

ENVIRONMENTAL PROTECTION AGENCY



ANNUAL REPORT 2010

TABLE OF CONTENTS

OVERVIEW OF ACHIEVEMENTS 2010	1
1. GUIDING LEGISLATION AND STRATEGIES	13
1.1 MISSION	13
1.2 ENVIRONMENTAL PROTECTION ACT	13
1.3 FUNCTIONS	13
1.4 STRATEGIC PLAN 2006-2010	14
1.5 ORGANIZATIONAL STRUCTURE	14
1.6 PROGRAMME AREAS	16
2. ADMINISTRATION	20
2.1 FINANCE	20
2.2 ADMINISTRATIVE SERVICES	21
2.3. HUMAN RESOURCES	22
2.4 POLICY AND PLANNING UNIT	25
2.5 INFORMATION TECHNOLOGY	26
2.6 GEOGRAPHICAL INFORMATION SYSTEM (GIS)	27
3. NATURAL RESOURCES MANAGEMENT	30
3.1 PROTECTED AREAS	30
3.2 BIODIVERSITY	35
3.3 CONSERVATION AND SUSTAINABLE USE OF WILDLIFE	44
3.4 INTRA- AND INTER-AGENCY COLLABORATION	46
3.5 MEETINGS, WORKSHOPS AND TRAINING	46
4. ENVIRONMENTAL MANAGEMENT DIVISION	47
4.1 ENVIRONMENTAL MANAGEMENT	47
4.2 AUTHORISATIONS	48
4.3 MONITORING AND ENFORCEMENT	50
4.4 COMPLAINTS AND RESPONSE	51
4.5 RESEARCH AND DEVELOPMENT	53
4.6 PROJECTS	54
4.7 MULTI-LATERAL ENVIRONMENTAL AGREEMENTS	54

4.8 COLLABORATION	55
4.9 FIELD AND LABORATORY SUPPORT.....	55
4.10 LEGISLATION AND LEGAL SERVICES	55
4.11 CROSS-SECTORAL PROGRAMMES	55
4.12 CONSTRAINTS.....	55
4.13 IMPORTANT MEETINGS / CONFERENCES	56
5. EDUCATION AWARENESS AND CAPACITY BUILDING	57
5.1 DEVELOPMENT OF EDUCATIONAL MATERIALS.....	57
5.2 OUTREACH	59
5.3 MEDIA PROGRAMMES	63
5.4 CAPACITY BUILDING.....	65
5.5 DOCUMENTATION CENTRE.....	65
6. CONCLUSION.....	66
APPENDIX I. EPA STAFF LIST AT THE END OF DECEMBER, 2010.....	67
APPENDIX II. MEETINGS AND WORKSHOPS/SEMINARS ATTENDED BY THE STAFF.....	69
APPENDIX III: FIELD TRIPS MADE TO KFW INTERVENTION AREAS IN 2010.	71
APPENDIX IV: DISTRIBUTION OF APPLICATIONS RECEIVED IN 2010 BY SECTOR.....	72

LIST OF FIGURES

Figure 1: Organizational Structure of EPA.	15
Figure 2: EPA Programmes, Components and Links.	16
Figure 3: Staff Turnover during the period 2006-2010.	24
Figure 4: Number of Research Applications received in 2010.	35
Figure 5: Categories of Research Applications Permitted in 2010.	36
Figure 6: Number Research Applications received in 2010 compared with 2009.	37
Figure 7: Revised Organizational Structure of Environment Management Programme.	48
Figure 8: Environmental Authorisation Applications received in 2010.	49
Figure 9: Distribution of Permits granted in 2010.	50
Figure 10: Complaints received in 2010.	51
Figure 11: Complaints Management in 2010.	52
Figure 12: 2010 Distribution of Complaints by Sectors/Units.	53

LIST OF TABLES

Table 1: Staff Recruitment in 2010.	23
Table 2: Status of Sub-Projects Implemented in the different Intervention Areas.	31
Table 3: Distribution of Applications Received in 2010.	49

OVERVIEW OF ACHIEVEMENTS 2010

In 2010, the Environmental Protection Agency made steady progress in its various programme areas. Organizational arrangements have become better streamlined with the Agency now being located fully in a single location.

The expansion of the Environmental Management Division to include a Hazardous Waste and Air Quality Unit and the approval for its Staffing was a significant step towards increasing the Agency's capacity.

The Agency was able to successfully implement its processes to permit development projects and biodiversity research and to addressing environmental complaints. The Agency continued to effectively implement the Small Grants Component of the Protected Areas Project funded by KfW, and the Biodiversity Enabling Project funded by GEF-UNDP. Importantly, the latter Project saw the completion of the 2nd and 3rd National Reports to the Convention of Biological Diversity. The 4th National Report to the Convention was also completed with funds from GEF.

Administration

Finance

In 2010, the Agency continued to deliver its mandate within the limits of its resources. The G\$123,334,000 received from the Government of Guyana, G\$29,081,717 received in revenue, together with Miscellaneous Receipts were used to support the Agency's work programmes during the year. However, the Agency's dependence on subventions limited its ability to fill vacant positions and provide adequate support for field activities.

The financial statements for the Agency and the Wildlife Division for 2009 were prepared and submitted to the Audit Office of Guyana. The Audit Reports were subsequently received and presented to the Agency's Board of Directors and the Office of the President.

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

Administrative Services

All Divisions of Agency located at Sophia

The Administrative and Environmental Management Divisions were successfully moved from Charlestown to the Sophia location; all Divisions of the Agency are now located in a single location.

Prior to the relocation of the Divisions from Charlestown, the south and west wings on the ground floor of the Sophia building were rehabilitated; the compound was later safeguarded with a new fence and the driveway was resurfaced.

To accommodate the new Divisions, a new Telephone PBX System was installed and the network and LAN expanded. Additionally, a 125 KVA Generator Set was installed to ensure uninterrupted power supply to the Agency.

Human Services

Hazardous Waste and Air Quality Unit established

A Hazardous Waste and Air Quality Unit was approved and established within the Environmental Management Division of the Agency. Office space for the Unit will be provided with available funds from miscellaneous sources; three (3) persons will be recruited early in the next year to staff the Unit.

