Guyana Geology and Mines Commission. In general, the regulations establish regulatory control in areas of key environmental concerns. These include: terms and agreement for mercury and cyanide use; management of tailings and mining waste; water quality; use and disposal of poisonous substances; closure and reclamation; management of the natural environment for restoration and mining; submission of environmental management plan in accordance with an environmental code of practice established by the Guyana Geology and Mines Commission; and Contingency and Response Plans. As a result of the requirement for mining operations to prepare Reclamation and Closure Plans and conduct reclamation and closure activities some large-scale mining operations are already rehabilitating mined out areas as part of their Closure Plan.⁴⁴

3. Relevant environmental legal principles and norms applicable to marine biodiversity and forest governance

It must be pointed out that a number of environmental law principles are recognised and included in several of the legislations, regulations and policy documents reviewed above. Below is a brief discussion explaining the existence in the laws of Guyana of several environmental principles and legal norms. The fact that these principles are incorporated in the environmental laws of Guyana, whether expressly or by implication, demonstrates that several of the laws reviewed are in line with the CBD Strategic Plan for 2011-2020 since these principles are streamlined with the CBD's goals. This list below is not intended to be an exhaustive list of all of the applicable environmental principles, but reflects a few of the main ones.

⁴³ Ibid.

⁴⁴ Guyana: Fifth Report to the Convention on Biological Diversity, 2014.

(i) Sustainable Development

According to the Brundtland Commission on Environment and Development,⁴⁵ sustainable development is: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” This principle has the status of a legal norm and is evident in the *Rio Principles* 4 and 25 which provides the concepts of integration and interdependence are an integral part of achieving peace and development. Also, one of the *Millennium Development Goals*, number 7 (“Ensure environmental sustainability”), is to “Integrate the principles of sustainable development into country policies and programmes...” Guyana has incorporated sustainable development into its laws and it mentioned in the Constitution and several pieces of legislation regulating the marine environment and forest governance.

(ii) The principle of prevention of environmental damage

This principle is recognized under the Environmental Protection act and several of its regulations. The rationale behind this environmental law principle is that that prevention must be the Golden Rule for the environment, for both ecological and economic reasons. In some instances it can be impossible to remedy environmental injury once it has occurred: the extinction of a species of fauna or flora, erosion, and the dumping of persistent pollutants into the sea create intractable, even irreversible situations. Even when harm is remediable, the cost of rehabilitation is often very high. It is submitted that the requirement for an EIA under the EPA demonstrates the principle of prevention in the environmental laws of Guyana.

(iii) The principle of transparency, access information, public participation, consultation, fact-finding

The above principle highlights that the government has a duty to follow the proper procedure when making decisions that may have a negative impact on the environment. Public participation is essential to good governance. The government has a duty to be responsive, transparent and accountable to the citizens. The right to know what decisions are being contemplated, the factual basis proposed, etc. are important feature of this principle. Here the EIA procedure under the EPA demonstrates yet another environmental law principle, that is, the principle of transparency and access to information are part of the environmental laws of Guyana.

(iv) Precautionary principle

Precaution also referred to as the “precautionary principle,” the “precautionary approach,” and the “principle of the precautionary approach” is essential to protecting the environment (including human health). Probably the most widely accepted articulation of precaution is Principle 15 of the Rio Declaration. The 1992 CBD states:

⁴⁵ Brundtland Commission on Environment and Development, *Our Common Future*, 1987.

“...where there is a threat of significant reduction or loss of biological diversity, lack of full scientific uncertainty should not be used as a reason for postponing measures to avoid or minimize such a threat.”

Central to all of the preceding formulations is the element of anticipation, reflecting the need for effective environmental measures to be based upon actions which take a long-term approach and which anticipate possible revisions on the basis of changes in scientific knowledge. Also central to precaution is the reality that environmental decision makers seldom, if ever, have all the information they would like to have before making a decision.

The exercise of precaution with respect to risk management can take many forms, including most commonly taking pollution-prevention actions or placing the burden of proof safety on the person or persons carrying out or intending to carry out an activity that may cause harm, including using or importing a drug or other potentially dangerous substance. This principle underlies the approach taken in the Pesticides and toxic Chemicals Act no. 13 of 2000 and is therefore recognised in the environmental laws of Guyana.

(v) **Polluter Pays Principle (Principle 16 Rio Declaration)**

The “polluter pays” principle was originally enunciated by the Organization for Economic Cooperation and Development (OECD) to restrain national public authorities from subsidizing the pollution control costs of private firms. Instead, enterprises should internalise the environmental externalities by bearing the costs of controlling their pollution to the extent required by law. The regulations under the EP Act concerning protection of air and water quality as well as hazardous waste management demonstrate that environmental costs of economic activities, including the costs of preventing harm, will be internalize rather than imposing upon society at large and this is a demonstration of the polluter pays principle in the laws of Guyana.

V. Law Reform: Draft Bills and Regulations

A number of Bills and regulations affecting biodiversity conservation and sustainable management in Guyana are have been drafted to supplement existing legislation. These include:

1. Wildlife Conservation and Management Act 2016⁴⁶

The Wildlife Import and Export Bill was tabled in the National Assembly in 2013. It was prepared to complement the Wildlife Management and Conservation Regulations. The Wildlife Import and Export Bill provided a national framework and mechanism to govern the international trade of all species of wildlife in Guyana and to enable Guyana

⁴⁶ <http://parliament.gov.gy/publications/acts-of-parliament/wildlife-conservation-and-management-act-2016/>

to fulfil its obligation under the Convention of International Trade in Endangered Species.⁴⁷ This legislation will allow the Wildlife Division to be classified as an Authority. Once this Bill is enacted, the legislation will repeal the Species Protection Regulations (1999) and Wild Birds Protection Act (1990).

This Wildlife Conservation and Management Bill seeks to authorize wildlife management systems within biosphere reserves in Guyana. This Bill has not been enacted to date. [This Act will enter into force by a Commencement Order]. See sections 84 of this Act repeals and save some of the laws. Since this Act is not yet in force these are still law.

2. Biosafety Bill.

A Biosafety/Biotechnology Bill, proposed in the National Biosafety Framework (2007), was drafted and is currently undergoing consultations. Thereafter, the Bill is expected to be reviewed and presented to the National Assembly for consideration.

3. Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) Draft Regulations.

Regulations addressing Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) were drafted. Guyana subsequently acceded to the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization and as a result it became necessary to review and update the regulations to fulfil the requirements of the Protocol.

