



Ministry of Natural  
Resources and the  
Environment

# ANNUAL REPORT 2013



Guyana Forestry  
Commission



Guyana Geology  
& Mines Commission



Guyana  
Gold Board



Guyana Lands &  
Surveys Commission



Environmental Protection  
Agency



Guyana Wildlife  
Division



NATIONAL PARKS  
COMMISSION



PAC  
Protected Areas  
Commission



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## MINISTER'S MESSAGE

### Message by the Hon. Robert M. Persaud, MBA, MP, Minister of Natural Resources and the Environment



In 2013, the Guyanese economy recorded its eighth consecutive year of growth, with real GDP expanding by 5.2%. Non-sugar GDP grew even more rapidly by 6.3%, reflecting the underlying strength of the other sectors of the economy. The mining and quarrying industry recorded 8% growth over 2012. The gold industry achieved total declarations of 481,087 ounces, 9.7% above the previous year, and a historic performance. This year's level of declarations represents the highest in the history of the industry, exceeding production levels even when Omai gold mines were at their peak. The fortunes of bauxite were somewhat more tempered, with the industry registering an 11% decline in value added production. Additionally, diamond declarations increased by 56.9%, while stone production grew by 47.8%, the latter reflecting the strong boom in construction activity across the country.

Moreover, export earnings contracted marginally by 2.8% to US\$1.4 billion, mainly due to a sharp decline in gold prices along with lower export volumes of sugar, bauxite and timber. Gold exports amounted to US\$648.5 million, a 9.5% decline compared to 2012. This was due to a sharp decline in average realised prices of US\$1,344 per ounce compared to \$1,575 in

2012, overshadowing the 6% increase in export volume which amounted to 482,527 ounces. In addition, bauxite exports contracted to US\$134.6 million, due to a 24.7% decline in export volume to 1,678,971 tonnes, despite the 18.6% increase in export prices to US\$80 per tonne. Timber exports earnings declined by 1.4% to US\$38.5 million, primarily as a result of lower export volume. As a result, the capital account recorded a lower surplus of US\$314.8 million compared to US\$418.3 million, attributed to some moderation in FDI concentrated mainly in the mining and quarry sectors. Total FDI amounted to US\$214 million, compared to US\$293.7 million in the previous year.

Further, from a monetary developmental view, credit to mining and quarrying also grew by 13.9%, followed by agriculture and rice milling which registered growth of 13.7 and 9.9% respectively. The fiscal position of the economy indicated that the total current revenue collections for 2013, net of inflows from the Guyana REDD+ Investment Fund (GRIF), amounted to \$135.7 billion, 4.8% over 2012, reflecting strong performance across several tax categories.

Under the policy directives of the Low Carbon Development Strategy and in the wake of the intensification of the adverse impacts of climate change,

the Government continues to forge ahead with our innovative climate resilient and low carbon approach to economic development backed by our unwavering commitment to good forest governance and stewardship. Over the past year, the Government continued to work tirelessly at the multilateral level to establish a Reducing Emissions from Deforestation and Forest Degradation (REDD+) framework that sets the stage for future payments for forest conservation and sustainable forest management. To date, Guyana has earned three consecutive payments from Norway totalling US\$115 million within the framework of our Low Carbon Development Strategy (LCDS). In the last quarter of 2013, the annual third party audit of Guyana's performance under this partnership was completed, clearing the way for a fourth payment.

The year 2013 was a notable year of progress for activities under the GRIF. A total of four GRIF projects, with a combined approximate value of US\$30 million, were in their implementation phases. Under the US\$7 million Institutional Strengthening project significant progress was made towards the development of Guyana's first national scale Monitoring, Reporting and Verification (MRV) System. Under the US\$6 million allocation to the Amerindian Development Fund

(ADF), milestone disbursements were made to all 26 of the initial beneficiary communities for the implementation of their development plans in promoting sustainable village economies. Under the US\$5 million Micro and Small Enterprise Development project, applications for loans with reduced interest rates have already started to be processed for entrepreneurs with business ventures in low carbon sectors. Furthermore, in the last quarter of 2013, the US\$10.7 million Amerindian Land Titling project was approved and commenced implementation.

The mining industry is a major force in the world economy, occupying a primary position at the start of the resource supply chain. However, its role in contributing to the national economies of different countries varies greatly. Mining is a global industry with operations spread across developing and developed countries. In many countries like Guyana, it is often a significant contributor to the Gross Domestic Product (GDP) and poverty alleviation. Minerals and metals are also required for low carbon development as inputs for building renewable energy infrastructure.

Therefore, effective governance is critical to maximize the developmental outcomes from the mining companies'

contributions to national and local economies. Mining activities have important impacts on host countries at the national level and in local areas near to where mining activities take place. At a national level, the Guyanese economy is dependent on mining. At the local level, mines contribute to the areas in which they operate through two main channels: through commercial activities (employing and training people and procuring goods and services), and through social investments. Mining plays a vital role in generating employment in and around mining districts. Mines also contribute towards human capital development through investment in training and support to trade schools.

Guyana is primarily a resource-based economy. The extractive industries are an important source of employment, income and government revenue. The sector occupies a central place in the economy due to attractive commodity prices, the availability of mining properties, increases in production and technological improvements. With further hydrocarbon exploration, the resumption of manganese mining, increased production of bauxite and gold and the opening of new areas for exploration, the extractive sector is expected to continue its rapid growth.

# EXECUTIVE SUMMARY

The Ministry of Natural Resources and the Environment (MNRE) was established on December 17, 2011. Its primary focus is harmonizing policy and management in the Natural resources-based sectors, and better mainstreaming of conservation and environmental management.

## Agencies under the purview of the Ministry:

The Ministry of Natural Resources and the Environment is responsible for the coordination amongst eight natural resources and environment agencies:

- Guyana Forestry Commission
- Environmental Protection Agency
- Guyana Geology and Mines Commission
- Guyana Gold Board
- National Parks Commission
- Protected Areas Commission
- Guyana Lands and Surveys Commission
- Guyana Wildlife Division

The three main programmatic areas of the Ministry are:-

Strategic Planning and Administration; Natural Resources Management; and Environmental Management.

## Strategic Planning and Administration

has two sub-programmes:

Policy Development and Administration.

### Policy Development:

A number of policies were developed and submitted in 2013 and are in various stages of ratification.

These include:-

- Wildlife Import and Export Bill
- Land Surveyors Bill
- Land Surveyors Regulations
- Land Surveyors Profession Bill
- National Land Use Plan
- Occupational Health and Safety Regulations
- Wildlife Management and Conservation Regulation
- Access to Genetic Resources and Benefit Sharing Regulations
- Biosafety/ Biotechnology Management Bill
- Environmental Protection (Air Quality, Water Quality, Noise Management, Hazardous Wastes Management) Regulations 2000
- Species Protection Regulation
- Regulations for Compliance and Enforcement
- Litter Regulations
- Regulations under the Protected Areas Act 2011
- GIS Policy
- Styrofoam Restriction
- Solid Waste Management Bill

### Administration:

Financial Statements were submitted to the Audit Office by the natural resources agencies. A series of procurement and capital works were also undertaken by these agencies during 2013. With regards to staffing, the Ministry inclusive of all agencies started 2013 with 1068 employees and concluded the year with 1158 employees which represented an overall employment increase of 8.4%.

Local Training and Capacity Building as well as international training occurred in the major agencies including the Ministry itself. Some of the important areas covered included Environmental Management, Forestry Management, Sustainable Mining and Geographic Information Systems (GIS).

The Ministry of Natural Resources and the Environment has also assisted the Agencies in the preparation of Cabinet Memos, preparation of position papers prior to attending international meetings, and provided support to the delegations while oversees in the form of guidance and information.



## Natural Resources Management

has three programme areas:-  
Geology and Mining; Forestry Management and Land Management.

### Geology and Mining:

GGMC continued its monitoring and enforcement activities in the field to ensure compliance with current mining and environmental regulations. The Mines Technical Division completed thirty-four (34) of the thirty six (36) planned technical inspections for 2013 in the five (5) targeted Mining Districts inclusive of six (6) medium scale inspections (gold). Quantity surveys and sand pit inspections were done in the three counties where eight such inspections were completed of the ten planned visits. A total of 863 Cease Work Orders (CWOs) were issued during the year 2013. Most CWOs were issued to operators for working without the requisite

permission from the GGMC or absence of evidence to substantiate that applications were made to the GGMC. Dredges that were operating on Prospecting Permits Medium



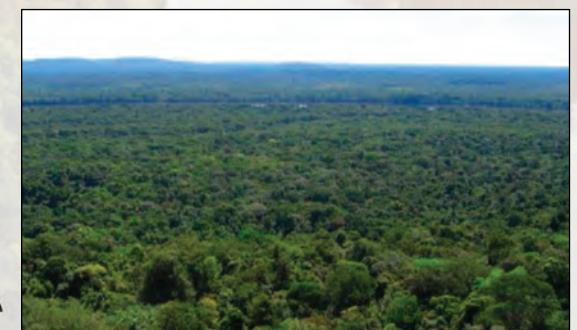
Scale (PPMSs) were issued with CWOs. During the year, the Surveying Section

completed a total of 1,397 claim verifications. Sixty per cent (60%) of Sand and Loam Pits in the Berbice, Essequibo, Bartica and Demerara/ Soesdyke areas were completed during the year while approximately ninety percent (90%) of landings to be regularized were completed.

Goldsmith premises and Licensed Traders were also inspected and certifications confirmed. During the year, 1,386 dredges were registered, 3,011 were renewed, 4,396 licensed, 88 dredge transferrals issued, and 34 dredges scrapped. A total of 1,364 Prospecting Permits Small Scale were issued for the year 2013.

### Forestry Management:

The Guyana Forestry Commission (GFC) continued to advance its programme of work on implementing National Level Independent Forest Monitoring (IFM). This initiative allows for transparent, independent, third party verification of legal compliance, and observation of forest law enforcement systems. Over the period, 31st October to 8th November, the year 2 IFM field audit mission was conducted. This followed a similar approach to that used in the year 1 audit and this was successfully concluded. The Report of the second IFM Audit will be finalised in 2014 and published on the GFC's website.



For the year 2013, the forest sector showed a 10% increase over the year 2012. Total production of Timber (Logs, Primary Lumber, Roundwood, Fuelwood, and Splitwood) for the period January to December 2013 was recorded at 437,933m<sup>3</sup> and together with Veneer and Plywood recorded a total of 473,041m<sup>3</sup>. This compares to 406,613m<sup>3</sup> and 428,934m<sup>3</sup> respectively, recorded in 2012. Exports of Forest Products for the year 2013 were recorded at US\$39.6M. This represents a marginal decrease of 1% over the 2012 total of US\$40M. The rise in production associated with the decline in export is attributed in part to the increasing local demand in the building and construction sectors, as well as the utilities sub sector (electricity and water mainly).

