

## ENVIRONMENTAL PROTECTION AGENCY



ANNUAL REPORT 2013

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## OVERVIEW OF ACHIEVEMENTS 2013

The Environmental Protection Agency (EPA) began the year 2012, under the Ministry of Natural Resources and the Environment (MNRE), a new Ministry, established by the Government in December, 2011. The EPA adjusted over the year, to the different and additional processes and procedures established by the MNRE.

The Agency experienced the loss of six (6) staff members from its core programme who were assigned by the MNRE to its Head Office, National Parks Commission and the Pick-it-Up Campaign. As a result, the Natural Resources Management Division battled without a Director and a Special Projects Officer, for the entire year. Similarly, the Education, Information and Training Division operated without its sole Senior Environmental Officer and one of its four (4) Environmental Officers.

There was no movement on the Agency's proposal for the splitting of its Environmental Management Division (EMD) into two Divisions, each to be managed by a Director; positions for some additional staff were also included in the proposal. As such, the EMD continued to grapple with an increasingly excessive workload throughout the year exacerbated by frequent staff turnover.

The Agency also grappled with the challenge of completing its work-plan for the year in face of the late receipt of its subvention due to a lengthy delay in the passing of the 2012 National Budget. A total subvention of XXX was received for year, with XXX of this amount coming from the Environmental Trust Fund.

In spite of the various challenges faced the Agency worked assiduously towards completing its 2012 work-plan. Several major achievements were made under the various programmes implemented by the three technical Divisions of the Agency.

### ***Natural Resources Management***

#### ***Phase I of the € 2.4 M KfW funded Guyana Protected Areas System (GPAS) Project completed***

A range of activities were financed by this Project in the Kanuku Mountains and Shell Beach which ultimately, led to these areas being declared legally protected in 2011. The Project also, financed sustainable livelihood initiatives; delineation and management planning processes; drafting of the current Protected Areas Act, 2011; and infrastructure development/livelihood activities in the Upper Mazaruni and Kaieteur National Park.

#### ***€ 5.15M Financing Agreement for GPAS Project Phase II Signed***

This second GoG-KfW € 5.15M financing agreement is for support of Phase II of the GPAS Project. Approximately € 1.15M of GPAS Phase II funds is for infrastructure measures for the Protected Areas Commission; a management plan for the Shell Beach Protected Area; and follow-up support for community livelihood projects developed under GPAS Phase I. The remaining € 4M will be used as an endowment to the National Protected Areas Trust Fund (NPATF), to support a sustainable and long-term financing mechanism for the NPAS.

#### ***€ 4.3M committed to Guyana by the Germany Government for GPAS Phase III***

An additional € 4.3M has been committed by the Germany Government for GPAS Phase III. This project aims to support the effective management of the National Protected Areas System, improve livelihoods and resource management capacities in local communities, and improve capabilities of the Environmental Protection Agency and Guyana Forestry Commission.

#### ***CBD's Strategic Plan for Biodiversity 2011-2020***

A long-term action plan for the implementation of the UNCBD Programme of Work on Protected Areas was developed and submitted to the Secretariat with a view of contributing to the implementation of the CBD's Strategic Plan for Biodiversity 2011-2020.

#### ***Issued Biodiversity Research Permits***

22 research applications were received; 28 research permits were issued; 15 exports permits were issued and a total of US\$10,500 was generated.

#### ***Commenced Regional Project on Biosafety***

This project seeks to implement effective and sustainable National Biosafety Frameworks which cater for national and regional needs and are compliant with the Cartagena Protocol on Biosafety. The country budget and activities were approved and an initial disbursement of USD 18000 was received.

#### ***Implemented Biosafety Clearing House (BCH Phase II)***

Guyana received US\$10,000 for the execution of 3 training workshops aimed at enlightening users on the modalities in place for use and contribution to the BCH. 50 persons were trained during the three workshops and 6 stakeholder agencies have been designated Competent National Authorities.

#### ***Commenced the Revision of the NBSAPs and Development of Fifth National Report to the CBD***

The first disbursement of US\$50,000 to support this Report was received and steps are currently being taken to establish a Project Management Unit.

### ***Environmental Management Programme***

#### ***Authorized Operations***

A total of two-hundred and eighty-eight (288) Applications for Environmental Authorizations were received from January to September 2012, of which one hundred and forty-eight (148) or over fifty percent (50%) have been processed to the point where a Permit was granted.

#### ***Investigated Environmental Complaints***

One hundred and ninety four (194) environmental complaints were received from January to September 2012, representing an increase by seven percent (7%) compared with 2011. Despite this, the Agency was able to show a nine percent (9%) increase in the number of complaints investigated and follow-up visits conducted.

### **Conducted Environmental Audits**

A total of sixty nine (69) Environmental Audits were conducted representing a four percent (4%) increase over last year and six (6) Compliance Inspections.

### **Environmental Awareness and Capacity Building**

#### **Raised Environmental Awareness**

- Outreach was conducted with forty-four schools reaching some two thousand students on environmental issues related to climate change; biodiversity loss; and solid waste management.
- A three-day Environmental Camp was also conducted for thirty-five 6<sup>th</sup> graders and their teachers from eight primary schools in Regions 4, 5, and 10.
- Weekly discussions were coordinated on environmental issues and aired on the Guyana Today Show on NCN Channel 11, while, weekly articles were prepared on various topics for the Guyana Chronicle newspaper and Guyana Times Newspaper respectively.
- EPA's Newsletter the "Green-Leaf" was produced on a quarterly basis to inform the public of the major events and developments of the EPA. It was disseminated electronically to a wide range of stakeholders.
- The Agency intensified its participation in exhibitions this year which led to mobilization and set-up of an EPA Booth at ten (10) exhibitions compared to two (2) last year.
- A Youth Essay Competition on Coastal Zone Management was held which attracted thirty-eight (38) entries and two Coastal Clean-Ups were conducted in Berbice, one at No. 63 Beach and the other at Wellington Park.

#### **Implemented Pick-it-up Guyana Campaign**

Television programmes to highlight the issue of littering were produced and broadcast and a number of Press Conferences were hosted to launch initiatives in support of the Pick- it- Up Guyana Campaign.

#### **Observed International Environmental Days**

- An Art Competition was organized for Primary Schools and a Youth Biodiversity Forum for Secondary Schools in Essequibo under the theme "Marine Biodiversity" in observance of International Day of Biological Diversity.
- The Annual Green Walk was organized under the World Environment Day theme *Green Economy: Does it include you?* The event attracted hundreds of persons including His Excellency the President Donald Ramotar, and the Honourable Minister Robert Persaud, Minister of Natural Resources and the Environment.
- Two Rides-for-the-Environment, were also organized by the EPA in observance of WED - one in Linden and the other in Anna Regina. Both events attracted good participation.
- A Coastal Clean-up and data collection exercise was organised through a collaborative effort of the MNRE, EIT Division-EPA and Pick-it-up Guyana. The activity which took place along the Seawall from the Kitty to Kingston attracted approximately two hundred and fifty (250) persons representing ten (10) groups.

### ***Conducted Teacher Training Workshop***

An environmental education teacher training workshop was conducted in October, at Camp Wesleyana on the Soesdyke-Linden Highway. This has become an annual activity and this year, twenty-eight (28) 2<sup>nd</sup> year students and two lecturers of the Cyril Potter College of Education (CPCE) participated in the workshop>

### **Administration**

#### ***Finance***

The Agency received subventions totalling G\$148,192,000 from the Government of Guyana, compared to G\$123,334,000 in 2010. The difference between the total subvention received and the actual expenses for the year which was G\$167,125,000 was supported by revenues from the Agency which totalled \$20,000,000. Over the year, the Agency was dependent on Miscellaneous Receipts to support its operational expenses and this placed constraints on the Agency with regards to filling vacant positions and providing adequate support for field activities.

The financial statements for the Agency and the Wildlife Division for 2010 were prepared and submitted to Audit Office of Guyana.

All financial reporting requirements were met for the Biosafety Project; WWF KR- 37 Project and the KfW Small Grants Project being implemented by the Agency.

### **Administrative Services**

The Administrative Unit continued to provide administrative and logistical support to all Divisions of the Agency.

### **Human Services**

The Human Resources Unit continued to be responsible for recruiting a skilled and committed workforce and building a team of professionals empowered to perform competently and with excellence.

### **Workshop and Meetings**

Staff of the Agency continued to benefit from training both in Guyana and overseas. In 2011, ten (10) Cabinet Papers were received for overseas workshops and meetings and a number of local training sessions were attended.

### ***Geographical Information Systems***

The GIS Database was updated with new information acquired from the field and from Sectoral Agencies such as the Guyana Lands & Surveys Commission (GLSC), Guyana Forestry Commission (GFC), and the Guyana Geology and Mining Commission (GGMC)

# 1. GUIDING LEGISLATION AND STRATEGIES

## 1.1 MISSION

The mission of the Environmental Protection Agency (EPA) is to “*take measures necessary for effective protection and management of the natural environment, coordination of conservation programmes, sustainable use of natural resources, assessment of the impact of development activities on the environment and the integration of appropriate environmental provisions into development planning*”.

## 1.2 ENVIRONMENTAL PROTECTION ACT

On June 05, 1996, the **Environmental Protection Act (EP Act)** was passed in Parliament, thereby, establishing the Environmental Protection Agency (EPA). The EP Act mandates the Agency to oversee the effective management, conservation, protection and improvement of the environment, the prevention and control of pollution, the assessment of the impact of economic development on the environment and the sustainable use of natural resources.

In working towards its mandate, the Agency enables Guyana to contribute to global and national environmental protection, sustainable use of natural resources, and conservation. To achieve its mandate, the Agency develops and implements education, regulation and enforcement programmes and uses partnerships and collaborative approaches to strengthen the impact of its interventions.

## 1.3 FUNCTIONS

The functions of the Agency are stated in the EP Act, Part II 4 (1) and can be classified broadly as being *regulatory, coordinating, and the promoting of public participation in environmental protection*.

As part of its regulatory functions, the Agency enforces the EP Act (1996) and its amendments, and the Environmental Protection Regulations (2000), to ensure that measures for environmental protection are integrated into development activities.

The Agency also coordinates the sustainable use and conservation of Guyana’s natural resources. Both the coordinating and regulatory functions of the Agency are complex, spanning a range of inter-connected issues and requiring collaboration with private, public sector and non-governmental organizations.

Another major responsibility of the Agency is to promote the participation of the public in the process of integrating environmental concerns in the planning for sustainable development. This requires the provision of information to the public on environmental development projects, issues and problems, and on the Agency’s procedures and processes.

## 1.4 STRATEGIC PLAN

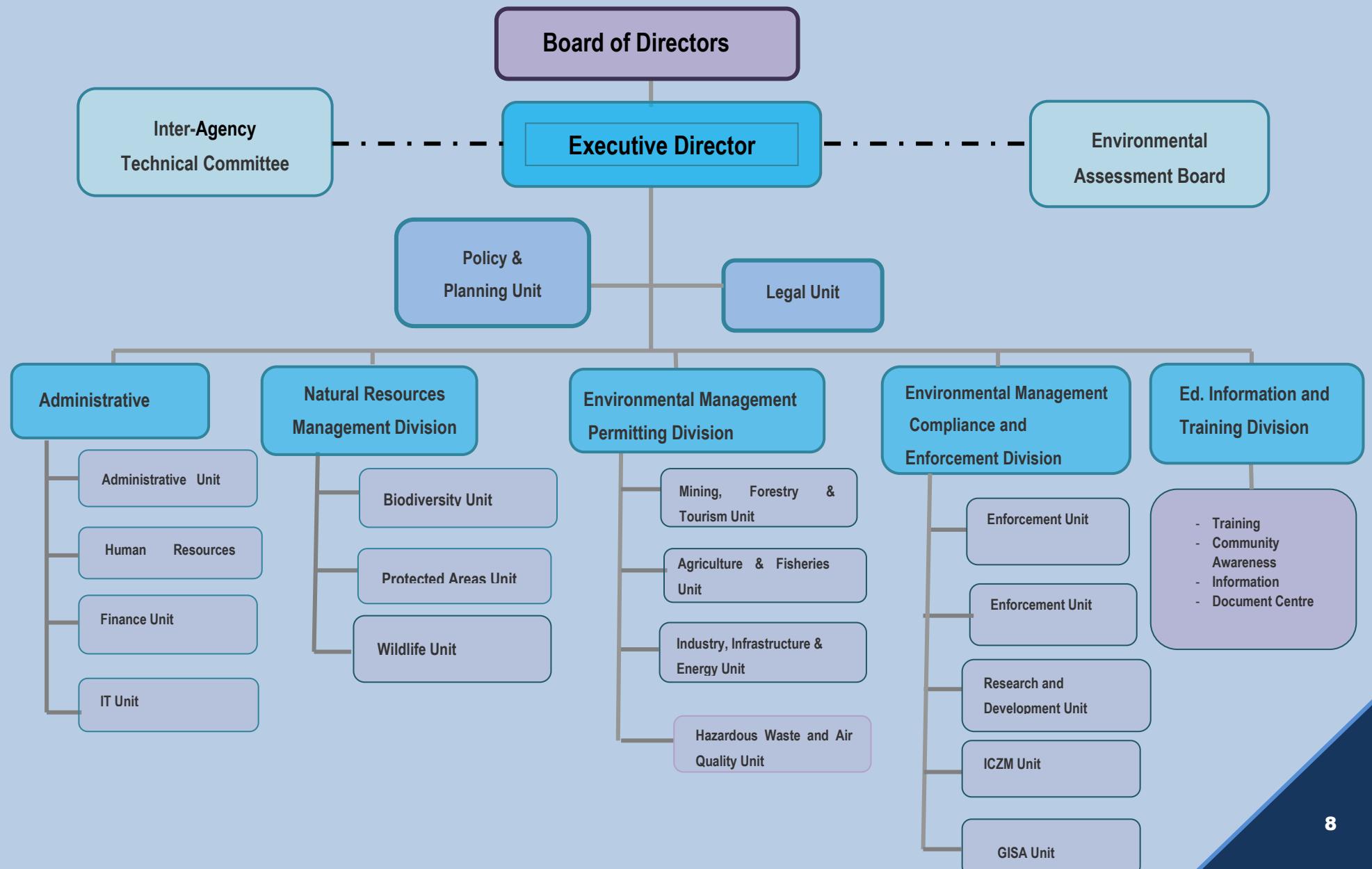
The Agency developed its Strategic Plan for the period 2006-2010. The Plan identifies FOUR Themes which are linked to two levels of objectives: Outcomes at the first level and Specific Objectives at the second level. The first theme: ***Promoting the Sustainable Use and Conservation of Biodiversity*** is implemented mainly under the Natural Resources Management Programme of the Agency. The second Theme: ***Environmental Protection and Management*** is implemented largely under the Environment Management Programme of the Agency. The third Theme: ***Environmental Information for Decision Making*** is implemented by the Education Information and Training Programme and is cross-cutting. The fourth Theme: ***Strengthening Institutional Capacity*** is also cross-cutting and is implemented under the Capacity Building Programme of the Agency.

It is expected that the future strategic direction of the Agency will be guided by the Strategic Plan being developed by the Ministry of Natural Resources and the Environment (MoNRE) as well as the Low Carbon Development Strategy (LCDS).

## 1.5 ORGANIZATIONAL STRUCTURE

Figure 1 below shows the Organizational Structure of EPA during 2010. The Chairman of the EPA Board and the Executive Director of the EPA both report to the Minister of Natural Resources and the Environment.

Figure 1: Organizational Structure of EPA.



## 1.6 PROGRAMME AREAS

The mandate of the EPA is implemented through its Natural Resources Management (NRM), Environmental Management (EM), Education, Awareness, Capacity Building and Cross-Sectoral Programmes (Figure 2). The NRM Programme has three components: Sustainable Use of Biodiversity, Biodiversity Conservation, and Wildlife. The EM programme has four components: Environmental Authorizations, Monitoring and Enforcement, Complaints and Response, and Research and Development. The Education and Capacity Building Programme has two components: Education and Awareness and Training, and Capacity Building, both of which are cross-cutting.

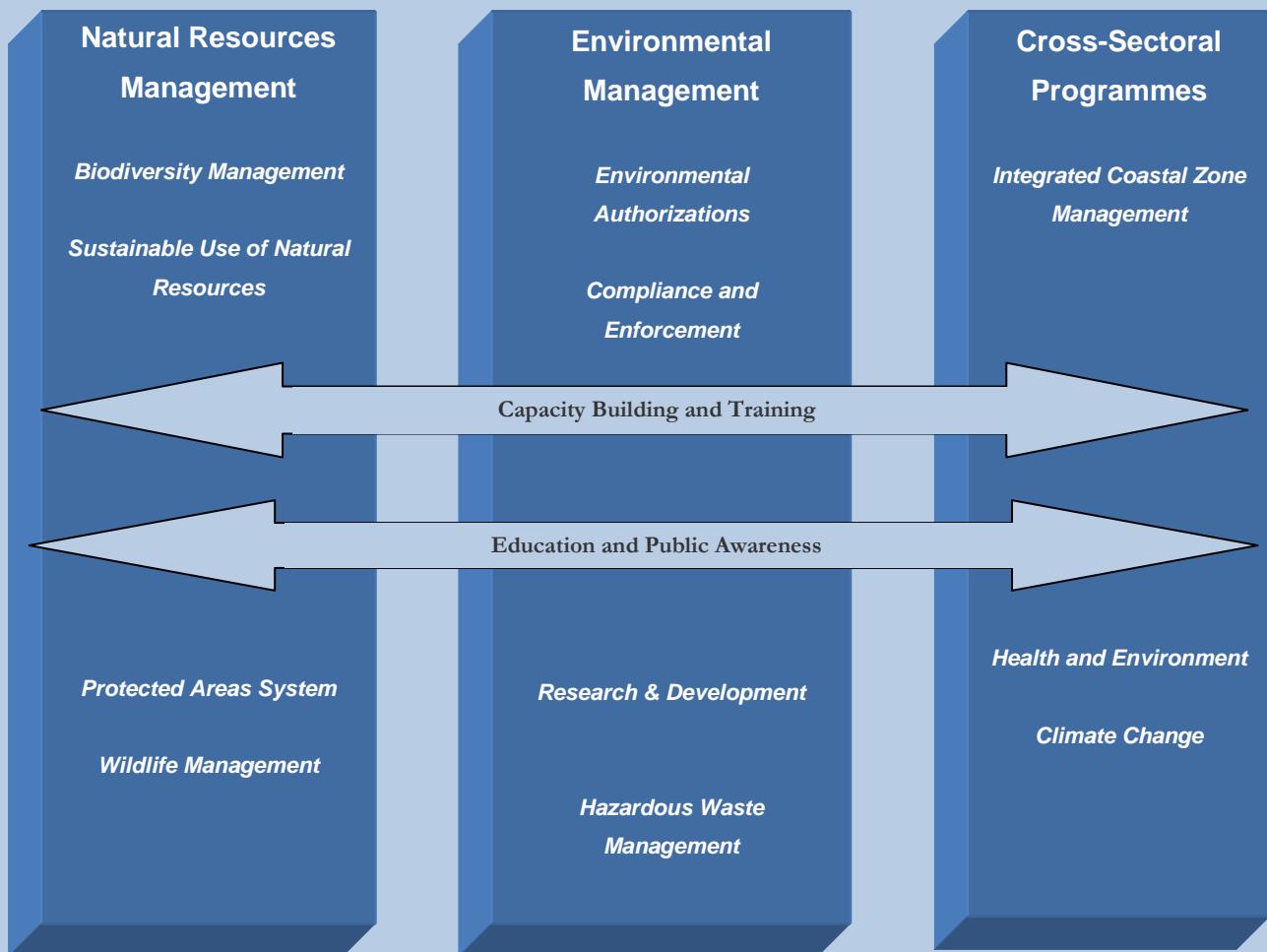


Figure 2: EPA Programmes, Components and Links.

### 1.6.1 Natural Resources Management

Having ratified the Convention on Biological Diversity (CBD) and the Cartagena Protocol on Biosafety (CPB), Guyana committed to developing National Strategies, Plans and Programmes for the conservation and sustainable use of biodiversity, and the regulation of the transboundary movement and use of Living Modified Organisms (LMOs) and Genetically Modified Organisms (GMOs) and to take legislative, administrative and policy measures towards achieving these goals. Under the EP Act, 1996, the Agency is required to coordinate and maintain a programme, for the conservation of biodiversity and its sustainable use in Guyana. These requirements and the responsibilities under the CBD, and CPB are the primary focus, of the NRM Programme.

To achieve the objectives of the NRM Programme, there is collaboration with various Sectoral Agencies and Institutions and with Amerindian Communities in Guyana. Some of the main collaborative Sectoral partners include the Guyana Forestry Commission, Ministry of Agriculture, Wildlife Division, Guyana Geology and Mines Commission, University of Guyana, National Parks Commission, among others. There is also collaboration with local and international Non-Governmental Organizations (NGOs), such as Conservation International – Guyana (CIG), the Guyana Marine Turtle Conservation Society (GMTCS), and the World Wildlife Fund for Nature (WWF), among others.

The most important strategy documents guiding the work of the NRM Programme are the National Biodiversity Action Plans (NBAP I and II) and the National Biosafety Framework (NBF), which outline the major programme areas for biodiversity management in Guyana as: Conservation of Biodiversity, Sustainable use of Biodiversity, and Conservation and Sustainable use of Wildlife.

### 1.6.2 Environmental Management

Through the EM Programme, the Agency works towards achieving its mandate for pollution control and prevention. As such, developmental projects are required to conform to the goal of sustainable development with the Agency overseeing an environmental authorization process and conducting environmental monitoring and enforcement. Some of the strategies of the Agency's EM programme include:

- **Authorising New Developments:** Any new development that may have a significant effect on the environment is required to apply to the Agency for an Environmental Authorization. When an application is received, it is screened by the Agency, which then publishes its decision, on whether an Environmental Impact Assessment is required or not, and whether an environmental authorization will be granted or not.

- **Monitoring of Environmental Authorisations:** To ensure that developments mitigate against pollution and remediate as necessary, they are monitored by the Agency. The ambient environment and specific requirements of Environmental Authorizations are also monitored.
- **Authorising Existing Developments:** The EP Regulations (2000) provide for the regularizing of existing industrial activities through a registration process. Existing operations are required to apply to the Agency for an Operations Permit, the granting of which, is dependent on compliance and good environmental management practices.
- **Developing Competencies in Environmental Management:** The Agency recognizes that its role would be much more effective if the stakeholders are aware of their responsibilities and the means by which these can be met.
- **Developing Regulations:** In keeping with the EP Act, the Agency pursues the development of Regulations.
- **Reviewing and Developing Standards, Environmental and Operational Guidelines and Codes of Practice.**
- **Coordinating Environmental Management through Stakeholder collaboration.**
- **Managing Environmental Complaints:** the EMD continues to resolve legitimate environmental complaints.
- **Preparing for environmental emergencies.**
- **Enforcement.**

### 1.6.3 Education, Awareness and Capacity Building

The promotion of public awareness and participation in protection, conservation and sustainable use of the environment is a key function of the EPA as outlined in the EP Act (1996).