VI. Matrix that identifies legislative gaps for meeting the 2020 CDB targets

Relevant Legislation	Scope	Recommendations relating to Aichi Target and CDB Strategic Goals
The Constitution	The supreme law of Guyana; outlines the branches and powers of Government, and several important constitutional office holders as well as lists basic human rights and provides for environmental protection	No changes necessary. The Constitution supports the overall objectives of the CDB's Strategic Plan and Aichi Target 2.
Environmental Protection Act,	Establishes the Environmental Protection Agency (EPA);	The regulations under the Act cannot sufficiently deal with offshore

⁴⁷ See Appendix newspaper article on the passing of the Wildlife Conservation and Management Act.

No. 11 of 1996 (Cap. 20:05)	outlines the legal requirement for environmental impact assessments; and provides for the management, conservation, protection and improvement of the environment, the prevention or control of pollution, the sustainable use of natural resources and for matters incidental thereto or connected therewith.	petroleum exploration and production which have the potential to harm the marine environment. Need for new regulations to regulate oil spills, and a contingency plan that outlines the approach to respond to oil spills and accidents offshore must be developed. The EPA supports the overall objectives of the CDB's Strategic Plan and Aichi Targets 1, 2, 14 and 15.
Forestry Commission Act, No. 20 of 2007	Provides for the establishment, organization, mandate and functions and responsibilities of the Guyana Forestry Commission.	No changes necessary. The Act supports the overall objectives of the CDB's Strategic Plan for Biodiversity 2011-2020.
Forests Act, No. 6 of 2009 (Cap 67:01)	Consolidates and amends the law on forests and provides for sustainable forest management.	No changes necessary. This Act supports the overall objectives of the CDB's Strategic Plan and Aichi Targets 2, 14 and 15.
Protected Areas Act, No. 14 of 2011	Established the Protected Areas Commission and provides for the protection and conservation of Guyana's natural heritage and natural capital and maintenance of ecosystem services through a national network of protected areas.	A couple amendments to the Act were recommended above. This Act supports the overall objectives of the CDB's Strategic Plan and Aichi Target 11.
Kaieteur National Park Act, 1929	Provides for the preservation on the Kaieteur Park.	No amendments recommended. This Act supports the overall objectives of the CDB's Strategic Plan and Aichi Target 11.
Iwokrama International Centre of Rainforest Conservation and Development Act, 1996	Provides for the sustainable management and utilisation of approximately 360,000 hectares of Guyana's Tropical Rain Forest.	No changes recommended. This Act supports the overall objectives of the CDB's Strategic Plan and Aichi Target 11.

Plant Protection Act, No. 9 of 2011	Regulates the importation and exportation of plants, planting material, and objects derived from them.	No changes necessary. The Plant Protection Act supports the overall objectives of the CDB Strategic Plan and Aichi Targets 9 and 13.
Guyana Geology and Mines Commission Act, No. 9 of 1979 (Cap. 65:09)	Establishes GGMC and regulates the exploration and development of the country's mineral resources.	No changes necessary. This Act supports the overall objectives of the CDB's Strategic Plan for Biodiversity 2011-2020.
Mining Act, 1989	Provides for a system of mineral agreements and licences to regulate prospecting	No changes necessary, however, effective enforcement is needed ⁴⁸ . This Act supports the overall objectives of the CDB's Strategic Plan for Biodiversity 2011-2020.
The Petroleum Act, 1986	Regulates the prospecting for and production of petroleum in Guyana, including the various maritime zones.	This Act needs urgent amendment to respond to the environmental challenges of Guyana becoming an oil producing country. This Act is silent and does not support the CDB's Strategic Plan for Biodiversity.
Hydro-Electric Power Act and (Amendment) Act, 2013	Provides for the grant of licences and authorises the utilization of the waters of Guyana for the purpose of generating electrical energy and for the conservation and preservation of the environment, flora, fauna, aquatic life and ecological habitat in areas surrounding hydroelectricity generating facilities	No amendments recommended. This Act supports the overall objectives of the CDB's Strategic Plan.
Wild Birds Protection Act, 1990 (Cap. 71:07)	Protects listed wild birds in Guyana	This Act will be repealed by the Wildlife Import and Export Act.
Pesticides and Toxic Chemicals Control Act No. 13 of 2000	Provides for the establishment of a Pesticides and Toxic Chemicals Control Board. The Act regulates the manufacture, importation, transportation, storage, sale, use and disposal of pesticides and toxic chemicals	No amendments recommended. This Act supports the overall objectives of the CDB's Strategic Plan for Biodiversity 2011-2020.

⁴⁸ See Appendix newspaper articles on pollution from mining activities.

Amerindian Act, No. 6 of 2006	Provides for the recognition and protection of collective rights of Amerindian villages and communities.	No amendments recommended. This Act supports the overall objectives of the CDB's Strategic Plan and Aichi Target 18.
Maritime Zones, No. 18 of 2010	Provides for marine scientific research, maritime cultural area, marine parks and reserves and mariculture, the protection and preservation of the marine environment and for related matters.	No amendments recommended. This Act supports the overall objectives of the CDB's Strategic Plan and Aichi Targets 6 and 7.
Fisheries Act, 2002 (Cap. 71:08)	Regulates fishing and related activities in Guyana's waters	No amendments recommended, however, better enforcement of the law is necessary. This Act supports the overall objectives of the CDB's Strategic Plan and Aichi Targets 6 and 7.
River Navigation Act, 1891 (Cap. 50:01)	Provides for the safe and convenient navigation of the rivers of Guyana.	No changes recommended. This Act supports the overall objectives of the CDB's Strategic Plan.
Shipping Act, No. 7 of 1998 (Cap. 49:01)	Outlines the procedures dealing with shipping, trading by ships, registration and licensing of ships and proprietary interest in ships, and the certificate of registration for ships plying the rivers and seas of Guyana.	No amendments recommended. This Act indirectly supports the overall objectives of the CDB's Strategic Plan.
Sea Defence Act, 1933 (Cap. 64:02)	Makes provision for the maintenance and construction of Sea Defences.	No amendments recommended. This Act indirectly supports the overall objectives of the CDB's Strategic Plan.
State Lands Act, 1903 (Cap. 62:01)	Governs administration and regulation of lands, rivers and creeks of the State.	No amendments recommended. This Act supports the overall objectives of the CDB's Strategic Plan.
Roads Act, 1909 (Cap 51:01)	Regulates the administration, maintenance and construction of public roads and governs the movement of vehicles on land.	No amendments recommended.
Motor Vehicles and Road Traffic Act, 1940 (Cap. 51:02)	Deals with the licensing, regulation and use of motor vehicles and the regulation of traffic upon roads	No amendments recommended.