Forest change of forest to non-forest excluding degradation between 1 January 2012 and 31 December 2012 (12 months) is estimated at 14 655 ha. This equates to a total deforestation rate of 0.079%. This rate of change is higher than Year 2 period (15 months) which was reported as 0.054%.

For 2012/2013 approximately 507 State Forest Permissions (SFP) (inclusive of Mining and Agriculture leases) were active, covering an area of 1,895,149 ha, with a potential quota of 801,074m<sup>3</sup>. Twenty-six (26) TSAs and one (1) WCLs have been allocated for 2013, a total of 4,094,836 ha and potential AAC of 875,227 m<sup>3</sup>. For this report period, 6,878,990 ha were allocated as forest concessions under the regulation of GFC with the potential to extract 1,676,301 m<sup>3</sup> of timber resources.

### Land Management:

The Development of Land Use Planning (DLUP) Project is a foreign funded Project executed by the Government of Guyana and the European Union, which was successfully implemented from January 2011 to October 2013. The deliverables of the DLUP Project are of significant importance to Guyana. These included a National Land Use Plan, which provides developmental options and infrastructural linkages.

### Environmental Management

has three sub-programmes:

Environmental Protection and Conservation; Environmental Restoration; and Environmental Research.

#### Environmental Protection and Conservation:

The Environmental Protection Agency issued 244 Environmental Authorisations in 2013, from the 392 applications received. Two-hundred and sixty-six (266) pollution reports were received with one-hundred and twenty-three (123) investigated. One hundred and eleven (111) Compliance Inspections were conducted during 2013 representing an eighteen percent (18%) increase in compliance



inspections over that of 2012. 560 CITES permits and 435 non-CITES

permits were issued in 2013. Nineteen wildlife holding premises were also inspected during February/March and November/December respectively. International Day for Biological Diversity was celebrated under the theme 'Water and Biodiversity', and art competitions and Youth Fora were conducted in Regions 4 and 10 respectively. World Environment Day was celebrated under the theme Think. Eat. Save. Reduce your footprint'. The Annual Green Walk saw the participation of over 1000 participants.

In the latter half of 2012, three (3) sub-committees were formed to focus on the identification of potential sites for rehabilitation/ restoration; the preparation of a list of species that can be used by soil type based on soil characterization; the determination of the methodology for the planting of each, and the associated costs involved; and the identification of the different sources of financing for the implementation of the programme. This work continued apace in 2013.

Environmental Research: For the year 2013, Fifty-five (55) Research Applications were received. Forty-eight (48) research applications were processed and approved; of these, forty-six (46) were applications received in 2013 and two (2) were applications received in 2012. Forty-five (45) Research Permits were

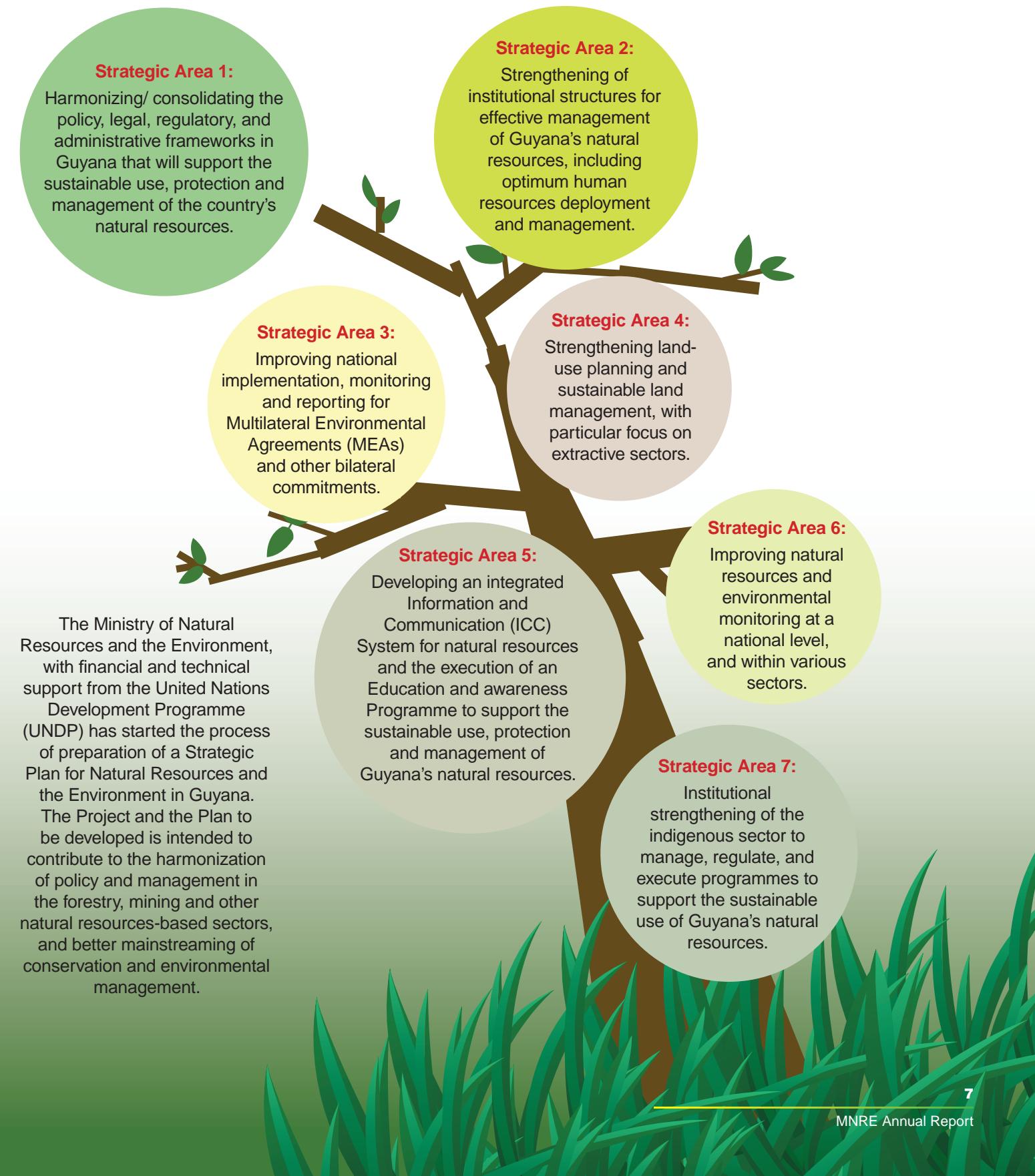


#### Environmental Restoration

The Ministry of Natural Resources and the Environment is working with several Agencies such as NAREI, EPA, GGMC, GFC, GGDMA, FPA, UG and OCC to rehabilitate areas degraded by mining activities. The focus of this sub-programme area was the establishment of coordination mechanisms for environmental restoration activities.

## THE MINISTRY OF NATURAL RESOURCES AND THE ENVIRONMENT (MNRE) STRATEGIC FOCUS

The MNRE has identified seven (7) Strategic Focus Areas for the sustainable use and management of Guyana's Natural Resources and Environment. These are:-



# INTRODUCTION

The Ministry of Natural Resources and the Environment (MNRE) was established on December 17, 2011. This represented a significant and far-reaching institutional change in Guyana's natural resource management sector. Many of the challenges facing natural resources and environmental management today stem from weak linkages between key sector agencies and a somewhat fragmented governance approach. The Ministry's primary focus is therefore harmonizing policy and management in the Natural resources-based sectors, and better mainstreaming of conservation and environmental management.

## Vision:

Improving the quality of life in Guyana through effective environmental management and the sustainable development of Guyana's natural resources.

## Mission Statement:

To facilitate the effective management and development of Guyana's natural resources, through improved policy making, inter-agency coordination and administration, and based on the principles of environmental, economic and social sustainability, for the ultimate benefit of Guyana and all the global community.

## Core Functions:

The Ministry's core functions are to:

- Coordinate, promote and monitor environmental and natural resources activities
- Provide informed guidance on sustainable management, utilization, and conservation of the environment and natural resources.
- Promote capacity building to ensure that all MNRE agencies and the sectors are well resourced;
- Upgrade the capacity for unified and enhanced environmental data, its analysis and information coverage and application;
- Develop a policy framework to harmonize environmental-related laws and institutions, and promote the capacity for collective enforcement of environmental standards; and promote the effective implementation of same;
- Promote the capacity for collective monitoring and enforcement of environmental standards;
- Strengthen multi-sectoral planning and strengthen linkages between institutions of planning and environmental and natural resources management;
- Establish a baseline on the state of the environment for future environmental planning;
- Establish a mechanism for information sharing among natural resources agencies;
- Strengthen negotiating capabilities through top talent development and compliance with Multilateral Environment Agreements (MEAs).

## Staffing:

The Ministry of Natural Resources and the Environment had, at the end of 2013, a total staff complement of 14 Members of Staff.

## Agencies under the purview of the Ministry

The Ministry of Natural Resources and the Environment is responsible for the coordination among eight natural resources and environment agencies:

- Guyana Forestry Commission
- Guyana Geology and Mines Commission
- Guyana Gold Board
- Guyana Lands and Surveys Commission
- Environmental Protection Agency
- Guyana Wildlife Division
- National Parks Commission
- Protected Areas Commission

One of the underlying principles of the Ministry of Natural Resources and the Environment is free sharing of information and collaboration between itself and the Agencies, which is displayed in Figure 1.



Figure 1: Coordination among Agencies and the Ministry

## MINISTRY'S PROGRAMMATIC AREAS

The three main programmatic areas of the Ministry are **Strategic Planning and Administration; Natural Resources Management; and Environmental Management**. The activities conducted under these areas fulfill the mandate of the Ministry and the work of the eight natural resources and environment agencies contribute to the implementation of activities under these programmatic areas.

## STRATEGIC PLANNING & ADMINISTRATION

The main objectives of the Strategic Planning and Administration programmatic area are:

- To develop and implement policies related to natural resources and the environment, to coordinate the network of implementing agencies under the purview of MNRE.
- To monitor and evaluate the country's programmes in the areas of natural resources and the environment.

### Sub-programme 1: Policy Development

The Legislative Agenda below summarizes the legislations that the Ministry of Natural Resources and the Environment through its Agencies and Commissions have prepared.

Figure 2: Table showing an overview of the Ministry's Legislative Agenda for 2013

Agency	Legislation	Focus of Legislation	Status
Wildlife Division	• Wildlife Import and Export Bill	The regulation of import and export of wildlife.	To be laid in the National Assembly.
Guyana Lands and Survey Commission	• Land Surveyors Act	To reform the law governing the practice of Land/Aerial Surveying.	To be laid in the National Assembly.
	• Land Surveyors Regulations	To regulate the practice of Land Surveying.	To be laid in the National Assembly.
	• Land Surveyors Profession Act	To make provisions for the registration and licensing of Land Surveyors.	To be laid in the National Assembly.
	• National Land Use Plan	To inform decision making for land-based sector agencies.	Completed.
Guyana Forestry Commission	• FC Act 2009 • Forest Act 2012	The sustainable management of Guyana's forest. Both were passed by Parliament however since that time, there have been a number of developments that needs to be integrated.	On-going revision.