Workshop and Meetings

Approval for attendance was received for eight (8) overseas meetings/workshops; however, two of these approvals were received too late for the necessary travel arrangements to be made, as such, Officers could not attend.

Throughout the year, Officers participated in meetings and workshops which have contributed to building capacity in the Agency.

Geographical Information Systems

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

Natural Resource Management

Protected Areas

KfW Small Grants Component

A total of forty-seven (47) sub-projects have been developed under the KfW Small Grants Project, among them, the drafting of Protected Areas Legislation. Twenty-three (23) projects have been

implemented and closed while twenty-one (21) continue to be implemented and Grant Agreements are to be signed for two. A total of seventeen (17) visits were made to the communities in intervention areas to monitor the progress of current sub-projects and provide guidance on implementation activities as necessary.

For the Protected Areas work programme, a Senior Level Officer was recruited this year under the WWF Capacity Project.

Protected Areas Legislation

The draft Protected Areas Bill, along with the accompanying explanatory notes, has been submitted to the Office of the President (OP) for consideration.

Criteria for Identifying Priority Areas for Biodiversity within Guyana's Forests

A national stakeholder workshop was conducted by the Agency to decide on criteria for identifying priority biodiversity areas in Guyana's forests; a report was finalised with inputs from stakeholders and was submitted to the Office of the President.

Biodiversity

Biodiversity Research and Export Permits

Thirty seven (37) Research Applications were received by the Agency in 2010 of which twenty-six (26) were processed and approved, and seven (7) are at various stages of processing. Three (3) of the applications were processed but the applicants decided not to conduct the research.

Eleven (11) export permits were issued for specimens collected under Research Permits while another three (3) export permits were granted for specimens collected under Research Permits that were issued in 2009.

National Biosafety Framework (NBF)

The National Biosafety Framework (NBF) Project was conducted over an eighteen-month period with support from UNEP/GEF. The Agency received approval for the utilization of the remaining funds under the Project to produce two posters on Biodiversity and to procure a digital camera and a projector.

Regional Project on Biosafety

Guyana endorsed the project proposal “Implementation of a National Biosafety Framework in the Caribbean Sub-Region countries of Bahamas, Belize, Grenada, Guyana, Jamaica and Suriname” with the support of UNEP.

Bio-safety Clearing House Phase II

The Agency reviewed and endorsed the Project Identification Form (PIF), “Continued Enhancement for building capacity for effective participation in the BCH Phase II” submitted by UNEP; this Project was later approved by Global Environment facility (GEF) Council.

CBD: International Regime for ABS, ABS Protocol

The Agency participated in two international CBD Meetings on Access and Benefit-sharing of the Convention on Biological Diversity (CBD ABS9) for the finalization an ABS Protocol for submission to the 10th COP Meeting of CBD in Nagoya Japan; this Protocol was agreed at this Meeting.

CBD Workshop for Indigenous and Local Communities

Guyana will be hosting a Capacity Building Workshop for Indigenous and Local Communities of Latin America and the Caribbean on the CBD including Article 8 (j) and Access and Benefit-Sharing during March 16-18, 2011. The Agency participated in the planning committee to coordinate logistics and other aspects of the CBD workshop.

National Biodiversity Research Information System (NBRIS)

The National Biodiversity Research Information System was brought to the final stages of becoming fully operational. This System will enable better management of data arising out of research on biological diversity. More importantly, the NBRIS will facilitate on-line registration and application by researchers.

National Capacity Self-Assessment (NCSA)

The Agency commenced the implementation of a Monitoring and Evaluation Framework Consultancy for Action 2.2.1 of the NCSA Action Plan: Institutional Structures and Mandates (a) streamline institutional structures and mandates to address requirements of the three Conventions; and (b) integrate the activities of the three Conventions into the annual work programmes of Agencies. However, the consultancy was terminated due to non-delivery of the final draft and the Agency will now undertake the completion of this deliverable.

Biodiversity Enabling Activity Project

The EPA successfully implemented the GEF-funded Biodiversity Enabling Activity Project which assessed Capacity Building Needs, and resulted in the preparation of second and third National Reports to CBD, and the establishment of the Clearing House Mechanism for the CBD.

The preparation of the fourth National Report to the CBD was funded by UNEP-GEF; it was completed and submitted to CBD Secretariat. The Agency sought and received approval to use unspent funds under the Small Scale Funding Agreement for the preparation of this Report for the printing of the document.

Approval was received for the extension of the BEAP until March 2011, and to use remaining funds under the project to examine the issue of Invasive and Alien Species (IAS) in Guyana. This will be done through a consultancy to create a National IAS inventory/database and to prepare a Thematic Report, an Assessment Report, and a Strategy and Action Plan to address IAS existing and potential threats in Guyana.

GEF 5

The Agency continued to be the National Focal Point for GEF and has been instrumental in making the application for Guyana to be a participating country in the GEF Small Grants Programme (SGP); Guyana's application was approved by GEF.

Guyana's GEF 5 allocation of US \$6.38 M was distributed among the three Focal Areas as follows: Biodiversity - US \$3.26 M; Climate Change - US \$2 M and Land Degradation – US \$1.12 M. Guyana is among the countries which have the flexibility to utilize these allocations across all or any of the focal areas.

The EPA, in collaboration with UNDP, GFC and GGMC drafted a proposal for the mainstreaming of biodiversity into key natural resources based sectors with an estimated budget was US \$4M. Additionally, the Office of Climate Change (OCC) and the Guyana Lands and Surveys Commission (GL&SC) submitted concepts which would fully utilize funding under their respective focal areas.

A proposal titled, 'Sustainable Energy Programme for Guyana', was subsequently prepared by the Inter-American Development Bank and submitted through the Office of the Prime Minister, for the sum of US\$5.5 M. This proposal was endorsed by Cabinet, and submitted for consideration through the Political Focal Point. Options for the utilization of the remaining US\$880,000 would have to be developed.