A National Environmental Education Strategy formulated in 1998 has served as a guide in the promotion of public awareness and public participation in the protection, conservation and sustainable use of the environment.

Through its Education Awareness and Capacity Building Programme, the Agency provides information in a range of formats to a wide segment of the population.

The delivery of the Programme entails working in close collaboration with the Environmental Management and the Natural Resources Management Programmes of the EPA as well as a number of Sectoral Agencies and Non-Governmental Organizations.

The purpose of the Programme is twofold, promoting public awareness of and participation in environmental decision-making as well as informing the public of the systems and procedures established by the Agency for environmental management and conservation.

#### **1.6.4 Cross-Sectoral Programmes**

Currently, the Agency plays a role in a number of cross-sectoral programmes including integrated coastal zone management (ICZM), climate change and solid waste management.

As part of its role regarding environmental coordination, the Agency's primary approach is to work with and to create strategic partnerships with existing organizations.

#### **1.6.5 Conventions and Multilateral Environmental Agreements (MEA)**

##### **Basel Convention**

The Environmental Protection Agency is Guyana's Focal Point for the Basel Convention for the control of transboundary movements of hazardous wastes and their disposal. During the year, the Agency completed the Basel Convention Questionnaire for 2009. In addition, the Agency sought technical assistance from the Basel Convention Secretariat towards the finalization of the draft Environmental Protection (Export and Intransit Import) Hazardous Wastes Management Regulations, following approval from the Office of the President to do so. The Agency complied with the requirements of the Convention regarding the notification of Hazardous wastes movements through the processing of notification documents to country of import as well as communicating with countries who wished to use Guyana as a transit point.

The Agency prepared an Expression of Interest for the Caribbean Hub-ACP MEAs Project: Internship Facility in response to a letter received on October 05, 2011, regarding the project. This project aimed to strengthen the human resources capacities of Member Countries to ensure the sustainable implementation of the MEA requirements.

## **Cartagena Convention**

The appointment of EPA as Focal Point for the Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region (Cartagena Convention) is still pending. Nevertheless, the Agency continued being actively involved in several activities related to the Convention.

The Agency participated in the Steering Committee for the National Plan of Action for the reduction of land-based sources of pollution that was developed for Linden. In addition, the interim Guidelines for industrial effluent discharged into the environment were under revision by the Technical Committee – Environment, Guyana National Bureau of Standards. This Standard will be a legally binding document, where the maximum permissible limits for the discharge of relevant parameters are established for different industries, in accordance with the Environmental Protection (Water Quality) Regulations.

The Agency continued to process Applications for Environmental Permits and assessed those projects in relation to their potential environmental impacts. Environmental Impact Assessments were required for projects which had potential environmental impacts to ensure sustainability for the project and the environment. Sector Agencies and Public consultations were carried out to include any concerns of the public regarding these projects and to ensure that consideration was given to them in the design and implementation of projects.

## **2. ADMINISTRATION**

The Administrative Division comprises the Administrative, Finance, Human Resources, Policy and Planning, and Information Technology (IT) Units. The main responsibilities of the Division are the provision of IT and GIS Support to staff and Administrative and Human Resources Management. Materials, equipment and services to meet the needs of the Agency are procured with core funding from Government subvention and donor funded projects.

### **2.1 FINANCE**

This year, the Agency received subventions totalling G\$191,596,000 from the Government of Guyana, compared to G\$160,920,000 in 2012. The difference between the total subvention received and the actual expenses for the year was supported by revenues from the Agency's Trust Fund Account which totalled \$43,739,000. Over the year, the Agency was dependent on Miscellaneous Receipts to support its operational expenses; this placed constraints on the Agency in filling vacant positions and providing adequate support for field activities.

For the year in review, achievements in Financial Management were as follows:

- The Audited Financial Statements for EPA and Wildlife Division for Year 2011 were received from the Audit Office of Guyana;
- The 2012 Draft Financial Statements for EPA and Wildlife Division were prepared and submitted to the Audit Office of Guyana and Audited Financial Statements are currently being finalized;
- Quarterly Financial Overview Reports were prepared and submitted to the Ministry of Finance;
- Monthly Financial Reports were submitted to the Board of Directors and Management of EPA;
- All financial reporting requirements for the Regional Biosafety Framework Project; the National Biodiversity Strategy and Action Plan Project , and the KfW Phase II Small Grants Project were met in accordance with each Project's guidelines;
- The Agency's Budget for the year 2014 was prepared and submitted to the Office of the President.

### **2.2 ADMINISTRATIVE UNIT**

Administrative and logistical support continued to be provided to all Divisions of the Agency. The evaluation and procurement of materials, equipment and services were efficiently managed with core funding from the Government of Guyana.

#### **2.2.1 Procurement and Management**

A physical check of fixed assets was conducted by the Audit Office of Guyana at the beginning of the year. This was made against the Agency's maintained stock records, namely, its Inventory Management Document and monthly Stock Reports. Over the year, efforts were directed towards the conduct of internal asset checks and updating of the Asset Register. This activity was carried out while also

attending to increased demands for Administrative Support in 2013, as a result of the expansion of the Agency's technical programs.

In addition to asset management, procurement of assets and services continued during the year. Capital items were purchased under National Capital Expenditure 2013 as were items approved for purchase under the Agency's Trust Fund. Items procured include:

- Water Quality Kit and Meters
- Global Positioning System (GPS)
- Noise Meters
- Laptops
- Field Tablets
- Desktops
- Cellular Phones
- Printers
- Human Resources Software
- Quick-books Accounting Software (2014)
- Network Tester and Kit
- Air Conditioning Units
- Filing Cabinets
- Office Chairs
- P.A. System
- Pressure Washer
- Microwaves
- Kettles
- Quality Life Jackets
- Stationery and dietary items

Through the National Competitive Procurement Process administered by the National and Procurement and Administration Board (NPTAB) RK's Security Services were procured to secure the Agency.

### **2.2.2 Vehicle Maintenance**

The Agency carried out regular and timely maintenance of its vehicles in order to avoid extensive repairs and subsequent substantial costs and to ensure that all its transportation needs were met. Also, renewal of legal documents (insurance, fitness, road license) was arranged in a timely manner.

The contract for works to repair one of the Agency's field vehicles was awarded by the National Procurement Board; this vehicle was extensively damaged in an accident. During the year, the Agency incurred high costs in delivering timely maintenance and repairs to the aged vehicle used by the Executive Director. The Agency's also sold two of its aged vehicles during the year, through a competitive tender process.

### **2.2.3 Building and Compound Maintenance**

Efforts continued towards the enhancement of the general aesthetics of the Agency's Offices and compound through regular cleaning, brushing and maintenance. Also diagnosis, testing and repairs were

completed on the electrical system in the lower flat of the building following electrical problems experienced in this section.

During the year, contracts were prepared and signed for the following works and services:

- Termite control
- Disposal of sanitary units
- Maintenance of the photocopier
- Electrical and carpentry repairs
- Service and repairs to air conditioning units

The Agency's electricity Generator Set was serviced and its ATS box checked. To conserve energy use, energy saving bulbs were installed throughout the Agency as part of the Energy Saving Audit coordinated by the Guyana Energy Agency.

Provision was made within the building for office space for the new Environmental Management Compliance Division (EMCED). Also, offices were outfitted for the Director of the EMCED; Human Resources Assistant; and Legal Officer. Relocation of the EPA Officer from The Jenman Education Centre to the Agency was facilitated.

Through the National Competitive bidding process, a contract was awarded for works to rehabilitate the Entrance Road and Parking Area within the Agency's compound. However, due to the inclement weather, the contractor made a request for an extension on the completion schedule.

Over the year, issues of faulty plumbing were addressed by repairs and installations as necessary. Pipes were repaired, unearthed and straightened to stop leakage and taps were installed. Maintenance work was also carried out in the female washroom located on the lower flat of the building. Work was also contracted for repairs to the roof of the Agency's building.

#### **2.2.4 Additional Support**

Additional support was provided in the following areas:

- Support to EITD in arrangements for GGMC Mining week.
- Support to EITD in procurement and arrangements for Environmental Camp.
- Supported EMPD/EMCD with arrangements for Public outreach in Berbice, E.C.D and Lethem.
- The Agency's 2014 Budget was compiled and submitted to the MNRE for review.
- Assisted the HRO to source uniform material for the Agency Staff.
- Education, Information and Training Division

- Printing of Brochures and activity sheets for outreach programmes.
- Preparation and Hosting of the Annual Green Walk, Ride for the Environment and Public Ceremony in observance of World Environmental Day.
- Outreach activities to schools
- Natural Resources Management Division
  - Preparation and supporting the NBF project in the Biodiversity consultations countrywide.
- Collaboration with the Internal OSH Committee to address workplace hazards.
- Administrative and logistical support was provided to the various Divisions of the Agency.

## 2.3 HUMAN RESOURCES

The Human Resources Unit is responsible for recruiting a skilled and committed workforce and building a team of professionals empowered to perform competently and with excellence.

At the end of 2013, seventy-eight (78) staff members were employed at the Agency. Of these, seventy-four (74) were full time employees and four (4) project staff.

Over the year, eleven (11) vacancies were advertised and applicants were interviewed for ten (10) of these positions; one position was re-advertised (see details in appendix). Additionally, thirty (30) appointments and sixteen (16) staff confirmations were made, while three (3) staff members were promoted. During the year, eight (8) members of staff tendered their resignations while the employment of five (5) staff members was terminated. Internships were offered to three (3) university students who were placed in the NRM and EM Programmes.

The services of five (5) staff members were terminated during the year: two (2) Handymen; two (2) drivers; and one (1) Cleaner. There was also one suspension.

Three students of University of Guyana serve a two-month internship at the Agency, two (2) within the Environmental Management Division and one (1) within the Natural Resources Management Division.

Table: Staff Employment Dynamics for 2013

<b>Position</b>	<b>Vacancies</b>	<b>Appointments</b>	<b>Confirmations</b>	<b>Promotions</b>	<b>Resignations</b>
Director		1	1		
Senior Environmental Officer		6	3		3
Environmental Officer (I)		8	7		2
Environmental Officer (II)		1	1	3	
Technical Support Officer (IT)		1			1
Field and Data Technician		1			1
Project Manager NBSAP Project		1			
Project Assistant NBSAP Project		1			
Legal Consultant NBF Project		1			
Project Assistant NBF project		1			
Human Resources Assistant		1	1		
Driver		2			
Legal Officer		1			
Executive Assistant		1			
Handyman					
Cleaner			1		

### Training and Workshops

#### Overseas

Fourteen (14) Cabinet Papers were prepared requesting approval for staff members to participate in meeting 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 (see Appendix for more details).

Three (3) staff members were nominated to pursue the following post-graduate training courses in Germany: Environmental Management for Developing and Emerging Economies; Green Economy for Developing and Emerging Countries; and Climate Change Adaptation for Developing and Emerging Countries; however these have not received approval.

### **Local**

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;
- Development of the National MRVS;
- Specification and Labelling of Commodities;
- Water Resources Management;
- Environmental Practices in Mining;
- Accounting Practices;
- Proposal Writing and Development;
- Creative Problem Solving and Analytical Thinking;
- Communications;
- Stakeholder Consultation on the Restriction of the Use of Styrofoam;
- Adaptation to Climate Change;
- Tourism Investment; and
- The Nagoya Protocol.

## **2.4 INFORMATION TECHNOLOGY**

### **2.4.1 PC Support**

In providing support to personal computers assigned to the Agency's Staff, the following actions were taken:

- Repair was carried out on a number of desktops and laptops that were affected by hardware or software problem.
- Servicing was carried out on six (6) printers in use in the Agency.
- Five new Canon Printers were deployed within the Agency.
- Complete computer systems were deployed to all new staff employed at the Agency.
- Reloading of the operating system and appropriate programs was carried out on several computers to replace corrupt software or hardware failure.

- Defective monitors, mouse, keyboards, surge protectors, line conditioners and UPS were replaced.
- All Computer systems were upgraded with the relevant hardware for optimal performance on Windows 7 32bit operating system.

#### **2.4.2 Network Support**

The Local Area Network (LAN) was maintained and enhanced:

- The LAN was expanded to accommodate additional staff; this entailed the installation of structured cabling and installation of network switches.
- All network connectivity errors were fixed such as defectives cables, surface mounts and switches. Five defective network switches were also replaced.
- User accounts, mapped drives and permissions were created to facilitate new staff.
- Assistance was given to the NBRIS consultant in addressing problems relating to the LAN Module.
- A Virtual server environment was configured to accommodate the development of the Human Resource Software.
- All Internet related problems were fixed in a timely manner.
- The Kaspersky Antivirus Suite was deployed on throughout the Agency and set to receive updates automatically through the Kaspersky virtual server environment that was configured by the department.
- All problems with EPAGUYANA mail were fixed.
- Defective hard drives were replaced on the Power Edge T710 server; this server is now fully functional.
- Hardware and software firewalls were updated to the latest firmware and software.
- Four 3000VA UPS were repaired and deployed to the network to replace defective units.
- Complete backups of the Agency's data and Virtual machines were done.
- Virus definitions were updated on all of the Agency's Servers.

#### **2.4.3 Management Information Systems**

- Maintenance was carried on the Assets database; it was also backed up.

- The Complaints and Permits Databases were updated and maintained. The SQL backend of the database was backed up and maintained. Queries and data sets were generated based on the requirements of the EM Division.
- New documents, downloads and vacancies were uploaded to [www.epaguyana.org](http://www.epaguyana.org) website. The Website was also backed up.
- The GEFGUYANA.ORG country website was deployed and maintained.
- New sections and download categories were created based on the requirements of the Agency.
- The NBRIS internal web module was deployed and support was given as necessary.
- All website and hosting problems were fixed in a timely manner.

### **3. NATURAL RESOURCES MANAGEMENT**

Under the Environmental Protection Act (1996), the EPA is mandated to coordinate and maintain a programme for the conservation and sustainable use of biological diversity in Guyana. Also, as the national focal point for the Convention on Biological Diversity (CBD), the Agency is required to design, source funding for, execute and implement projects to assist in achieving the general objectives and programmes of the Convention.

The objectives towards sustainable use and conservation of biodiversity are implemented under the Agency's Natural Resources Management (NRM) Programme which is organized into three components namely: Protected Areas, Biodiversity, and Wildlife.

In early 2013, Senior Environmental Officers (SEOs) were appointed for each component of the NRM Programme; additionally, an Environmental Officer was recruited for Protected Areas. For most of the year, the NRM Programme was being implemented by three SEOs, three EO(II)s and two EO(I)s and without a Director. The EOI attached to the Wildlife Component of the Programme was promoted to EO (II) in the final quarter of 2013, and two of the SEOs have resigned.

At the end of 2013, the work of the NRM Programme was being executed by one (1) SEO, four EO(II)s and one EOI.

#### **3.1 PROTECTED AREAS**

##### ***Implementation of Phase II of GPAS***

In September, 2009, the Governments of Guyana and Germany, represented by the KfW Entwicklungsbank (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.

**Disbursement of Funds** - Two disbursements in the sums of EUR 173,770.54 and EUR 101,797.3 were received this year for the GPAS II. These were made against expenditure forecasts presented during the reporting period which were submitted to the KfW during the year.

**KfW Appraisal Mission** - KfW, Germany and GFA Consulting Group conducted a Mission to Guyana during the period June 24 - July 02, 2013. Meetings were held with the EPA, PAC, CI-G and MNRE to discuss the activities under the various phases of the GPAS Project. It was agreed that the GPAS Phase II completion date would be extended to December 2014. An *Aide Memoire* was signed at the end of the mission, renewing commitments under the various phases of the project.

**Operational and Financial Plan** – The Operational and Financial Plan was revised in October 2013, to support activities during the Project's extended Phase. Based on discussions with KfW held in December 2013, the Plan will be further revised to include the proposed infrastructure development at Kaieteur National Park.

**GFA Consultancy Contract** - The Proposal and amendment II to Contract submitted by GFA Consulting Group for Consultancy Services to be provided under the Project was reviewed by the EPA, approved by MNRE and submitted to KfW for no-objection in November, 2013. This amendment was necessary in order to facilitate consultancy services during the extended phase of the GPAS II project. The GFA continued to offer support in the areas of proposal development and general project management. The third, fourth and fifth interim payments were made to GFA.

#### **Sub Project Implementation:**

**(a) Management Planning Project for Shell Beach** – The proposal inclusive of budget for the Management Plan Process was developed and submitted to KfW, Germany for approval in October, 2013. A pre-management planning consultation was conducted in collaboration with the Protected Area Commission (PAC), during the period August 29-30, 2013, with the communities of the Shell Beach Intervention Area. The consultation was aimed at raising awareness and building capacity of communities on the National Protected Area System in Guyana; introduce the function of the PAC and provide an update on the status of the Shell Beach Protected Area. The consultation was pre-financed under the GPAS II Project and was later reimbursed by the PAC in November, 2013.

**(b) Tukeit Guest House and Warden's/Caretakers Building** – The contract for the construction and supervision component of the project was awarded to Yusuf General Contracting and Innovative Engineering Consultancy Services, respectively. Due to the adverse conditions within the region the sub-project commenced in January, 2013. Based upon the discussions held during the PAC Board Meeting in December, 2012, the project was granted a permit from the GFC for the cutting of wooden material in the region. Several meetings and monitoring visits were conducted with the Contractor in order to promote the completion of activities under the project. The Contractor encountered difficulties in the transportation of materials to the project site. Two extensions were granted in May 23 and July 23, 2013, in order to facilitate construction activities. On October 09, 2013 the contract with Yusuf General Contracting was terminated due to lack of performance in the completion of the project. In November 2013, the Agency submitted a claim to the insurance company, Assuria General Inc, in order to recover funds to the project from the mobilization and performance bonds.

NPTAB was engaged for the award of contract to the second most responsive bid during the tendering process. NPTAB granted approval for the award of contract to Alvin Chowramootoo Construction and Block Making on December 31, 2013. The contract with the new contractor will be signed in January, 2014. At the end of the reporting period the construction works for the Tukeit buildings are approximately, forty percent (40%) completed.

**(c) Building for the Protected Areas Commission** – Bids for the Construction of the PAC Head Office was opened in January, 2013. Five (5) bids were initially received through open tendering for the construction component of the project. However, based upon the Donor's recommendation the open tendering process for the construction component was annulled. Re-tendering was done using selective tendering and a total of three (3) bids were opened at National Procurement and Tender Administration Board (NPTAB) in April, 2013. The bids were

assessed and the evaluation report was submitted to NPTAB for approval. 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 are approximately seventy five (75%) completed. The building project is expected to be completed by the February, 2014.

**(d) Equipment and Furnishing for the PAC** - The PAC procured office equipment and furniture for the functioning of its offices with assistance from the EPA. These included computers, desk, chairs, printers and a PBX phone system. All payments were made directly to the suppliers by the EPA, in accordance with an agreement made between the EPA/GFA and the PAC.

Bids for the procurement of two vehicles for the PAC were opened in January, 2013. Following the evaluation process, the contract for the procurement of the vehicles was awarded to Beharry Automotive Limited in May, 2013. The vehicles were handed over to the PAC at a short ceremony attended by the GFA Consulting Group, KfW and the MNRE in June, 2013.

**(e) Follow-up Support to GPAS I Community Based Sub-Projects and Baseline Study**- It was agreed previously that the unspent funds from GPAS Phase I would be used to support follow-up interventions in Amerindian communities and the collection of data which will help to determine the effectiveness of the projects implemented in Phase I.

Advertisements for the two consultancies were published and applications were received. However, based on the recommendations from the GFA Consulting Group, a decision was made for two consultancies to be conducted by a team of three (3) consultants, Ms. Parmeshwarie Pitamber; Mr. Robert Spitzer; and Mr. Michael Martin. The team would collect data on follow-up measures and baseline study, in the communities of the GPAS Phase I Sub-projects in the Shell Beach and Kanuku Mountains Protected Area. Data collection for the two consultancies was concluded in May, 2013 and draft reports were compiled and submitted to the Agency for review. Following the revision of these Draft Reports, the Final Report for the Follow-up and Baseline Study was submitted to KfW in September, 2013.

**(f) Utilisation of the GPAS I unspent Funds**- The proposal for the utilization of the unspent funds was submitted to KfW in September, 2013; a proposal for the utilisation of the remaining EUR 85,000 of unspent funds to support infrastructure development at Kaieteur was also submitted for consideration. The proposals, 'in principle', were approved by KfW.

Based upon the Aide Memoire signed in July, 2013, it was agreed that the GFA Consulting Group would administer the follow-up measures within the communities of the GPAS I sub-projects. Follow-up measures identified were the procurement of photovoltaic systems, extension of the water trestles and procurement of a cassava grating mill. At the end of the reporting period, the the photovoltaic system at the Kamwatta and Warapoka multi-purpose buildings were procured and installed and the cassava grating mill was procured for the Assakata Village. The construction works for the extension of the water trestle are approximately seventy percent (70%) completed.

In relation to the infrastructure development of a staff living quarters at Kaieteur, Innovative Engineering Consultancy Services were contracted by the GFA Consulting Group to develop the tender document including the design and bill of quantities for the competitive tendering of the project. The project is expected to be tendered in February, 2014.

- Tranche II

**National Protected Area Trust Fund** – Mr. Ralph Ramkarran was contracted under the GFA Consulting Group to provide a legal opinion and advice on the issues (and potential issues) regarding the Protected Area Act. Based upon up the legal opinion received, a lawyer was contracted through the GFA Consulting Group to draft Regulations under the Protected Area Act (2013), in order to establish a Board of Trustees. The Regulations were completed and submitted to MNRE for Cabinet's no-objection.

#### ***Implementation of Phase III of GPAS***

Phase III of the GPAS Project is expected to commence in 2015, upon the completion of the activities under Phase II of the GPAS project.

#### ***Capacity Building***

The SEO, Protected Areas, attended the GEF Expanded Caribbean Constituency Workshop, in Dominican Republic in July, 2013; a report on the workshop was prepared and finalised. Environmental Officers (Protected Areas) participated in natural resources and environmental economics, and land resource management training courses facilitated by the School of Earth and Environmental Sciences.

#### ***Other Activities***

**Protected Area GAP Analysis** – Staff participated in a workshop organised by the Protected Areas Commission in December, 2013. The workshop sought to highlight gaps in the systematic planning tool used to identify conservation zones within a range of spatial economic parameters.

**Protected Areas Capacity Building** – An outreach was conducted at Chenapau Village, Region 8, during February 28 to March 02, 2012; there, a presentation on activities undertaken in GPAS Phase I was delivered. The outreach team also included representatives from the Ministry of Amerindian Affairs, PAC and WWF-Guyana.

**Ramsar Mission** – The Unit prepared a list of wetland sites in Guyana for the MNRE who facilitated a RAMSAR Secretariat visit during May, 2013. The SEO participated in field visit with PAC, NDIA, WWF and Ramsar Secretariat Officials to the East Demerara Water Conservancy and the Victoria Mangrove Site. The purpose of the visit was to become familiar with some of the characteristics of these wetland sites.

**Board of Directors and Meetings of the PAC** – The SEO participated as secretary of the Board of Directors for the PAC. The Agency provides the Board with monthly reports on the status of the GPAS Project.

**Conservation Trust Fund** – The SEO (Protected Areas) represented the Agency on the Board of Trustees for the Conservation Trust Fund.