Guyana Geology and Mines Commission	<ul style="list-style-type: none"> <li>• Mining (Amendment) Regulations 2013</li> <li>• Occupational Health and Safety Regulations</li> </ul>	<ul style="list-style-type: none"> <li>To establish a protocol to use Dredge Tracking Devices on Dredges/ Specified Machinery.</li> <li>To provide for protection of the safety and health of mines workers.</li> </ul>	Consultations Ongoing.
Environmental Protection Agency	<ul style="list-style-type: none"> <li>• Wildlife Management and Conservation Regulation</li> </ul>	<ul style="list-style-type: none"> <li>To govern the national trade of all species of wildlife in Guyana; including the domestic trade of bush meat.</li> </ul>	Gazetted.
	<ul style="list-style-type: none"> <li>• Access to Genetic Resources and Benefit Sharing Regulations</li> </ul>	<ul style="list-style-type: none"> <li>Regulation of access to genetic resources and benefit-sharing in Guyana.</li> </ul>	Draft Regulations; to be finalized by a legal consultant.
	<ul style="list-style-type: none"> <li>• Biosafety/ Biotechnology Management Bill</li> </ul>	<ul style="list-style-type: none"> <li>Management of Biosafety/Biotechnology activities in Guyana.</li> </ul>	1 <sup>st</sup> Draft Completed. 2 <sup>nd</sup> Revision on-going.
	<ul style="list-style-type: none"> <li>• Environmental Protection (Air Quality, Water Quality, Noise Management, Hazardous Wastes Management) Regulations 2000</li> </ul>	<ul style="list-style-type: none"> <li>Outlining of standards for air quality, water quality, noise, and hazardous wastes in Guyana; and the regulation of these standards.</li> </ul>	Gap Analysis review in progress.
	<ul style="list-style-type: none"> <li>• Regulations of the Import/ Export of Hazardous Wastes</li> </ul>	<ul style="list-style-type: none"> <li>Regulation of import and export of hazardous waste.</li> </ul>	Draft Regulations: Internal Review in progress.
	<ul style="list-style-type: none"> <li>• Species Protection Regulation</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring of trade of wildlife.</li> </ul>	To be repealed by Wildlife Import and Export Bill. (See Appendix 1)\
	<ul style="list-style-type: none"> <li>• Regulations for Compliance and Enforcement Regulations</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening environmental compliance and enforcement in Guyana.</li> </ul>	In process of being drafted.
	<ul style="list-style-type: none"> <li>• Litter Regulations</li> </ul>	<ul style="list-style-type: none"> <li>To enforce litter prevention and implement penalties for offences.</li> </ul>	Gazetted.
Protected Areas Commission	<ul style="list-style-type: none"> <li>• Regulations under the Protected Areas Act 2011</li> </ul>	<ul style="list-style-type: none"> <li>The regulation of Guyana's National Protected Area System.</li> </ul>	National Protected Area Trust Fund Regulations Gazetted.
Ministry of Natural Resources and the Environment	<ul style="list-style-type: none"> <li>• GIS Policy</li> </ul>	<ul style="list-style-type: none"> <li>To develop a National Geographic Information System Network.</li> </ul>	2 <sup>nd</sup> Public Consultation Completed. Review in process to be finalized.
	<ul style="list-style-type: none"> <li>• Styrofoam Restriction</li> </ul>	<ul style="list-style-type: none"> <li>To impose a stamp duty/ environmental tax and institute a 2-yr ban.</li> </ul>	Consultations ongoing.
Inter- Ministry Collaboration w/ Ministry of Local Government	<ul style="list-style-type: none"> <li>• Solid Waste Management Bill</li> </ul>	<ul style="list-style-type: none"> <li>To govern the management of Solid Waste.</li> </ul>	Detailed Comments Provided by MNRE.

The following policy initiatives were implemented during the year 2013:

- Guyana Mining School and Training Center Inc.
- Extractive Industries Transparency Initiative
- Project Matrix
- MNRE Outreaches
- Communications Workshop
- Strategic Environmental Assessment Workshop
- Hinterland Infrastructure Committee
- GIS Policy
- Environmental Management in the Mining Sector
- Multilateral Environmental Agreements
- Styrofoam Restriction
- Amaila Falls Hydropower Project
- Enforcement & Compliance Regulations
- Pick-It-Up Guyana
- Litter Regulations
- MNRE Strategic Plan
- Land Reclamation
- Minamata Convention
- Mercury-Free Mining Development Fund
- Indigenous Affairs
- International Workshops

### Guyana Mining School and Training Centre Inc.

The Guyana Mining School and Training Centre Inc. (GMSTC) was established in 2012 and falls under the direction of the Ministry of Natural Resources and the Environment (MNRE) through the Guyana Geology and Mines Commission (GGMC). The school is conceptualized as a technical and vocational education and training (TVET) institution, whose aim is to provide the mining sector with skilled technicians capable of enhancing its development. The GGMC, with support from the WWF-Guianas, has commissioned a consultancy to develop a curriculum to help move the school towards full functionality.



The key elements of proposed curriculum for the Guyana Mining School and Training Centre Inc. (GMSTC) include:

- two training streams: (i) Exploration Operations, and (ii) Surface Mining Operations.
- three levels of qualification up to a Diploma in each stream.
- categories of skills and competencies other than pure technical training.
- a broad range of teaching modules to address the needs of the industry.
- the emphasis on competencies (the application of skills and knowledge to a specified task) rather than the mere attainment of skills as an end in itself.

### Extractive Industries Transparency Initiative (EITI)

In February 2013, the MoNRE formally established a Multi-Stakeholder Group (MSG) for the consideration of a potential candidacy to the EITI. As per the EITI standard, the MSG is responsible for the identification of the goals to be achieved through EITI compliance as well as the implementation of the actions necessary to realize

those targets; its composition is a critical step for countries intending to implement the EITI. In addition, the EITI Secretariat has provided guidance on the content of both "feasibility" and "scoping" studies necessary for taking forward the initiatives.

In its efforts to take forward the EITI in Guyana, the GoG, in December

2013, advertised for a consultancy to undertake a study that takes into account the latest changes to the EITI Standard and that addresses both feasibility and scoping aspects of the implementation of the EITI. The study will be conducted in the first half of 2014.

### MNRE Outreaches

In an effort to address the issues identified regionally that fall under the purview of the natural resources and the environment sector, the Ministry along with representatives from the Environmental Protection Agency, Guyana Lands and Surveys Commission, Guyana Geology and Mines Commission and the Guyana Forestry Commission embarked on an exercise to visit the areas where those common concerns were highlighted. Some of the shared issues highlighted were land application, acquisition of land leases, garbage accumulation and stench, squatting, illegal occupation of the Government reserve, boundary discrepancies, flooding of residential and farm lands, change of land use and water pollution stemming from mining

activities, etc. At these outreaches, the agencies highlighted the correct procedures and practices to ensure public awareness and to provide clarity. Following the meetings, the respective agencies that were responsible for following up on the complaints made, deployed their staff to investigate and follow up on the actions to ensure the problems were being addressed.

### Communications Workshop

During the regional outreaches, it was suggested that the Ministry conduct a communications workshop to further enhance and boost the capacity of the staff in order to effectively serve the public. As such, the Ministry held a two (2) day workshop targeting the senior management of its eight (8) agencies to undertake the training.

The intention of sharing this workshop with senior management was to have a top down approach. Some of the priority areas that the participants highlighted included: training in group communication and management techniques, formal and informal both written and spoken, public speaking, client/customer service as well as non-

verbal communication. At the workshop the participants were encouraged to use the notes and materials received to lead short weekly or bi-weekly discussions with staff in order to build their capacity and encourage suggestions to increase productivity and ensure harmony in the work environment.

### Strategic Environmental Assessment Workshop

The Ministry of Natural Resources and the Environment organized and hosted a workshop on Strategic Environmental Assessment (SEA), a "formal process of systematic analysis of the environmental effects of development policies, plans, and programmes and other proposed strategic actions." The workshop was

delivered over a three-day period from July 4-6, 2013 at the premises of the Guyana Forestry Commission, Georgetown, Guyana, and facilitated by Dr. Paulette Bynoe, Consultant and Director of the School of Earth and Environmental Sciences (SEES) at the University of Guyana. The overall

objective of the SEA workshop was to create and enhance the awareness and knowledge of participants in respect of the concept, processes and application of the Strategic Environmental Assessment as a tool in support of a more integrated policy decision making.

### Hinterland Infrastructure Committee

The construction and maintenance of quality hinterland roads is of paramount importance since it facilitates easy and safe access to hinterland regions, reduces operational costs and improves livelihood. During 2013 the committee met to deliberate on the design, construction and supervision of several buildings and hinterland roads. Some of the roads that received attention during 2013 included the internal roads in Madhia which were shaped and rehabilitated with the expectation of capping with bitumen in 2014, Rehabilitation



of the Road from Brian Sucre Junction to Micobie and Tumatumari, Rehabilitation of Road from Matthew's Ridge to Baramita Road, the road from Itaballi Landing to Puruni Landing and routine maintenance on the road from Brian Sucre Junction to Mahdia. Additionally, Road Users Agreements were developed for specific roads to restrict weight limits on vehicles transporting goods and equipment into the hinterland. Restrictions to weight limits are essential since overloaded vehicles cause significant damage to the roads they traverse.

## GIS Policy

The Ministry of Natural Resources and the Environment hosted an inception meeting and national consultations to update the National Policy on Geographic Information. A national policy is required to encourage and expand the use of geographic

information and GISs and the building of a National Spatial Data Infrastructure (NSDI) in pursuit of sustainable national development. The Ministry also established a GIS Unit that aims to improve sharing of accurate and up-to-date information among all the

key government agencies to ensure that these organizations are aware of each other's fixed assets, facilities and activities. Potential conflicts and areas for coordination and cooperation will become more obvious.

## Environmental Management in the Mining Sector

The Ministry of Natural Resources and the Environment through the Guyana Geology and Mines Commission collaborated with the World Wildlife Fund to support national capacity building through education and awareness activities, baseline studies and training of stakeholders within the gold mining sector.

The project goals and status are outlined in the table below:

Goal	Status
To conduct a baseline assessment of distribution routes of mercury use in Guyana as part of a strategy for its discontinued use.	A draft final report has been submitted to both GGMC and WWF and it is being reviewed. Both GGMC and WWF are to meet with the Consultant by the first quarter of 2014.
To improve best practices in Guyana's mining sector by developing a curriculum for the Mining School and providing training and build capacity for new entrants and existing small and medium scale operators.	The consultant submitted the second draft of the Mining School Curriculum after meeting with CTVET.
To contribute to the sustainability of the mining sector in Guyana through the development of a National Action Plan and updating the Codes of Practice on Mining.	The third phase of the project has been advertised in the daily newspapers and applications are being reviewed

## Multilateral Environmental Agreements

The MNRE consolidated the MEAs under its purview into a policy matrix to ensure periodic monitoring. The agencies completed the matrix to reflect current activities and it will be updated every 6 months.