National Biodiversity Action Plan (NBAP), 2007-2011 Implementation

The Concept paper under Programme area 11 - Habitat Destruction and Associated Impacts, for the proposed project entitled “Fostering the effective management of Guyana’s coastal biodiversity to minimize and prevent the destruction of coastal habitats and to protect Guyana’s coastal biological diversity”, was approved by the Group on Earth Observations (GEO). The project proposal was finalized and submitted to the GEO in keeping with the May 01, 2010 deadline.

Wildlife

Draft Wildlife Management and Conservation Regulations

The draft Wildlife Management and Conservation Regulations and its Explanatory Note were submitted to the Attorney General’s Chambers.

With legislative assistance from the Convention on International Trade in Endangered Species (CITES) Secretariat, the revised Regulations on Wildlife Import and Export, the draft Wildlife Management and Conservation, the Species Protection Regulations (1999), and the Environmental Protection Act No. 11, 1996, were reviewed. The draft Wildlife Management and Conservation Regulations and its Explanatory Notes were submitted to the Head of the Presidential Secretariat (HPS) for consideration.

Specially Protected Areas and Wildlife (SPA) Protocol

The Agency participated in the 6th Conference of Parties (COP) of SPAW in October, 2010, in Montego Bay, Jamaica. Additionally, the Agency was invited to nominate experts for the Working Groups on Exemptions under the Article 11(2) of the SPAW Protocol.

Environmental Management

Revised Organizational Structure

To improve the efficiency of the Environmental Management Programme, its organizational structure was revised to maximize the available human resources and it is expected to be under full implementation in early 2011. In the revised structure, one Senior Environmental Officer has responsibility for a one category of development projects, i.e. AFT, IIE or MF.

Authorisation Process

During the year 2010, three hundred and sixty-two (362) applications were received for Environmental Authorizations. Of these, one hundred and five (105) were for new projects, thirty-two (32) for existing operations, thirty-three (33) for renewals, six (6) for transfer, and four (4) for

variance. In addition, one hundred and eighty-two (182) noise applications were received during this period.

The majority of Applications received in 2010, were for Mining and Forestry Projects such as Sawmills and Lumber Yards. Applications for Industry, Infrastructure and Energy Projects were second highest in number while applications for Agriculture, Fisheries and Tourism were lowest in number. For projects going through the Environmental Authorisation process, three (3) were required to conduct an Environmental Impact Assessments (EIA), while ten (10) were required to prepare Environmental Management Plans (EMP).

Two hundred and fifty-three (253) Environmental Authorizations were issued this year. There were forty (40) Environmental Permits, twenty-four (24) Operational Permits, four (4) Construction Permits, two (2) Letters of Authorization, and one hundred and eighty-four (184) Noise Permits.

Monitoring and Enforcement

Thirty-three (33) Applications for Renewal of Environmental Authorisation, six (6) for transfer, and four (4) for variance were received. The Agency responded to the Applications received and conducted thirty-five (35) Environmental Audits.

Complaints and Response

This year, a total of three hundred and fifty (350) complaints were received by the Agency. Of these, one hundred and eighty-three (183) were new and one hundred and sixty-seven (167) were recurring complaints. There was a twenty percent (20%) decrease in the number of complaints received by the Agency in 2010, compared to 2009, when four-hundred-and-thirty-nine (439) complaints were received.

Of the complaints received, one-hundred-and-forty-two (142) inspections were conducted following which a number of defaulters were instructed in writing of mitigation measures to be implemented. In keeping with the Agency's policy of continuous monitoring, one-hundred-and-thirty-one (131) follow-up inspections were carried out. Eight (8) complaints were closed as a result of the Agency's efforts towards compliance with mitigation measures.

This year, one (1) Cease Order and seven (7) Prohibition Notices were served, and one (1) Environmental Authorization (permit) was suspended.

Research and Development

Guidelines, Standards and Code of Practice

Through collaboration with the GNBS and other relevant sector agencies, the Agency continued to develop Standards, Guidelines and Code of Practice. The Interim Standard for the Emission of Noise into the Environment was approved by the GNBS Council. Environmental Guidelines for Swine Rearing Operations and Spray Painting Operations were drafted and would be finalized in the first quarter of 2011.

Hazardous Waste Capacity Building

A proposal for Hazardous Waste Capacity Building was submitted to and approved by the IDB; SENES Consultants were selected to conduct two--day workshop on Hazardous Waste Management to support to the recently established Hazardous Waste and Air Quality Unit within the Agency.

Multi-Lateral Environmental Agreements

Under the Basel Convention, the Agency managed trans-boundary movement of hazardous waste through notification documents to countries of imports and communicating with countries desirous of using Guyana as a transit point.

The Agency attended the 14th Intergovernmental Meeting (IGM) on the Action Plan for the Caribbean Environment Programme and the 11th Meeting of the Contracting Parties to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention). Guyana was elected to be a member of the Monitoring Committee for the Action Plan of the Caribbean Environment Programme for the period 2010 – 2011.

Education Awareness and Capacity Building

Development of Educational Materials

During the year, relevant information was selected and developed to meet the needs of varied target groups. This information was packaged on a range of topics and in varied formats for dissemination to groups and individuals throughout the country.

Outreach

Outreach was carried out to increase awareness of environmental issues as a first step towards making sound decisions for the maintenance of a safe and healthy environment.

International Year of Biodiversity (2010)

In collaboration with stakeholders, International Biodiversity Day (IDBD) observances were heightened in recognition of 2010 being the International Year of Biodiversity. New activities included a *Film and Lecture Series; Youth Forum; Biodiversity Display; Book and Pictorial Exhibition; Stamp Exhibition; Biodiversity Exhibition; Tour and Educational Session; Lecture and Butterfly Watching*. Regular activities such as Newspaper Articles, TV Message and Viewpoints were also done.

A report on national activities was submitted to the CBD which provided limited amounts of promotional materials such as jerseys, pens, CDs, folders, pins, bookmarks, books, and posters, etc. to the Agency for distribution to commemorate International Year of Biodiversity.