Town and Country Planning Act, Chapter 20:01	Provides for the orderly and progressive development of land (which is specifically defined), Cities, Towns and other areas, whether they be urban or rural, for their preservation and improvement and for other related matters	No amendments recommended. This Act indirectly supports the overall objectives of the CDB's Strategic Plan.
Occupational Safety and Health Act, No. 32 of 1997	Regulates the health and safety in mines, logging operations and industrial establishments.	This Act needs to be amended to expand its scope to include protection of persons on offshore installations.
Labour Act	Specifies the conditions that an employer must observe in the contracting of employees.	No amendments recommended. This Act supports the overall objectives of the CDB's Strategic Plan.

VII. National Policies and Strategy Documents

Guyana developed a number of national policies related to biodiversity conservation and management, mostly within the framework of natural resources management. These policies all aim towards conservation and management of Guyana's natural resources, inclusive of sustainable utilization of its components. Environmental law is an area that is rich in policy and strategy documents which form a source of soft law. These documents are not legally binding but can be of persuasive authority to assist courts in interpreting legislation. They may also represent the first step in a process that may lead towards the drafting and enacting of laws on a particular issue. Policy makers and government officials are keen to use policy and strategy documents to create guidelines on how they will manage and conserve marine biodiversity and forest resources, mostly within the framework of the State's international obligations. These various non-binding policy and strategic documents supports the general objectives of the Strategic Plan for Biodiversity 2011-2020 because it helps to mainstream biodiversity and protection of the environment at the national level. These policy documents also support the Aichi Target 17 that by 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.

These policies and strategies include:

1. National Forest Policy (2011)⁴⁹

The National Forest Policy (NFP) 2011 aims to ensure the "conservation, protection, management and utilization of the nation's forest resources while ensuring

⁴⁹ See www.forestry.gov.gy for Forestry Policy & Forestry Legislation.

that the productive capacity of the forests for both goods and services is maintained or enhanced.”⁵⁰ This is a revised NFP and it addresses the country’s national and global responsibility for the sustainable management of the forest and recognizes the critical role of forests in maintaining the ecosystems and life supporting services.

- **The National Forest Policy Statement , 1997**

The National Forest Policy Statement 1997, which replaced the one published in 1953, is now under review to reflect the country's national and global responsibility for the sustainable management of local forests and the alignment of the forestry sector with the overarching Low Carbon Development Strategy generally, and global initiatives such as REDD++ in particular.

- **Forestry Management Plan Guidelines, 1999**

The Forestry Management Plan Guidelines, 1999 elaborates the basis for strategic and operational planning. Guidelines for annual operational plans (AOP) have also been published.

- **Code of Practice for Timber Harvesting 2nd Ed., 2002**

The Code of Practice for Timber Harvesting was developed by the Guyana Forestry Commission (GFC), and is based on FAO’s Model Code of Forest Harvesting Practice, 1996. The Code provides guidance on applicable standards for local forest conditions. It is designed to balance commercial considerations with the conservation of the natural environment and issues of occupational safety and health.

It provides guidelines and standards on what constitutes satisfactory road building and other related forestry activities. One important component of this project is the construction of an access road to the mine site. This road will at a minimum have to conform to GFC Road Planning guide as outlined in the Code of Practice for Timber Harvesting

Many aspects of the Code are usually incorporated into timber-harvesting agreements, forest management plans and annual operating plans that concessionaires submit to the GFC. Indeed, many loggers find the Code very useful for their own requirements.

- **Environmental Impact Assessment Guidelines: Volume 3 - Mining and Volume 5 - Forestry, 2000⁵¹**

These guidelines produced by the EPA and the Environmental Assessment Board (EAB) and in consultation with the GFC, provide a framework specifically for conducting and reviewing EIAs for forestry and mining projects in Guyana.

Other policy and strategy documents relating to marine biodiversity and forest governance include the following:

⁵⁰ Guyana Forestry Commission, *National Forestry Policy*, 2011.

⁵¹ http://uog.edu.gy/faculties/fot/repository/sites/default/files/EIA%20Mining_0.pdf

2. **Policy on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising from their Utilization (2007).**
3. **Biotechnology, Biosafety and Biosecurity Policy (2007).**
4. **Integrated Water Resources Management Policy and Roadmap (2013).**
5. **National Development Strategy (2001-2010).**
6. **Low Carbon Development Strategy (2013).**
7. **National Competitiveness Strategy (2006).**
8. **Guyana Poverty Reduction Strategy Paper (2011 - 2015).**
9. **National Strategy for the Conservation and Sustainable Use of Guyana's Biodiversity (1997).**
10. **National Protected Areas Strategy (2002).**
11. **Guyana Power Sector Policy and Implementation Strategy (2010 - 2014).**
12. **National Land Use Policy (2014).⁵²**
13. **National Policy on Geographic Information.**
14. **Integrated Coastal Zone Management Action Plan**

Several national plans were developed outlining the approaches to be implemented to ensure the objectives of the national policies relating to natural resources management, use, protection and conservation by the GoG are effectively implemented. Over the years the GoG has submitted three National Biodiversity Strategy and Action Plans to the CDB. These plans outline the national vision for biodiversity, which is to sustainably utilize, manage, and mainstream biodiversity in line with Guyana's economic and other goals. The various NBSAPs usually set forth strategic objectives intended to promote conservation and sustainability on a national scale, improve biodiversity monitoring, harmonize legal and policy-based mechanisms across all levels of government to support biodiversity conservation, and prioritize funding to meet these objectives. The relevant plans of the GoG related to marine biodiversity and forest management are listed below:

1. **National Environmental Action Plan (2001-2005).**
2. **National Biodiversity Action Plan II (2007-2011).**
3. **National biodiversity Strategy and Action Plan III [2012-2020]**
4. **National Forest Plan (2011)**
5. **National Protected Areas System Plan (2013-2015)**
6. **National Land Use Plan (2013)**
7. **National Mangrove Management Action Plan (revised in 2010)**
8. **Integrated Coastal Zone Management Action Plan (developed in 2000)**
9. **Fisheries Management and Development Plan (2006)**

At the regional level, policies are also being developed which will contribute to the management, conservation and protection of biodiversity, including:

⁵² See Booklet on the Summary of the National Land Use Policy, 2014 at <http://www.glsc.gov.gy/wp-content/uploads/2017/05/Summary-Booklet-of-the-National-Land-Use-Plan.pdf>

1. **CARICOM Common Fisheries Policy.**
2. **CARICOM Environmental Policy and Action Programme.**