Guyana undertook an assessment of the country's challenges in meeting global environmental objectives under the National Capacity Self-

Assessment (NCSA) project. As part of this exercise, Guyana identified key capacity development actions that are to be pursued strategically, as outlined in its NCSA Action Plan. To this end, an International Consultant with support from UNDP has been hired to develop a project proposal that is eligible for preparatory funding by the Global Environment Facility (GEF), and technically feasible by UNDP criteria.

The consultant will prepare a Project Identification Form (PIF) and a Project Preparation Grant (PPG). The Proposal will focus on strengthening the Ministry's role in coordinating Agencies that have impact with the 3 Rio conventions – Convention on Biological Diversity, United Nations Convention to Combat Desertification and United Nations Framework Convention on Climate Change.

## Styrofoam Restriction

On June 25, 2013 Cabinet approved a ban on Styrofoam importation and use in Guyana from June 2014. Additionally, Cabinet approved 2 interim measures to the importation of Styrofoam Products. These are:

- a. The provision of tax incentives to incentivize biodegradable alternatives;
- b. The immediate application of Stamp Duty and Environmental Tax charges to Styrofoam.



On November 18, 2013, the Ministry of Natural Resources and the Environment hosted a Stakeholder's Consultation to apprise stakeholders of Cabinet's decision and to garner stakeholder's concerns on the type of incentives required to transition towards biodegradable alternatives.

## Amaila Falls Hydropower Project



The Amaila Falls Hydropower project involves the construction of a Hydropower Plant in the area of West Central Guyana where the Amaila and Kuribrong Rivers meet. It has 3 main

components, these are: hydropower facility, electrical interconnection and access road - which will cater for the construction of new roads and upgrade of existing roads. Two issues surrounding the project were the Access Road Control Plan and the Biodiversity Offset.

On January 22, 2013 Cabinet agreed in principle to the creation of an Environmental Management board to provide oversight to both the Access Control Plan and the Biodiversity

## Enforcement & Compliance Regulations

WWF signed a \$4M one year co-financing agreement with the EPA in August 2013. The purpose is to help develop EPA's Compliance and Enforcement Regulations to

aid its effective functioning. It is also expected that this short term project will strengthen EPA's capacity to manage environmental and social impacts of development activities in all sectors of

Offset. The monthly board meetings were facilitated by the MNRE with recorded minutes. These two draft documents were developed at the Project Management Office (PMO) with input from various stakeholders and then presented to the Board for review and comments. In addition, it was the responsibility of the Ministry's agencies, specifically GGMC, EPA and GFC to conduct joint monitoring efforts of the project area on a monthly basis to document key compliance issues and present them to the Board and PMO.

the Country. A Legal Expert has been contracted to develop the regulations and sensitize officers of the EPA and other Stakeholders to use this legal instrument.

## PICK-IT-UP - Guyana

### Raising Awareness:

Pick it up Guyana (PIUG) developed and delivered fourteen (14) presentations on the work of Pick it up Guyana, pollution and the environment, and waste management techniques. These presentations were delivered to various groups including religious organisations, non-governmental organisations, and students. During 2013, PIUG participated in four (4) exhibitions including GUYEXPO, where educational materials were distributed, and members of the general public were engaged.



(5) major joint activities, including the viewing of "Trashed", an environmental documentary on global waste management, with the US Embassy Guyana Shines, and the celebration of International Volunteer Day with the Caribbean Youth Environment Network.

### Training:

PIUG developed its capacity over the year by attending numerous workshops,

including 'Sustainable Solid Waste Management in CARICOM countries' hosted in Okinawa, Japan. Additionally, PIUG has participated in workshops on using social media the right way, accessing funding from donor agencies etc, hosted by the Volunteer Support Platform under the Ministry of Culture, Youth, and Sports.

## Litter Regulations

In 2013, the Ministry made significant progress in proactively tackling the growing litter situation in Guyana. Official regulations dealing specifically with litter were created to deal with the issue at various levels. The Ministry actively engaged several relevant stakeholders in formulating policies and strategies which are reflected in the Environmental Protection (Litter Enforcement) Regulations 2013. These regulations are supplementary to the Environmental Protection Act 1996, and create serious offences

and penalties for littering. After extensive review by stakeholders, the Environmental Protection (Litter Enforcement) Regulations 2013 were sent to be Gazetted in December, 2013. The Regulations seek to take a more stringent approach to confronting the issues of littering and solid waste management in Guyana, especially on the coast and in other highly populated areas.

One key aspect of the Regulations is the hiring of litter prevention wardens.

## MNRE Strategic Plan (2013 - 2018)

During the reporting period, the MNRE engaged the services of the UNDP in conducting a National Strategic Planning project for the Natural Resources and Environment sector. The primary objective of the project was to prepare a strategic plan for the MNRE which promotes sustainable development

and the integration of environmental and natural resources considerations in economic development planning. To assist in the development of a strategic planning framework, representatives from the MNRE of Guyana were exposed to the experiences of Rwanda in environmental governance and

sustainable mining. A study tour report was prepared detailing the findings from the visit.

The preparation of the Costed Strategic Plan for the MNRE was facilitated through a series of workshops and consultations with key stakeholders.

A draft Costed Strategic Plan was submitted to the MNRE for review and approval. A copy of the Plan was also posted on the MNRE's website for public engagement and feedback.

Following a review of the draft Costed Strategic Plan, it was found that a comprehensive Monitoring and Evaluation framework was lacking to support the implementation of the

Plan. As such, the MNRE has since requested an extension of the Strategic Planning project under the UNDP to support the completion of the Plan and its subsequent approval.

review and comments. The committee has since: (i) commissioned the compilation of pilot studies (costed pilot study on environmental bond) related to restoration, replanting and rehabilitation, (ii) formulated a draft Action Plan for land reclamation, and (iii) developed a draft Screening Criteria Tool to assist in prioritizing and ranking of mined-out sites for land reclamation. The draft documents are presently under review by the LRC.

## Land Reclamation

Guyana's extractive sector, in particular mining, has important implications for the successful implementation of the Joint Concept Note (JCN) under the Guyana-Norway cooperation. In order to effectively fulfil its obligations under the JCN to 'Implement a GoG programme with actions focused on specific efforts to manage degradation from extractive activities where this needs to be done' the MNRE established the Land Reclamation Committee (LRC). The LRC is tasked

with proposing a workable solution to address the restoration, replanting and rehabilitation of areas subjected to mining. The work of the LRC is also intended to support the Ministry's Strategic Priority Goal of 'Sustainable Resource Use and Monitoring' with expectations of restoring key natural resources to their original state.

A draft Terms of Reference (TOR) for the LRC has since been prepared and circulated to the members for their

## Minamata Convention



reality that mercury pollution is a global problem that no country can address unilaterally. The Convention was four years in the making, and in January 2013, more than 130 nations agreed, by consensus, to a final text. It includes both compulsory and voluntary measures to control mercury emissions from various sources. The agreed text of the "Minamata Convention on Mercury" was presented for adoption and opened for signature at the Convention.

Guyana's delegation at the international Convention included the Minister of Natural Resources and the Environment and the Commissioner

of the Guyana Geology Mines and Commission. Guyana became a signatory to the Minamata Convention and in recognizing its varying national context and capacities, the GoG proposed, for the forum's consideration, a phased approach which should give parties time to prepare for the implementation of the procedures and provisions. Thus, the GoG agrees that the provision of financial and technical assistance to achieve compliance under the Convention is essential. Not only did Guyana attend the Convention with a proposed phased approach but an Action Plan was outlined which will be implemented from 2013 to 2017.

## Mercury - Free Mining Development Fund

The objective of the Mercury-Free Mining Development Fund (MFMDF) is to increase access of small and medium scale miners to adequate financing for their development process. The specific objectives include:

- a) to provide working capital and investment financing small and medium scale miners to adopt and implement

mercury-free mining gold extraction technology and undertake mining on a sustainable basis; and,

- b) To provide financing to small and medium scale miners to adopt technologies that would enhance and improve the gold recovery process.

The MFMDF is designed as a Revolving Fund that will be managed

by a specialized Financial Institution with capacity and experience to deliver services to the mining industry. The MNRE has commenced the bidding process to identify a financial institution that will manage the fund.



## Indigenous Affairs

In 2013, the MoNRE Indigenous Sector made significant progress in addressing Indigenous Affairs. The Ministry's Indigenous Unit actively aligned itself with agencies under its portfolio particularly the Guyana Geology and Mines Commission (GGMC), Guyana Forestry Commission (GFC), Guyana Lands and Surveys Commission (GLSC), Environmental Protection Agency (EPA), Protected Areas Commission (PAC) and others. The MoNRE also collaborated with the Ministry of Amerindian Affairs (MoAA), Indigenous Peoples Commission (IPC), Office of Climate Change (OCC), National Toshao Council (NTC), Guyana Police Force (GPF), Regional Democratic Councils, Village Councils and Community Groups. In 2013, MoNRE and related agencies addressed over forty (40) Indigenous Issues and concerns related to Natural Resources throughout Guyana. Most were in areas of mining, water pollution, land, environment, Trafficking in Persons (TIP), and the Low Carbon Development Strategy.

Special attention was directed to critical cases at:

### Para Bara:

Indigenous issues at Para Bara for 2013 included illegal mining, upgrade of infrastructure (Access trails), water pollution and land titling. Due to its isolated locality and logistical challenges at Para Bara, current and

new emerging issues have proven challenging to be addressed. However, many of the Natural Resources related issues and concerns have been addressed and resolved. Most importantly for Para Bara the issue of developing a road network for mining in

partnership with a Brazilian Company was primary. However, GGMC stated clearly in a correspondence dated November 28, 2013 that no permits or licences to mine was granted in the area, as such road construction for mining should not take place.

### Baramita:

Indigenous issues at Baramita included, Illegal Mining, Village Investment Project with Grandbright Forestry (Guyana) Inc., Proposed issuance of new Prospecting Licences (PL's) to Consolidated Northwest

Resources Inc. Allegations of granting 2 (two) new PL's in central Baramita Village Lands without consulting the residents of Baramita and inaccurate village mapping. A Government team visited Baramita on June 27, 2013 and committed that Government will not

compromise the rights and security of the Amerindians in favour of development. Unreservedly, the Government will not allow foreigners or locals to infringe on the rights of the Indigenous peoples.