World Wetlands Day

In collaboration with the Nature School at the Guyana Zoo, visiting Primary Schools were targeted for World Wetlands Day (WWD) 2010. A total of one hundred and eighty-two (182) students were involved in activities focusing on the WWD Theme: *Biodiversity and Climate Change*.

World Water Day

The Agency conducted interactive presentations at several primary and secondary schools in West Berbice to raise student awareness of water issues. Additionally, a presentation was delivered to several schools participating in a School Water Forum coordinated by the Guyana Water Inc.

Earth Day

In observation of Earth Day 2010, an interactive presentation on the topic Earth Day - The Green Generation - was made at two (2) Schools: Georgetown International Academy, and Marian's Academy.

WED 2010

Several activities were conducted in observance of World Environmental Day 2010; these included TV Panel Discussions, Green Walk, and Ride-for-the-Environment.

International Coastal Clean-up

International Coastal Clean-up (ICC) 2010 was expanded to include more communities in Essequibo, West Demerara, and Berbice.

International Ozone Day

In collaboration with the National Climate Unit, a half-day workshop was conducted at the CPCE to raise awareness on the Montreal Protocol and Ozone Depletion.

Exhibitions

The Agency participated in a number of in exhibitions during the year.

Environmental Camp

An Environmental Camp was held at the Yarrowkabra Training Centre this year. Twenty-seven (27) students and six (6) teachers drawn from Environmental Clubs in Berbice, East Coast and East Bank Demerara, and Essequibo participated in the exercise.

The Camp focused on Biodiversity and Climate Change and activities included presentations, practical sessions, games, programme planning, fieldwork, and dramatic and cultural presentations. As part of the field sessions, participants engaged in bird-watching, avifaunal survey and data collection; this was facilitated by the Amazon Tropical Bird Society.

Wildlife Festival

Officers of the Agency participated in the Annual Wildlife Festival, which was held at Annai, North Rupununi, during March 27–29. One day of the Festival was dedicated to interfacing with Environmental Clubs attending the event to share information of their activities and to introduce them to simple programme planning and reporting techniques.

Annual Taxidermy Camp

A presentation on the topic “Climate Change” was made to eighty participants attending the Annual Taxidermy Camp hosted by the Guyana National Museum.

Teacher Training Workshop

A Teacher Training Workshop was undertaken as another new initiative in 2010. It was conducted at Camp Wesleyana, on the Linden Highway, and focused on “Integrating Environmental Education

into the School Curriculum". A total of twenty seven (27) 3rd Students and two (2) Lecturers from the Cyril Potter College of Education participated in the Workshop.

Participants were introduced to the use of different tools and methods to develop and deliver Environmental Education (EE) and were taken through sample lessons of an EE Curriculum Supplement developed by the Agency. At the end of the workshop, each teacher was able to develop a lesson plan integrating EE into one of the four core subjects of the Primary curriculum.

Women's Workshops

In collaboration with the Women Affairs Bureau, a workshop was conducted, targeting women in Regions 5 and 6. The objectives of the workshop were to raise awareness of Energy and Water Conservation and Waste Management in the home and to introduce participants to basics aspects of Climate Change and Guyana's Low Carbon Development Strategy.

Conservation International Workshop

A presentation on the "Development of a Community Environment Education Strategy" was delivered to Environmental Club members at workshop organized in Lethem by Conservation International (Guyana). Approximately 36 participants attended the Workshop from 17 Communities of the South Rupununi. The EPA also presented Certificates of Affiliation to fourteen (14) Wildlife Clubs of the South Rupununi attending the workshop.

TV and Print Media

Maximum use was made of the free space provided during 2010, to the Agency, by the Guyana Chronicle and Guyana Times newspapers. However, the Guyana Chronicle stopped providing space to the Agency in May, 2010.

During the year, full advantage was taken of the opportunity provided by the National Telecommunications Network (NCN) to feature discussions on topical activities and events on the environment on the Guyana Today Show.

A number of interviews were also done on TV to highlight the significance of Environmental Days and simple actions that can be taken at the individual level to conserve the environment.

Capacity Building Development

In addition to the routine work, staff capacity was built through the development and delivery of training modules for Conservation at Home; Strengthening Environmental Clubs; and Climate Change Education for Children.

Documentation Centre

Materials in the Document Centre were entered into an Endnote Database.

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 5, 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 and conservation. To achieve its mandate, the Agency implements education, regulation and enforcement programmes and uses partnership 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.