VIII. Strengthening institutional framework and the identification of possible barriers to the implementation of the 2020 CBD targets

Institutional arrangements, quite apart from legislation affect the actual implementation of the law. It is therefore important to examine the possible institutional barriers that may exist in this area. There are several institutions, including various government ministries and agencies, entities and management committees which have responsibility for the protection and conservation of natural resources in Guyana. The GoG is currently undertaking important work to streamline and strengthen the work of the various institutions. It must be highlighted that several barriers exist and limited available financial resources is a major impediment to strengthening institutional capacity and removing barriers. Information asymmetry, distributional issues and competitiveness issues are other barriers to implementing the 2020 CBD targets. The government will need to make achieving the CBD targets one of its top priority. The establishment of the Ministry of Natural Resources is seen as an important step in the right direction towards making more adjustments so that all the relevant and important stakeholders involved in marine biodiversity and forest governance will perform their various tasks more effectively. An important issue to examine is whether the newly established Ministry of Natural Resources will duplicate some of the functions being conducted by other government entities. One of the main objectives for the creation of new institutions is to achieve greater environmental management. However, it is important that new institutions are properly streamlined so as to eliminate duplication, waste of resources and bottlenecks in the system. The fact that the EPA is the agency given the mandate to implement obligations under the CBD is a step in the right direction. This sort of clear mandate and functions helps to eliminate or reduce the problem of fragmentation, which many institutions involved in the administration of environmental legal obligations are plagued with. Below is a list of institutions involved in marine biodiversity conservation and forest governance:⁵³

1. **Ministry of Natural Resources: this Ministry was previously the Ministry of Natural Resources and the Environment.**
2. **Ministry of Agriculture.**
3. **Ministry of Tourism.**
4. **Environmental Protection Agency.**
5. **Protected Areas Commission.**
6. **Guyana Forestry Commission.**
7. **Guyana Geology and Mines Commission.**
8. **Wildlife Division.**

⁵³ Guyana: Fifth Report to the Convention on Biological Diversity, 2014. Detailed description of the various mandates of these institutions is included in Guyana's Fifth Report to the CBD.

9. **Land Reclamation Committee.**
10. **Integrated Coastal Zone Management Committee.**
11. **Mangrove Action Committee.**
12. **Geographical Information Systems (GIS) Committee.**
13. **National Coordinating Committee on Biosafety and Biosecurity.**

There are also several Non-Governmental Organisations (NGOs), including the WWF, that are directly involved in activities which contribute to the protection and conservation of biodiversity. The list below mentions the NGOs operating in Guyana:⁵⁴

1. **WWF-Guianas.**
2. **Conservation International Guyana.**
3. **Iwokrama International Center for Rainforest Conservation and Development.**
4. **Guyana Marine Turtle Conservation Society.**
5. **The Conservation Trust Fund.**
6. **Kanuku Mountain Community Representative Group.**
7. **North Rupununi District Development Board.**
8. **South Rupununi Conservation Society.**
9. **Conservation of Ecological Interaction & Biological Association.**
10. **Village Mangrove Action Committees.**
11. **Karanambo Trust.**

IX. Recommendations for the removal of institutional barriers, inclusive of a probable timeframe

It is recommended that new institutional arrangements be put in place to better streamline and coordinate the work of the various institutions involved in this sector. This recommendation to establish new institutional arrangements for Guyana to coordinate biodiversity and forest governance is not a new recommendation. The Guyana National Biodiversity Strategy and Action Plan 2012-2020 recommended that a National Biodiversity Committee be established.⁵⁵ To date this has not been achieved⁵⁶. Such a committee will include representatives from several of the stakeholders listed above and will be best suited to outline their strengths and coordinate their activities. It is recommended that stakeholder engagement be encouraged to develop durable reforms within the current institutional structures. The government should build alliances with all relevant stakeholders, including NGOs to get stakeholder 'buy-in' by involving them in some form of consultative process and this will support and enhance the proposed institutional reform.

⁵⁴ Ibid.

⁵⁵ Guyana's National Biodiversity Strategy and Action Plan (2012-2020), 2014, Appendix I

⁵⁶ Interviews conducted with various stakeholders confirmed that this Committee was never established.

The recommended timeframe for the removal of the institutional barriers is Jan. 2019. Various stakeholders can meet and discuss areas for coordination and map out a strategic framework to achieve greater environmental management. A specialist consultant who specialises in institutional strengthening should be contracted to assist with this process. It is estimated that the process should take about 1 year. This timeline will allow the changes to take place before the 2020 target under the CBD. This time frame also provides about 1 year and 6 months from the date of this report to allow for the necessary changes to be implemented.

X. Linkages and Synergies with other Multilateral Environmental Conventions

Guyana is signatory to a number of international and regional conventions and protocols aimed at addressing environmental protection and the conservation of biodiversity. The biodiversity-related conventions, which Guyana is a party to, are listed below as well as the dates that the state signed, acceded and ratified the agreements. These Agreements have several linkages and synergies with the CDB. Often the objectives of the various MEAs overlap and as a result, the when Guyana satisfies the goals under the CDB it may at the same time satisfy similar goals under other international and regional conventions:

1. United Nations Convention on Biological Diversity: Signatory in 1992 and ratified in 1994
2. Cartagena Protocol on Biosafety: Acceded to in 2008
3. Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization: Acceded to in 2014
4. Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973): Ratified in 1977
5. Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (1983): Ratified in 2010
6. Specially Protected Areas & Wildlife (SPA) Protocol (1990): Ratified in 2010
7. International Plant Protection Convention (1952): Acceded to in 1970
8. Convention on the Protection of the World Cultural and Natural Heritage (1972): Acceded to in 1977

In addition to the Conventions listed above, Guyana participates in activities of the Ramsar Convention on Wetlands (1971) and is a party to the Rio Declaration on Environment and Development (1992). Guyana is also signatory and has acceded to the other conventions aimed at environmental protection and sustainable management of natural resources, as is the list below and the dates that the state signed, acceded and ratified the agreements.