### Aishalton:

Indigenous issues at Aishalton varied from mining, water pollution, social issues, environmental issues and objections to continued issuance by GGMC of mining blocks to miners. A government team led by the Minister of Natural Resources & the Environment visited Aishalton on May 4, 2013 where these issues were discussed. In addition to this meeting, a national workshop to

which fifty seven (57) communities were invited was held at St. Ignatius on July 12, 2013 and MoNRE, Guyana Geology and Mines Commission, Ministry of Amerindian Affairs, Environmental Protection Agency, Guyana Lands and Surveys Commission, Wild Life Division, Protected Areas Commission and the Guyana Forestry Commission made contributions. The objective of the Workshop was to discuss policies

within the Natural Resources and the Environmental Sectors, specifically the Mining and Environmental Sectors within Region 9. The Toshao of Region 9 were given an opportunity to have open discussions on the presentations and the Agencies responded to their questions and queries. Also the issuance of lotteries for mining in the Region was discontinued with immediate effect.

### Hururu:

Indigenous issues emanating from Hururu ranged from Amendment of Agreement' between Village and BCG

Inc include logging, hauling road, boundaries, finances, electricity, wells and road use. On September 5, 2013 a final agreement was signed between

Hururu Amerindian Village Council, Bauxite Company of Guyana Inc. and Ministry of Amerindian Affairs.

### Kimbia, Sand Hills and Wiruni

Issues emanating out of Kimbia, Sand Hills and Wiruni were in areas of land for agriculture, land titling, environmental damage and finances. A government

team comprising six (6) members from Natural Resources Agencies visited those communities on November 13-14. Related agencies and commissions

followed up on complaints or matters of interest through deploying their staff to investigate the issues to ensure the problems were addressed.

### Isseneru:

Indigenous issues from Isseneru were very challenging, they centred around mining, land, water pollution, Trafficking in Persons (TIP), illegal mining, illegal businesses on titled land, alleged rape of Amerindian girls, prostitution, mercury contamination, allegations of government neglect

and finally a Petition submitted to the Inter-American Commission on Human Rights by the Akawaio Indigenous Community of Isseneru and the Amerindian Peoples Association of Guyana. The villagers of Isseneru feel that the government reneged on its commitment to address their concerns and so rely strongly on the Petition to

speak for them. They clearly expressed their reliance on the Petition and stated that they did not have to say anything as all their concerns are stated in the Petition. However, a Government team visited Isseneru during October 21-25, 2013 during that visit no evidence was provided to support the village's claims.

### Kako:

Indigenous Issues from Kako during 2013 were mining related issues ranging from Illegal mining, land and boundaries, potential of river pollution through merging of small and medium scale miners on the Kako River.

Between March 17-21, 2013 Ministry of Natural Resources & the Environment dispatched a team to examine mining and related issues affecting Amerindians in Kako, Region 7. A working Group comprising members from related natural resources agencies

was established to pilot the process of activating a working mechanism on Environmental Impact Exercise (EIE). This is a Pilot Strategy and if proven to be effective will then be replicated in other areas such as Isseneru, Baramita, and Tasserene.

## Sub-programme 2: Administration

- Six (6) of the eight (8) Agencies under the purview of the Ministry have submitted timely financial statements (audited report) to the Ministry in 2013.
- The Agencies of the Ministry continue to submit data on key sector indicators developed by the MNRE in collaboration with the Ministry of Finance. An inter-Agency Working Group was established to discuss and refine the indicators. However, trend establishment and analysis will be conducted when the vacant position for a Monitoring and Evaluation Officer within the MNRE is filled.

### Capital Works

- **Building for the Protected Areas Commission** – Five bids for the Construction of the PAC Head Office was opened in January, 2013. The contracts for the construction and supervision components of the sub-project were awarded to Satar Mohamed & Sons Construction & Hardware Supplies and Innovative Engineering and Consultancy Services, respectively, in August, 2013. At the end of the reporting period, the construction works for the building were approximately seventy five (75%) completed. The building project is expected to be completed by the March, 2014.
- **Utilisation of the Guyana Protected Areas System(GPAS) I Unspent Funds** - A proposal for the utilization of the unspent funds was submitted to German Development Bank (KfW) as well as proposal for the utilisation of the remaining EUR 85,000 of unspent funds to support infrastructure development at Kaieteur; these were approved 'in principle', by KfW. Follow-up measures within the communities of the GPAS I sub-projects were administered resulting in two photovoltaic systems being installed at the Kamwatta and Warapoka multi-purpose buildings, and a cassava grating mill being procured for the Assakata Village. Construction works for the extension of the water trestle is approximately seventy percent (70%) completed.

- Over the year, the Three Parks Initiative completed several upgrades for the urban parks as well as initiated several projects to be completed in 2014. These upgrades included: installation of lights along the walking track in the National Park, completion of the Zoological Park Master Plan, production and upgrading of signage at the parks, installation of four security huts at the National Park, one at the Botanical Gardens and three at the Guyana Zoological Park, eight new benches installed, stockpiling of white sand for the raising of the athletics track in the National Park, installation of two new foot bridges in the National Park and raising and paving of the ring road around the Botanical Gardens' Bandstand.
- In 2013 the maintenance and construction undertaken by the GGMC included the reconstruction of the stairway of the Admin Building, construction of a Guard Hut at HQ, rehabilitation of Puruni Mining Station, extensive repairs and painting of the Lapidary Building at West Ruimveldt and the living quarters at the Omai Mine site. Construction of an office within the Finance Division, tiling and casting of floors within the Commission, weeding and cleaning of all locations, minor internal and external repairs to the Commission's building were also completed during 2013.

#### Procurement

- Procurement of assets and services continued during the year at the Environmental Protection Agency. Capital items were purchased under National Capital Expenditure 2013 as were items approved for purchase under the Agency's Trust Fund. Equipment for water quality and noise monitoring were procured as well as computers and software to support HR and Financial management. The Agency also procured security services for 2013.
- Three new vehicles were acquired by the PAC in 2013. Two of which were procured with funding from the KfW- GPAS II Project, while the other was procured with the PAC's 2013 Capital Budget allowance. Equipment and furnishing required for the additional officers employed at the PAC in 2013 were also procured through the GPAS Project.

DIVISION	CAPITAL			CURRENT			
	Specific	Local	Total	Subvention	Other	Total	
<b>241 - Ministry Administration (Furniture &amp; Equipment/Land Transport)</b>	\$ 4.000	\$ 4.000	\$ 98.788	\$ -	\$ 98.788	\$ 102.788	
<b>242 - Natural Resources Mag</b>	\$ 24.000	\$ 20.000	\$ 107.737	\$ 334.675	\$ 442.412	\$ 462.412	
GGMC	\$ -			\$ -	\$ -	\$ -	
GGB	\$ -			\$ -	\$ -	\$ -	
GFC	\$ -	\$ -			\$ -	\$ -	
GLSC	\$ 20.000	\$ 20.000	\$ 107.737	\$ 334.675	\$ 442.412	\$ 462.412	
<b>243 - Environment Mag</b>	\$ 32.100	\$ 32.100	\$ 400.159	\$ 92.377	\$ 492.536	\$ 524.636	
EPA	\$ 4.800	\$ 4.800	\$ 191.596	\$ 43.838	\$ 235.434	\$ 240.234	
NPC	\$ 20.000	\$ 20.000	\$ 165.663	\$ 48.839	\$ 214.202	\$ 234.202	
PAC	\$ 7.300	\$ 7.300	\$ 42.900	\$ -	\$ 42.900	\$ 50.200	
WL	\$ -	\$ -			\$ -	\$ -	
					\$ -	\$ -	
					\$ -	\$ -	
<b>TOTAL</b>	\$ -	\$ 56.100	\$ 56.100	\$ 606.684	\$ 427.052	\$ 1.033.736	\$ 1.089.836
				Subvention		\$ 606.684	
				GOG		\$ -	
				<b>Recurrent Budget</b>		\$ 606.684	
				<b>Capital</b>		\$ 56.100	
				<b>Total Budget</b>		\$ 662.784	
				Other Revenue		\$ 427.052	
				<b>Total Revenue / Exp.</b>		\$ 1,089.836	

#### Human Resources

The Ministry, inclusive of all agencies started 2013 with 1068 employees and concluded the year with 1,158 employees which represented an overall employment increase of 8.4%.

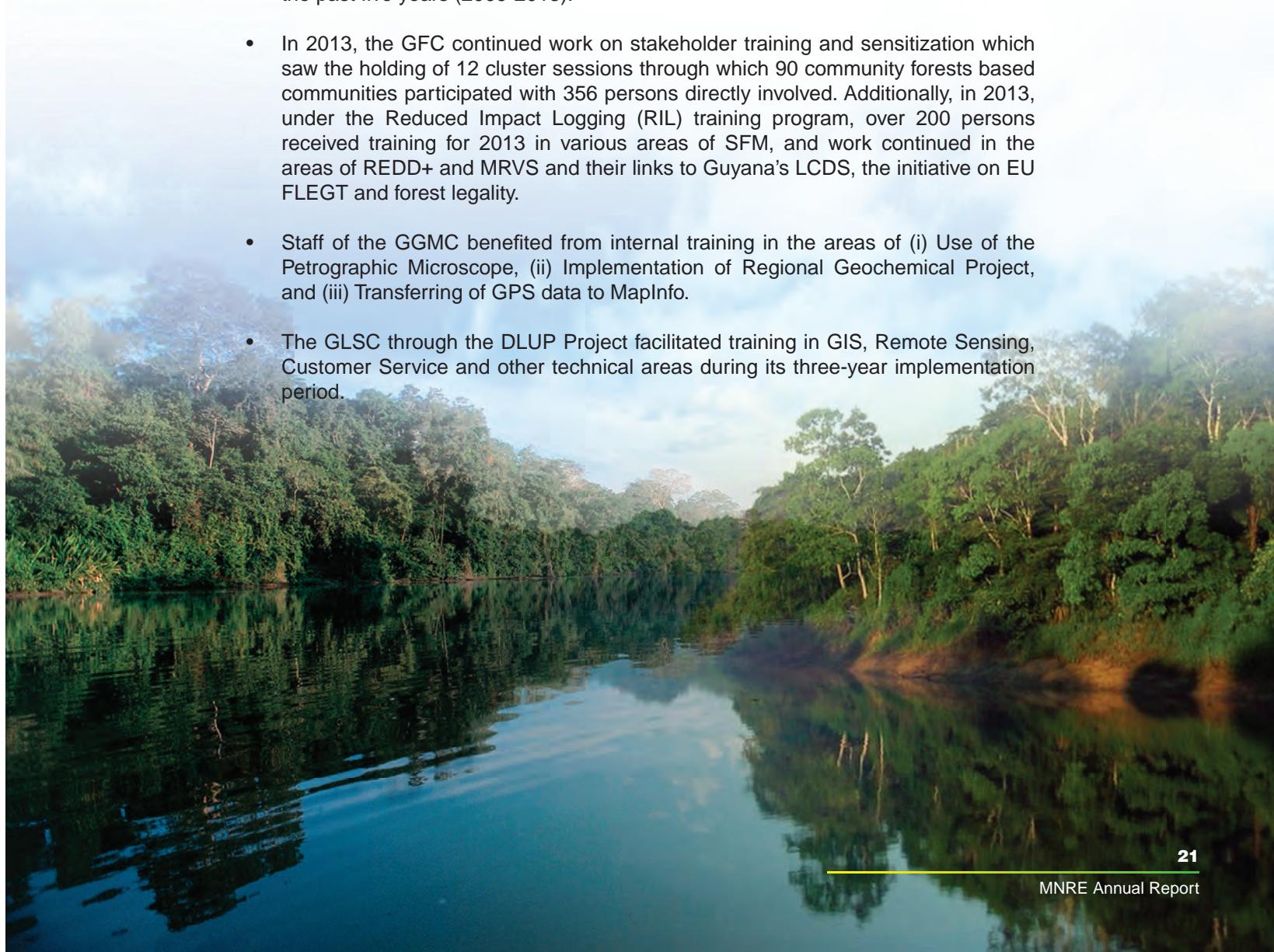
The Ministry of Natural Resources and the Environment has assisted the Agencies in the preparation of Cabinet Memos, preparation of position papers prior to attending international meetings, and provided support to the delegations while oversees in the form of guidance and information. The staff of the Ministry and sub-agencies attended several international conferences and capacity development training in 2013.