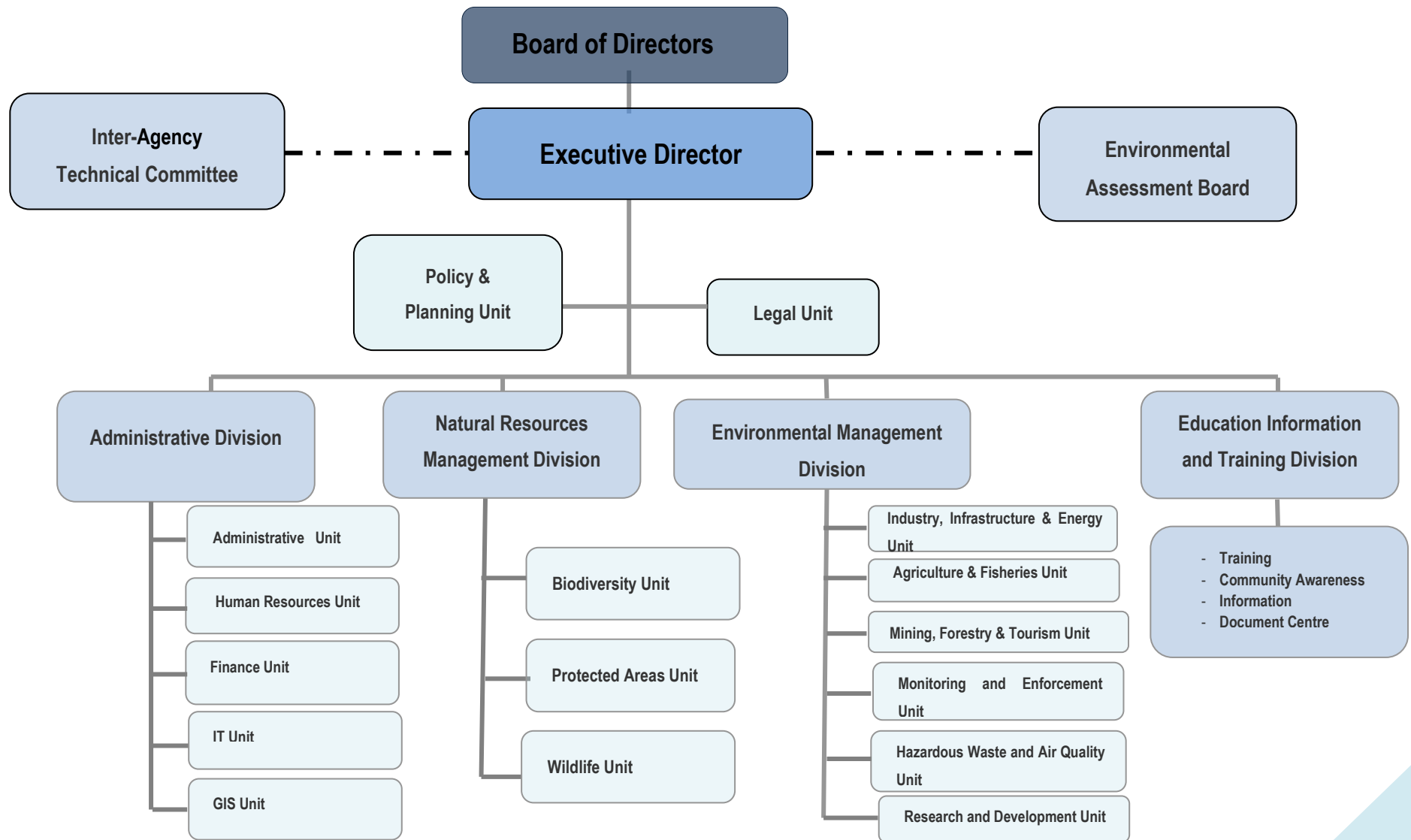
1.4 STRATEGIC PLAN 2006-2010

The Environmental Protection Agency developed its Strategic Plan for the period 2006-2010. In the Plan, FOUR Themes are identified 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.

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 President of Guyana in his capacity as Minister of Environment through the Head of the Presidential Secretariat.

Figure 1: Organizational Structure of EPA.



1.6 PROGRAMME AREAS

The mandate of the Environmental Protection Agency 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.

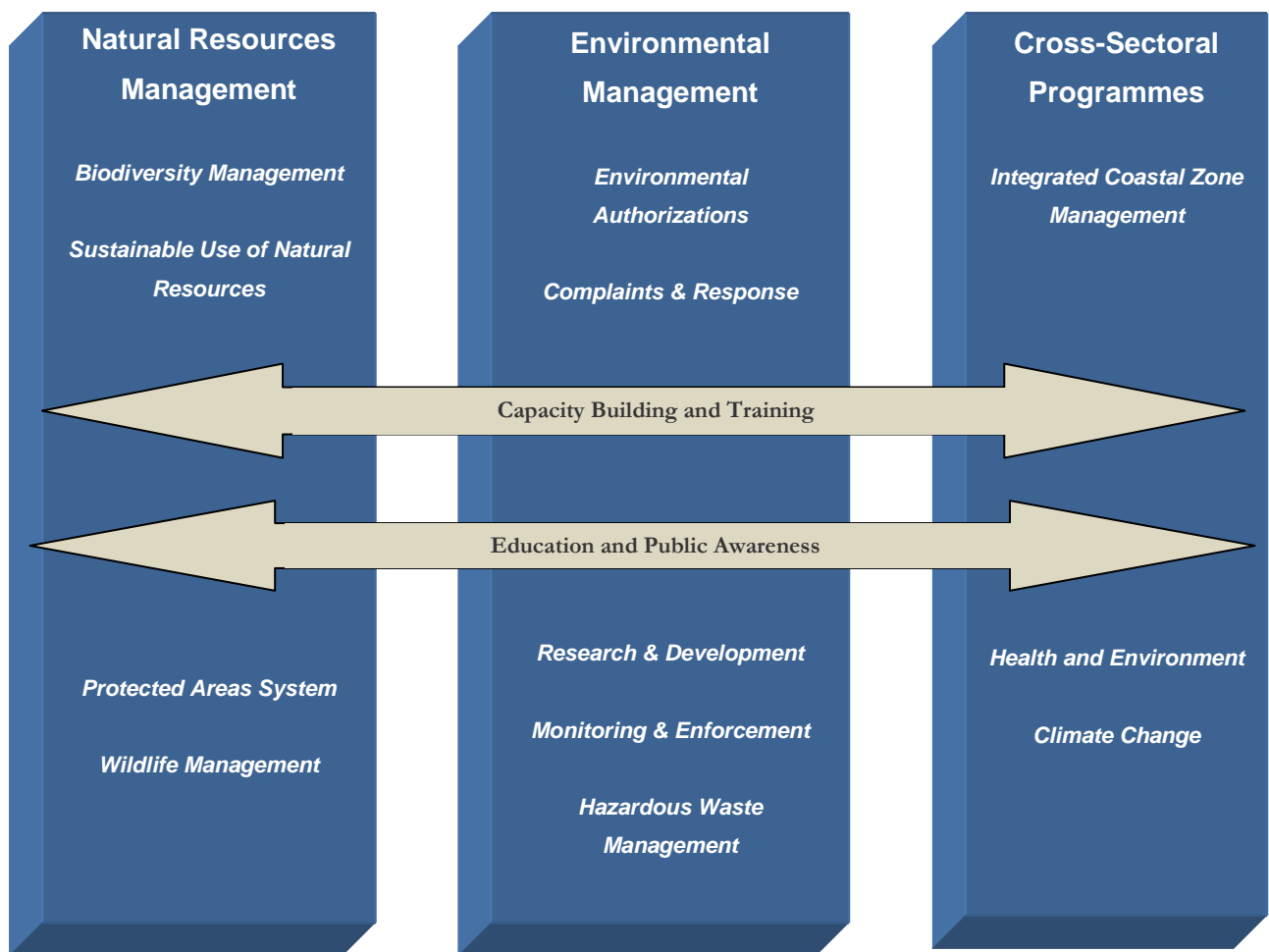


Figure 2: EPA Programmes, Components and Links.