## **3.2 SUSTAINABLE USE OF BIODIVERSITY**

This component of the NRM Programme is responsible for the processing of Research Applications; the issuance of Permits to conduct research in Guyana; and the export of biological specimens from Guyana. It is also responsible for the coordination, execution and implementation of Projects and Programmes for the Sustainable Use and Conservation of Biodiversity in Guyana.

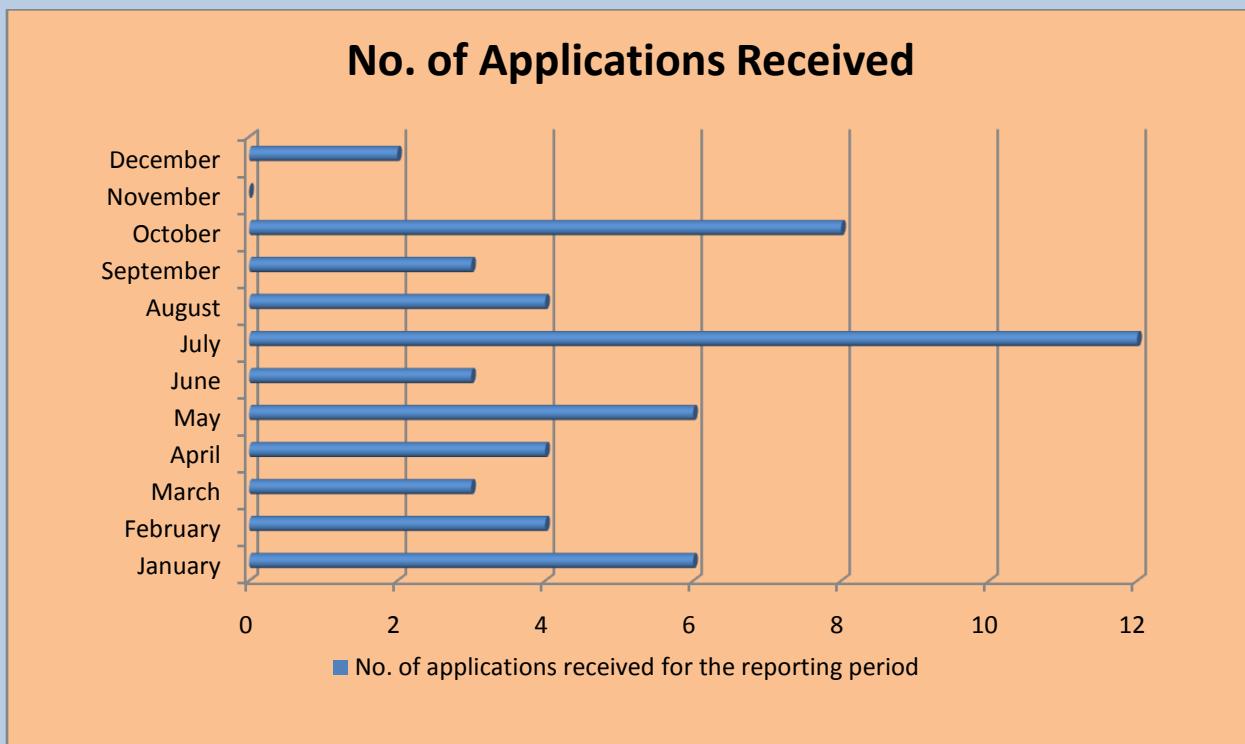
### **3.2.1 Biodiversity Research**

During 2013, applications were received from students, professionals, and institutions worldwide including Raw Television, **U.K.**; University of Kent, **U.K.**; Royal Holloway, University of London, **U.K.**; University of Surrey, **U.K.**; University of Florida, **U.S.A.**, Angela State University, **U.S.A.**, Humboldt State University, **U.S.A.**, University Gottingen, **Germany** and World Wildlife Fund, **Guyana** (WWF-G).

The majority of the Research Projects were concentrated in the interior locations of the country, in areas such as, the Iwokrama Rainforest, Madhia; Rupununi; and Regions 8 and 9.

### Research Applications

For the period, Fifty five (55) Research Applications were received (**Figure Xa**).



**Figure Xa: Monthly distribution of applications received during review period.**

### Processing of Research Applications and Issuing of Permits

Applications Processed: Twenty-six (26) research applications were processed and approved during the year.

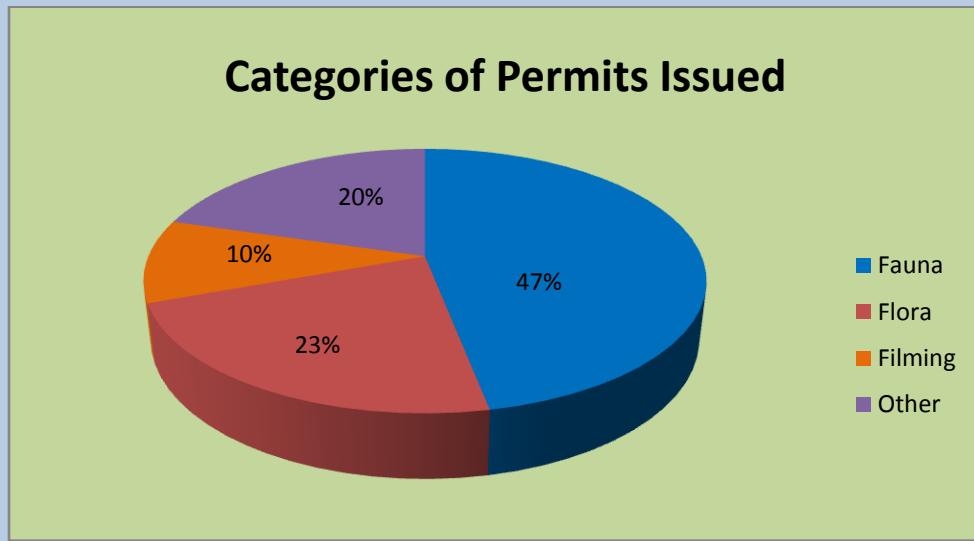
#### Research Permits Issued:

Applications Processed: 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.

#### Export Permits Issued:

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.

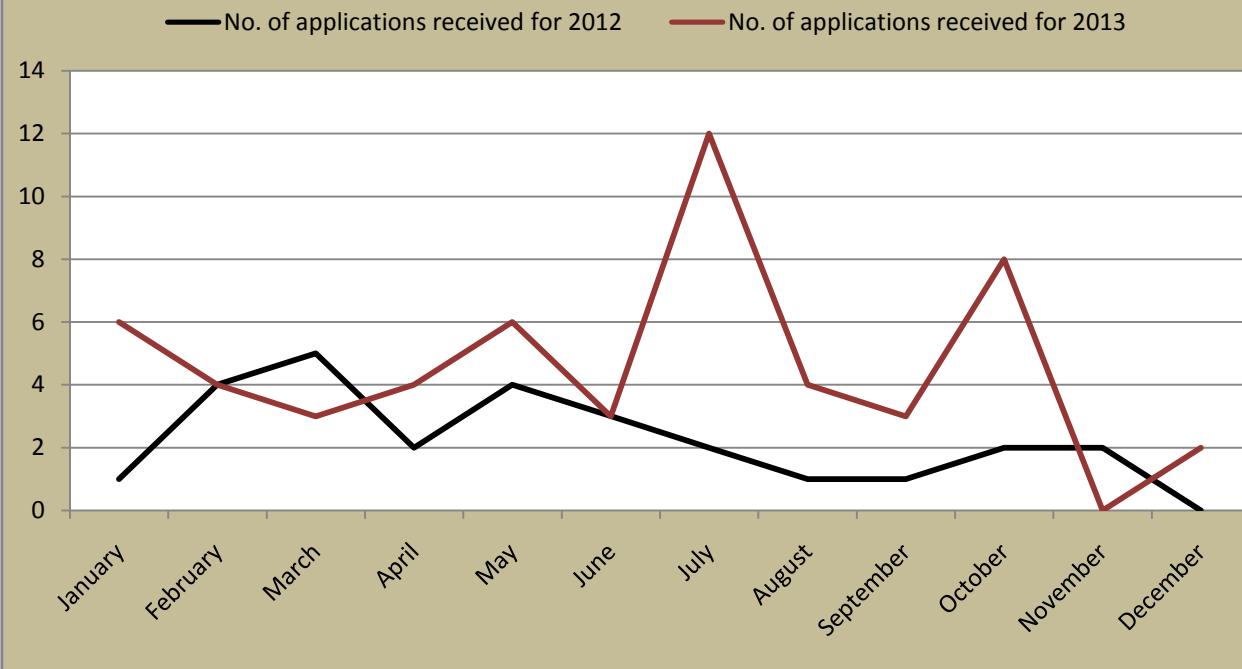


**Figure Xb** shows the categories of applications permitted by the EPA during the reporting period.

**Analysis:** Of the fifty five (55) applications received for the year, forty-five (45) or eighty two percent (82%) have been completely processed, approved, and issued with permit to conduct Research; eighteen percent (18%) of the applications received are at various stages of processing. During the period, two (2) applications were cancelled.

**Comparative Analysis (2012 vs. 2013):** **This year**, there was an increase in research applications, when compared with last year. The highest number of applications (12) was received in July followed by eight (8) in October (see **Figure Xc**).

## Comparison of Applications received in 2012 and 2013 for the Review Period



**Figure Xc: Research Applications received in 2012 and 2013**

### Monitoring and Enforcement

The monitoring and enforcement aspect of the Research process has been maintained over the period by local counterparts from the University of Guyana, when possible. The Agency continued to maintain its linkages with other relevant sector-agencies and organizations such as the Ministry of Natural Resources and the Environment, the Ministry of Amerindian Affairs, the University of Guyana, Iwokrama International Centre for Rain Forest Conservation and Development, the Protected Areas Commission, the Guyana Forestry Commission and Local Communities in order to ensure researchers' adherence to the National Biodiversity Research Guidelines and the Terms and Conditions of their respective Research Permits. Follow-up continued to ensure that researchers fulfilled their reporting obligations as stipulated by their research permits prior to departing Guyana and the issuing of any export permits.

Additionally, during the review period, there were several cases where research was conducted without the prerequisite of a Research Permit from the Agency.

## **Revenue Generation**

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 (this excludes permit fees for applications currently being processed, to be processed, and a in some instances application and late application fees).

### **1.2.2 Biodiversity Projects**

The following projects were executed to support the conservation and sustainable use of biodiversity in Guyana:

#### ***Implementing National Biosafety Framework in the Caribbean Sub Region (Regional Biosafety Project)***

##### **Legal Framework for 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 and submitted to the Executive Director.

Discussion, first and second drafts of the Bio-safety Bill were submitted to the Agency, the NSC and the MNRE for review. Discussions were held with the Consultant following the submission of each draft; (4) associated Regulations under this Bill were also prepared and submitted for review.

##### **Institutional Framework**

The Institutional Framework for the management of Biosafety in Guyana was circulated to stakeholders for feedback and support. Letters, providing information on the current status of the Framework and the proposed role of the stakeholder organizations, were distributed to the National Agriculture Research and Extension Institute (NAREI), University of Guyana (UG), Guyana School of Agriculture (GSA), Institute of Applied Science and Technology (IAST), Guyana National Bureau of Standards (GNBS), Government Analyst – Food and Drug Administration, (GA- FDA) and Guyana Livestock and Development Authority (GLDA). Follow-up meetings were also held with all of the organizations except IAST.

##### **Public Awareness Strategy**

The Project Management Unit (PMU) with collaboration from BU met with the Education Ministry – NCERD office and discussed possible areas in the school curriculum to introduce

information about Biotechnology and Biosafety. It was discussed that the initial target groups would include students of Grades 7-9 and teachers. The following were proposed as initiatives to foster awareness of Biotechnology and Biosafety through Science Education: Provide input on Biotechnology/Biosafety Information to the Weekly Radio Broadcast – Talking about Education; Participation on the Learning Channel through hosting panel discussions (Video), preparation of a DVD on Biotechnology/Biosafety information and development of educational literature (Booklets) on Biotechnology and Biosafety in Guyana; Participation in Education Month (September 2013) Education Exposition and Facilitate Teacher Awareness Training in Biotechnology/Biosafety through scheduled Ministry of Education Workshops.

Additionally the Agency participated in a one-day public awareness activity contributing to the Ministry's programme. The Agency hosted a booth on Biosafety and GMOs, information on Guyana, and the EPA.

#### Project Reporting

The annual workplan and budget, as well as expenditure report for the first, second and third quarters of 2013 were submitted to the Regional Project Office. Additionally, the NSC met four (4) times for the year to discuss all matters relating to the project.

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

The Unit received a correspondence from the ABS Regional Office for nominations to the workshop on Contract Negotiation on Access to Genetic Resources and Traditional Knowledge and the Second Regional Meeting of the GEF ABS LAC Project, which was held in La Habana, Cuba, from March 18 to 22, 2013. Ms. Fernandes was nominated and attended the Meeting. The main focus of the workshop was the review of the key elements of ABS in the framework of the CBD and the Nagoya Protocol; to review the situation of ABS Regimes in each of the participating countries, focusing on the main elements of each system, advantages, complexities and implementation of the Nagoya Protocol at national level.

Additionally, the Unit was invited to a meeting with the GIZ representative, Dr. Hartmut, the Protected Areas Commission, and the MNRE, to discuss focal areas in which the GIZ can offer assistance. The meeting focused on ABS as it relates to Guyana, and possible integration with Protected Areas Systems. Following this meeting, Dr. Hartmut was given a demonstration of NBRIS; it was indicated that there is an opportunity for NBRIS to be used as a model for other countries.

Further, a Skype meeting was held with Ms. Maria Amparo Ricaurte from IUCN-SUR, to provide an update on the national implementation of the project for its mid-term review; this was subsequently submitted for comments; it was reviewed and comments were submitted comments to the Regional Office.

The Co-financing report for the period July 2011 - December 2012 and the Expenditure Statement for the period January 2011 - July 2013 were prepared and submitted to the Regional Office.

The Agency received a questionnaire from the Regional Office on the national coordination of ABS and Traditional Knowledge, which was subsequently filled and submitted. Additionally, numerical information was provided to the Regional Office on the number of Research Permits issued for the period 2011-2013.

The Agency submitted a correspondence to the Regional Office proposing an activity to use the remaining funds under the project (USD 2,114). Subsequently, the MNRE approved the ToR for the review and finalization of the draft ABS Regulations and also for the sole sourcing of a Consultant for this activity. Mr. Teni Housty was identified as the Consultant and is in the process of preparing a financial plan.

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

The NBRIS became operational on August, 2013; thus far, seventeen (17) research applications were received through this system. However, an error occurred during the synchronization of the WEB and LAN Modules; this was subsequently rectified by the Consultant.

The IT Unit created a new menu on the EPA's website for the link to the NBRIS; this was also uploaded to the National Clearing House Mechanism (CHM).

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

##### **Project Unit**

The Project Assistant was hired and commenced in August, 2013. Also, the following reports were prepared and submitted to UNEP:

- Half-year progress reports for the periods July to December 2012 and January to June 2013.
- Expenditure Statements for the period July 2012 to June 2013.
- Co-financing Reports for the period July 2012 to June 2013.

- Inventory of Assets.

### Hiring of Consultant

Further to the first call for interested consultants to submit technical and financial proposals for the Revision of the NBSAP and Preparation of the fifth National Report the following ensued:

- It was recommended that the Agency re-advertise due to non-competitiveness.
- After re-advertising a suitable applicant was selected but their financial proposal had to be negotiated to better suit the available project funds. A letter was sent to the MNRE identifying the successful candidate with a request that they be exempted from paying VAT and subsequent approval to proceed with the formal signing of a contract. The waiver of VAT was subsequently granted by the MNRE.

### Participation in Regional Workshop

Ms. Suparna Narine (Project Manager) and Mr. Sean Mendonca (Senior Environmental Officer) attended the Regional Workshops for the Preparation of the 5NR and Clearing House Mechanisms respectively which were held in September, 2013 in Gros Islet, 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”.

### **ACTO-Amazon Regional Observatory**

The Agency received a correspondence from Ministry of Foreign Affairs requesting a nomination to attend the 1<sup>st</sup> meeting of the Special Working Group on the Amazon Regional Observatory. Approval was granted for Ms. D. Fernandes to attend the meeting, held in Quito, Ecuador in June, 2013. A report on the meeting was prepared and submitted to the MNRE.

Additionally, the Agency is awaiting guidance from the Ministry of Natural Resources on the nomination of a focal point for the Amazon Research Network Centre and on the way forward for the establishment of a National Research Network Centre.

### ***Mainstreaming Biodiversity Project***

Following discussions with the GEF Working Group and on the advice of the UNDP office, the Agency prepared a letter to the GEF Secretariat to requesting their endorsement to utilise the remaining GEF 5 STAR allocation for a Mid Size Project (MSP) in relation to Mainstreaming Biodiversity into Mining. The necessary endorsement was received and the Project Information Form PIF was prepared and submitted and approved.

Terms of Reference for a Consultant to prepare the project document was prepared and a Project Consultant was subsequently hired. Initial meetings were held with the project Consultant and UNDP to discuss the way forward. The Consultant is expected to visit Guyana in the third week in January 2014 and the project document is expected to be finalized by April 2014.

### **Country Support Programme**

The GEF National website has been launch and it can be accessed at [www.gefguyana.org](http://www.gefguyana.org). The Division is currently compiling information on all past and current GEF funded projects to be uploaded to the website.

### **Small Grants Programme (SGP)**

The Agency participated in the review of twenty-five (25) project concepts and 8 project proposals submitted to the SGP. 3 project proposals were approved for funding. The Agency representative continues to give support to the SGP through attending NSC meetings and providing technical review of projects, objectives, and progress of the SGP work in Guyana.

## **3.3 CONSERVATION AND SUSTAINABLE USE OF WILDLIFE**

The Wildlife Unit of the Natural Resources Management Division (NRMD) is tasked with the responsibility for the coordination, development, and maintenance of a programme and activities for the sustainable use and conservation of Wildlife in Guyana.

### ***1.3.1 Wildlife Conservation and Management (WMC) Regulations***

In January, 2013 electronic copies of the Draft WMC Regulations and the Explanatory Notes were provided to Mr. Joslyn McKenzie, Permanent Secretary, Ministry of Natural Resources and the Environment (MNRE), and Mr. Durjhon, Attorney General Chambers, Ministry of Legal Affairs upon request. The WMC Regulations were signed by the Minister (MNRE) on November 11, 2013 and was sent to the Office of the President where it was gazetted. The Units is currently preparing a plan of implementation for its Work-plan 2014 that is to harmonize with the WMC.

### ***1.3.2 Investigation into reports of Illegal hunting in the Burro-Burro River in***

#### ***Iwokrama (Protected Area)***

A field visit was carried out during August 15 to 16, 2013, in responded to official reports of poaching or illegal hunting within Iwokrama protected area, particularly in the Burro-Burro River. A report was prepared and sent to MNRE and a meeting was held on August 22, 2013 with representatives from the EPA, Iwokrama, Protected Areas Commission and the Wildlife Divisions to discuss the way forward.

MNRE had officially written to the Ministry of Home Affairs to request and encourage their support on this matter, particularly as it relates to firearm license and increasing both police ranks and patrols at Iwokrama to curb the occurrences of illegal hunting in the protected area.

Unfortunately, resulting from persistent reports of illegal hunting in the area (the Burro-Burro River), a joint 'sting' operation was executed during December 11 to 15, 2013, through Iwokrama and assistance from the MNRE. The team included representatives from the EPA, Ministry of Agriculture, Police Force and several Iwokrama Rangers. The objective was to apprehend the individuals reported to have entered the Burro-Burro River for the purpose of fishing and hunting, with commercial intent.

On December 12, three (3) individuals were caught at the Powis Falls with 170lbs of labba 30lbs of powis in their possession, housed in a small freezer. The individuals were taken, by the police rank present to the Iwokrama Field Station and then transported to the Lethem Police Station. Iwokrama Centre was subsequently informed that the men had pleaded guilty to the charge of hunting illegally within a protected area and were required to pay a fine of 20,000 GUYD each.

### ***1.3.3 Marine Turtle Symposium and Review of MoU***

Several meetings were held with WWF/GMTCS to discuss sharing of information and preparation for 11<sup>th</sup> Regional Symposium: Marine Turtle Conservation in the Guianas held in Suriname during October 29 to November 1, 2013. The EPA was not given approval to attend. Follow-up discussions are currently pending the renewal of MoUs for sharing of marine turtle data both local and with Suriname and French Guiana.

### ***1.3.2 Projects being implemented by the NRMD***

The Unit continues to assist with the implementation of Projects being executed by the Biodiversity Unit. Wildlife Unit presently takes the lead in the coordinating the NBSAP Project and assists with the Biosafety Project and also in the Research Permitting Process.

### **1.3.3 Inter-divisional collaboration**

The Unit continues to work with the Environmental Management Permitting Division (EMPD), Environmental Management Compliance Division (EMCD) and the EITD particularly related to field visits and review of issues related to the wildlife sector.

## **4. ENVIRONMENTAL MANAGEMENT DIVISION**

The EPA saw a significant restructuring/re-organising of its Organisational Structure of the Environmental Management arm during 2013. In an effort to enhance environmental management efficiency through systematic and coordinated activities, the Environmental Management Division (EMD) was reconstituted. As of August 2013, the Environmental Management Division was officially divided into two sub-divisions; namely, the Environmental Management Permitting Division (EMPD) and Environmental Management Compliance and Enforcement Division (EMCED). Previously, the EMD was responsible for the management of processes related to Environmental Authorization, Complaints and Response, Monitoring and Enforcement, and Research and Development. The current functions and responsibilities of the Division were separated and EMPD now addresses the authorization of projects as stipulated in the Act, while EMCED now oversees compliance with the Environmental Protection Act and its Regulations of regulated (permitted) and non-regulated activities.

This reconstitution aimed to provide a clear definition of the scope of each Division, which will enhance management of the associated programme areas, and contribute to improve the overall environmental management efficiency, one of the core functions of the EPA, and ultimately increase the reach and impact of the Agency. Moreover, these changes will allow the Agency to better align itself to contribute to the implementation of the LCDS. The EPA has been earmarked to provide support to this strategy through its monitoring activities, which will be enhanced with improved definition and capacity under this reconstitution.

The EMPD is currently supervised by the previous EMD Director and comprises the following Units: Agriculture, Fisheries and Tourism (AFT), Industry, Infrastructure and Energy (IIE), Mining and Forestry (M&F), and Hazardous Waste Management and Air Quality Unit (HWMAQ) to facilitate the authorization of projects as stipulated in the EP Act. Functions of the HWMAQ Unit are cross-cutting between the two Divisions.

The EMCD is supervised by a new Director and comprises the following Units: Research and Development (R&D), Integrated Coastal Zone Management (ICZM), Compliance Monitoring (CM), Enforcement (E), Geographic Information System (GIS) and the Field and Data Management. The GIS unit which was formerly under the management of the Administrative Division was relocated to this

new Division. The Compliance Monitoring and Enforcement Units were newly created and the functions of Research and Development and the Field and Data Management are cross-cutting between the two Divisions.