#### International Training and Capacity Building

At the EPA, fourteen (14) Cabinet Papers were prepared requesting approval for staff members to participate in meetings and or workshops abroad. Nine (9) of these were related to the Natural Resources Management Programme; three (3) to the Environmental Management Programme; and two (2) to international environmental policy and funding. Four (4) of the fourteen (14) requests were approved, two under the NRM Programme and two for international policy and funding. Additionally, one (1) request that was submitted in 2012 under the NRM Programme was approved while through the MNRE, two (2) staff members were approved to participate in overseas workshops. Staff members participated in thirty-seven (37) local meetings and workshops in key areas such as: Geographical Information Systems; Emergency Planning and Management; Disaster Risk Management; Environmental Standards and Accreditation; Water Resources Management; Environmental Practices in Mining; Adaptation to Climate Change; etc.

#### Local Training and Capacity Building

- Forestry Training Centre Inc. (FTCI) had a successful year in 2013, training 228 persons, with an average number of persons (292 persons) trained per year over the past five years (2009-2013).
- In 2013, the GFC continued work on stakeholder training and sensitization which saw the holding of 12 cluster sessions through which 90 community forests based communities participated with 356 persons directly involved. Additionally, in 2013, under the Reduced Impact Logging (RIL) training program, over 200 persons received training for 2013 in various areas of SFM, and work continued in the areas of REDD+ and MRVS and their links to Guyana's LCDS, the initiative on EU FLEGT and forest legality.
- Staff of the GGMC benefited from internal training in the areas of (i) Use of the Petrographic Microscope, (ii) Implementation of Regional Geochemical Project, and (iii) Transferring of GPS data to MapInfo.
- The GLSC through the DLUP Project facilitated training in GIS, Remote Sensing, Customer Service and other technical areas during its three-year implementation period.



# NATURAL RESOURCES MANAGEMENT

The main objectives of the Natural Resources Management programmatic area are:

- To contribute to the expansion and diversification of the economy on the basis of rational use of Guyana's natural resources.
- To ensure the effective management of natural resources in order to promote, regulate, coordinate and have oversight of key entities / activities in the sector.

The Natural Resources Management Programme Area recorded several institutional and technical achievements in 2013:

## Sub-programme 1: Geology and Mining

### Regulation

- Routine and impromptu compliance monitoring and enforcement focused on practices in keeping with the Mining (Amendment) Environmental Regulation 2005, safety management, reclamation and other parameters such as dredges operating, forest clearance, tailings management, retorts, garbage pits, adequacy of clearance around camps and work grounds as well as safety of pit slopes for operating mines. Water quality monitoring was also conducted throughout the year to assess the turbidity, dissolved oxygen, pH and Total Dissolved Solids.
- Monitoring of Gold Smith premises, Business Permissions, Residential Permissions and Trading Licenses were also conducted.
- The dredges located in the Mining Districts of Guyana were targeted, monitored and inspected during the year. In 2013, a total of 1,386 dredges were registered, 3011 were renewed, 4,396 licensed, 88 dredge transfers issued, and 34 dredges scrapped.
- A total of 1,364 Prospecting Permits Small Scale were issued for the year 2013.
- The Mines Technical Section of the GGMC completed thirty-four (34) of the thirty six (36) planned technical inspections for 2013 in the five (5) targeted Mining Districts inclusive of six (6) medium scale inspections (gold). Quantity surveys and sand pit inspections were done in the three counties where eight such inspections were completed of the ten planned visits.
- A total of 863 Cease Work Orders (CWOs) were issued to operators during the year. Most CWOs were issued to operators for working without the requisite permission from the GGMC or absence of evidence to substantiate that applications were made to the GGMC. Dredges that were operating on Prospecting Permits Medium Scale (PPMSs) were issued with CWOs.
- A total of five (5) compliance inspections were carried out for the sand pits located in Essequibo, Soesdyke and Berbice. A total of four (4) quantity surveys were conducted by the surveyors to determine extraction volumes. A total of two complaints were filed and investigated.

### Exploration

- GGMC conducted several regional, multiple element geochemical sampling and rocks outcrop examination which would help to evaluate the host rock mineralization and geochemistry, and improve the geological knowledge / information of the area examined.

### Research and Development

- GGMC embarked on several projects to improve performance within the mining sector. Some of these projects include the Mercury Abatement Project, Tailings Management Project, Flotation Technology, Cyanidation Technology Project and Gravity Recovery project. Each project is comprised of activities that will continue in 2014 before final results are achieved.

#### Cyanidation Technology Project

MPU Engineers continued working with the Purple Heart samples in preparation for testing phase with the AcmeMet consultant. Audit report and certification of the Linden facility and MPU engineers (as trainers) by ACME consultants and the University of British Columbia are to be achieved.

#### Tailings Management Project

Research into other chemical solutions continued. Polyacrylamide (PAM) was identified for possible tailing treatment. Bench testing on samples from Mahdia and Omai continued.

#### Sand and Gravel Sample Collection

Reports and analysis of results of the sample collection were completed. Possible value added Silica sand products were identified.

#### Flotation Technology Project

The flotation plant was installed and operational. Just a few additional pieces need to be added to render it a field standalone plant. The Commission's Research and Development Facility in Linden is now 80% completed, with further work done in the Cyanide Technology Laboratory and Sedimentation Hydrology Laboratory. The General Chemistry Laboratory is still to be brought on stream, but chemicals currently housed in the location earmarked for the GCL are still to be disposed of before any work commences. The UG Chemistry Department has commenced uplifting of same.

### Marketing and Promotion

- Technical Assistance to the Mining Sector Project (TAMSP) was carried out during the period September 20, 2013 through October 23, 2013. The objective of the project was to provide valuable information on the mineral potential of the area allocated via lottery with specific emphasis on gold occurrence.
- Training continued in the GGMC and via the Guyana Mining School And Training Centre Inc. which commenced its business in August/September 2013. New Mines' Officers, continuing students in technical areas at University of Guyana were provided opportunities through arrangements with friendly Governments such as Australia and India. Short courses in China and seminars in Guyana on mining sector fundamentals by Canadian experts through the Mining School were achieved during 2013.

## Sub-programme 2: Forestry Management

### Regulation

- GFC continued to advance its programme of work on implementing National Level Independent Forest Monitoring (IFM). This initiative allows for transparent, independent, third party verification of legal compliance, and observation of forest law enforcement systems, based on a list of agreed principles, criteria and indicators.
- In 2013, the GFC finalised its first Independent Forest Monitoring Review and commenced the second review for the period 2013. The first Review concluded that the GFC's system for forest monitoring presents an overall strong framework for forest monitoring and legality in Guyana. This phase of work will be concluded in 2014, and planning for next steps has commenced.
- For the year under review the sector's contribution to Guyana's GDP remained flat at about 3%. Total production of forest products was marginally higher i.e 473,041m<sup>3</sup> compared to 428,934m<sup>3</sup> in 2012. Additionally, log production continues to stabilize at 65% of total output. Export sales on the other hand remained stable at approximately US\$40.0M which again was dominated by Sawn Lumber and Logs which together amounted to approximately 80% of all exports, the main markets being Asia/Pacific (Logs) and Europe and the Caribbean (Sawn Lumber).
- For 2012/2013 approximately 507 State Forest Permissions (SFP) (inclusive of Mining and Agriculture leases) were active, covering an area of 1,895,149 ha, with a potential quota of 801,074m<sup>3</sup>. Twenty-six (26) TSAs and one (1) WCLs have been allocated for 2013, a total of 4,094,836 ha and potential AAC of 875,227 m<sup>3</sup>. For this report period, 6,878,990 ha were allocated as forest concessions under the regulation of GFC with the potential to extract 1,676,301 m<sup>3</sup> timber resources.
- Revenue collected for the year was \$877.9M. This amount exceeded the budgeted amounts for the year 2013. The revenue collection for 2013 was approximately 9.6% higher than that of 2012 which recorded a level of \$800.3M. All revenue heads with the exception of export commission, were either in line or exceeded, projected levels of 2013.
- **Concession Level Monitoring** continued during 2013 on a routine and impromptu basis to ensure compliance with the Code of Practice for Timber Harvesting.

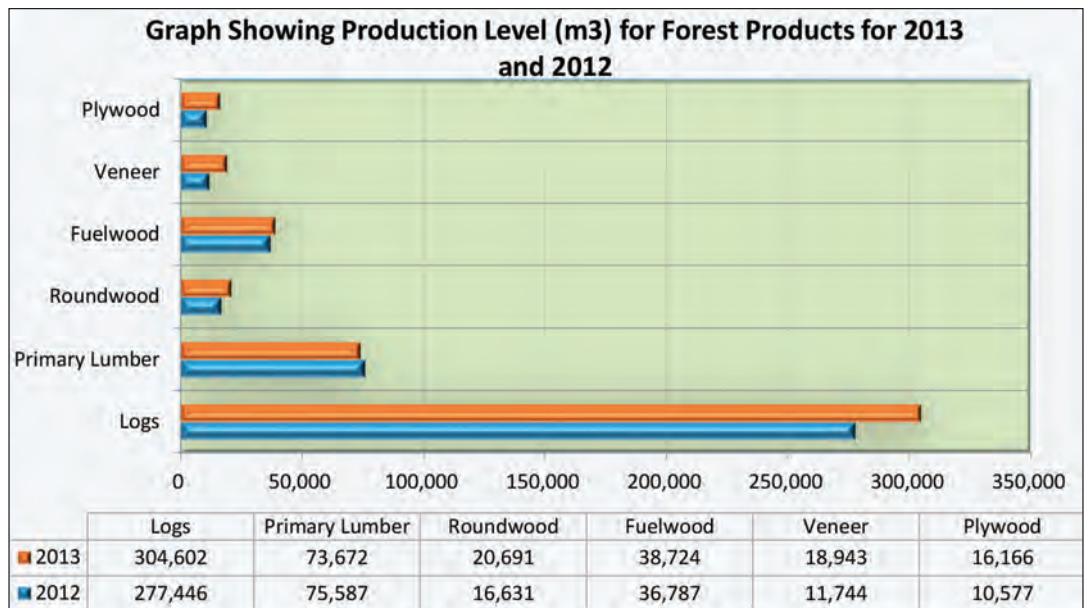


Figure 3: Graph showing production level for Forest Products for 2013 and 2012

#### Exploration

- The GFC provided assistance to large concessionaires and community forestry groups to carry out the 100% Pre-harvest inventory. The 100% Pre-harvest inventory was geared to assist Concessionaire to achieve their goal of sustainable forest management planning and increase efficiency and profitability of forest operations.