1. United Nations Framework Convention on Climate Change (UNFCCC): Signatory in 1992 and ratified in 1997

2. Montreal Protocol to the Vienna Convention on the Protection of the Ozone Layer: Acceded to in 1993
3. Kyoto Protocol to the UNFCCC: Acceded to in 2003
4. Vienna Convention on the Protection of the Ozone Layer: Acceded to in 1993
5. United Nations Convention to Combat Desertification: Signatory in 1996 and ratified in 1997
6. International Convention for the Prevention of Pollution (MARPOL 73/78): Acceded to in 1997
7. Basel Convention on the Control of Trans-boundary Movement of Hazardous Waste and their Disposal: Acceded to in 2001
8. Stockholm Convention on Persistent Organic Pollutants: Acceded to in 2007
9. Rotterdam Convention on Prior Informed Consent for Certain Chemicals and Pesticides in International Trade: Acceded to in 2007
10. Minamata Convention on Mercury: Signatory in 2013

Within the Caribbean and Latin America, Guyana is a member or official signatory to the following Plans, Programmes and Agreements:

1. Caribbean Planning for the Adaptation to Climate Change.
2. Mainstreaming Adaptation for Climate Change.
3. Caribbean Regional Environmental Programme.
4. Caribbean Environmental Programme and its Specially Protected Areas and Wildlife Programme.
5. Latin American Network for Technical Cooperation in National Parks, Protected Areas and Wildlife.
6. Treaty for Amazon Cooperation.
7. Guiana Shield Initiative and Guiana Shield Facility.
8. Barbados Programme of Action for the Sustainable Development of Small Island Developing States (1994)
9. Mauritius Strategy for the Implementation of the Barbados Programme of Action (2005)
10. United Nations General Assembly Resolutions 59/230, Promoting an integrated management approach to the Caribbean Sea area in the context of sustainable development of 22 December 2004;
11. United Nations General Assembly Resolutions 61/197, Towards the sustainable development of the Caribbean Sea for present and future generations of 9 February 2007; and,
12. United Nations General Assembly Resolutions 62/215 on Oceans and Law of the Sea of 22 December 2007.

Below is a summary of some of the major conventions that regulate marine resources and forest governance that Guyana has signed.

(i) Convention on Biological Diversity⁵⁷

Guyana ratified the Convention on Biological Diversity (CBD) on August 12, 1992, and it was entered into force on November 12, 1997. The National Focal Point is the Office of the President and the Implementing Agency is the Environmental Protection Agency. The objectives of the CBD include: the conservation of biological diversity (defined as the variability among living organisms from all sources including *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexities of which they are part including diversity within species, between species and of ecosystems), the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

The provisions of the CBD apply to areas within the limits of national jurisdiction of contracting parties and as regards the effects of processes and activities, both within and beyond the limits of national jurisdiction. Contracting parties are required under Article 7 of the CBD, to identify processes and activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological diversity and to monitor their effects through sampling and other techniques. Parties are, also as far as is possible and as appropriate, required to establish protected areas or areas where special measures need to be taken to conserve biological diversity. In areas adjacent to these protected areas environmentally sound and sustainable development should also be promoted. Article 8 requires that degraded ecosystems be rehabilitated and restored and the recovery of threatened species be done through the development and implementation of plans or management strategies. Contracting parties are also required to regulate or manage relevant processes or activities where a significant adverse effect on biological diversity has been determined.

Article 10 of the CBD provides for the integration of conservation and sustainable use of biological resources in national decision-making, and the support of local populations to develop and implement remedial action in degraded areas where biological diversity has been reduced. The avoidance or minimising of adverse transboundary effects is also considered important and should be addressed by the introduction of environmental impact assessments of proposed projects that are likely to have significant adverse impacts on biological diversity, the exchange of information and consultation on activities likely to significantly adversely affect the biological diversity of other States and notification to such States of imminent or grave danger to biological diversity within areas under the jurisdiction of States.

In observance of the Convention, Guyana established the Environmental Protection Agency in 1996, to coordinate and implement a programme for the conservation of biological diversity. As mentioned above, three National Biodiversity Action Plans and five National Country Reports from Guyana were also developed and reported to the CBD Secretariat and COP.

⁵⁷ See, <http://www.cbd.int/>

(ii) Caribbean Environmental Programme (CEP)⁵⁸ under the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean

This programme is aimed at promoting regional cooperation to protect and develop the marine environment in the Wider Caribbean Region. The legal framework of the Programme is the Caribbean Action Plan under which the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean was developed. Three Protocols have been developed for specific environmental issues, in particular specially protected areas and wildlife and land based sources, activities or marine pollution. A Sub-programme relating to specially protected areas and wildlife and the Protocol of the same name are means for the Caribbean Region to implement the global Convention on Biological Diversity. The Protocol contains more specific terms than the CBD particularly for the establishment of protected areas, and the conservation and management of species and coastal ecosystems.

(iii) Protocol Concerning Pollution from Land-Based Sources and Activities (LBS)⁵⁹

The Protocol requires contracting parties to develop and implement programmes, plans and measures as effective means of preventing reducing or controlling pollution of the Convention area from land-based sources and activities. Parties are required to address the source categories, activities and pollutants of concern listed in Annex 1 to the Convention. Extractive industries and mining are identified as priority source categories and activities, while heavy metals and compounds, cyanides and fluorides are listed as primary pollutants of concern. Annex II identifies factors to be used to determine effluent and emission limitations and/ or management practices.

(iv) Protocol Concerning Specially Protected Areas and Wildlife (SPAW)

The SPAW Protocol which is used as a means of regionalising global conventions such as the CBD, utilises an ecosystem approach to conservation by protecting rare and fragile ecosystems and the endangered species it houses. Through its Caribbean Regional Coordinating Unit, assistance is given in the establishment of protected areas, as one of the objectives of the SPAW Programme is to significantly increase the number and improve the management of national protected areas and species in the region and assist the Governments of the region, on request, in developing guidelines for the establishment and management of such areas.

⁵⁸ See, <http://www.cep.unep.org/>

⁵⁹ Ibid.

(v) The Amazon Cooperation Treaty⁶⁰

Amazon Cooperation Treaty was entered into by the Republics of Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela, in 1978 to promote the harmonious development of the Amazon Region and to undertake joint action and efforts to promote the harmonious development of the Amazonian territories in such a way that joint actions produce equitable and mutually beneficially results and also achieves the preservation of the environment, conservation and rational utilization of the natural resources.

Six sub-committees were set up to initiate, implement and address issues as it relates to the implementation of the Amazonian Treaty. These include the following: Health, Transportation, Education, Infrastructure, Tourism, Environment, Science and Technology and Indigenous Affairs.

The area proposed for the development of this project is considered part of the Amazon Basin. The aforementioned environmental conditions and agreements place emphasis on the Government of Guyana as a signatory to this treaty to put specific measures in place for compliance. The enactment of the Environmental Protection Act and its regulations have established the institutional and regulatory measures for the implementation of the treaty some of which forms part of the environmental impact assessment requirements.