Furthermore, the Division conducted Research and Development activities to improve its processes, practices, procedures and guidelines. During 2013, internal procedures of the Division continued to be revised and improved. Changes aimed to contribute to the enhancement of the Division's efficiency on processing Environmental Authorisations Applications, improve collaboration with Sector Agencies, ensure the involvement of all relevant parties on the Authorisation of developmental activities, and on the resolution of environmental complaints, and to provide better guidance to developers on how to meet the Agency's requirements for compliance.

Staff of the Divisions continued to function as representatives on various Committees and Boards.

#### **4.1 ENVIRONMENTAL MANAGEMENT: PERMITTING/AUTHORISATIONS**

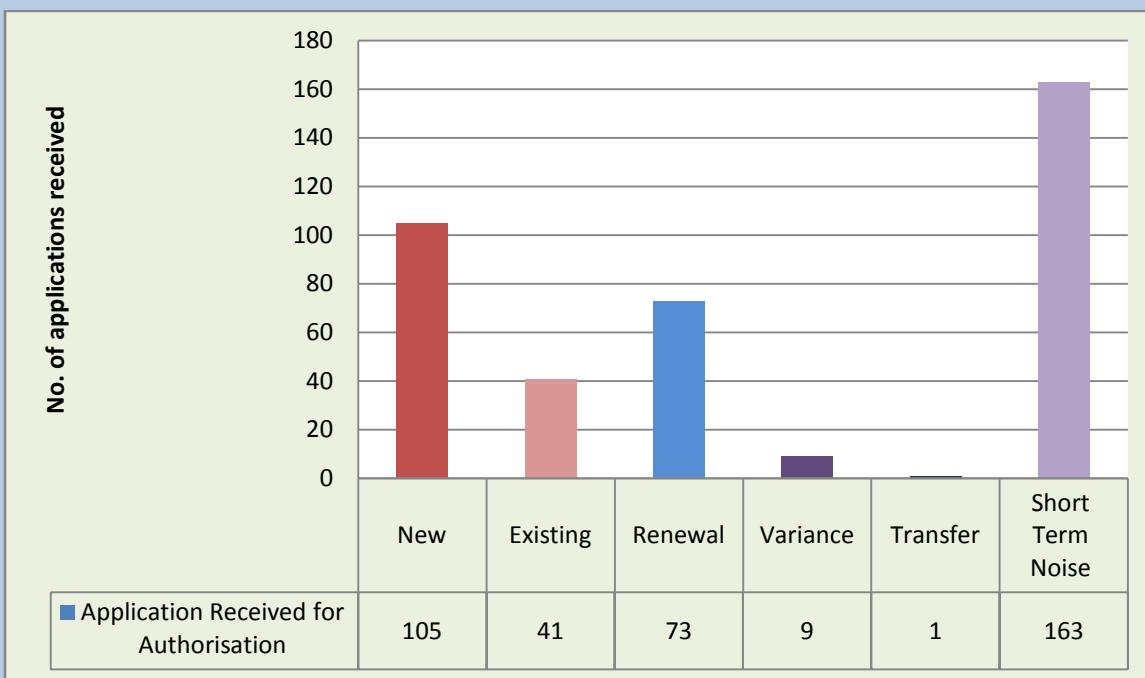
The Environmental Permitting Process as prescribed in the Environmental Protection Act, 1996, the Environmental Protection Regulations, 2000, and the Environmental Protection Amendments, 2005, continued to be implemented. A comprehensive approach to environmental management was utilized, based on Regulations and Standards developed. The Agency continued to support the work of the Environmental Assessment Board (EAB).

Eleven (11) professionals with varying expertise in environmental management registered with the Agency to provide a range of services to developers applying to the Agency for Environmental Authorisation.

##### **4.1.1 The Permitting Process**

The Agency continued to process Environmental Authorizations for new development projects and existing operations. During the year 2013, three hundred and ninety-two (392) applications for Environmental Authorizations were received through-out Guyana for the Agriculture, Fisheries, Tourism, Mining, Forestry, Energy, Industry and Infrastructure sectors. These included one hundred and five (105) applications 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) Noise Applications (Figure XXX). The total number of Applications received increased by three (3) percent in relation to 2012.

Applications received for short-term noise permit continued to be the highest. Applications received for new developmental activities were significantly more than those received for existing operations. In fact, applications received for renewals were also higher than those received for existing operations. Nine projects varied their operations during 2013.



**Figure XXX: Type of Applications received for Environmental Authorisation in 2013**

#### **4.1.2 Distribution of Authorization Applications across EMD'S Sectoral Units**

The Mining and Forestry Unit (M&F) received the highest number of Environmental Authorisation Applications during the year under review {hundred and thirty one (131)}, followed by the Industry, Infrastructure and Energy Unit (IIE) with sixty two (62), Agriculture, Fisheries and Tourism Unit (AFT) with twenty seven (27) and the Hazardous Waste/Materials and Air Quality Management Unit with nine (9) (Figure XXX).

For projects going through the Environmental Authorisation process, seven (7) EIA required projects were processed during 2013. In 2013, three (3) projects that required EIAs initiated the process, while four (4) continued to be processed from previous years. In addition, three (3) projects submitted applications for Environmental Authorisation in 2013, and are yet to commence the process. These projects are for the mining and forestry sector. In addition, one (1) Project, relating to petroleum exploration, required the submission of a Strategic Environmental Assessment (SEA).

Further, thirty-two projects (32) were required to prepare EMPs during 2013. Eighteen (18) of these were from previous years for which the Environmental Authorisation process continued into 2013 and fourteen (14) additional projects were required to submit EMPs during 2013. At the end of 2013, EMPs were pending for five (5) projects..

An analysis of applications received by Regions across Guyana indicate that highest number was received from Region 6 with one hundred and seventy six (176), followed by Region 4 with ninety-six (96), Region 3 with fifty (50) Applications, and Region 10 with thirty-three (33). A minimal number of applications were received for the other Regions. The applications received by the Regions covered all the sectors managed by the Agency. The highest number of applications received from Region 6 is attributed to the use and operation of noise making instrument as compared to other developmental sectors. Whilst in Regions 3, 4, and 10 the greater number of applications received were for projects related to the Mining and Forestry sectors. Further to note, there were five (5) applications for seismic and multibeam surveys offshore of Guyana (Figure XXX).

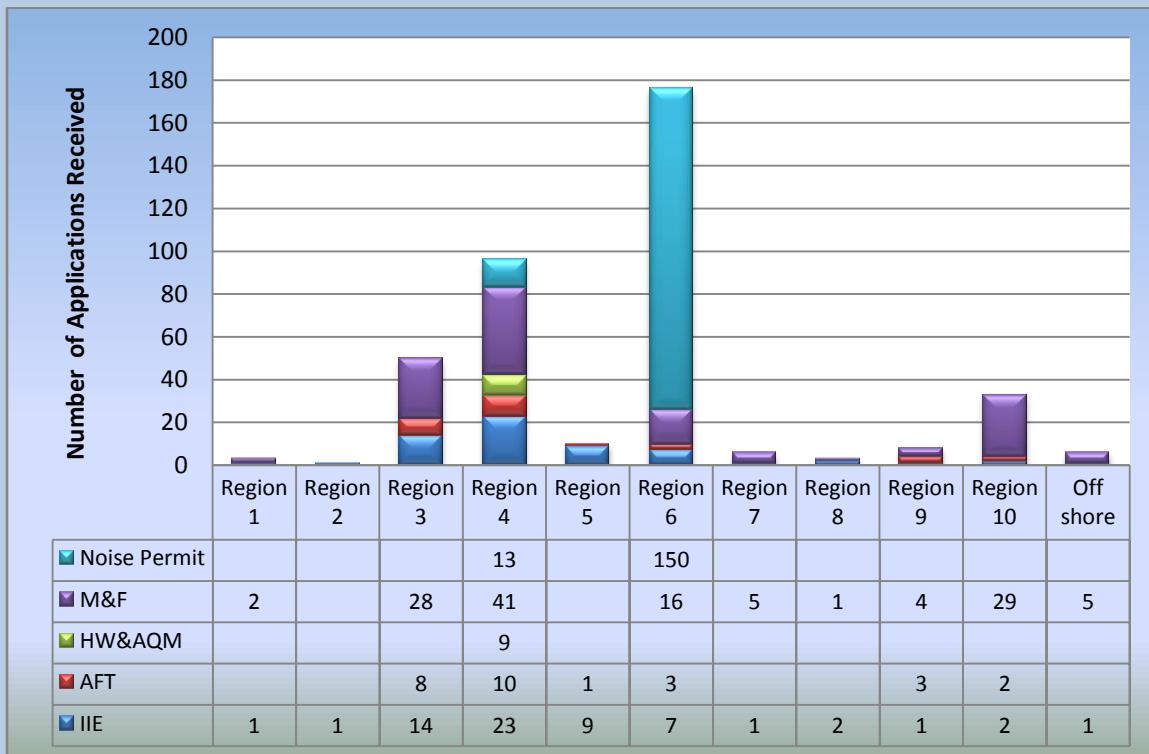


Figure XXX: Types of Application received for Environmental Authorisation by Sector and Regions in 2013

#### 4.1.3 Distribution of Environmental Authorisations Granted in 2013

Two hundred and thirty-nine (239) Environmental Authorizations were issued during the year 2013; this represents a 24% percent decrease in relation to 2012 figures (316). The 235 permits granted included seventeen (17) Environmental Permits, twenty-one (21) Operation Permits, four (4) Construction Permits, five (5) Letters of Authorisation, thirty three (33) Renewal Permits, one (1) Modification of Environmental Authorization and one hundred and sixty-three (163) Noise Permits (157 short-term and 6 long-term) (Figure XXX).

From the Authorisations granted, one project (Simon and Shock International Logging Inc.) requiring Environmental Impact Assessment (EIA) was issued an Environmental Permit in August 2013, while seven (7) projects requiring Environmental Management Plans (EMPs) were issued Permits during 2013; two (2) for EMPs received during 2013 and five (5) for EMPs received from previous years.

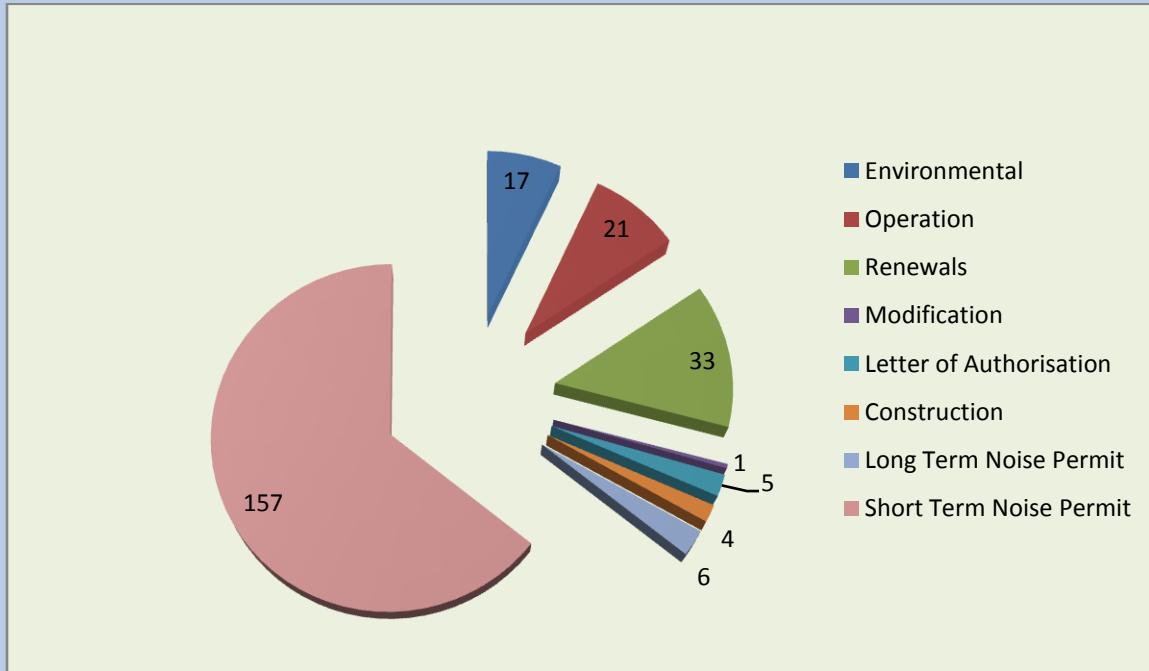


Figure XXX: Distribution of Environmental Authorisations granted in 2013.

An analysis of Environmental Authorisations granted by Regions across Guyana indicates that the largest number was granted for Region 6, mainly for the operation of noise making instruments (Figure XXX).

The second highest number was granted for Region 4 for activities in the Industry, Infrastructure and Energy sectors.

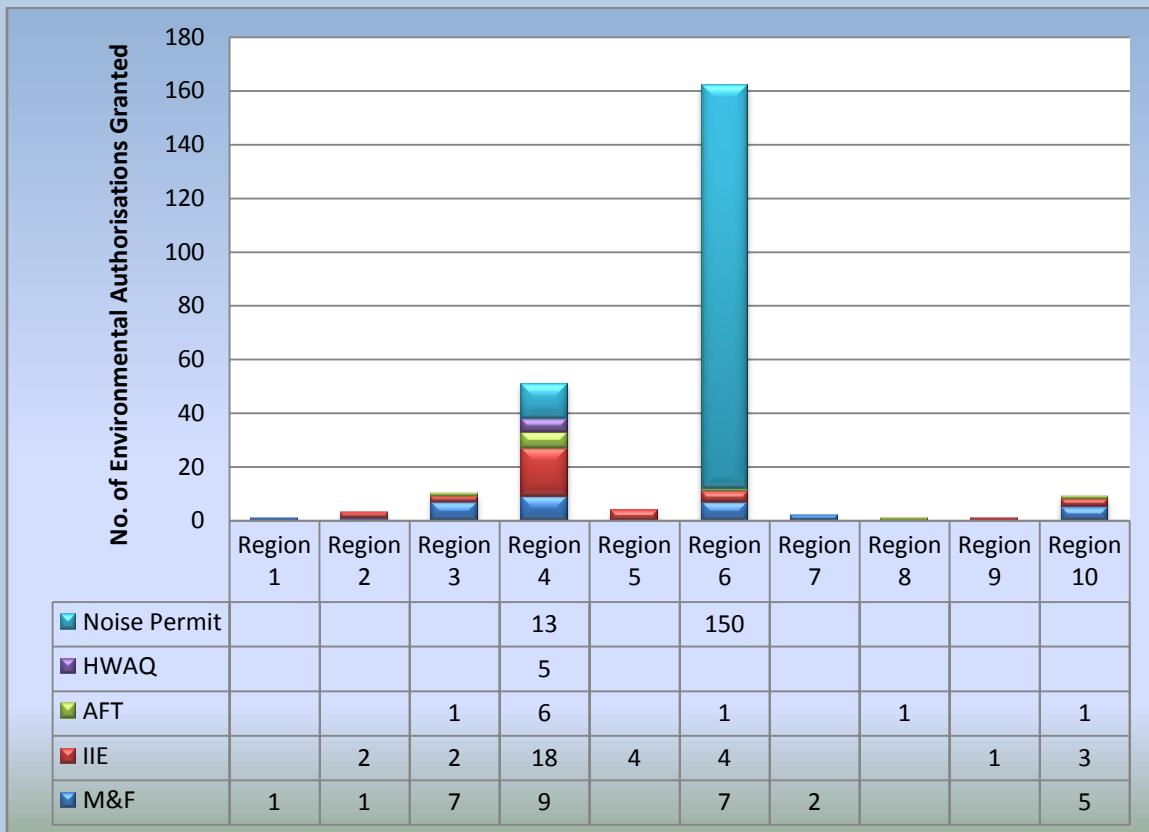
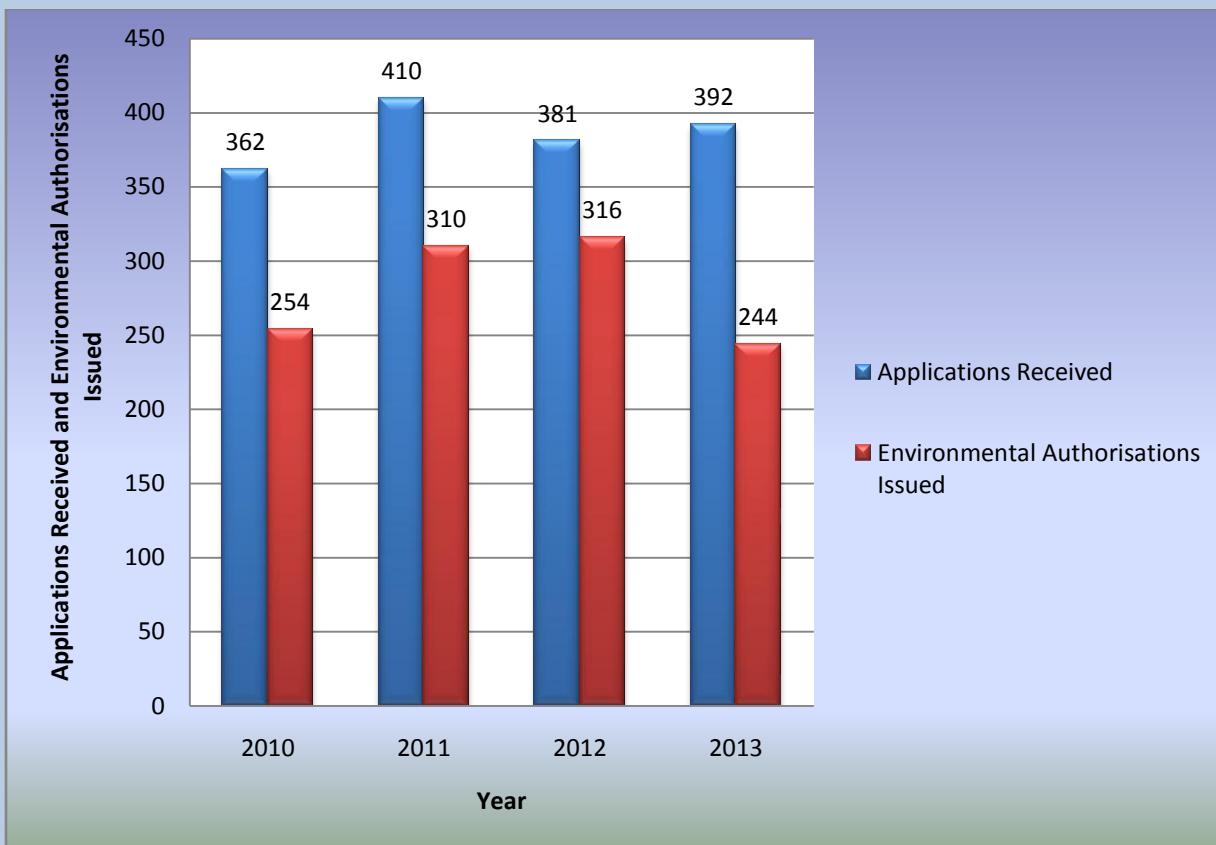


Figure XXX: Environmental Authorization Granted by Sector and Regions

#### 4.1.4 Comparative Analysis of the Permitting Process

Figure XXX below shows a comparison of applications received and Environmental Authorisations granted from 2010 to 2013. The four years show varying trends for the period; the highest number of applications received was in 2011, followed by 2013. However, in 2012 the largest number of Environmental Authorisations was issued in 2012 and the least in 2013. The main constraints for the issue of Permits were the workload in relation to the human resources, and the fact that many of the Applications being processed were lacking submission of outstanding information. There is a continuous effort to ensure these projects continue with the process of Authorisation.



**Figure XXX: Comparison of the number of applications received and Environmental Authorisations issued by the Agency from 2010 - 2013**

## HAZARDOUS WASTE/MATERIAL & AIR QUALITY MANAGEMENT

The HW&AQ Unit which was formed on February 01, 2011 and continues to direct its activities aimed at strengthening the capacity of the Unit to effectively implement the Environmental Protection (Hazardous Wastes) Regulations, 2000.

### HAZARDOUS WASTES/MATERIALS

#### 4.4.1 Research and Development

- Development of Environmental Guidelines: The following draft guidelines were developed for the environmentally sound management of:
  - Compact Fluorescent Lamps,
  - Mercury Contaminated Waste,
  - Electronic Wastes
- Proposal Development: A proposal for Treatment Options for Waste Oil was developed.
-

- Development of supporting documents: The following documents were developed to support the Unit Work-plan:
  - Hazardous Wastes database format
  - Permit conditions for Scrap Metal Operations
- Public Awareness: a draft Press Release was prepared to notify the public of the EPA requirements related to the exportation Used Lead Acid batteries (ULAB). Additionally, consultations and meetings were conducted with different private and government Agencies to inform and promote awareness regarding the role they play or should play in relation to hazardous wastes management.

#### **4.4.2 Projects**

A number of applications for projects requiring environmental authorization were processed and are still being processed by the Unit. During 2013, the Unit continued to process twelve (12) applications from prior years, while eight (8) applications were received in 2013. Of these, seven (7) environmental authorisations were issued during 2013.

### **AIR QUALITY**

The Unit also continues to focus its activities towards strengthening the implementation of the Environmental Protection (Air Quality) Regulations, 2000, through research and development, development of supporting mechanism and documents and collaboration activities.

#### **Research and Development**

- A Particulate Matter Air Quality Monitoring Protocol was developed for Kissoon Dyal Rice Mill, Chelsea Park, Mahaica, ECD.
- An Air Quality Monitoring Protocol for Linden was developed.
- An Air Quality Needs Assessment Proposal was developed.

#### **Development of Supporting Mechanisms/Document**

- An Air Quality database was developed to standardize the input of air quality data towards the setting of air quality parameter limits.
- An Environmental Guideline titled: “Implementation of the Environmental Protection (Air Quality) Regulations 2000” was developed.

#### **Monitoring**

- A Particulate Matter Air Quality Monitoring exercise was conducted for Kissoon Dyal Rice Mill of Chelsea Park, Mahaica, ECD.
- Air quality compliance monitoring for particulate matter was conducted for the University of Guyana and BOSAI Bauxite Plant.
- A Particulate Matter Air Quality Monitoring Report was prepared for Hakh's Rice Mill at Cane Grove, ECD, based on monitoring exercise conducted in December 2012.
- The Unit assisted in the collection of Air Quality Data for the Sheriff/Mandela Road Expansion Project.

## **Collaboration**

The agency sent out requests to GGMC, IAST and Bosai Bauxite Plant for assistance in the development of environmental guidelines for; the management of mercury contaminated sites and treatment options for waste oil respectively.

### **4.3.2 RESEARCH AND DEVELOPMENT**

In exercising its functions, the EPA is mandated under Section (4) of the EP Act, 1996, to continuously formulate policy recommendations and plans in the furtherance of its functions, standards and guidelines to be observed for the improvement and maintenance of the quality of the environment, and to conduct, promote and coordinate research in relation to any aspect of pollution or prevention. Research and Development continued to provide necessary support to the work of the Division and the Agency.

#### **4.5.1 Guidelines, Standards and Code of Practice**

Through collaboration with the GNBS and other relevant sector agencies, the EPA continued to develop Standards, Guidelines and Code of Practice. The primary purpose of the *Standards, Guidelines and Code of Practice* was to provide sound, practical guidance to achieve good environmental management.