1.6.1 Natural Resources Management

Having ratified the Convention on Biological Diversity (CBD), Guyana committed to developing National Strategies, Plans and Programmes for the conservation and sustainable use of biodiversity 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 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), 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.

2. ADMINISTRATION

The Administrative Division comprises the Administrative, Finance, Geographical Information Systems (GIS), Human Resources, and Internet technology (IT) Units. The Division's responsibilities include procurement, provision of Information Technology and Geographical Information System support and administrative and human resources management. Materials, equipment and services to meet the Agency's needs are procured through subventions from the Government of Guyana and through donor-funded Projects managed by the Agency.

2.1 FINANCE

The Agency received subventions totalling G\$123,334,000 from the Government of Guyana in 2010, compared to the G\$62,332,000 million received in 2009. The difference between the total subvention received and the actual expenses for the year was supported by revenues from the Agency which totalled G\$29,081,717. 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 under review, achievements in Financial Management were as follows:

- The 2009 Draft Financial Statements for EPA and Wildlife Division were prepared and submitted to the Audit Office of Guyana;
- The audit for EPA and Wildlife Division for the year 2009 was completed and the Agency received the Audited Financial Statements from the Audit Office of Guyana; the audit report was submitted to the EPA's Board of Directors and the Office of the President;
- Quarterly Financial Overviews 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 Biodiversity Enabling Activities Project (BEAP); Biosafety Project; WWF KR-37 Project; and KfW Small Grants Project were met in accordance with each project's specific guidelines;
- Financial Statements for ten (10) sub-projects under the KfW Small Grants Project were verified during the year, bringing these projects to official closure;
- Monthly Financial Overviews for the KfW Small Grants Project were prepared and submitted to Head of the Presidential Secretariat;
- An Audit of the KfW Small Grants Project for 2009 was conducted by the Audit Office and the report was submitted to Germany; and
- The Agency's Budget for the year 2011 was prepared and submitted to the Office of the President.

2.2 ADMINISTRATIVE SERVICES

Administrative and logistical support continued to be provided to all Divisions of the Agency. Evaluation for and procurement of materials, equipment and services were efficiently carried out with funding from the GoG subvention and through donor-funded Projects managed by the Agency.

2.2.1 Procurement and Management

During the year, stock records were maintained for assets procured by the Agency; these were updated on a quarterly basis by physical checks for accuracy and compliance with procedures.

Office furniture and equipment were procured under the 2010 Capital Programme and items were procured under the National Biosafety Framework Project. Additionally, procurement and installation of a Telephone PBX System to service the entire Agency was done.

2.2.2 Vehicle Maintenance

The Agency's fleet of vehicles were serviced according to a maintenance schedule to ensure that fitness for the Agency transportation needs. Malfunctioning AC units and damaged upholstery in vehicles were repaired or re-done. Also, a snorkel, cargo box, and winch were installed on the field vehicles and radios in vehicles were repaired. Additionally, batteries and tyres were procured for vehicles as the need arose.

2.2.3 Building and Compound Maintenance

Activities of the tender process were coordinated and monitored for the rehabilitation of the ground floor, and the construction of a new fence and driveway at the Agency's new location at Ganges Street, Sophia.

The relocation of Administrative and Environmental Management Divisions from Charlestown to Sophia was coordinated and completed. Following the relocation, the building at the Charlestown was handed over to the Ministry of Human Services.

A 125 KVA Generator Set was installed to provide uninterrupted power supply to the Agency.

Contracts were issued for the following works for enhancement of the Agency's compound and Office Building:

- Levelling of the grounds of the compound;
- Repairs to the septic tanks;
- Repairs to the internal concrete drains;

- Relocation and stacking of metal panels within the compound;
- Repairs to the security huts and external bond;
- Laying of external pipes to drain the compound;
- Repairs to the main building roof and the re-routing of toilet vent pipes;
- Repairs to the vehicle shed;
- Repairs and modification of the main gates;
- Repairs to the EPA's sign and steel mount;
- Painting of the external storage bond and security huts;
- Repairs to the roof guttering; and
- Installation of three (3) set of office cubicles.

2.2.4 Additional Support

Procurement, transportation, and photocopying support were provided to the Agency's Outreach Programmes, KfW Small Grants component of the GPAS Project, National Biosafety Framework Project, and the World Wildlife Fund KR37 Project.

The Administrative Services work programme was reviewed and updated on a monthly basis.

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.

Achievements in Human Resources during 2010 are as follows:

2.3.1 Staffing

A total of twenty-two (20) suitable candidates were recruited to fill vacancies in the various Divisions of the Agency as shown in the Table 1. At the end of 2010, fifty-four (54) members of staff were in the employ of the Agency and were distributed across the four Divisions (Appendix I).

Table 1: Staff Recruitment in 2010.

<i>Divisions</i>	<i>Number of Staff Recruited</i>	<i>Designation</i>
Administration	11	Director (1), Environmental Officer (GIS) (1), Technical Services Officer (1), Administrative Officer (1), Economist (1), Network Administrator (1), Executive Assistant (1), Administrative Assistant (1) Office Assistant (1), Driver (1), Handyman (1).
Education, Information & Training	Nil	Nil
Natural Resources Management	4	Environmental Officer (2), Special Projects Officer (1), Senior Technical Officer (1).
Environmental Management	5	Environmental Officers (3), Field Technician (1), Senior Environmental Officer (1).

During the year, there were eight (8) resignations, five (5) involuntary terminations of service, and one (1) staff became deceased. As a result, the following three (3) senior level positions within the Agency were vacant at the end of the year:

- Information Technology Specialist (1);
- Human Resources Officer (1); and
- Finance Officer (1).

Additionally, five (5) staff members were promoted in two Divisions: two (2) to the position of Senior Environmental Officer, and three (3) to Environmental Officer II.