(vi) Convention on International Trade of Endangered Species⁶¹

This convention was established in 1972 to control international trade of live and dead animals and plants through the issuing of permits/certificates for such trade. Requirements for the establishment of Scientific and Management authorities; regulation of trade in specific species via permits and certificates; records of trade are detailed in the convention. Some of the legal obligation under this convention was established in the Species Protection Regulations of 1999 under the Environmental Protection Act. However, this will be replaced when the Wildlife Conservation and Management Act 2016 comes into force.

(vii) UN Framework Convention on Climate Change (UNFCCC)⁶²

UNFCCC entered into force in 1994 to achieve stabilization of greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system. Further, acceptable levels of greenhouse gas (GHG) should be achieved within a time frame that is sufficient to allow ecosystems to adapt naturally to climate change.

⁶⁰ See, <http://www.otca.org.br/>

⁶¹ See, www.cites.org/

⁶² See, <http://unfccc.int/>

In keeping with the provisions of the Convention, a national climate change committee was established and a national inventory of Greenhouses Gases was prepared for base-year 1994. Aspects related to technology transfer, capacity building requirements, vulnerability assessment and adaptation measures were compiled.

When the Parties adopted the UNFCCC they knew that the Convention commitments would not be sufficient to mitigate climate change. A new round of negotiations, to decide on a new instrument with stronger commitments, was launched under the Berlin Mandate at COP 1. The negotiations resulted in a new instrument which was to supplement and strengthen the Convention. After 18 months of negotiations the Kyoto Protocol was adopted on 11 December 1997 and entered into force on 16 February 2005. It has 2 commitment periods: the first commitment period was 2008 – 2012 and the second commitment period was 2013 – 2020. During the second commitment period parties decided to enter into the Paris Agreement.

The Paris Agreement builds upon the Convention and its central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework.

The Paris Agreement requires all Parties to put forward their best efforts through “nationally determined contributions” (NDCs) and to strengthen these efforts in the years ahead. This includes requirements that all Parties report regularly on their emissions and on their implementation efforts. The Agreement considers the differences among the countries and calls on the Parties to reflect on ‘equity’ and the ‘principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances’, when they take actions. NDC submissions to the UNFCCC cover nearly all Parties and provide important guidance on how future energy policies might evolve.⁶³ At the same time, the broad-based nature of NDCs introduces uncertainties in terms of how their aggregate effect might contribute to the objectives of the Convention and the Paris Agreement. However, such broad-based contributions also provide an extensive opportunity for the Parties to cooperate by better matching the needs of developing countries with the means of implementation to be provided under the Paris Agreement. In this context, Guyana should implement policies that aim to

⁶³ Renewables 2016: Global Status Report, Renewable Energy Policy Network for the 21st Century (REN21), Paris, France, 1 June 2016. See, http://www.ren21.net/wp-content/uploads/2016/06/GSR_2016_Full_Report_REN21.pdf

diversify the economy and promote renewable and “cleaner” forms of energy. Projects that promote solar and wind energy and hydroelectricity should be given priority.

It must be highlighted that the Aichi Target 15 recognises the link between climate change and protection of biodiversity. It provides that by 2020 ecosystem resilience and the contribution of biodiversity to carbon stocks must be enhanced through conservation and restoration, including restoration of at least 15 percent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

XI. Conclusion and Summary of major findings

As highlighted above, the major objective of this report is to provide information to assist Guyana to complete one of the necessary steps in the process of designating 10% of Guyana’s EEZ as an MPA, as indicated in the Marine biodiversity and forest governance (FLEGT/REDD+) EU project document. After undertaking the legislative review and the examining key areas to strengthen institutional linkages among the various coordinating agencies and stakeholders in Guyana the following summary points are to be noted.

Guyana as a former British colony adopted the British tendency to enact environmental legislation in an ad hoc manner, which is usually in response to specific unwelcomed activities. The Wild Birds Protection Act and the Species Protection Regulations are examples of this tendency to respond to a crisis in a piece meal fashion. As a result, the laws regulating marine biodiversity and forest governance have been subjected to this pattern. More recent legislation and proposed amendments, such as the Wildlife Conservation and Management Act attempt to regulate biodiversity in a more holistic manner and can be seen as a departure from the historical type of legislation which was very limited in scope. This is a welcomed trend because the CBD caters for the conservation and protection of biodiversity in its various forms. It does not only focus on species at risk of extinction but provides protection in a more generic way.

Guyana has a common law legal system and what was observed when reviewing the environmental laws is the domination of legislation in this area. There is very little by way of judicial pronouncement to show any trend in the development of legal norms through judicial precedent. The lack of reported cases exacerbates this problem.

Most of the environmental legislation of Guyana do not require amendment and can be read in conjunction with the other policy documents and strategies as supporting the CDB Strategic Plan for Biodiversity 2011-2020 and the Aichi targets. Even though many of the laws which were reviewed in this report predated the 1992 CDB and the later Aichi Targets, the laws can be interpreted in light of various policy documents as well as other international treaties which provide for sustainable development of the marine and forest resources. In the analysis above several recommendations were made to amend

various pieces of legislation including the Protected Areas Act, the OSH Act and to have special regulations under the EPA to regulate oil spills or pollutions that may occur during offshore hydrocarbon projects.

The Protected Areas Act is critical to the Guyana government achieving Target 11 of the Aichi Targets, that is, “by 2020, at least 17 per cent of terrestrial and inland water areas, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.” However, the PA Act is unclear as to whether the Minister has the power to declare both public lands and sea areas as protected areas. The recommended amendment, if implemented, will make it clear that the Minister will have the authority to make such a declaration.

WWF is currently engaged in producing compelling data, participatory spatial planning and targeted capacity building to support recommendations to establish MPAs in Guyana’s marine area. New PAs require Ministerial, Cabinet or Parliamentary approval. Before a recommendation for the establishment of MPAs over 10% of Guyana’s marine territory is submitted to the Government the laws should be clear that the Minister has the power to approve the recommendation.

The Occupational Safety and Health (OSH) Act needs to be amended to provide protection on offshore installations or platforms. The Act provides for safety and health measures in industrial establishment, mines and logging operations, but no reference to offshore installations is made anywhere in the Act. Now that Guyana is a new frontier for offshore oil and gas exploration and production activities, the OSH Act should be amended to apply to workers on offshore installations. Health and Safety laws relating to offshore drilling activities is critical to any country involved in offshore petroleum development projects. Catastrophic events such as the *Exxon Valdez* accident in 1989 and the *Deepwater Horizon* blowout in 2010 in the Gulf of Mexico demonstrate the importance of proper laws to regulate offshore drilling activities. These accidents also demonstrate the negative impacts that poor laws and regulations relating to oil exploration and exploitation can have on the maritime environment.