- **Standards Development:** During the year under review, the Technical Committee - Environment, started to review and amended Specification for Labeling of commodities and Labeling of equipment, items and parts containing refrigerants. **Conformity Assessment:** The Agency continued to support the GNBS with the development of the National Conformity Assessment System through the National Committee on Conformity Assessment. The Agency worked towards the implementation of the ISO 17020 Standard for Inspection bodies. A Gap Analysis was conducted by GNBS; as a result, an Action Plan was developed, and an Internal Committee was formed to pursue the activities of the Action Plan: 70 percent of the activities were successfully concluded. The Action Plan was completed by the first quarter of 2011.
- **Environmental Guidelines:** The Environmental Guidelines for Poultry Rearing Operations the Revised Environmental Guidelines for the Preparation of Environmental Management Plans (EMP) were finalized and approved by the EPA Board in March 2013. Further, Environmental Guidelines for Landfills and Aquaculture were drafted. The Agency is currently seeking support from the Ministry of Agriculture - Fisheries Department to further advance the Aquaculture Guidelines.
- **Revision of Tools to support the Environmental Authorisation Programme:** The following tools were revised and approved and implemented during 2013:

- Revised Applications for Environmental Authorisation (New Projects and Existing Projects).
- Revised checklist for documents required to proceed with the Authorisations Process.
- Review of List of Projects Requiring Environmental Authorisation.

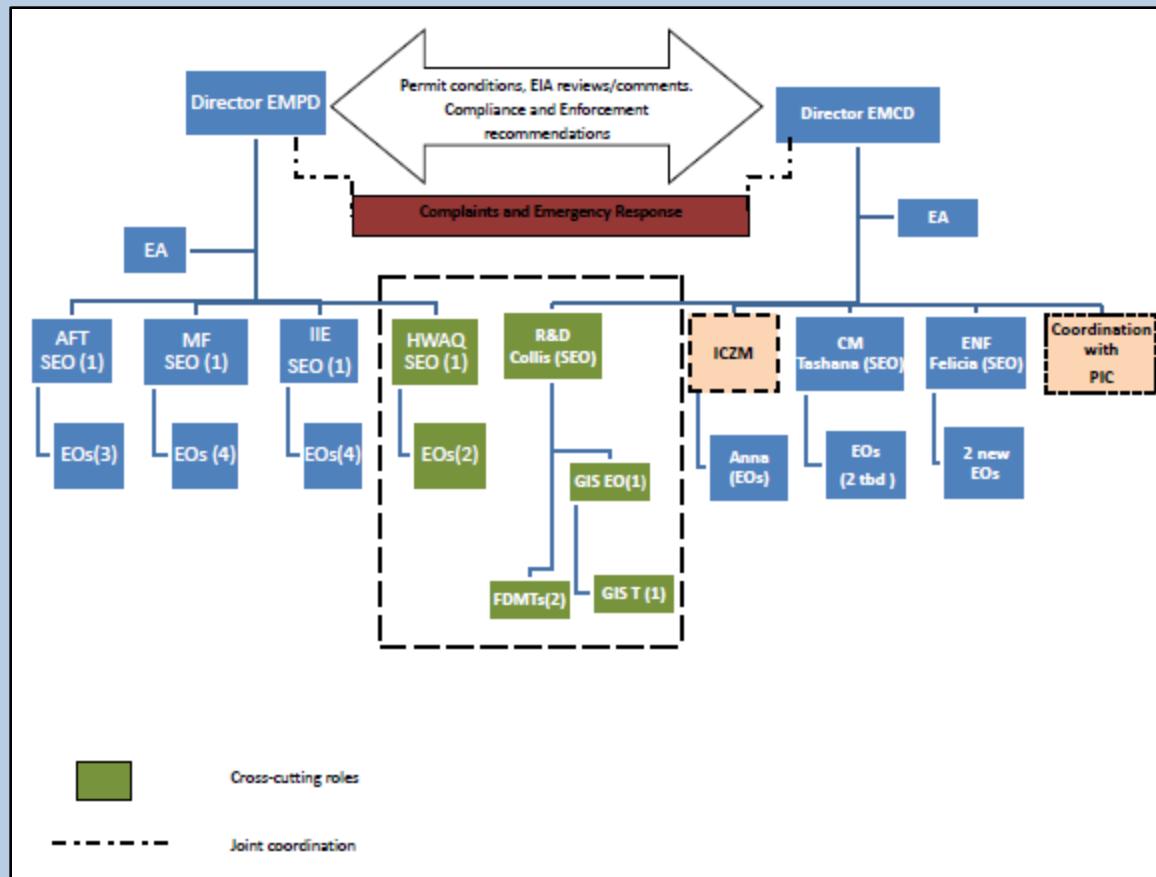
Fee Criteria Revision: The review of the Fee Criteria for New Projects was finalized and approved by the EPA Board in March 2013. The review of the Fee Criteria for Existing Project was started; several consultation meetings were conducted during 2013. A draft Format was prepared and to be tested.

#### **Proposal Development: Establishment of Water Quality Unit within the EPA**

A proposal for the Establishment of a Water Quality Unit within the Agency was developed and submitted to MNRE for endorsement.

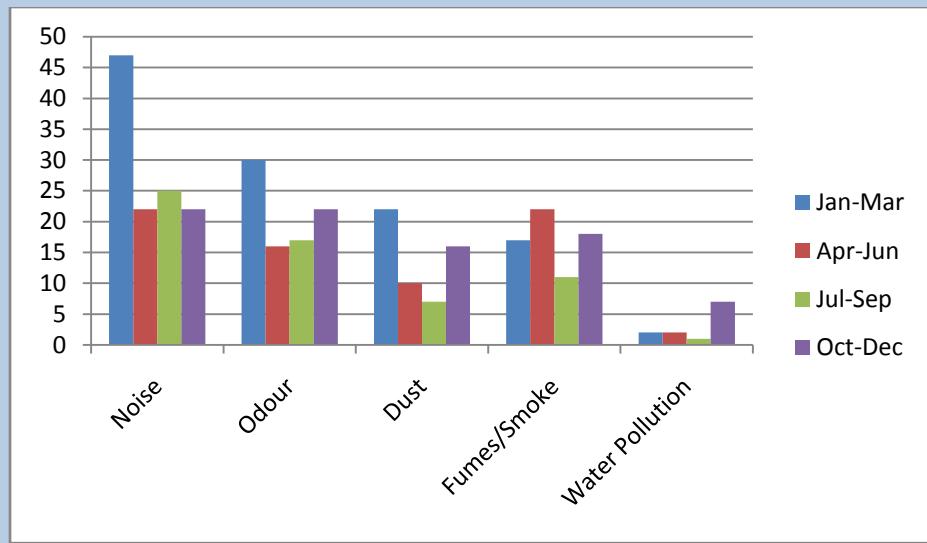
#### **4.5.2 Projects**

- *Development of Compliance and Enforcement Regulations:* The Environmental Protection Agency and the World Wildlife Fund signed an agreement on August 20, 2013, for the development of the Environmental Protection Enforcement and Compliance Regulations. A Consultant was hired and is currently developing the Environmental Enforcement and Compliance Regulations. The development of the Enforcement and Compliance Regulations is expected to be completed by December 2014.
- **ANNUAL REPORT ENVIRONMENTAL MANAGEMENT COMPLIANCE AND ENFORCEMENT DIVISION**
- **Establishment and Structure of the EMCED**
- The Environmental Management Compliance and Enforcement Division (EMCED) was established and became functional in August of 2013. The division comprises four units: Research and Development (R&D), Integrated Coastal Zone Management (ICZM), Compliance, and Enforcement. Currently, ICZM activities fall within the ambit of R&D. Since its establishment, the Division jointly coordinated the implementation of the Litter Prevention Regulations with the Pick-it-Up Campaign under MNRE. Figure 1 depicts the EMCED's organizational structure and cross-cutting areas and coordination with Environmental Management Permitting Division (EMPD).

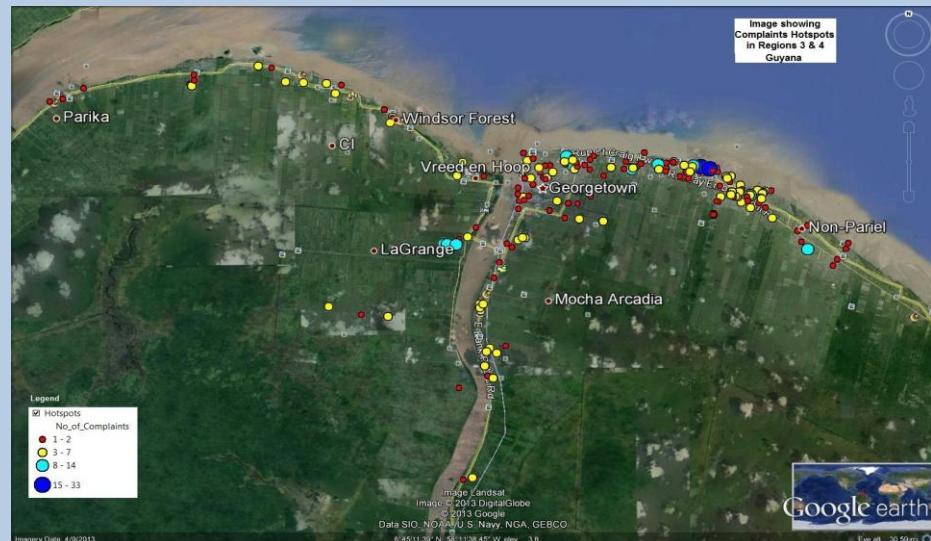


- **Figure 1: EMCED/EMPD Organogram**

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- **Complaints Management**
- 266 pollution reports (complaint cases) were received for 2013. These reports concerned dust, noise and fumes primarily from furniture manufacturing, operation of generators, spray painting activities, and livestock rearing activities (Figure 2). The first and last quarter recorded the most number of pollution reports for 2013. The majority of these complaints were along the East Coast of Demerara, Georgetown, East and West Banks of Demerara (figure 3). Figure 2 compares complaints management between 2012 and 2013, highlighting an 18 % decrease of complaints received in 2013 compared to the figure recorded for 2012. 124 of these complaint cases were investigated in 2013 which resulted in 44 being closed (see figure 4).

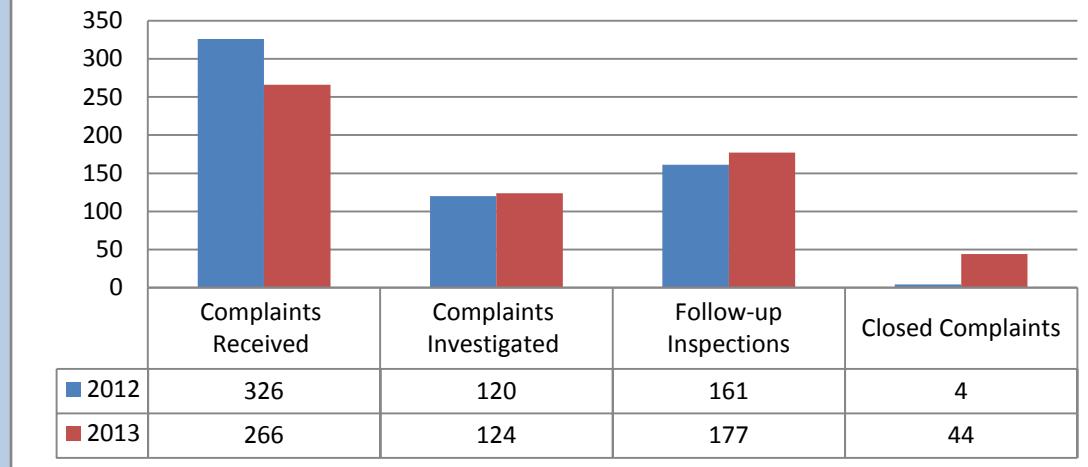


• **Figure 2: Overview of types of pollution reports 2013**



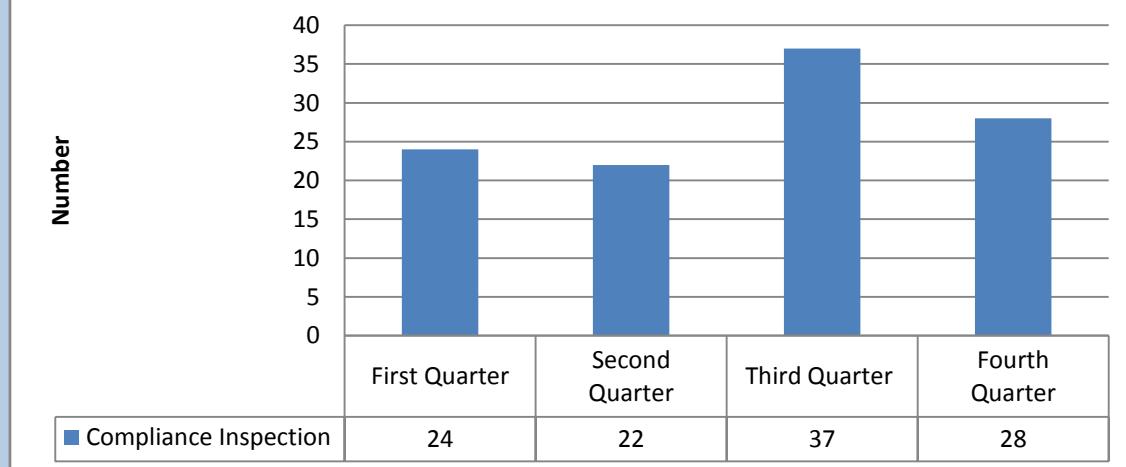
• **Figure 3: Location of pollution reports**

## Comparison of Pollution Reports (Complaints) 2012 & 2013

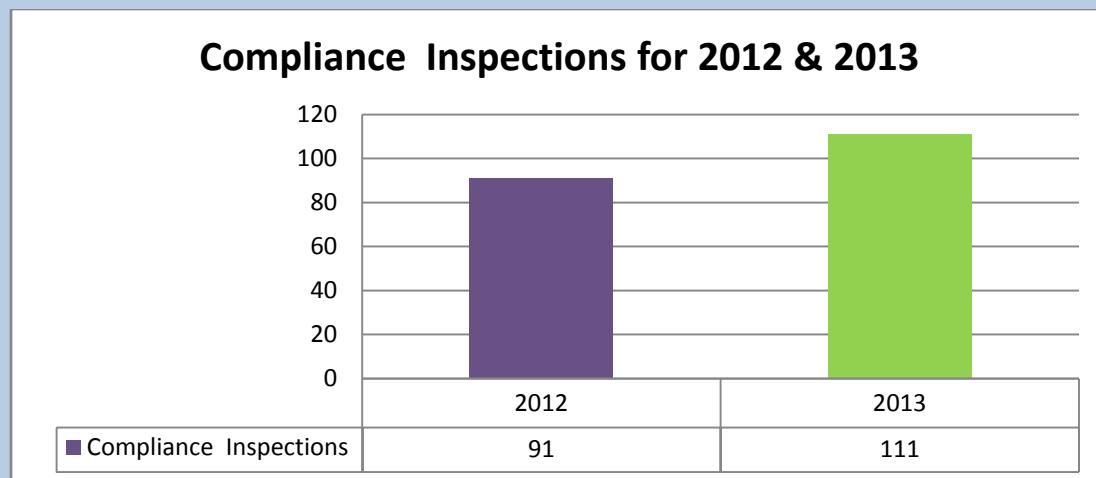


- Figure 4: Number of Complaints received, investigated and closed 2012-2013
- **Compliance**
- *Compliance inspections*
- 111 Compliance Inspections were conducted during 2013 (figure 5). 2013 saw an 18% increase in compliance inspections over that of 2012 (figure. 6). The Agency has begun to focus its compliance monitoring based upon risks hence, the latter part of the year the majority of the inspections focused on noise and waste management permit conditions for Sawmills and Lumberyards. Operations were generally found to be compliant with these conditions.

## Compliance Monitoring Inspections for 2013 by Quarter



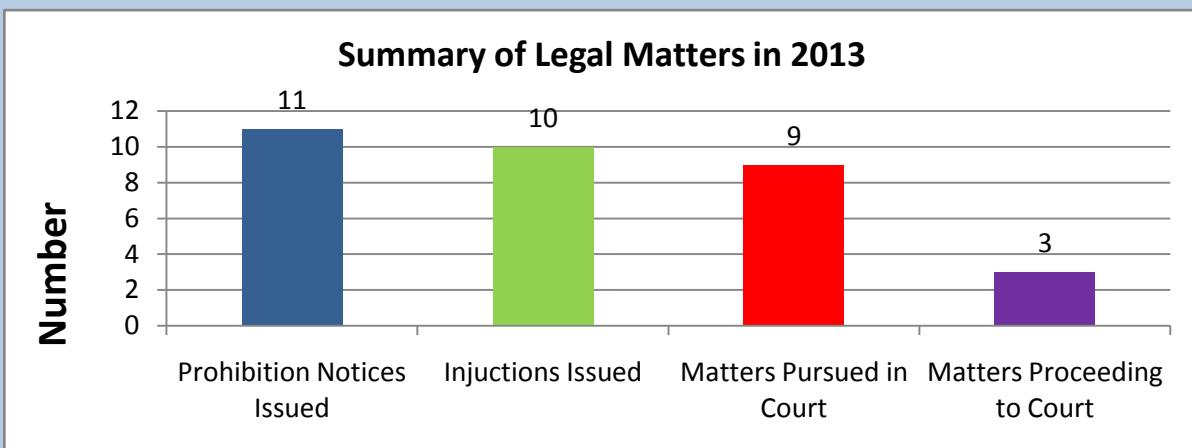
- Figure 5: Compliance Monitoring Inspection by Quarter



• **Figure 6: Number of Compliance Inspections 2012-2013**

- 
- *Compliance monitoring*
- The Agency has been actively engaged in monitoring several large scale developments to mitigate the effects of environmental pollution, namely, Bosai Minerals (Guyana) Inc., Haags Bosch Sanitary Landfill, and Ricemills in the Mahaica, and Dryshore Essequibo areas.
- Air quality around the Bosai Minerals (Guyana) Inc. operations at Linden was significantly improved in August, 2013, with the installation of the dust collection system for Kilns 13 and 14. The environmental nuisances associated with the Rice Mills were primarily noise, dust and smoke. Burning of rice husk and inadequate dust management were the primary issues. Air quality monitoring was conducted in the Mahaica area, during latter part of the year to determine ambient particulate matter concentration during the non-milling season. Particulate matter concentrations were found to be below the WHO and USEPA emission standards.
- *Compliance Assistance*
- The Agency has begun providing compliance assistance through technical guidance and advice to permitted projects and other industrial and development activities during the latter part of the year. These included providing guidance on waste separation, composting, and reuse by crop farmers and final disposal of waste to poultry producers and butchers of the Hydronie / Farm NDC. Community meetings were facilitated by the Agency to assist Rice Millers in the Mahaica area, and Dry Shore Essequibo, and a Pre-cast concrete manufacturing operations in Bushy Park, Parika to discuss with affected residents the issues affecting them and agree on measures to implement in reducing the impacts. The Agency has been providing advice and monitoring the implementation of the measures to ensure that they are implemented correctly.
- **Enforcement Matters**
- *Prohibition Notices and injunctions*
- Fifteen (15) Prohibition Notices were issued in 2013. The majority of the prohibition notices were issued for Spray painting and furniture operations along the East Coast of Demerara. Ten (10) Injunctions were served, with majority along the East Coast of Demerara. Three (3) of the injunctions issued were adhered to/resolved.

- 



August 20, 2013, for the development of the Environmental Protection Enforcement and Compliance Regulations. A Consultant was hired and is currently developing the Environmental Enforcement and Compliance Regulations. The development of the Enforcement and Compliance Regulations is expected to be completed by December 2014.

- 
- *Litter Prevention Regulations*
- 
- The Environmental Protection (Litter Prevention Regulations, 2013) was completed in November 2013. This along with the Environmental Protection (WildLife Management and Conservation Regulations, 2009) were Gazetted on the November 16, 2013.
- 
- 
- *Coastal Resource Map*
- 
- The GIS and the ICZM units are jointly developing a Coastal Resource Map for Guyana. To date the Unit has received topographic scans of Guyana's Coast from Guyana Land and Surveys Commission; Turtle nesting Sites from Guyana Marine Turtle Conservation Society; Mangrove areas from the Guyana Forestry Commission; and 5m Rapid EYE satellite imagery from the Guyana Forestry Commission. This covered the entire Guyana and will be used by the Agency in 2014 to show land used change over time.
- 
- 
- *Reviving the Integrated Coastal Zone Management Programme(ICZM)*
- 
- The Agency has begun the process of reviving its ICZM programme in 2013. Soliciting voluntary participation in the Advisory Committee representatives from regional and national institutions; drafting of TOR for the Advisory Committee; and review of the ICZM Action Plan were successfully completed. These efforts continue to be supported by Public Education and Awareness activities, which included, coastal cleanup initiatives in the Berbice area; including presentations to 17 (primary and secondary) schools on importance of the coast and marine debris impact on marine life.

### **4.3.3 CROSS-SECTORAL PROGRAMMES**

#### *Integrated Coastal Zone Management (ICZM)*

- The ICZM Unit remained dormant for a major part of the year.
- The New ICZM Officer in the Unit continued to actively provide support to the other Units in the EMD.
- Research was conducted towards the development of a strategy for the delineation of the Coastal Zone.

## **5. EDUCATION AWARENESS AND CAPACITY BUILDING**

### **Education, Awareness and Capacity Building**

The promotion of public awareness and participation in protection, conservation and sustainable use of the environment is a key function of the EPA. This function is carried out primarily through the Education and Awareness and Capacity Building Programmes. While these Programmes are both cross-cutting they are lead by the Agency's Education, information and Training Division.

Public awareness and education programmes are planned and implemented with the goal of increasing understanding of environmental issues, thereby increasing participation in environmental decision-making at the individual and societal levels. In implementing these Programmes, the Agency provides information in a range of formats to varied segments of the population. Internally, there is close collaboration with the Divisions responsible for implementing the Environmental Management Programme and the Natural Resources Management Programme. Key external alliances with a number of Sectoral Agencies, Government and Non-Governmental Organisations are invaluable for the delivery of these Programmes.

### **DEVELOPMENT OF EDUCATIONAL MATERIALS**

In keeping with the needs and changing focus on environmental issues new educational and informational materials continue to be developed. During the year, a number of relevant informational materials were developed on a range of topics to meet the needs of varied target groups. These materials were disseminated at various events and activities to groups and individuals in the country. Specifically the following materials were developed:

### **Booklets/Handouts/Flyers**

Twelve (12) booklets/handouts/flyers were prepared for distribution and training purposes during the year on subjects as follows:

- WED 2013 theme and the 3R's;
- International Coastal Cleanup 2013;
- Energy Workbook for Grade 4 students;
- Worksheet: Water and Biodiversity;
- Two Information sheets: Water and Biodiversity;
- Booklet – National Biosafety Policy;
- Facts Sheet for World Plant Day;
- Effective EE Tools and Methodologies;
- School Yard Ecology;
- EE: Infusion verses Diffusion;
- Approaches to Environmental Education; and
- EE Action Planning.