At the end of 2010, fifty-four (54) members of staff were in the employ of the Agency. Although staff turnover continued to be high (Figure 3), there was a decrease from twenty-five (25) leaving the Agency in 2009, to thirteen (13) in 2010.

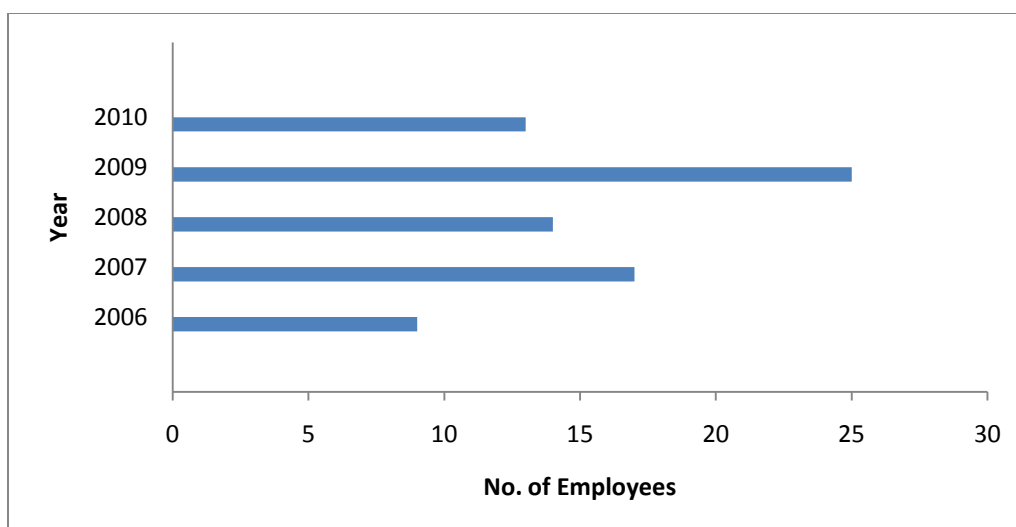


Figure 3: Staff Turnover during the period 2006-2010.

2.3.2 Workshop and Meetings

Overseas

Twelve (12) Cabinet Papers were prepared for Officers of the Agency to attend overseas workshops/meetings. Approval for attendance was received for eight (8) meetings/workshops, however, two of these approvals were received too late for the necessary travel arrangements to be made, as such, Officers could not attend.

In-Country

Throughout the year, Officers participated in meetings and workshops which have contributed to building capacity in the Agency. These related to aspects of the Agency's work as follows:

- KfW Small Grants Component of the Guyana Protected Areas Project;
- WWF Project, "Capacity Building within the Environmental Protection Agency to Support Protected Areas Development and Management and Promote Sustainable Livelihoods in Amerindian Communities in Guyana";
- REDPARQUES;
- Wildlife Management Authority Board Meeting;
- GEF Working Group;
- Ninth Meeting of the *Ad Hoc* Open-ended Working Group on Access and Benefit-sharing of the Convention on Biological Diversity (CBD ABS9);
- National Reports to the CBD;
- Biodiversity Clearing House Mechanism;
- ISO/IEC 17020:1998 Standard for Inspection Agencies;

- Supervisory Management; and
- Leadership and Effective Management.

See Appendix II for more details of meetings and workshops attended by the Agency in 2010.

The Agency continued to participate on the following Sectoral Boards and Committees:

- LCDS Multi-Stakeholder Steering Committee;
- Kaieteur National Park Board;
- Wildlife Management Authority Board;
- National Climate Committee (NCC);
- Guyana Tourism Authority Board;
- Guyana Fire Service Board;
- Guyana Geology and Mines Commission Board;
- Guyana Forestry Commission Board;
- MRVS Steering and Technical Committees;
- Natural Resources and Environment Advisory Committee;
- Second National Communication to UNFCCC, Steering Committee; and
- National Biodiversity Committee.

The Agency also facilitated three (3) work-study students from the University of Guyana who were given exposure to some aspects of the work of the three technical Divisions within the Agency.

2.4 POLICY AND PLANNING UNIT

The Policy and Planning Unit is responsible for providing advice to management, on policy development and on the application of Environmental Economic Instruments, Environmental Evaluation, Capacity Building and Project Development.

For a large part of the year, the Unit's sole position of Environmental Economist was vacant. The post was filled in September, 2010.

The following were the major areas of focus during the period:

- **Permit Fees:** Information on the permit fee structure was gathered and the process of revising the permit application questionnaire has begun;
- **Solid Waste Management:** Research on the possibility of a PET recycling initiative continued; meetings were also held with private sector organizations and international organizations on advancing the concept;

- **Capacity Building:** The training material for the Environmental Economics course was revised; this course would be delivered to selected EPA staff in 2011; and
- **Research and Policy Papers:** A number of policy papers were produced as requested by the Executive and Divisional Directors.

2.5 INFORMATION TECHNOLOGY

During the year, the Agency continued to maintain its computer equipment, Local Area Network (LAN), and developed and maintained its databases and internal and external websites.

The major achievements in 2010 are as follows:

2.5.1 Databases

The HR Assets and Environmental Authorization database, and the ACCPAC Accounting Software encountered several errors; all of these were resolved. The Authorization database was modified to include an additional field for GIS coordinates.

The server that hosted the Complaints database and ACCPAC developed a hardware problem; this was rectified.

2.5.2 PC Support

A number of desktop and laptop computers were diagnosed with various operating system, software and hardware problems, and these were consequently repaired or replaced. All printers and computers were maintained in good working order.

2.5.3 Network Support

The LAN, virtual machines, internet email, data servers, PCs, printers, UPS, laptops and databases were maintained throughout the year. This process included monthly backup of data, periodic functionality tests for various devices, and temporary backup of data as required.

Instability of the epagy.org domain due to corrupted OS and DNS, caused by viruses, were fixed. The DHCP and DNS were migrated, updated and configured to ensure stability of data and to facilitate access user access on the LAN.