#### Research and Development

- Forest change was determined using high resolution 5 m imagery for the whole of Guyana. The use of a national coverage of 5 m imagery is a significant improvement over Year 2 which used a combination 5 m and 30 m imagery to achieve national coverage. This improvement has allowed the boundaries and the drivers of change to be mapped with greater certainty. Forest change of forest to non-forest excluding degradation between 1 January 2012 and 31 December 2012 (12 months) is estimated at 14 655 ha. This equates to a total deforestation rate of 0.079%. This rate of change is higher than Year 2 period (15 months) which was reported as 0.054%.

#### Marketing and Promotion

- The Forest Products Development & Marketing Council of Guyana Inc. (FPDMC), prepared ten (10) product profiles and these were made public. These profiles cover the following product range – mosquito coils, safety matches, clothes pegs, venetian blinds, wooden ladders, curtain rods, briquettes, pedestal lamps, tongue depressors/popsicle sticks and tooth picks. These profiles contain information such as the manufacturers of the various machines, cost of machinery and marketing information. Entrepreneurs were encouraged to get involved in the manufacturing process.
- The Council provided on a continuous basis an advisory service on new developments in wood technology and market requirements in areas such as moisture content, wood preservation standards, drying, stacking, packing and handling among other areas to various stakeholders.
- Forestry Training Centre Inc. (FTCI) started the preparation of three manuals during the year, namely: Tree Identification and Forest Botany; Forest Tree Nurseries for Communities'; and Cost Control in forest harvesting and road construction'.
- FTCI had a successful year in 2013, training 228 persons, with an average number of persons (292 persons) trained per year over the past five years (2009-2013).
- In 2013, the Code of Practice for Timber Harvesting 2nd Edition was revised to update on key areas of implementation, drawing on lessons learned from the implementation of the Second Edition. This Version of the Code will be implemented in a phased manner in the next 3 years commencing 2014, and will be accompanied by a continuous programme of stakeholder awareness and capacity building.
- In 2013, the GFC continued work on stakeholder training and sensitization which saw the holding of 12 cluster sessions through which 90 community forests based communities participated with 356 persons directly involved. Additionally, in 2013, under the Reduced Impact Logging (RIL) training program, over 200 persons received training in various areas of SFM, and work continued in the areas of REDD+ and MRVS and their links to Guyana's LCDS, the initiative on EU FLEGT and forest legality.

### Sub-programme 3: Land Management

#### Land Administration

- The Development of Land Use Planning (DLUP) Project is a foreign funded Project by the European Union, which was successfully implemented from January 2011 to October 2013. The deliverables of the DLUP Project are of significant importance to Guyana. These included a National Land Use Plan, which provides developmental options planning for climate change adaptation to shift development inland in order to reduce the risk of flooding on the coast. In addition, there are three Regional Land Use Plans prepared for Regions I, 2 and 10 to guide regional development.
- Another key deliverable of the DLUP Project was a Strategic Plan for GL&SC for the period 2013-2017. This Plan essentially provides a framework for planning by GL&SC for the five year period, and it is a results-driven approach for the Commission to monitor its performance. Under the Project, a Lease Management System (LMS) was developed to fully computerize the lease application and processing system, and to retain the history of all the leases. Training was also provided for the users, administrators and the managers to facilitate the change to LMS. The DLUP Project facilitated training in GIS, Remote Sensing, Customer Service and other technical areas during its three-year implementation period.
- In 2013, the Land Administration Division of GL&SC continued to deliver and provide efficient and effective services to clients and stakeholders, while the Surveys Division provided benchmarks and related data to Government Agencies and clients.

#### Land Information

- The Land Information and Mapping Division was engaged in numerous client related activities such as customized map production, scanning, geo-referencing, and printing of maps and plans. The digitizing of Region 9 Administrative Map was completed and the Division commenced digitizing the Region 5 Administrative Map.
- In addition, the Division prepared Cadastral Plans including Amerindian Titled Lands, scanned and stored two thousand and eighty two (2,082) Cadastral plans and re-designed the Local Area Network Infrastructure to upgrade the existing network. The Division achieved most of its targets in 2013.
- Geographic Information System (GIS) datasets were prepared such as land use / land cover from 5-meter satellite resolution imagery while the layers such as roads, rivers and vegetation were updated by the GIS Specialist of mapsheets by the Land Information and Mapping Division.

#### Constraints experienced in the implementation of the Natural Resources Management work programme in 2013:

- The GLSC has been working for a number of years without the full quota of fully qualified staff in the surveying field specifically in Regions 1, 2, 9 and 10.
- The GLSC has been working for a number of years without the full quota of fully qualified staff in the surveying field specifically in Regions 1, 2, 9 and 10.
- The demand for small plots in Region 4 exceeded the number of available plots, and efforts have been made to complete surveys and design schemes with access roads. The GL&SC was unable to execute such capital works due to financial constraints.
- Land rent is the GL&SC's main source of revenue and remains a source of concern as the rental rates remained the same since 2001.
- Non-payment by lessees has hindered the GL&SC's ability to be financially sustainable.
- The GGMC encountered the following constraints in executing its mandate: inadequate staffing, insufficient number of vehicles and A.T.V.s, insufficient number of boats, insufficient number of radio transmitting sets, and inadequate number of satellite phones. Projections for 2014
- In 2014, the Forest Products Development and Marketing Council will intensify its efforts in promotion of added value activity in the forest sector and will work closely with the GFC, Forest Products Association, Guyana Manufacturers and Services Association and GOINVEST, as well as other related bodies, in this regard.
- Guyana will further advance discussions and negotiations with EU FLEGT with the aim of finalizing a VPA.
- Work will continue in 2014 in advancing the work under REDD+ readiness and in further developing and implementing the Monitoring Reporting and Verification System. Implementation of the REDD+ Governance Development Plan (Sections 1-14) will also continue in 2014.
- Six new community associations will be established with a corresponding increase in land allocation. Training in governance, accountability and transparency will be provided to at least 45 Community Forestry Organizations (CFOs).
- Community training will be conducted with at least 45 community forestry organizations in a range of areas including SFM and RIL.
- The GGMC intends to aggressively promote and implement the pilot projects on hydroponic gardening and improved sanitation conditions on river dredges in 2014.

The main objectives of the Environmental Management programmatic area are:

- To ensure the protection, conservation and restoration of the natural environment through the integration of appropriate environmental safeguards into development planning.
- To contribute to economic growth along a low-carbon development path through the effective management of the environment.

The environmental management programme area recorded several institutional and technical achievements in 2013:

## Sub-programme 1: Environmental Protection and Conservation

### Regulation

- The Environmental Protection Agency issued 244 Environmental Authorisations in 2013, from the 392 applications received. The majority (131) concerned projects in mining and forestry; followed by sixty-two (62) for industry, infrastructure and energy projects; twenty-seven (27) for agriculture, fisheries and tourism; and nine (9) for hazardous waste/materials and air quality management.
- Of the applications received, one hundred and five (105) were for New Projects, forty-one (41) for Existing Operations, seventy-three (73) for Renewals, nine (9) for Variance, one (1) for Transfer, and one hundred and sixty-three (163) for Noise.
- One hundred and eleven (111) compliance Inspections were conducted during 2013 representing an eighteen percent (18%) increase in compliance inspections over that of 2012. The Agency began to focus its compliance monitoring based upon risks hence, during the latter part of the year, the majority of the inspections focused on noise and waste management permit conditions for Sawmills and Lumberyards.
- 560 CITES permits and 435 non-CITES permits were issued in 2013. Nineteen wildlife holding premises were also inspected during February/March and November/December respectively.

### Enforcement

- Two hundred and sixty-six (266) pollution reports (complaint cases) were received for 2013. These concerned dust, noise and fumes primarily from furniture manufacturing, operation of generators, spray painting and livestock rearing. The majority of these complaints related to operations along the East Coast of Demerara, Georgetown, and the East and West Banks of Demerara. One hundred and twenty-four (124) complaint cases were investigated for the year, and forty-four cases (44) were closed.
- Fifteen (15) Prohibition Notices were issued in 2013; the majority of them concerned spray painting and furniture operations along the East Coast of Demerara. Ten (10) Injunctions were served; most of them concerned operations along the East Coast of Demerara. Three (3) of the injunctions issued were adhered to/resolved.

### Operations

- In August, 2013, the Environmental Management Programme, the Environmental Management Division (EMD) was split into an Environmental Management Permitting Division (EMPD) and an Environmental Management Compliance and Enforcement Division (EMCD). In the new structure, authorization of projects will be managed by the EMPD, while EMCD will manage compliance of regulated (permitted) and non-regulated activities under the EP Act and its Regulations. This change will allow for better efficiency and for alignment to the LCDS since the EPA has been earmarked to provide support to this strategy through its monitoring activities.

## Conservation Management



### • Guyana Protected Areas System Project

In September, 2009, the Governments of Guyana and Germany, represented by the KfW Entwicklungs bank (the German Development Bank) signed a financing and project agreement for the provision of EUR 5 M to support Phase II of the Guyana Protected Areas System (GPAS) - Conservation of Tropical Forests Project.

Through a Separate Agreement signed in December, 2011, the project financing and design were finalised. EUR 1M (Tranche I) was earmarked to finance small-grant project activities which include infrastructure measures for GPAS and the Protected Areas Commission as well as payment for consultancy services, while EUR 4 M (Tranche II) was provided to support a sustainable and long-term financing mechanism for the National Protected Areas System. Phase II was designed to build on activities and outcomes of the first phase of the GPAS Project and has the overall objective to ensure the sustainable operation and management of the National Protected Area System through:

- Development of a management plan for the Shell Beach Protected Area;
- Infrastructure development and procurement of equipment for Kaieteur National Park;
- Refurbishment of a building to house the Protected Areas Commission;

- Procurement of equipment for the Protected Area Commission; and
- Consulting Services, and Monitoring.

Additionally, the remaining funds from GPAS Phase I will be utilised to provide follow-up support to the GPAS Phase I Small Grants Sub-projects.