### **Brochures/Bookmarks**

Three (3) new bookmarks/brochures were created during the year:

- International year of water cooperation;
- World Plant Day; and
- WED 2013 theme.

### **Posters/Banners**

- Banner highlighting major education and awareness activities of the Agency.
- Banner for the consultations on the National Biosafety Policy.
- Banner for International Day for Biodiversity.

### **Green Leaf Newsletter**

The Division produced its usual quarterly electronic newsletter which highlighted environmental issues, Agency news, projections and achievements, among other topics in a timely manner.

### **Information/Activity Packages**

Several packages were prepared for schools and environmental clubs. Materials included in these packages were related to World Wetlands Day, World Water Day, International Day of Biodiversity and World Environment Day, as well as general information on environmental issues.

### **Teaching Aids**

A total of twelve (12) teaching aids were prepared to enhance awareness outreach efforts during the year. These were:

- Career Tree;
- Water Whiz Quiz game;
- Forest Facts tree;
- Forest Trivia Game;
- Windows to Action;
- Environmental Trivia game;
- Water conservation tips leaflet and case studies;
- Collage on 'Biodiversity's Dependence' on Water;
- Scavenger hunt;
- Environmental stewardship storyline;
- Biotechnology word search; and
- Memorabilia's in the form of bags, water bottles and mugs.

## **OUTREACH**

Outreach is crucial to fostering awareness on environmental issues and influence attitudinal change for a clean and healthy environment. The year 2013 was not void of challenges for the Agency as it sought to expand the magnitude and reach of its public awareness programmes. The Agency continued to built on the successes, capitalise on the opportunities and learn from the mistakes of 2012 as follows:

### **International Year of Water Cooperation**

The United Nations General Assembly has designated 2013 as the *International Year of Water Cooperation*. This brings to the fore the fact that cooperation is essential to strike a balance between the different needs and priorities and to share this precious resource equitably. Promoting water

cooperation implies an interdisciplinary approach bringing in cultural, educational and scientific factors, as well as religious, ethical, social, political, legal, institutional and economic dimensions.

### **World Wetlands Day**

Five sessions were conducted with two (2) visiting primary schools at the Nature School. An interactive presentation entitled 'Wetlands and Water Management,' – this year's theme served as the awareness tool on wetlands and the role they play in maintaining our water supply and the quality of water we receive.

### **World Water Day**

World Water Day is observed annually on March 22 as a means of focusing attention on the importance of freshwater and advocating for the sustainable management of freshwater resources. In 2013 it was celebrated under the theme: "*Water Cooperation*", in keeping with the designation of 2013 by the UN as the *International Year of Water Cooperation*.

- ***Seminars***

Two seminars were conducted on '*Water Cooperation*' at the Essequibo Islands and Leguan Secondary schools. A total of 114 students participated in these activities.

- ***Presentations***

Presentations were also made to the Leo Club of East Demerara, the Olivet Seventh-day Adventist church, Young and Thoughtful Youth Club of Linden, Stewartville Seventh-day Adventist church and Grace Temple Assemblies of God Church of New Amsterdam, Berbice on the World Water Day theme. In addition, the Agency collaborated with Guyana Water Inc. (GWI) in the execution of a debate and news spread for WWD.

### **Earth Day**

Earth Day 2013 was celebrated under the theme "The Face of Climate Change". The EITD coordinated and executed several activities some of which were in collaboration with the MNRE, which included; an Earth Day news feature for the newspapers, an Earth Day newspaper quiz and a radio tips.

- ***Presentations***

Outreach sessions were conducted with eighteen (18) primary schools in Georgetown and its environs on the theme of Earth Day 2013: 'The Face of Climate Change'. These sessions were also used to launch the 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***

An Art Competition targeting Grade 6 students from 18 Primary Schools in and around Georgetown was held. However, entries were received from 7 primary schools. The art pieces were judged based on creativity, originality and relevance to the theme.

- 1<sup>st</sup> Place – Omari Tyrell – Green Acres Primary
- 2<sup>nd</sup> Place – Kelli Grandsoult- Eccles Primary
- 3<sup>rd</sup> Place – Serena Hope – St. Pius Primary

- ***Youth Forum***

The annual IDB Youth Forum was held in Linden, Region 10 on May 29, 2013. The six (6) secondary schools in the mining town participated in this activity. The schools were required to prepare and deliver presentations on the following topics:

- Biodiversity's dependence on water
- Biodiversity and the water cycle
- Water pollution and its impacts on biodiversity
- Water wise practices
- Case studies: Green Initiatives for water protection and conservation in Guyana
- Biodiversity in Guyana

- ***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. This was a part of the prize for the top entries in the IDB Art Competition.

- ***Documentary Night***

A documentary entitled 'Day of the Caiman', which was produced by Blue Paw Artists and made available by NRMD was presented to an audience of fifty two (52) persons from government agencies, the private sector, sector agencies, NGOs, educational institutions and the general public. The main speaker was Mr. Ronald Webster, Chairman of the Private Sector Commission. At the ceremony, the top three winners of the IDB Art Competition were awarded their prizes of book vouchers worth \$25,000, \$20,000 and \$15,000 respectively, which was redeemable at Austin's Book Store. This activity was held at the National Library (Conference Room) on the evening of May 22, 2013.

### **WED 2013**

This year, WED was celebrated under the theme: '***Think. Eat. Save. Reduce your footprint.***' This theme was intended to raise awareness of the impact that food choices have on the environment, and provide relevant information for persons to make informed decisions with regards to their food choice and consumption habits. The various activities coordinated to get this message across included:

- ***Green Walk***

The Annual Green Walk took place on June 02, 2013 under this year's WED theme: '***Think. Eat. Save: Reduce your footprint***', commencing from the Umana Yana and culminating at the National Park. Over one thousand (1,000) persons participated in the Walk this year, making it the largest since its inception and included Government Ministries, Private Sector, Sector Agencies, NGOs, Educational Institutions and members of the public. Prizes were awarded for Best Banner, Largest Contingent, and Most Uniform Contingent and Best Chant.

- ***WED Ceremony and Exhibition***

A World Environment Day Ceremony was coordinated and held on June 05 at the Umana Yana. The event saw an excess of 260 persons in attendance, which included members of the government, the diplomatic corps, the private sector, various groups and members of the public.

Speaking at the ceremony were H.E. President Donald Ramotar, Minister Robert Persaud, the Minister of Natural Resources HE. D. Brent Hardt, the US Ambassador and Ms. Khadeja Musa, the UNDP Resident Representative. Complementing the ceremony were musical items and dramatic pieces by students from Winfer Gardens Primary, Marian Academy and West Demerara Secondary School. Also adding interest to the ceremony was an exhibition which saw exhibits portraying practical applications of the WED theme.

- **Rides for the Environment**

Rides for the Environment were held in Linden and Essequibo on June 16 and 29 respectively, attracting over 60 participants. At both Rides, prizes were awarded for three (3) categories, largest contingent, oldest rider and youngest rider. Participants were drawn from schools, youth groups, training institutions, and NGOs.

- **WED Forum**

A forum which focused on climate change and the World Environment Day theme was held at the Corentyne Comprehensive Secondary school in Region 6. Two hundred and eighteen students (218) Grades 7 and 8 students and seven teachers of Corentyne Comprehensive High School benefited from this activity. The forum was also complemented by creative pieces which reflected the WED theme, these included; poetry and musical items.

- **Environmental Camp**

During the period July 15-18, 2013 at Camp Somerville, Soesdyke/Linden Highway, the EPA hosted its annual Environmental Camp. A total of 40 participants drawn from Regions 3, 4 and 5 were at the Camp. The activities of the Camp were centred on the WED theme. The camp targeted students aged 9-12. The topics taught incorporated various learning tools and methods, such as, stories; food waste audit; games; videos; group activities; nature walk; and other outdoor activities. The activities aimed at influencing positive environmental attitudes and actions; building team spirit and skills for informed decision-making.

- ***Seminars***

Prison wardens and a few inmates benefitted from a presentation and discussion on the World Environment Day theme: ***“Think. Eat. Save – Reduce your footprint”*** This was one of several capacity building sessions planned by the Guyana Prison Service to raise awareness on environmental issues.

A presentation on the World Environment Day theme: Think. Eat. Save was delivered to twenty-eight (28) members of the Red Cross Society Youth Group.

### **International Ozone Day**

Three (3) half-day workshops were conducted during September 16-18, 2013 in observance of the International Day for the Preservation of the Ozone Layer. These workshops targeted twenty (20) primary and seven (7) secondary schools in Region 5 and were held at Mahaicony Primary, Bath Primary and Belladrum Secondary schools respectively. A total of one hundred and ninety- four (194) students and twenty- seven (27) teachers benefited from these interactive and informative sessions.

### **Annual Taxidermy Camp**

Presentations were delivered to forty-four (44) participants on ‘Pollution and Waste Management’. They were also engaged with games and other interactive activities centred on the topic.

### **Zoo Camp**

Three sessions were conducted at this year’s Zoo Camp which benefitted sixty-six (66) children aged 6 - 13 attending the Annual Zoo Camp at the Nature School. These sessions focused on Waste Management, teaching participants about the effects of littering on the environment, the importance of proper waste disposal, the 3 R’s and composting.

### **Teacher Training Workshop**

Twenty-six (26) second year Trainee Teachers and one (1) Lecturers of the CPCE participated in the fourth EE Workshop during October 25 – 27, 2013, at Camp Wesleyana, Linden/Soesdyke Highway. This was the second batch of Associated Degree Teachers to be trained in Environmental Education. Teachers were exposed to various tools and methodologies which can be employed to effectively infuse environmental education into various subject areas, while still achieving the objects of the curricula. The

sessions were very interactive and employed methodologies to promote critical thinking, raise the level of awareness of participants as well as provide hands on experiences through practical exercises.

### **School Visits**

One-hundred (100) students and ten (10) teachers from Corentyne Comprehensive Secondary School visited the Agency as part of a tour. They were hosted by the EITD in the Agency's Boardroom and were engaged in interactive activities aimed at informing them about the Agency's work and environmental issues.

### **Climate Change**

Climate Change outreach sessions with eighteen (18) primary schools in Georgetown and its environs. A total of nine hundred and thirty-one (931) students have participated thus far.

### **Solid Waste Management Workshops**

Four (4) half-day empowerment workshops on Waste Management and the Pick it Up Guyana initiative were conducted. These targeted seventy-one (71) students and ten (10) teachers from primary and secondary schools in New Amsterdam. The workshops were held during July 03-04, 2013 at the New Amsterdam Town Hall.

### **Nature School - Guyana Zoological Park**

Collaboration with the Guyana Zoo for Outreach at the Nature School was conducted in 2013. These sessions highlighted a different topic for each school term: Wetlands and Birds, Wetlands and Water Management and Waste Management and You, respectively. Sessions held on Wednesdays, involved a total of 259 students from three (3) Primary Schools.

## **PRESENTATIONS**

A total of fifty-seven (57) presentations (**Appendix 1**) were prepared and delivered to one hundred and thirty four (134) groups. This focus of presentations was largely determined by the theme and observance of international environmental days; for most months the focus changed and for some months there was a double focus.

A suite of presentations were prepared on each theme and a total of twelve such suites were prepared for the year. These covered a wide range of environmental topics including: the EPA's work; wetlands; water; climate change; biodiversity; plants; food production and the environment; Environmental Clubs management; ozone layer depletion; marine litter, environmental education and its infusion into the school curriculum.

April to October was a peak period in terms of the presentations delivered. The highest numbers of groups were reached in April and October; in both of these months there are two international environmental observances.

Schools formed the majority of the groups to which presentations were made; only a few youth groups and organizations were reached.

## MEDIA PROGRAMMES

### Television Appearances

MONTHS OF 2013	APPEARANCES
<b>June</b>	Several television appearances were made to create awareness on the WED and promote the activities, these included; <ul style="list-style-type: none"><li>• Guyana Today Show – NCN (two appearances)</li><li>• Day Break – MTV Channel 65</li></ul>
<b>July</b>	Media coverage was given for the initiation of the Waste Management Empowerment workshop in New Amsterdam; this was aired on: <ul style="list-style-type: none"><li>• Little Rock Television Station; and</li><li>• NCN Ch 15 – New Amsterdam.</li></ul>
<b>September</b>	The coordination for ICC 2013 by Pick-it-up Guyana Initiative and the EPA was highlighted on the Guyana Today Show.

### Panel Discussions

The Agency coordinated and participated in Panel Discussions in observance of:

- World Water Day;
- International Day for Biological Diversity; and
- World Environment Day.

### Press Releases

The following Press Releases were prepared and sent for publishing in newspapers:

- Environmental Volunteer Training;
- World Environment Day Activities; and
- A WED Message.
- Response to newspaper articles on the Konawaruk River published in the Stabroek News.
- Press Briefing to highlight the MNRE's collaboration with the "Fashion Weekend" in observance of "World Water Week."

### Interviews

- The Agency participated in the following TV interviews:

- World Environment Day:
  - El Dorado Shines; and
  - GTV 28.
- World Water Week:
  - Close-up.

#### ***MNRE Public Awareness Campaign on EPA***

- A draft Communication Strategy was created and submitted to the MNRE;
- Simplified information on the Litter Regulations to the MNRE were prepared and submitted to MNRE; these were utilised for PSAs shown on an Eldorado Shines TV Programme; and
- Prepared eight (8) draft PSAs on the Litter Regulations.

#### **Newspaper Articles**

To engage the public through the print media, articles were written and sent for publishing every week in the Guyana Chronicle and Guyana Times newspapers. However, due to circumstances beyond the Agency's control, some of the articles were not published.

In the "Our Environment" Column in the Sunday Chronicle a total of forty-two (42) articles were published for the year.

For the Column "Our Earth, Our Environment" featured in the Thursday Edition of the Guyana Times, a total of thirty-three (33) articles were prepared for publishing.

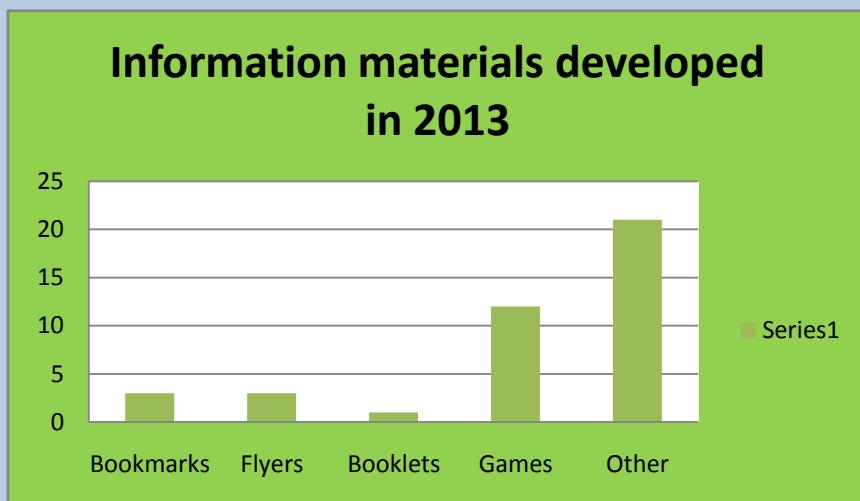
Two news spreads were also published for Earth Day and International Day for Biological Diversity.

#### **EXHIBITIONS**

The Division participated in a number of Exhibitions (**Appendix II**) during the year during which information material on a range of environmental issues were distributed. The opportunity was also maximally utilised to engage the public in interactive activities through which they learnt of environmental issues.

## CONCEPTUALISATION AND REVIEW OF MATERIALS

The dynamic nature of education and training necessitates continuous adaptation, flexibility in creation and presentation of education materials. See bar graph below for new materials produced for 2013.



## DOCUMENTATION CENTRE

The Document Centre continued to be a valuable source of information for researchers and members of the public. Books, EPA publications and magazines were reorganized and categorized in the in EPA's Document Centre.

## PICK IT UP GUYANA

The Ministry of Natural Resources and the Environment has developed an initiative titled "Pick It Up Guyana" (PIUG) as part of its National Environmental Strategy. Launched in June 2012 by the Minister of Natural Resources and the Environment the Honourable Minister Robert Persaud, PIUG is a massive "clean up" initiative with support from the private sector, public sector and concerned Guyanese.

The initiative is being implemented in the capital city of Georgetown, along the coastal areas from regions 2 to 6, and is extended to mining communities and indigenous communities.

PIUG places emphasis on the adoption of environmentally sound practices, enforcement and deliberate actions to rid Guyana's environment of garbage. A holistic approach is employed to ensure the success of this initiative. The main elements of the operation include the following:

1. Enforcing litter regulations;
2. Enforcing standards within governmental and private institutions;
3. Clean-up drives; and
4. Promotion of sustainable waste management and recycling practices.

Currently PIUG executes environmental awareness workshops and school programs in which volunteers and school children are educated about the environment, waste management and how to become environmental advocates.

## ACHIEVEMENTS

### ***Raising awareness***

Pick it up Guyana 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.

### ***Collaboration and coordination***

Four (4) volunteer workshops were coordinated, and five non-governmental organisations were assisted in the planning and coordination of environmental enhancement activities. 2013 saw Pick it up Guyana undertaking five (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.

## DEVELOPMENT OF EDUCATIONAL MATERIALS

- 2 posters on litter and facts on Pick it up Guyana were refined.
- 2 brochures for citizens and businesses were refined.
- Banner highlighting the work of Pick it up Guyana for use at GUYEXPO 2013.
- Development of a board game (snakes and ladders) to highlight harmful and beneficial waste management practices.
- Creation of memorabilia with environmental messages for use at exhibitions (t-shirts, key rings, reusable water bottles).
- Compilation of a country report on activities for International Coastal Cleanup 2013.

## PRESENTATIONS

Date	Activity	Title of presentation	Target audience
March 12, 13	World Water Day	Composting and the 3Rs of waste management	Secondary school students (Grade 7)
March	Volunteer workshop	<ul style="list-style-type: none"><li>• All about the environment</li><li>• Composting</li><li>• The 3 Rs of waste management</li></ul>	Members of Faith Revival New Testament Church of God
April	Volunteer workshop	<ul style="list-style-type: none"><li>• Pick it up Guyana</li><li>• Water Conservation</li></ul>	Grace Environmental Rangers Club
July	MNRE outreach	The work of Pick it up Guyana	General public
July	EPA Annual Environmental Camp	Waste management (3 Rs, composting)	Grade 6 students
August	Taxidermy Camp	Pollution and the environment	Children ages 6-14
September	Outreach- ICC	Marine pollution	Grade 6
November	Nature School	Waste management and you	Primary School students (Grade 6)

December (04)	International Volunteer Day	Youth and Sustainable Development	Secondary school students aged 15-16
December (06)	Solid Waste Management Programme	Pick it up Public Education and Awareness Seminar	Guyana: Achievements and Challenges

## EXHIBITIONS

Date	Activity	Theme
August	Mining Week	“Green, clean, and responsible; securing the future of mining”
September	Launch of Volunteer Support Platform website and Volunteer Fair	
October (3-6)	GUYEXPO	
November (02)	Kwakwani Day	

## **COORDINATION**

- Assisted in the coordination of clean up executed by the Masjid An-Najm and Social Center (January).
- Coordinated three (3) volunteer workshops for Lions and Leo clubs (2), individuals from various communities in Georgetown, West and East Coast Demerara, and West and East Bank Demerara (09), and Grace Environmental Rangers (16) (February).
- Assisted in the coordination of the Caribbean Youth Environment Network's tree planting exercise in observance of World Forestry Day in the Botanical Gardens (March 21).
- Assisted in the coordination of enhancement activity with the Guyana Muslim Environment Initiative.
- Coordinated volunteer workshop for thirty (30) Keep Guyana Clean Sticker Project volunteers (April).
- Assisted in the coordination of clean up and enhancement activity by volunteer at Den Amstel, West Coast Demerara (April).
- Coordinated an enhancement of Brickdam in observance of Earth Day (April 22).
- Presented 30 plants to the Vlissengen Square East Ruimveldt Environmental Group (July 23).

## **COLLABORATIONS**

- Executed Keep Guyana clean Sticker project in collaboration with the Japan International Cooperation Agency and United Nations Volunteers at bus parks. The objective of the exercise was to raise awareness and empower bus drivers and conductors to contribute to anti littering efforts.
- Coordinated clean ups and public awareness sessions in interior locations in collaboration with the Guyana Geology and Mines Commission at Madhia, Port Kaituma, and Itaballi
- Viewing of Trashed, an environmental documentary about the global solid waste problem; executed in collaboration with the United States Embassy's Guyana Shines Programme in Regions 4, 6, and 10 on October 23, 25, and November 29 respectively, attended by approximately five hundred secondary school students, teachers, volunteers, and members of the public.
- Clean up and tree planting in collaboration with the Guyana Tourism Authority in observance of Tourism Awareness Month on October 16. Approximately 40 volunteers were present.

- Panel discussion on Youth and Sustainable Development in observance of International Volunteer Day on December 04, in collaboration with CYEN.

## **MEDIA PROGRAMMES**

- Contributed articles to EPA's Greenleaf newsletter and submitted articles for publication in the Guyana Chronicle and Guyana Times.
- Prepared press releases.
- Conducted interviews for television programme.
- Prepared scripts for and edited television programme.
- Joint television programme and press conference with Guyana Fashion Weekend representatives and the Environmental Protection Agency on issues surrounding water, and using fashion as a platform to encourage its conservation. Activities were executed in observance of World Water Week (September 01-06).

## **CONCEPTUALISATION AND REVIEW OF MATERIALS**

The 'Pick it Up Guyana' campaign being a new initiative saw the development of a number of public awareness materials which included brochures, posters, games, bill boards etc; aimed at promoting environmental awareness and fostering sound practices.

## **CONCLUSION**

Pick it up Guyana has had a challenging yet successful 2013. The departure of two staff members during the year contributed to a pause in the momentum gained since the launch of the initiative. Since then, a permanent PIUG Coordinator, has taken the mantle, and has expanded the reach of the programme through a number of collaborative efforts, and with assistance from Environmental Officers from the Education, Information, and Training Division at the Environmental Protection Agency. In the coming year, PIUG will continue to seek opportunities to execute its mandate more effectively, as well as create new avenues to ensure a clean and healthy environment for all Guyanese.