The Petroleum Act of 1986 is outdated and is in the process of being repealed and replaced. It is hoped that the state will enact an updated Petroleum Act which will incorporate the principles of sustainable development. Increased hydrocarbon exploration in the marine environment must be accompanied by proper and robust legislation and regulations.

It is important to understand the law making process relevant to the jurisdiction when conducting a review of Environmental legislation relevant to marine resources and forest governance. In Guyana, mainly the ruling party in government initiates new laws, though the opposition party may sponsor bills. Therefore, it is important that the current

government make this area a priority for legislative reform. The establishment of a Ministry of Natural Resources is key to strengthening and streamlining the institutional frameworks involved in the management of marine and forest resources. This Ministry is relatively new and since its establishment it has undergone several changes, both in terms of the name and its mandate. This Ministry is also regulating the emerging hydrocarbon sector. Given that Guyana is poised to become a major oil producing nation by 2020 and the importance that hydrocarbon production will have to the economy of Guyana, the government should find it equally important to ensure that the necessary environmental laws are enacted.

On a final note, it was highlighted above that many of the current environmental laws lack enforcement. This is an area that requires strengthening. Manpower and resources will have to be allocated to ensure that the laws are complied with and strictly enforced. The proposed new laws, if adopted and implemented should not suffer the same fate of weak enforcement.

XII. Appendix

1. "We are 'fed up' of water pollution - Kamarang residents" Kaieteur News, Dec 23, 2013

<http://www.kaieteurnews.com/2013/12/23/we-are-fed-up-of-water-pollution/>

Our water is polluted and nobody seems to care."

This sentiment is shared by the majority of people living in Kamarang, Region Seven. During a recent visit to the area by this newspaper, residents complained that miners have been continuously disregarding the rules attached to conducting mining operations, causing the main rivers to become polluted.



One of the many rivers in Guyana that provides an abundance of water.

"This is a major problem for us. We use the river water to do everything- cook, clean, drink...these miners are dredging near the main waterways. All the waste materials going into our water and it isn't safe," a teacher of the Kamarang Primary School said. The woman noted that it has become an annoyance that illegal miners are continuously setting up operations near the community, and are mining in a manner that is life-threatening to over 500 persons, the majority of whom are children below the age of 13.

"We have been battling with this issue for a long time, but it's getting worse, and if it continues, the villagers will be in serious problems health wise," the teacher said. She added that the miners should at least cater for the children who have their whole lives ahead, and who are at risk for water-borne diseases.

Meanwhile, Guyana has recently been selected as the only Caribbean country to be a part of the UN Water Country Brief survey, which is aimed at ensuring that the resource is sustainably managed.

In this initial stage, 13 countries are beneficiaries to a profile study series carried out

by the UN-Water Country Briefs (WCBs).

Agriculture Minister, Dr. Leslie Ramsammy was provided with a six-page Brief, which details the country's water profile; water-related investment flow, evidence and analysis on the state of irrigated agriculture, drinking water and sanitation, environment and health energy, industry and water governance.

This study has been implemented by the AQUASTAT Programme of the Food and Agriculture Organization (FAO), under the auspices of UN-Water, and with financial support from the United States Department of State.

In addition to providing an overview of the countries' water system, the WCB is also designed to demonstrate to policymakers the value of investments in water resources. Apart from Guyana, WCBs have been produced for Bangladesh, Chile, Ghana, Kyrgyzstan, Mexico, Mongolia, Oman, Philippines, United Republic of Tanzania, Vietnam, and Zambia.

FAO representative, Dr. Lystra Fletcher-Paul pointed out that water is becoming scarce, and that many countries are pumping more than is recharged.

She pointed out that it is because of this that decision makers and policy making bodies need to have access to reliable information to allow for the formulation of effective, corrective and preventative strategies.

Thus far, there has not been a national overview of the water system in Guyana, hence the birth of the WCBs, which is expected to fill the gap in the water knowledge pool.

Fletcher-Paul also expressed hope that this initiative will help to further increase political momentum.

Meanwhile, Minister Ramsammy acknowledged that while the world faces this challenge, Guyana remains in a better position than the vast majority of countries, due to the local abundance of water.

Dr. Ramsammy pointed out that Guyana is ranked among the top three countries in the world as it relates to water resources.

"We have access (if we can harness it) to water that is over 300,000 millimeters per capita whilst most countries are dealing with per capita access of less than 10,000," the Minister explained.

However, he did point out that the irony of the situation is that Guyana can also go from having too much water to not having enough, almost instantaneously.

He said that while water is pumped into the sea during the rainy season, "we would want the water back when the dry season steps in."

"But we cannot take it back, because now it would be filled with salt and other things," Dr. Ramsammy emphasized.

2. “Pollution caused by mining will not be tolerated – Min. Broomes,” Kaieteur News, Feb. 6th, 2017

<http://www.kaieteurnews.com/2017/02/06/pollution-caused-by-mining-will-not-be-tolerated/>

Mining activities which adversely affect the livelihoods of residents will no longer be tolerated by authorities, particularly the Ministry of Natural Resources.

Junior Minister of the Natural Resources Ministry, Simona Broomes said that although the “Environment” portfolio is now with the Ministry of the Presidency, her agency will be working closely with the Guyana Geology and Mines Commission to address the issue.

“We are going to be working closely with GGMC to ensure that we have the solution, and corrective measures put in place, it will not be tolerated going forward.”

Broomes on Saturday held a meeting with miners in Bartica to address the issue. She said that the aim of the meeting was to educate miners to operate in a safer and environmentally friendly way.

“We don’t want to start and say okay you move here and then they say there is no alternative. We are putting the alternative first; giving you the solution, so that we would be able to clean up the sector.” She said that it is one of the biggest inherited challenges for the Ministry within the sector.

Prior to her meeting with the miners, the Junior Minister had officiated over the opening of the first water well in the Amerindian Village of Karrau, Region Seven.



Addressing the media, Broomes said that the village had serious pollution problems.

“You have persons mining here who have been given permission by the villagers themselves and persons from the community were mining in this area for several years.”

According to Broomes, a creek, the village’s main source of water, became contaminated. “That is why I was one of the drivers behind the collaboration, being the Minister within the Ministry of Natural Resources and knowing the situation, to push to see the completion of this well, so that the residents here can have safe and reliable water.”

In April last year, tests done at the creek confirmed that contamination was at an alarming level. The turbidity of the water was very high, muddy and unfit for human consumption. However, protest action initiated a process towards providing safe water to villagers.