### • The Regional Project on Biosafety

Consultations on the draft Policy on Biotechnology, Biosafety and Biosecurity were held in eight (8) of the country's Administrative Regions. Feedback from these consultations is currently being used to update the draft Policy; a Consultation report was also prepared. Discussions were held on the first and second drafts of the Biosafety Bill with the Consultant following the submission of each draft; (4) associated Regulations under this Bill were also prepared and submitted for review. The Institutional Framework for the Management of Biosafety in Guyana was circulated to stakeholders for feedback and support.

### • Regional Project on Access to Genetic Resources and Benefit Sharing

On invitation by the ABS Regional Office a nominee from the EPA participated in a workshop on Contract Negotiation on Access to Genetic Resources and Traditional Knowledge and the Second Regional Meeting of the GEF ABS LAC Project, in La Habana, Cuba, from March 18 to 22, 2013. At the workshop, the key elements of ABS in the framework of the CBD and the Nagoya Protocol and the situation of ABS Regimes in each of the participating countries were reviewed. Additionally, in a meeting with the GIZ representative, Dr. Hartmut, the Protected Areas Commission, and the MNRE, the focal areas in which the GIZ can offer assistance were discussed. ABS as it relates to Guyana and its

possible integration with Protected Areas Systems were highlighted. Dr. Hartmut was given a demonstration of **National Biodiversity Research Information System** (NBRIS); he indicated that there is an opportunity for NBRIS to be used as a model for other countries.

- **National Biodiversity Research Information System (NBRIS)**

The NBRIS became operational in August, 2013; thus far, seventeen (17) research applications were received through this system.

- **Support to Guyana for the Revision of the NBSAPs and Development of Fifth National Report to the CBD**

A Project Assistant was hired and commenced in August, 2013. The Project Manager and the SEO attended the Regional Workshops for the Preparation of the 5NR and Clearing House Mechanisms respectively, which were held in September, 2013 in St. Lucia. The purpose of the workshop was "to strengthen capacities of the countries in the region for preparing their fifth national reports and for developing their national clearing-house mechanisms.

### **Sub-programme 2: Environmental Restoration**

The Ministry of Natural Resources and the Environment is coordinating with several Agencies such as NAREI, EPA, of this sub-programme area was the establishment of coordination mechanisms for environmental restoration activities.

In the latter half of 2012, three (3) sub-committees were formed to focus on the identification of potential sites for rehabilitation/ restoration; the preparation of a list of species that can be used by soil type based on soil characterization; the determination of the methodology for the planting of each, and the associated costs involved; and the identification of the different sources of financing for the implementation of the programme. This work continued apace in 2013.

#### **Operations**

##### **Public Awareness and Outreach**

- 2013 was designated the International Year of Water Cooperation to highlight that cooperation is essential to meet the different needs and priorities and to share water equitably. Further it sought to bring recognition that water cooperation implies an interdisciplinary approach integrating cultural, educational and scientific factors, as well as religious, ethical, social, political, legal, institutional and economic dimensions. The international theme was reflected in the theme of the different environmental days and activities were coordinated and conducted as follows:

##### **World Wetlands Day:**

Five (5) interactive sessions were conducted for two (2) visiting primary schools at the Nature School on 'Wetlands and Water Management' - this year's theme.

##### **World Water Day:**

This day was observed under the theme "Water Cooperation" with activities as follows:

- Two seminars at the Essequibo Islands and Leguan Secondary schools with more than a hundred students participating in the activities.
- Presentations on different occasions to five (5) youth groups; and
- Collaboration with Guyana Water Inc. (GWI) to organize a debate and publish a news-spread.

##### **Earth Day:**

Observed under the theme "**The Face of Climate Change**" activities were coordinated and executed in collaboration with the MNRE as follows:

- Earth Day newspaper feature
- Earth Day quiz and a radio tips
- Outreach sessions to eighteen (18) primary schools in Georgetown and its environs.
- Launch of an Art competition for International Biodiversity Day.

##### **International Day for Biodiversity:**

International Day for Biodiversity 2013 was observed under the theme: "**Water and Biodiversity**". Activities were coordinated and executed in observance of IDB as follows:

- Art Competition for Grade 6 students from 18 Primary Schools in and around Georgetown. Prizes were awarded to the first, second and third place entries.
- Youth Forum in Linden, Region 10, involving six (6) secondary schools in the mining town.
- Documentary featuring 'Day of the Caiman', which was produced by Blue Paw Artists. Fifty two (52) persons attended this event chaired by Mr. Ronald Webster, Chairman of the Private Sector Commission.
- Biodiversity Tour: Students and teachers from Bel Air Primary, East La Penitence Primary, St Pius Primary, and Josel Education Institute, participated in the Mangrove Heritage Trail Tour as part of the prize for the top entries in the IDB Art Competition.

##### **World Environment Day (WED) 2013**

This year, WED was celebrated under the theme '**Think. Eat. Save. Reduce your footprint**' to raise awareness of the impact that food choices have on the environment, and provide information to aid the making of informed decisions on food choice and consumption habits. The activities coordinated for WED included:

- Green Walk: This activity commenced from the Umana Yana and culminated at the National Park with over one thousand (1,000) persons participating. Prizes were awarded for Best Banner, Largest Contingent, and Most Uniform Contingent and Best Chant.

### **Sub-programme 3: Environmental Research**

- For the year 2013, Fifty-five (55) Research Applications were received. Forty-eight (48) research applications were processed and approved; of these, forty-six (46) were applications received in 2013 and two (2) were applications received in 2012. Forty-five (45) Research Permits were issued for the reporting period, two (2) covering research applications that were received and processed in 2012 but approved in 2013. Fourteen (14) research permits were extended; eight (8) requests for the expansion of geographical scope; five (5) requests for the extension of the research period; and one (1) request for both the expansion of geographical scope and research period were granted. The Permits issued, were for research to be conducted on flora, fauna, filming, and other studies.
- A total of fourteen thousand six hundred and thirty United States dollars (US\$14,630.00) was generated for the period from applications, late applications, and permit fees.

##### **Projections for 2014**

Key areas of work projected for 2014 and initiated in 2013 include the following:

##### **General**

- Development of the Strategic Plan for the Protected Areas Commission
- Refinement of the National Protected Areas System (NPAS) Plan
- Compilation of a database on research conducted in PAs and Identification of Research Priorities for existing and proposed PAs

- Development of research protocol for research activities within PAs
- Identification and mapping of new priority areas for conservation in Guyana
- Supporting the Establishment of the National Protected Areas Trust Fund
- Completion, commissioning and furnishing of the new PAC Offices
- Provision of engineering and other support to infrastructural works executed by the NPC

#### **Protected Areas Management**

##### **Shell Beach Protected Area**

- Supporting the process for the drafting of the Shell Beach Management Planning Process

##### **Kanuku Mountains Protected Area**

- Updating the Plan based on input of the KMCRG Workshop
- Facilitating the public review of the draft Management Plan
- Preparation of Year 1 work plan and implementation of the approved Management Plan

##### **Kaieteur National Park (KNP)**

- Addressing comments made by the PAC on the Management plan
- Facilitating the public review of the draft Management Plan
- Preparation of Year 1 work plan and implementation of the Management Plan
- Provision of logistical support for the operations at the KNP
- Supporting the Construction of the Warden/Caretaker's Building at Tukeit
- Supporting the Construction of Staff Quarters at the KNP

#### **Phase I Upgrade of the Urban Parks (Three Parks Initiative)**

##### **Guyana Zoological Park**

- Completion of construction works on the zoo entrance road, around the manatee ponds and the Petting Zoo
- Installation of New Permanent Signage

#### **National Park**

- Completion of construction works on the New Foot Bridges, New Kissing Bridges, and an all-weather Pathway through the interior of the Park
- Raising of the Athletics Track
- Installation of New Permanent Signage
- Initiation of the design of the Master Plan for the National Park

#### **Botanical Gardens**

- Rehabilitation of the Fountain and construction of an all-weather Walkway

#### **Amerindian Protected Areas**

- Preparation of a White Paper on implementing Amerindian Protected Areas
- Supporting the establishment of the Konashen Amerindian Protected Area in line with the guidance provided in the white paper
- Review of Konashen's Community Owned Conservation Area's application to become a part of NPAS and the draft management plan for the Village

#### **Community Outreach and Livelihood Development**

- Initiation of the development of a Strategy for engaging Communities in Protected Areas Management
- Completion of Community Visits and Planning Workshops in each Protected Area
- Preparation of a Template Agreement to protect traditional rights of communities around National Protected Areas

#### **Education, Awareness and Outreach**

- Initiation of the development of a Strategy to Improve Public Awareness and Communication
- Development of Outreach and Public Education Materials such as brochures, booklets, posters, videos and web-based newsletters.

## **Glossary of Commonly Used Acronyms**

<b>AOP</b>	Annual Operational Plans
<b>BDU</b>	Bauxite Development Unit
<b>CBD</b>	Convention on Biological Diversity
<b>CTVET</b>	Council for Technical and Vocational Education and Training
<b>EITI</b>	Extractive Industries Transparency Initiative
<b>EPA</b>	Environmental Protection Agency
<b>EU FLEGT</b>	European Union Forest Law Enforcement Governance and Trade
<b>BCH</b>	Biosafety Clearing House
<b>FAO</b>	Food and Agriculture Organization
<b>FPA</b>	Forest Producers Association
<b>FPDMC</b>	Forest Products Development and Marketing Council
<b>FMD</b>	Forest Monitoring Division
<b>FRMD</b>	Forest Resource Management Division
<b>GFC</b>	Guyana Forestry Commission
<b>GGB</b>	Guyana Gold Board
<b>GGD</b>	MAGuyana Gold and Diamond Miners Association
<b>GGMC</b>	Guyana Geology and Mines Commission
<b>GIS</b>	Geographic Information System
<b>GLSC</b>	Guyana Lands and Surveys Commission
<b>GoG</b>	Government of Guyana
<b>GPAS</b>	Guyana Protected Areas System
<b>GWMO</b>	Guyana Women Miners Organization
<b>GWD</b>	Guyana Wildlife Division
<b>HIC</b>	Hinterland Infrastructure Committee
<b>IFM</b>	Independent Forest Monitoring
<b>KfW</b>	German Development Bank
<b>LCDS</b>	Low Carbon Development Strategy
<b>MNRE</b>	Ministry of Natural Resources and the Environment
<b>MRVS</b>	Monitoring, Reporting and Verification System for REDD+
<b>NPAS</b>	National Protected Areas System
<b>NPC</b>	National Parks Commission
<b>PAC</b>	Protected Areas Commission
<b>REDD+</b>	Reducing Emissions from Deforestation and Forest Degradations Plus
<b>SFM</b>	Sustainable Forest Management
<b>TIP</b>	Trafficking in Persons
<b>UG</b>	University of Guyana
<b>UNCLOS</b>	United Nations Convention on the Law of the Sea
<b>UNDP</b>	United Nations Development Programme
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>VPA</b>	Voluntary Partnership Agreement
<b>WMA</b>	Wildlife Management Authority

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**Ministry of Natural Resources  
and the Environment**