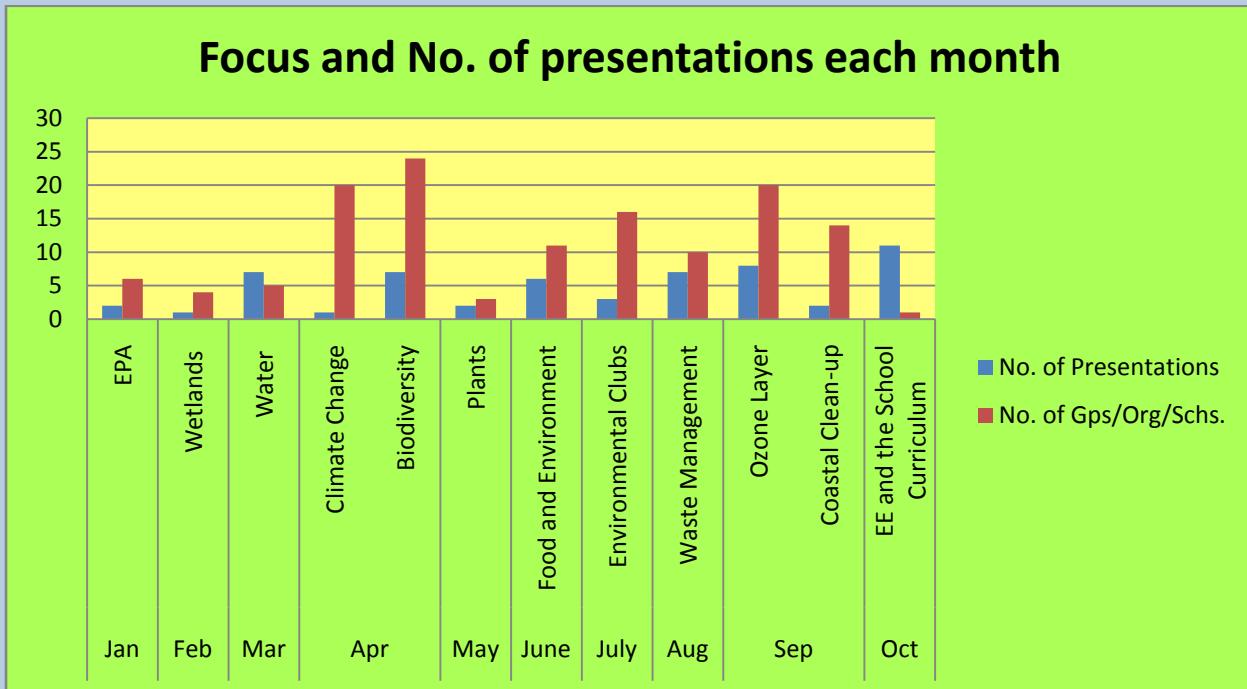
## **CONCLUSION**

The Agency successfully implemented most of its work programme in 2013. Additionally, ensuring a full complement of staff was a significant challenge in the initial part of the year, however, many of these were filled in the latter part of the year.

The complaints, authorisations and response aspects of the Agency work have continued to increase without a proportional increase in human and other resources. The splitting of the Environmental Management Division to give specific focus on Compliance and Enforcement and Environmental Authorisations has significantly enhanced the work of the Agency. The Agency has also benefited from its personal Legal Officer, a vacancy which existed for a number of years; this has expedited the process of many courts matters.

The Agency will continue to capitalise on opportunities to build capacity and enhance the efficiency and effectiveness of its work. These will continue to be pursued by the Agency to ensure that it has the requisite capability to meet its needs to deliver on its mandate of environmental management and natural resources conservation and management.

## APPENDIX 1: PRESENTATIONS PREPARED AND DELIVERED IN 2013.



## APPENDIX II: EXHIBITIONS PARTICIPATED IN 2013.

### Exhibitions in which the Agency participated in 2013

1. UG Career Fair
2. Mining Exhibition
3. GFC International Day of Forest Exhibition
4. Linden Expo
5. World Plant Day Exhibition
6. International Day for Biodiversity exhibition
7. World Environment Day Exhibition
8. Fire Service exhibition

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9. 28<sup>th</sup> Session of Latin American and the Caribbean Exhibition

10. GuyExpo

11. Ministry of Education Career Fair

12. Kwakwani Day Exhibition

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## 6. CONCLUSION

The Agency successfully implemented its work programme in 2012. Additionally, ensuring a full complement of staff was a significant challenge in the face of many vacancies emerging over the year but despite this, the Agency was able to forge ahead with its planned activities.

The complaints, authorisations and response aspects of the Agency work have continued to increase without a proportional increase in human and other resources. The challenge of advancing enforcement matters legally still remains although significant numbers of case summaries have been provided to the Agency's legal retainer.

Whenever opportunities to build capacity were available, these were capitalized on by the Agency. These will continue to be pursued by the Agency to ensure that it has the requisite capability to meet its needs to deliver on its mandate of environmental management and natural resources conservation and management.

## APPENDIX I. EPA STAFF LIST AT THE END OF DECEMBER, 2011.

### APPENDIX I - EPA STAFF LIST AT THE END OF DECEMBER, 2012

	Name of Officer	Designation
	<b>Office of the Executive Director</b>	
1	Indarjit Ramdass	Executive Director (ED)
2	Kerean Geer	Executive Assistant to ED
3	Ramsarran Etwaroo	Driver to ED
	<b>ADMINISTRATIVE DIVISION</b>	
4	Dhanraj Persaud	Administrative Director (AD)
5	Faneefa Alli	Executive Assistant to AD
	<b><i>Policy, Planning &amp; Research Unit</i></b>	
	Vacant	Environmental Economist
	<b><i>GIS Unit</i></b>	
6	Nadia Nasir	GIS Technician
7	Darshini Seeram	Environmental Officer (GIS)
	<b><i>IT Unit</i></b>	
8	Ryan Tiwari	IT Specialist
9	Antonio Valenzeoela	Network Administrator
10	Stefan Rix	Technical Support Officer
	<b><i>Human Resources Unit</i></b>	
11	Ronley Kendall	Human Resources Officer
	Jewell Harry	Human Resources Assistant
	<b><i>Finance Unit</i></b>	
12	Lancelot France-Cummings	Finance Officer
13	Fiona Marshall	Senior Accounts Clerk
14	Debbie Wilkinson	Senior Accounts Clerk
15	Holley Ragnauth	Accounts Clerk
16	Dadre Bayley	Accounts Clerk
	<b><i>Administrative Unit</i></b>	

17	Shivon Caesar	Administrative Officer
18	Divinjali Bailey	Administrative Assistant
19		Driver
20		Driver
21	Kamal Ramdayal	Driver
22	Kumardev Samaroo	Officer Assistant
23	Avinash Persaud	Officer Assistant
24	Winifred Perreira	Cleaner
25		Cleaner
26		Handyman
	<b><i>Environmental Management Division</i></b>	
27	Geeta Devi Singh	Director
28	Radhika Mootoo	Executive Assistant
29	Sonia Gumbs-Luke	Senior Environmental Officer
	Colis Primo	SEO, R&D
30	Teijvarti Persaud	Senior Environmental Officer
31	Tashana Redmond	Senior Environmental Officer
32	Karen Alleyne	Senior Environmental Officer
33	Felicia Adams	Environmental Officer II
34	Anzaleen Hoosein	Environmental Officer II
35	Nalissa Persaud	Environmental Officer II
36		Environmental Officer II
37	Savitri Itwaru	Environmental Officer II
38	Dulcie Abrahams	Environmental Officer
39	Monique Williams	Environmental Officer
40	Gregoria Vaughn	Environmental Officer
41	Melinda Franklin	Environmental Officer
42	Andrew Gupta	Environmental Officer
43	Latoya Farinha	Environmental Officer
44	Marcia Hall	Environmental Officer
45	Sharmin Joseph	Environmental Officer

46		Environmental Officer
47	Saudia Sadloo	Environmental Officer
48	Junior Paul Chanderpaul	Field Technician
49		Field Technician
		Environmental Officer, ICZM
	<b><i>Education, Information and Training Division</i></b>	
50	Sharifah Razack	Director
51	Fareena Alli	Executive Assistant
52	Candacie Thompson	Senior Environmental Officer
53	Deuel Hughes	Environmental Officer II
54	Gracelyn Trim	Environmental Officer I
55	Aretha Forde – seconded to the MNRE-PIUG	Environmental Officer II
56	Position seconded to the MNRE-PIUG	Environmental Officer
	<b><i>Natural Resources Management Division</i></b>	
	Vacant	SEO, Biodiversity Unit
	Vacant	SEO, Protected Areas Unit
	Sean Mendonca	SEO, Wildlife Unit
57	Vacant	Environmental Officer II
58	Stacy Lord	Environmental Officer II
59	Diana Fernandes	Environmental Officer II
60	Rae Smith	Environmental Officer II
61	Rayner McAndrew	Environmental Officer
62	Alisha Rambarran	Executive Assistant
63	Vacant	Environmental Officer
64	Jenniffer Bentick	NBF Coordinator

**Total Staff**

**Males** 21

**Females** 43

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## APPENDIX II. MEETINGS AND WORKSHOPS/SEMINARS ATTENDED BY THE STAFF.

Nalissa Persaud – EO II	The FPA/ACP: FLEGT Support Programme Workshop
Geeta Devi Singh – Dir EMD Enrique Monize – GIS Officer	Capacity Building Sessions on the MRVS: Forest Area Change Assessment  Capacity Building Sessions on the MRVS: Forest Carbon Stock Assessment
Geeta Devi Singh – Dir, EMD Marle Reyes- SEO, R&D Karen Alleyne- SEO, HWMAQ Sonia Gumbs-Luke - SEO, IIE Felicia Adams – EO II Colis Primo – EO II Mahendra Saywack - EO I Savitri Itwaru - EO I Malicia Hall - EO I Latoya Farinha - EO I Kimberly Craig - EO I	Hazardous <b>Waste</b> Management in Guyana
Geeta Devi Singh – Dir, EMD Earlla Nelson – EO I	World Water Day Workshop (Ministry of Agriculture).
Mahendra Saywack – EO1	Occupational Health and Safety Training hosted by REPSOL – “Hand and Finger Injuries”
Ms. Geeta Devi Singh – Dir, EMD	Disaster Response and Risk Reduction Coordination Platform Meeting (3rd)
Geeta Devi Singh – Director, EMD Mahendra Saywack – EO1	Workshop: “Expanding Bio-energy Opportunities in Guyana Training, hosted by Ministry of Agriculture”
Karen Alleyne-SEO- HWAQ	Attended the National Strategic Approach International Chemical Management (SAICM) Implementation Plan Workshop.
Ms. Malicia Hall- EO1 Ms. Shabana Yusuf- EO1	Seminar: Induction/Orientation-Public Service Ministry, Training Division.
Geeta Devi Singh – Dir EMD Tashana Redmond – SEO AFT/ME Sonia Gumbs-Luke – SEO II Teijvarti Persaud – SEO M&F Marle Reyes – SEO R&D	Workshop: Offshore Oil and Gas Management: The U.S. Model.
Earlla Nelson - EO I	Workshop: “Expanding Bio-energy Opportunities in Guyana

Mahendra Saywack - EO I	Training, hosted by Ministry of Agriculture”
Osbert Ellis – EO1	Workshop: Payment for Ecosystem Services (PES), hosted by the Guyana Forestry Commission.
Ms. Geeta Devi Singh – Director EMD	Risk Programme Management (RPM) Course (USAID & CDC)
Desiree Hopkinson – EO 1	Workshop : Review of the Economics of Climate Change in the Caribbean –(Office of Climate Change)
Ms. Tashana Redmond – SEO M&E/AFT Ms. Marle Reyes Pantoja – SEO R&D	Understanding the requirements of the ISO 14001:2004
Karen Alleyne	Regional Training Workshop on Enhancement of Implementation and Enforcement Capacity, Strengthening the Legislative, Regulatory and Enforcement Capacity of Small Developing States in the Caribbean with regard to the Basel, Stockholm and Rotterdam Conventions.
Ms. Desiree Hopkinson – EOI Ms. Latoya Farinha – EOI Ms. Asma Sharief – EOII Mr. Colis Primo – EOII Ms. Kimberly Craig – EOI Ms. Shabana Yusuf – EOI	Training Workshop on Conservancy Adaptation Project with presentation series on GPS Data Acquisition and Processing, Bathymetry Surveys and Applications in the Conservancy Channels and Rivers and Real Time Kinematic Procedures and Applications in the EDWC.
Ms. Sonia Gumbs-Luke – SEO IIE	Workshop on Climate Risk Adaptation in the Caribbean.
Ms. Sonia Gumbs- Luke – SEO IIE Ms. Felicia Adams – EOII	Induction Training Course on Social Engagement Plan for Multi –Stakeholder Committee
Karen Alleyne-SEO HWMAQ	Developing a National Implementation Plan for Strategic Chemicals Management in Guyana, Stockholm Convention Inception Workshop.
Shabana Yusuf- EO I Mahendra Saywack- EO I	Expand knowledge of the potential use of biomass energy.
Kimberly Craig – EO 1	Continued Enhancement of Building Capacity for Effective Participation in the Bio-safety Clearing House Portal.
Anzaleen Hoosein – EO11 Mahendra Saywack – EO1 Latoya Farinha – EO1 Earlla Nelson – EO1	General Training-Landfill Construction and operations.
Dr. Indarjit Ramdass – ED Ms. Tashana Redmond – SEO M&E Ms. Marle Reyes – SEO R&D	Ninth General Capital Increase - Water Resources and Adaptation to Climate Change - Developing an Agenda to respond to Climate Change Impacts on Water Resources
Dr. Indarjit Ramdass – ED Ms. Geeta Devi Singh – Dir, EMD Ms. Tashana Redmond – SEO M&E Ms. Teijvarti Persaud – SEO M&F	IDB’s Environmental and Social Safeguards - The purpose of the workshop was to provide an introduction to international safeguards as part of the process to develop international best practice safeguard standards for REDD+ programmes in

Ms. Marle Reyes – SEO R&D	Guyana.
Ms. Geeta Devi Singh – Dir EMD	Tenth Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
Ms. Nalissa Persaud – EO 11, M&F Ms. Earlla Nelson – EO 1, M&E	Workshop at the Guyana Forestry Commission CD –REDD (Capacity Development for forest- related GHG inventories)
Ms. Sonia Gumbs-Luke-SEO-IIE	One-day Workshop on the preliminary findings on the application of the IDB Disaster Risk Indicators to Guyana.
Ms. Marle Reyes Pantoja – SEO R&D. Ms. Teijvarti Persaud – SEO M&F Ms. Sonia Gumbs-Luke – SEO IIE.	Petroleum Seminar. Preparing for Offshore Energy Resources – The Atlantic Canada Oil & Gas Experience.
Ms. Felicia Adams-EO II, IIE Ms. Clydecia Mc Clure-SEO, NRMD	Workshop hosted by the Guyana Lands and Survey Commission on the on the Development of a Land Use Planning Project.
GIS Staff	Geographic Information System (GIS) and Global Position System (GPS) training workshop
GIS Staff	Geographic Information System (GIS) training seminar
GIS Staff	Second phase of workshop on Multi-user geodatabase applications on GIS

**APPENDIX IV: DISTRIBUTION OF APPLICATIONS FOR NEW PROJECTS RECEIVED  
IN 2011 BY SECTOR.**

<b>New Applications</b>	<b>No. of Applications</b>
Agri Chemical Storage	1
Animal & Food Production & Tourism	1
Aquaculture Farming	1
Bauxite Mining	1
Cattle Ranch and Guesthouse	1
Firewood (Buying and Selling)	1
Funeral Home	1
Furniture Workshop.	2
Gas/ Service Station/ Fuel Depot	9
Gold Mining	1
Hotel/Guest House/ Apartment Building	3
Ice Factory	1
Infrastructure Projects - East Bank Demerara Four Lane Expansion/ Improvement Access Road to International Airport/ Rehabilitation of Sea Defence/ Quarantine Officer Quarters/ Onshore Logistic Facility/ Extension of Cheddie Jagan International Airport	6
Installation of Fibre Optic Cables	1
Kilm Drying Complex	1
Logging	3
Logging and Sawmilling	5
Lumber Yard (with and without processing)	7
Petroleum Exploration/ Drilling	2
Potable Sawmill	10
Poultry Processing	2
Production/Storage of Lubricating Oils	2

Quarrying	1
Rice Mill	5
Sand Mining	6
Sawmill	16
Shallow Well	1
Storage of Aviation Fuel	1
Toilet Paper Manufacturing	1
Transit Point for Logs	1
Underwater Logging Sinker Recovery	1
Waste Management Facility	1
Wharf	1
Wood Processing Facility	1
<b>Total</b>	<b>98</b>

## APPENDIX V: PRESENTATIONS PREPARED AND DELIVERED IN 2011.

Month	Title	Target group
January	Tourism in Wetlands	Nature School
	Climate Change	Primary Schools (13)
February	Tourism in Wetlands	Nature School
	Climate Change	Primary Schools (4)
	Let's Talk Energy	Stewartville Secondary School
	Pollution, Climate Change and Energy	New Amsterdam Multilateral School
	Let's Talk Energy	Girl Guides
March	Tourism in Wetlands	Nature School
	Introduction to Environmental Education, Forming Environmental Clubs and Programme Planning	Supervisors of Environmental Clubs
	Protection of the environment and freshwater resources for maintaining food security	World Water Day Seminar
April	Let's Talk Energy	Environmental Clubs of schools in Linden
	Marine Biodiversity	
	Managing your Environment	OSH Workshop
	Green Jobs	OSH Fair
	Earth's Biodiversity	Stewartville Secondary School
	KfW – Supporting Livelihoods of Communities in Protected Areas	13 <sup>th</sup> Sustainable Tourism Conference

May	Marine Biodiversity	Primary Schools (8)
	Marine Biodiversity	Mae's School
	Forest Biodiversity	Betsy Ground Primary
	EITD's Projections for 2012	EPA Board of Directors
	Thirstin's Wacky Water Adventure	Nature School
June	"Green Economy – Does it include you?"	Red Cross Youth Group
July	<ul style="list-style-type: none"> <li>- Global warming- storyline;</li> <li>- Climate change;</li> <li>- Measuring your carbon footprint;</li> <li>- Waste management;</li> <li>- Composting;</li> <li>- Becoming an Environmental Educator;</li> <li>- Basics of environmental education;</li> <li>- Energy conservation – story telling;</li> <li>- Actions for energy conservation; and</li> <li>- Infusing environmental education into the various subject areas.</li> </ul>	EPA Environmental Camp
August	Water Conservation	Taxidermy Camp
	Effect of Illiteracy on an Individual's Ability to Care for the Environment	Ministry of Education's Adult Literacy Programme Workshop
September	Understanding marine debris	Nature School
October	<ul style="list-style-type: none"> <li>- EE History, Concept, Principles and Approaches;</li> <li>- Environmental Educator vs Environmentalist;</li> <li>- EE Tools and Methodologies;</li> <li>- Infusion vs Diffusion;</li> <li>- Environmental Issues – Global &amp; local;</li> <li>- Problems vs Issues: Criteria for Prioritising;</li> <li>- Experiential Learning;</li> <li>- Water;</li> <li>- Sustainable Land Management;</li> <li>- Climate Change;</li> </ul>	Teachers Training Camp

	<ul style="list-style-type: none"> <li>- Biodiversity;</li> <li>- Creating an Action Plan; and</li> <li>- Programme Planning.</li> </ul>	
	The 3Rs of waste management	Lioness club workshop
	Understanding marine debris	Nature School
November	Climate Change	Primary Schools (12)
	EPA and Environmental Sustainability	Seminar on Sustainable Management of the Extractive Sector
	Understanding marine debris	Nature School

## APPENDIX VI: EXHIBITIONS PARTICIPATED IN 2011.

Exhibition	Date	Venue	Theme
Lethem Easter Expo	April 06-09, 2012	Lethem	
National Science Fair	April 11-13, 2012	New Amsterdam Technical Institute	“Science and Technology: Unlockng potentials for green societies”
The 13 <sup>th</sup> Sustainable Tourism Conference	April 15-17, 2012	National Convention Centre	“Keeping the right balance:Sustaining our resources”
Linden Expo	April 27-29, 2012	Linden	“Celebrating our diversity while reclaiming Linden’s identity”
International Day for Biological Diversity	May 21-25, 2012 May 21-25, 2012	National Library Guyana Post Office Corporation	Marine Biodiversity
Better Living Expo	July 01, 2012	Parika	“Walking on sunshine”
Guyana Geology and Mines Commission	August 19-20, 201	National Park Tarmac	“Investment and technological growth for

Mining Fair			sustainability in the mining sector”
GuyExpo	September 27-30, 2012	Sophia exhibition site	“Strengthening the traditional, embracing the new”
Fire Safety Exhibition	October 12, 2012	Fogarty’s Water Street Pavement	“Fire Safety is everyone’s business, get involved now”
Kwakwani Day	November 03, 2012	Independence Square, Kwakwani	

## **Appendix: Staff Vacancies Advertised in 2013**

1. Environmental Officers I, EMPD; interviews were held on July 26, 2013.
2. Project Assistant, NBSAP Project; interviews were held on August 02, 2013.
3. Project Consultant, NBSAP Project; this position is presently being re-advertised in the daily newspapers and on the Agency's website.
4. Environmental Officer I, EITD; interviews were held on September 12, 2013.
5. Executive Assistant, EMCD; interviews were held on September 13, 2013.
6. Senior Environmental Officer, EMPD, interviews were held on September 17, 2013.
7. Environmental Officer I, EITD; interviews were held on September 12, 2013.
8. Executive Assistant, EMCD; interviews were held on September 13, 2013.
9. Senior Environmental Officer, AFT, EMPD; interviews were held on September 17, 2013.
10. Driver, Admin; interviews were held on November 5 and 11, 2013.
11. Senior Environmental Officer, Protected Areas Unit, NRMD; interviews were held on December 23, 2013.

## **Staff Appointments in 2013:**

1. Ms Juliana Persaud was appointed SEO, Protected Areas Unit, effective January 01, 2013.
2. Mr. Jermaine Clark was appointed SEO, Biodiversity Unit, effective January 07, 2013.
3. Mr. Colis Primo was appointed SEO, Research and Development Unit, effective January 07, 2013.
4. Ms. Anastasia Chandra was appointed Environmental Officer I, EMD, effective January 07, 2013.
5. Mr. Edwin Burnett was appointed Handyman, effective February 04, 2013.
6. Ms. Zynell Blossom Manbodh was appointed Project Assistant for the NBF Project, effective February 19, 2013.
7. Mr. Denroy Browne was appointed Environmental Officer I, EMD, effective March 18, 2013.
8. Ms. Schanace Odwin was appointed Environmental Officer I, EMD, effective March 18, 2013.
9. Ms. Suparna Bera was appointed Project Manager, NBSAP Project., effective April 02, 2013.
10. Mr. Raymond Mohamed has been appointed Driver, within the Administrative Division, effective April 11, 2013.
11. Mr. Teni Housty has been appointed Project Consultant for the NBF Project, effective April 15, 2013.
12. Mr. Vasquez Ramdas has been appointed Environmental Officer I, within the Environmental Management Division, effective April 15, 2013.
13. Mr. Sasenarine Bharat has been appointed Technical Support Officer, within the IT Unit, effective April 16, 2013.
14. Ms. Roneka Joseph has been appointed, Field and Data Management Technician, within the Environmental Management Division, effective April 22, 2013.
15. Mr. Dharamdeo Ramcharitar has been appointed to the post of Handyman, effective May 06, 2013.
16. Mr. Sean Mendonca has been appointed to the post of Senior Environmental Officer, Wildlife Unit, NRMD, effective May 08, 2013.
17. Mr. Kemraj Parsram has been appointed Director, Environmental Management Compliance Division, effective June 02, 2013.
18. Ms. Jewell-Ann Harry was appointed Human Resources Assistant, effective July 2, 2013.