Mining activities have affected a number of hinterland communities especially in the contamination of water ways. Late last year, Major General (Ret'd) Joseph Singh had penned a letter in this newspaper highlighting several instances of pollution caused by the activity.

Singh said that based on his assessment of mining in Regions Seven and Eight, the situation has worsened. He said that as of November 27, 2016, there was heavy sediment loading off the Cuyuni River from the cumulative impact of mining activities in the upper Cuyuni located in Venezuela and in the middle and lower Cuyuni River in Guyana at its confluence with the Mazaruni River at Kartabu Point. He admitted that the contribution of the gold mining community to the development of Guyana and Guyanese is undeniable. However, he stressed that mining operations in Guyana's rivers or contiguous land areas have to be compliant with the regulations, including those relating to the health and safety of mining crews and downstream communities and for the sustainability of ecosystems and services.

**3. "Former army chief heads body to tackle illegal wildlife exports, hunting,"
Kaieteur News, Jan. 8th, 2015**

<http://www.kaieteurnews.com/2015/01/08/former-army-chief-heads-body-to-tackle-illegal-wildlife-exports-hunting/>

Amidst increasing reports of illegal hunting, Government yesterday announced that it has put together a special team, headed by a former army chief to oversee the management and conservation of wildlife in the country. The National Committee will be headed by Major General (Ret'd) Joe Singh, and will represent officials of the public sector regulatory agencies and other stakeholders.

According to the Ministry of Natural Resources and the Environment, which has oversight of wildlife, through its regulatory body, the Environmental Protection Agency (EPA), it has received several reports of illegally hunted and traded wildlife in Guyana. This is in direct contravention of the Wildlife Management and Conservation Regulations 2013, the Ministry said.

"This legislative instrument allows for regulating the harvesting of wildlife for various purposes including bushmeat, scientific research etc. Anyone who contravenes the tenets of this legal Instrument will be guilty of an offence and liable to receiving penalties ranging from \$30,000 to \$750,000 along with prison time."

The regulation lists all protected species in Guyana. "At this juncture, the Ministry would like to reiterate that all species of wildcats including jaguar and puma are

protected, which means that their collection, holding in captivity, hunting, or otherwise molesting is prohibited. This extends to the owning and selling of cat body parts or products thereof.”

The Ministry disclosed that it has embarked on a vigorous programme to enforce the regulation and curb the illegal hunting and trapping of wildlife.

The National Committee will act in an advisory capacity to provide general oversight and guidance in the development of strategies and programmes for wildlife management and conservation in Guyana in keeping with the Wildlife Management and Conservation Regulations 2013. “Upon its finalisation, the Committee will also be guided by the Wildlife Import and Export Bill 2013 which seeks to better regulate the trading of wildlife.”

Among other things, the special body will be liaising with various stakeholders both local and international, including Panthera and the United States Fish and Wildlife Service.

“This collaboration has realised the development of a 12 month project to build the foundation for monitoring and regulating wildlife harvest in the South-Guyana Region. On completion, this project will be rolled out on a national level,” the Ministry said. A sensitization program to educate stakeholders and the general public on key issues related to wildlife management and conservation in Guyana is also on the cards.

Wildlife hunting and export is big business for a number of locals. “Wild meat” especially is in hot demand with bars and restaurants clamoring for them. There have been significant reports of live animals being smuggled with no indication of how extensive this practice is. Parrots, macaws and alligators are among the most in demand.

4. Bill to curb illegal trade of wildlife passed, Guyana Chronicle, Aug. 9, 2016

<http://guyanachronicle.com/2016/08/09/bill-to-curb-illegal-trade-of-wildlife-passed>

GUYANA has fulfilled its requirements as a party to the Convention on International Endangered Species of Wild Fauna and Flora (CITES) and protection of the nation’s flora and fauna is guaranteed with the passage of the Wildlife Conservation and Management Bill.

The bill, which was read for a second time and passed with eight amendments within the early hours of Tuesday morning in the National Assembly, was moved by Minister of Natural Resources, Raphael Trotman. Trotman in opening remarks to the National Assembly, said that the bill has its genesis in the CITES convention and was taken to Parliament twice. “This is its third attempt at being passed, its third incarnation, there have been some changes made to it and I wish to recognise that this is not a new bill”, he said.

He said Guyana is a party to CITES and the membership process revolves around certain responsibilities, including having appropriate laws and regulations to safeguard that flora and fauna to the curb illegal trade of wildlife and to provide for the safe and regulated breeding, movement and trading of wildlife, without and within of state parties.

Further, he pointed out that though being a state party, Guyana has not been fully compliant even though every effort is being made to do so. “We have been using regulations published under the EPA (Environmental; Protection Agency) Act and these have since been deemed inadequate, hence the presence of this bill”, he said. He said the country cannot go forward without the adequate legal framework and laws being in place without facing sanctions for non-implementation.

Trotman noted that the legislation attempts to remedy a jeopardy, which he noted is the CITES conferences which are held triennially, the next which will be held next month in South Africa. He said it would not be until the year 2019 when another CITES conference will be held and Guyana risks being sanctioned for non-compliance if the deadline in September is missed.

He said during the 10th Parliament, moves were made to pass legislation relevant to wildlife in the form of two bills; unfortunately neither bill was enacted into law. “Time is of the essence and we must seize the opportunity that presents itself”, he noted. He said that the time is ripe for Guyana to move from a category two listed nation to category one, regarding wildlife.

Trotman told a visibly tired House of MPs that at the last CITES conference held in Bangkok , Thailand in 2013, Guyana was cautioned “very strongly” regarding its status and that the country risked being shortlisted for possible sanctions if the legislation was not in place by this year. He said several weeks ago, CITES dispatched a note to Guyana, noting that the bill meets that body’s requirements and the country was commended in that regard.

Opposition People’s Progressive Party (PPP) MP, Anil Nandlall raised several concerns about the bill, including the auditing process under which monies relevant to the mandate of the wildlife entities would be expended. He said the bill consists of the “technical” requirements of the CITES convention, as well as an obligation of the subject minister to pilot regulations which he noted would be necessary for the effective discharge of the bill. He later registered his support and that of the opposition, of the bill.

The bill, which is lengthy, is divided into 85 parts. Its key objectives are to create a supportive mechanism cognizant of the national goals of wildlife protection, conservation management and sustainable use and to create a national framework

and mechanisms governing the local and international trade in all species of Guyana's wildlife. It will lead to the implementation of the primary provisions of the CITES convention and also to provide a framework of licencing and decisions which support core principles of transparency, certainty, natural justice and fairness. The bill also makes provisions for captive breeding and wildlife-ranching.