19. Mr. Zahair Ali was appointed Environmental Officer I, EMCD, effective July 02, 2013.
20. Ms. Whoopi Liverpool was appointed Environmental Officer I, effective July 02, 2013.
21. Ms. Felicia Adams has been appointed Senior Environmental Officer, within the Environmental Management Compliance Division, effective July 02, 2013.
22. Mr. Delon Earle was appointed Environmental Officer I, effective August 19, 2013.
23. Ms. Charmaine De Jonge was appointed Project Assistant, NBSAP, effective August 26, 2013.
24. Mrs. Candacie Brower-Thompson has been appointed Senior Environmental Officer, within the Environmental Information and Training Division, effective August 26, 2013.
25. Mrs. Candacie Sobers was appointed Environmental Officer II, EMPD, effective September 02, 2013.
26. Mr. Compton Fredericks was appointed Handyman, effective September 16, 2013.
27. Mr. Richard Layne, was appointed Legal Officer, effective October 01, 2013.
28. Ms. Gracelyn Trim was appointed Environmental Officer I, EITD, effective November 18, 2013.
29. Ms. Nicole Hohenkirk was appointed Executive Assistant, EMCD, effective November 18, 2013.
30. Mr. Kwesi Smith was appointed Driver, Admin, effective December 02, 2013.

### **Staff Promotions in 2013:**

1. Ms. Latoya Farinha has been promoted to EO II, effective January 31, 2013.
2. Ms. Malicia Hall has been promoted to EO II, effective January 31, 2013.
3. Mr. Deuel Hughes has been promoted to Environmental Officer II, within the Environmental Information and Training Division effective September 08, 2013.

### **Staff Confirmations in 2013:**

1. Mr. Andrew Gupta was confirmed in the post of EOI, EMD, effective March 03, 2013.
2. Mr. Jermaine Clark was confirmed in the post of SEO, Biodiversity Unit, NRMD, effective April 07, 2013.
3. Ms. Anastasia Chandra was confirmed in the post of EOI, EMD, effective April 07, 2013.
4. Mr. Denroy Browne was confirmed in the post of EOI, EMD, effective June 18, 2013.
5. Ms. Schanace Odwin was confirmed in the post of EOI, NRMD, effective June 18, 2013.
6. Mr. Kemraj Parsram has been confirmed in the post of Director, EMCD, effective September 03, 2013.
7. Mr. Zahair Ali has been confirmed in the post of Environmental Officer 1, EMCD, effective October 02, 2013.
8. Ms. Whoopi Liverpool has been confirmed in the post of Environmental Officer I, EMCD, effective October 02, 2013.
9. Ms. Jewell-Ann Harry has been confirmed in the post of Human Resource Assistant, Admin, effective October 02, 2013.
10. Mr. Rayner Mc Andrew has been confirmed in the post of Environmental Officer 1, NRMD, effective November 01, 2013.

11. Ms. Oslyn Peters has been confirmed in the post of Cleaner, Admin, effective November 12, 2013.
12. Ms. Felicia Adams has been confirmed in the post of Senior Environmental Officer, EMCD, effective October 02, 2013.
13. Mr. Delon Earle has been confirmed in the post of Environmental Officer I, EMPD, effective November 19, 2013.
14. Mrs. Candacie Sobers has been confirmed in the post of Environmental Officer II, EMPD, effective December 02, 2013.
15. Mr. Colis Primo has been confirmed in the post of Senior Environmental Officer, EMCD, effective December 07, 2013.
16. Mr. Compton Fredericks has been confirmed in the post of Handyman, Admin, effective December 16, 2013.

#### **Resignations Tendered in 2013**

1. Ms. Joanne Ford, Special Projects Officer, attached to National Parks Commission has tendered her resignation, effective February 28, 2013.
2. Ms. Earlla Nelson has tendered her resignation, effective April 01, 2013.
3. Mr. Stefan Rix has tendered his resignation, effective March 26, 2013.
4. Ms. Shellaun Harper, Field Technician attached to EMD, has tendered her resignation effective April 04, 2013.
5. Ms. Padmini Persaud, SEO, EITD, submitted her resignation, effective July 01, 2013.
6. Mr. Vasquez Ramdas, EOI, EMD, tendered his resignation effective August 02, 2013.
7. Ms. Juliana Persaud, SEO, PAU, NRMD, tendered her resignation on September 20, 2013 with an effective date of December 11, 2013.
8. Mr. Jermaine Clarke, SEO, BU, NRMD, tendered his resignation effective January 10, 2014.

#### **Termination**

- Mr. Edwin Burnett, who was employed in the capacity of Handyman, was terminated effective May 17, 2013.
- Mr. Raymand Mohamed, Driver, was terminated effective July 05, 2013.
- Ms. Carla Anderson, Cleaner has been sent on leave pending her termination, effective August 09, 2013.
- Mr. Dharamdeo Ramcharitar, Handyman; his services were terminated effective September 05, 2013.
- Mr. Deodat Puranram, Driver; his services were terminated effective October 10, 2013.

#### **Suspension**

- One (1) employee was suspended for two (2) weeks for the month.

#### **Internship**

The Agency responded positively to a request from the University of Guyana, to accommodate three (3) University Students as part of a two (2) months internship programme, the students that were selected to undergo internship at the Agency are:

1. Mr. Mark December, 1<sup>st</sup> year Environmental Science student, attached to EMD
2. Ms. Leanna Kalicharan, 4<sup>th</sup> year Biology student, attached to NRMD
3. Mr. Mahendra Doraisami, 2<sup>nd</sup> year Biology student, attached to EMD

**Cabinet Papers:**

1. Cabinet memorandum was submitted to PS, MNRE, nominating Dr. Indarjit Ramdass, to participate in “the twenty-seventh (27<sup>th</sup>) session of the Governing Council/Global Ministerial Environmental Forum of the United Nations Environmental Programme (UNEP)”, scheduled to be held in Nairobi, Kenya during February 18-22, 2013. Approval was granted and Dr. Ramdass has since attended this Meeting.
2. Cabinet memorandum was submitted to PS, MNRE, nominating Ms. Diana Fernandes to participate in “the Second Regional Meeting of the GEF ABS LAC Project and Workshop on Negotiation of Contracts for Access to Genetic Resources”, scheduled to be held in La Habana Cuba during March 18-22, 2013.
3. Approval has been granted for Ms. Stacy Lord to attend the Caribbean Sub-regional workshop on capacity building for the effective implementation of the Cartagena Protocol on Biosafety, which is scheduled to be held in St. George’s, Grenada, during February 25 to March 01, 2013.
4. Cabinet Memorandum was submitted to PS, MNRE, nominating Ms. Felicia Adams to participate in the Caribbean Platform of the Global Partnership on Nutrition Management, scheduled to be held in Trinidad and Tobago, during May 07 – 09, 2013. No response was received from MNRE, hence officers did not attend.
5. Cabinet Memorandum was resubmitted to PS, MNRE, nominating Mr. Jermaine Clark, SEO, NRMD to participate in the Regional Workshop on Drafting Legislation for the Implementation of the Nagoya Protocol on Access and Benefits – Sharing to be held in Dominica, during June 26 – 28, 2013. To date no response has been received from MNRE. To date no response has been received from MNRE. No response was received from MNRE, hence officer did not attend.
6. Cabinet Memorandum was submitted to PS, MNRE, nominating Ms. Karen Alleyne, SEO, EMD to participate in the Workshop for Capacity Development in the Environmentally Sound Management of Waste Electrical and Electronic Equipment in the Caribbean, which was scheduled to be held in Port of Spain, Trinidad and Tobago, during July 09 - 11, 2013. No response was received from MNRE, hence officer did not attend.

7. Cabinet Memorandum was submitted to PS, MNRE, nominating Ms. Geeta Singh, Director, EMD and Ms. Latoya Farinha, EOII, EMD to take part in the Regional Training Workshop on Drafting Legislation For The Implementation of The Basel, Rotterdam and Stockholm Conventions, which was scheduled to be held in Trinidad and Tobago, during July 17 – 19, 2013. No response was received from MNRE, hence officers did not attend.
8. Cabinet Memorandum was submitted to PS, MNRE, nominating Ms. Suparna Bera, Project Manager, NBSAP and Mr. Sean Mendonca, Senior Environmental Officer, NRMD to take part in the Regional Training Workshop on The Clearing – House Mechanism which is scheduled to be held in St. Lucia, during September 16 – 20, 2013 and approval has been granted.
9. Cabinet Memorandum was submitted to PS, MNRE, nominating Ms. Suparna Bera, Project Manager, NBSAP, and Mr. Sean Mendonca, Senior Environmental Officer, NRMD, to take part in the Regional Training Workshop on The Clearing – House Mechanism which was scheduled to be held in St. Lucia, during September 16 – 20, 2013. Approval was granted and these officers attended this workshop.
10. Cabinet Memorandum was submitted to PS, MNRE, nominating Mr. Rayner McAndrew to attend the eleventh (11<sup>th</sup>) symposium on Sea Turtle Conservation in the Guianas, which is scheduled to be held in Paramaribo, Suriname during October 29-31, 2013.
11. Cabinet Memorandum was submitted to PS, MNRE, nominating Ms. Diana Fernandes Environmental Officer II, NRMD, to take part in the Second (2<sup>nd</sup>) Caribbean ABS Workshop which is scheduled to be held in Kingston, Jamaica, during November 25 – 29, 2013.
12. Cabinet Memorandum was submitted to PS, MNRE, nominating Dr. Indarjit Ramdass, Executive Director, EPA, to attend the Global Environment Facility (GEF) Constituency Meeting for the Caribbean which was scheduled to be held in Roseau, Dominica, during October 21 – 22, 2013.
13. Cabinet Memorandum was submitted to PS, MNRE, nominating Ms. Jenniffer Bentick, National Biosafety Framework (NBF) Coordinator and Mr. Jermaine Clark, Senior Environmental Officer, NRMD, to attend the Regional Steering Committee Meeting which is scheduled to be held at Cavehill Campus, Barbados, during November 06 – 08, 2013.
14. Cabinet Memorandum was submitted to PS, MNRE, nominating Ms. Diana Fernandes Environmental Officer II, NRMD, to take part in the Second (2<sup>nd</sup>) Caribbean ABS Workshop which is scheduled to be held in Kingston, Jamaica, during November 25 – 29, 2013. No response was received from MNRE, hence officers did not attend.

15. Cabinet Memorandum was submitted to PS, MNRE, nominating Ms. Jenniffer Bentick, National Biosafety Framework (NBF) Coordinator and Mr. Jermaine Clark, Senior Environmental Officer, NRMD, to attend the Regional Steering Committee Meeting which is scheduled to be held at Cavehill Campus, Barbados, during November 06 – 08, 2013. No response was received from MNRE, hence officers did not attend.

### **Nominations**

Ms. Sonia Gums-Luke, SEO, EMD, Ms. Anzaleen Hoosein, EOII, EMD, Ms. Malicia Hall, EOII, EMD and Ms. Candacie Brower-Thompson were nominated to pursue post graduate training courses in the following areas in Germany:

1. Environmental Management for Developing and Emerging Economies, scheduled to be held during January 14 – July 15, 2014.
2. Green Economy for Developing and Emerging Countries, scheduled to be held during November 18 – December 13, 2013.
3. Climate Change Adaption for Developing and Emerging Countries, scheduled for October 09 – November 08, 2013.

### **Workshops/ Meetings:**

1. Ms. Darshini Seeram, EO I, GIS, attended a meeting organized by the National Drainage and Irrigation Authority (NDIA) aimed at discussing the GIS Mapping Proposal for NDIA. This meeting was held on February 05, 2013, in the NDIA Boardroom.
2. Ms. Nadia Nasir, GIS Technician attended a Remote Training course relating the development of Land Use Planning Project. This course was organized and facilitated by the Guyana Land and Surveys Commission, and was held during the period February 04-08, 2013.
3. Ms. Earlla Nelson, EO II, EMD attended the FAO's Annual Accountability Seminar for 2013, held on February 07, 2013, at the Regency Hotel.
4. Ms. Teijvari Persaud, SEO, EMD, and Mr. Deuel Hughes, EOI, EITD, attended a seminar entitled "Research Dissemination and Utilization". This seminar was organized by the University of Guyana, Faculty of Technology and was held at the University of Guyana on April 10, 2013.
5. Ms. Savitri Itwaru, EOII, Ms. Felicia Adams, EOII, Ms. Anzaleen Hoosein, EOII, Ms. Latoya Farinha, EOII, Ms. Monique Williams, EOI and Mr. Junior Paul Chanderpaul, Field Technician attended a six (6) days "Emergency Planning and Management" course organized by the

University of Guyana. This course was held at the University of Guyana, Turkeyen Campus during April 15 – 20, 2013.

6. Ms. Geeta Singh, Director, EMD, Ms. Tashana Redmond, SEO, EMD, Ms. Karen Alleyne, SEO, EMD, and Mr. Andrew Gupta, EOI, EMD, attended a three (3) hour lecture on “Introduction to Hydropower Concepts”. This lecture was organized by the Guyana Energy Agency (GEA), and was held on April 19, 2013, at Cara Lodge.
7. Ms. Faneesa Alli, EA, Admin. Division, Ms. Radhika Mootoo, EA, EMD and Ms. Kerean Geer, EA, ED’s, Office, attended a one (1) day Minute Taking and Memo Writing Workshop on April 24, 2013. This workshop was organized by the Arthur Lok Jack, Graduate School of Business, UWI, and was held at their sun-office on Church Street, Georgetown.
8. Mr. Rae Smith, EOII, NRMD, Mr. Rayner McAndrew, EOI, NRMD, Ms. Gregoria Vaughn, EOI, EMD and Ms. Melinda Franklin, EOI, EMD attended a one (1) week course offered by the University of Guyana’s School of Earth and Environmental Sciences, this course was conducted during the period May 20 – 25, 2013, at UG, Turkeyen Campus.
9. Ms. Geeta Singh, Director, EMD, Mr. Colis Primo, SEO, EMD, Ms. Karen Alleyne, SEO, EMD and Ms. Stacy Lord, EOII, NRMD attended two (2) days Proposal Writing and Development Workshop, organized by the Arthur Loc Jack Graduate school of Business, University of West Indies. This workshop was held during June 10-11, 2013, at the CIDA Building, Main and New Market Streets, Georgetown.
10. Ms. Sonia Gumbs-Luke, SEO, EMD, attended the Draft Integrated Disaster Risk Management Plan (IDRMP) Workshop, which was organized by the Civil Defence Commission and was held on June 11, 2013 in the Commission’s Boardroom.
11. Mr. Colis Primo, SEO, EMD attended a GNBS symposium in commemoration of World Accreditation Day on June 13, 2013 at Pegasus Hotel, Georgetown.
12. Ms. Geeta Singh, Director, EMD and Ms. Teijvarti Persaud, SEO, EMD attended an information sharing session on the development of the National MRVS. This session was organized by the Guyana Forestry Commission and was held at the GFC Multiplex building on June 13-14, 2013.
13. Ms. Tashana Redmond, SEO, EMD, Ms. Sonia Gumbs-Luke, SEO, EMD and Ms. Diana Fernandes, EOII, NRMD attended a Land Use Workshop and Voluntary Guidelines Meeting, which were held during June 17-18 at the Grand Coastal Hotel and June 19-21, 2013 at the Princess Hotel.

14. Mr. Colis Primo, SEO, EMD attended a consultation on the Standards and Weights and Measures Act of the GNBS, which was held on June 18, 2013 at the Regency Hotel, Georgetown.
15. Ms. Anzaleen Hoosein, EOII, EMD, attended the launching of PAHO/WHO Strategic Plan for 2014-2019 and the Program and Budget for 2014-2015 at the Ocean View International Hotel on July 04, 2013.
16. Mr. Colis Primo attended a workshop on the specification and labeling of commodities pt. 10. This workshop was organized by GNBS and was held on July 08, 2013.
17. Ms. Geeta Singh, Director, EMD, attended a two (2) days Disaster Risk Management Bill Workshop, which was organized by CDC and was held during July 18-19, 2013.
18. Ms. Teijvarti Persaud, SEO, EMD, attended a workshop organized by the World Wildlife Fund (WWF) at Cara Lodge on July 19, 2013.
19. Mr. Colis Primo, SEO, EMCD, Ms. Latoya Farinha, EOI, EMPD and Ms. Aretha Forde attended a two (2) weeks programme on Water Resources Management, which was organized by University of Guyana and was held during August 6 – 17, 2013.
20. Mr. Deuel Hughes, EOI, EITD, Ms. Malicia Hall, EO1, EMPD, Ms. Melinda Franklin, EOI, EMPD, Ms. Sharmin Joseph, EOI, EMPD and Ms. Monique Williams, EOI, EMPD attended a five day (5) workshop organized by GGMC and was held at Guyana Forestry Commission during August 15 - 19, 2013.
21. Ms. Anastasia Chandra, EOI, EMCD, Ms. Diana Fernandes, EO1, NRMD, Mr. Andrew Gupta, EOI, EMPD, Ms. Sonia. Gumbs – Luke, SEO, EMCD and Mr. Deuel Hughes, EITD will be attending a two (2) weeks programme on Disaster Risk Management in the Caribbean during August 20 – 31, 2013.
22. Ms. Geeta Singh, Director, EMPD, Ms. Teijvarti Persaud, SEO, EMPD, Ms. Sharifah Razack, Director, EITD and Ms. Aretha Forde, EOI, EITD attended a two (2) day workshop on National Mining and Quarrying Conference held at Liliendaal Conference Centre during August 26 – 27, 2013.
23. Mr. Lancelot France Cummings, Finance Officer, and Ms. Fiona Marshall, Senior Accounts Clerk, attended a one (1) day workshop on New Accounting Practice Issues. This workshop was organized by the Institute of Chartered Accounts of Guyana and was held on August 30, 2013.
24. Mr. Colis Primo, SEO, EMCD, Ms. Felicia Adams, SEO, EMCD, Mrs. Sonia Gumbs-Luke, SEO, EMPD, Mrs. Teijvarti Persaud, SEO, EMPD, Ms. Shivon Caesar, Administrative Officer,

Admin., Ms. Divinjali Bailey, Administrative Assistant, Admin., Ms. Debbie Wilkinson, Senior Accounts Clerk, Admin, Ms. Sharifah Razack, Director, EITD, and Mrs. Candacie Brower-Thompson, SEO, EITD, attended a two (2) day workshop on Creative Problem Solving and Analytical Thinking organized by Arthur Lok Jack and was held during September 05 - 06, 2013.

25. Mr. Lancelot France Cummings, Finance Officer, and Ms. Debbie Wilkinson, Senior Accounts Clerk, attended a one (1) day workshop on New Accounting Practice Issues. This workshop was organized by the Institute of Chartered Accounts of Guyana and was held on September 11, 2013.
26. Ms. Geeta Singh, Director, EMPD, Mr. Colis Primo, SEO, EMCD, and Ms. Karen Alleyne, SEO, EMPD, attended a five (5) days assessment which was organized by Ministry of Foreign Affairs and was held during September 16 – 20, 2013.
27. Mr. Dhanraj Persaud, Administrative Director, Mr. Ronley Kendall, Human Resources Officer, Ms. Sharifah Razack, Director, EITD, Ms. Geeta Singh, Director, EMPD, and Mr. Kemraj Parsram, Director, EMCD, attended a two (2) day Communications Training organized by the Ministry of Natural Resources and the Environment and was held during September 19 – 20, 2013.
28. Dr. Indarjit Ramdass, Executive Director, Mr. Kemraj Parsram, Director, EMCD, Ms. Geeta Singh, Director, EMPD and Ms. Teijvarti Persaud, Senior Environmental Officer, EMPD, Ms. Saudia Sadloo, Environmental Officer 1, EMPD, Mr. Sean Mendonca, Senior Environmental Officer, NRMD, Mr. Jermaine Clark, Senior Environmental Officer, NRMD and Mr. Rae Smith, Environmental Officer 11, NRMD attended the National Toshao Council Meeting which was organized by The Ministry of Amerindian Affairs and was held during October 21 - 25, 2013.
29. Mr. Lancelot France-Cummings, Finance Officer, Admin, Ms. Debbie Wilkinson and Ms. Fiona Marshall, Senior Accounts Clerk, Admin and Ms. Hollee Ragnauth and Ms. Dadre Bayley, Accounts Clerk, Admin attended the (ICAG) at Pegasus Hotel during November 07 – 08, 2013.
30. Mrs. Sonia Gumbs-Luke, Senior Environmental Officer, EMPD, Mr. Delon Earle, Environmental Officer 1, EMPD and Ms. Malicia Hall, Environmental Officer II, EMPD attended a two (2) days training workshop on the Guidelines for Incorporating Integrated Disaster Risk Management in Agricultural Planning and Environmental Management organized by the Civil Defence Commission (CDC) and was held during November 12 – 13, 2013.
31. Ms. Darshini Seeram, Environmental Officer I, EMCD attended a three (3) days workshop on Caribbean Disaster Risk Reduction and Climate Change in St. Vincent and the Grenadines during November 12 – 14, 2013.
32. Mr. Jermaine Clark, Senior Environmental Officer, NRMD, Mr. Rae Smith, Environmental Officer II, NRMD, Ms. Geeta Singh, Director, EMPD, Ms. Karen Alleyne, Senior Environmental Officer, EMPD, Mrs. Sonia Gumbs-Luke, Senior Environmental Officer, EMPD, Ms. Teijvarti Persaud, Senior Environmental Officer, EMPD, Mr. Kemraj Parsram, Director, EMCD, Ms. Felicia Adams, Senior Environmental Officer, EMCD, Ms. Tashana Redmond, Senior Environmental Officer, EMCD, Mr. Colis Primo, Senior Environmental Officer, EMCD, Ms.

Sharifah Razack, Director, EITD and Mrs. Candacie Brower-Thompson, Senior Environmental Officer, EITD attended a one (1) day consultation on the Restriction of the use of Styrofoam on November 18, 2013.

33. Ms. Sharmin Joseph, Environmental Officer 1, EMPD, Mrs. Candacie Sobers, Environmental Officer II, EMPD, Mr. Andrew Gupta, Environmental Officer, EMPD Ms. Monique Williams, Environmental Officer 1, EMCD and Ms. Whoopi Liverpool, Environmental Officer 1, EMCD attended a four (4) day workshop on Adaptation to Climate Change and was held during November 18 - 21, 2013.
34. Mrs. Sonia Gumbs-Luke attended a five (5) days workshop in Brazil on the Development of Infrastructure Projects organized by the Ministry of Foreign Affairs during November 25 – 29, 2013.
35. Ms. Tashana Redmond, Senior Environmental Officer, EMCD attended a one (1) day workshop on Reviewing the Draft Tourism Investment Guide organized by the Ministry of Tourism, Industry and Commerce on November 26, 2013.
36. Ms. Geeta Singh, Director, EMPD, Ms. Karen Alleyne, Senior Environmental Officer, EMPD and Ms. Teijvari Persaud, Senior Environmental Officer, EMPD attended a one (1) day workshop on the Environment organized by CIDA on November 26, 2013.
37. Ms. Diana Fernandes and Ms. Stacy Lord, Environmental Officer II, NRMD attended a three (3) days workshop on the Nagoya Protocol during December 03 – 05, 2013.
38. Mr. Rae Smith, Environmental Officer II, NRMD attended a one (1) day workshop on Protected Areas Commission (PAC) Gap Analysis on December 10, 2013.