Several computers were assembled to cater for additional staff at the Agency; this included assemblage of keyboards, mice, motherboards, processors, hard drives, ATX Mid towers Cases and memory. The LAN was also expanded to accommodate the new staff. Throughout the year, server and all data files were routinely backed up and archived.

2.5.4 Managing Information Systems

Phases 1, 2 and 3 of networking were completed at Sophia, to accommodate the relocation of Offices. A New Local Area Network was created and servers were purchased, reloaded, configured and deployed to the Local Area Network.

A total of thirteen (13) 3000XLM Smart UPS's were repaired and set up in the Environment Management and Administrative Divisions, and in the Finance and IT Units, to compensate for power outages.

Bit Defender Internet Security and NOD32 Antivirus were deployed to the entire network and Antivirus protection was installed on all computers and servers; these were automatically updated on a daily basis.

On several occasions during the year, the data server "went down" due to power outages; alternate servers were then "brought up" and network data onto them allowing staff uninterrupted data and internet access.

2.5.5 Website Development

General maintenance was carried out on the Agency's internal and external websites; public notices, vacancies and other related documents were uploaded. Several intra-mail accounts were created and maintained.

2.5.6 Other

Assistance was provided for ACCPAC, NBRIS and CHM Training. There was also procurement of IT equipment.

2.6 GEOGRAPHICAL INFORMATION SYSTEM (GIS)

During 2010, GIS/spatial data were managed for use in decision-making as follows:

- Maps were prepared as follows:
 - Proposed landfill sites within NDCs;

- Complaints according to EMD Units;
 - Guyana maritime boundaries;
 - Moruka River;
 - Amerindian Villages (27) in Regions 2 and 9; and
 - EIA Required Projects and the EIA Not Required Projects for Mining and Forestry.
- Initiatives were taken to update the Agency's GIS database as follows:
- Conducted Research on plotting of GPS points in Google Earth;
 - Located Fairfield Rice Inc. site using Google Earth, exported site image to verify its printing quality;
 - Continued to update Geo-databases for Authorisation, Permit and Complaint for the various Units within the EMD;
 - Developed a 2010 Inspection Geodatabase which is updated whenever new data is available; images of inspection sites, extracted from Google Earth, were hyperlinked to their respective spatial locations within the Geodatabase.
 - Developed a Water Quality Data System in collaboration with EMD; this data system was developed using Microsoft Excel.
 - Researched data and information on ongoing conservation activities.
 - Updated the GIS Database with shape files obtained from the Guyana Lands & Surveys (GLSC), Guyana Forestry Commission (GFC), and Guyana Geology and Mining Commission (GGMC). Information obtained include:
 - Digital copies of the population density data;
 - Topographic and Flood data (GLSC);
 - Data, satellite images and results for the research that was done by WWF in collaboration with the National Forest Office (ONF), France, on deforestation rate caused by small- and medium-scale mining in Guyana for years 2000 to 2008;
 - Reviewed GGMC's latest release of property data; and
 - Collected a digital copy of the Georgetown Map in PDF format.
 - Plotted GPS points in Google Earth, exported the images of the points located and verified their printing quality;
 - Plotted a total of two hundred twenty-three (223) sets of GPS coordinates to locate the EIA required projects and the EIA not required projects for Mining and Forestry;
 - Approximately two hundred and forty (240) sets of GPS coordinates collected from field exercises by the EMD staff, were converted and plotted in Google Earth. Over six hundred and twenty (620) images, of points located, were extracted and prepared for environmental Officers to present in their inspection reports;

- Modified the EMD database in order to accommodate and record GPS coordinates (both UTM and WGS 84); and
- A large percentage of coordinates plotted had to be converted from WGS 84 to UTM and *vice versa* in order to be plotted in both ArcMap and Google Earth.

Other:

- Facilitated and assisted with the printing of several booklets, Newsletters and spread sheet documents inclusive of Cash Book 2009, KfW Small Grants cash book-balance, 'Projects for Sustainable Development Feb. 01, 2010' and FFI Cash book;
- Designed and printed business cards for the staff of the Agency;
- The GIS System was upgraded with Google Earth software and AutoCAD 2008, IDRISI Taiga software and License from the Remote Sensing training course;
- Digital copies of training materials for the Remote Sensing course, using the IDRISI Taiga software were uploaded on the network drives;
- The GIS Officer prepared GPS user's manuals for staff who were and still are interested in learning how to use a GPS as well as, understanding its theoretical principles. Prior to this, the GIS Officer held a seminar on GPS technology;
- An internal Webpage was designed and developed by the GIS Officer for accessing training materials, information on project status and maps prepared within the GIS Unit;
- GIS Officers completed general service on the plotter and the memory; print heads and cleaners were replaced; and
- GIS Officers represented the EPA on the MRVS Steering and Technical Committee and assisted in the review and evaluation of projects documents.

3. NATURAL RESOURCES MANAGEMENT

Under the Environmental Protection Act No. 11 of (1996), the Agency is mandated to coordinate and maintain a programme for the conservation and sustainable use of biological diversity in Guyana. Further, as national focal point for the Convention on Biological Diversity (CBD), the Agency is required to design, source funding, execute and implement projects that would assist in achieving the general objectives and programmes of the Convention. These responsibilities of the Agency are undertaken by its Natural Resources Management Division (NRMD) via three technical units: Protected Areas, Biodiversity, and Wildlife.

During 2010, the NRM Division was headed by a Director who was supported by three (3) Senior Environmental Officers (SEOs), one (1) Environmental Officer II, four (4) Environmental Officers I, one (1) Special Projects Officer, one (1) Senior Technical Officer, two (2) Technical Officers and an Executive Assistant. Additionally, one (1) Environmental Officer II from the Education, Information and Training Division assisted the Division in the implementation of its work plan.

During the year, the Division successfully sourced funds and executed several projects on the work programme. The Division considerably advanced its progress with the KfW Small Grants Component of the Guyana Protected Areas System (GPAS) Project, and the implementation of the Biodiversity Enabling Activity Project (BEAP) and National Capacity Self Assessment (NCSA) Project. In addition, Staff of the Division continued to function as representatives on various Committees and Boards.

3.1 PROTECTED AREAS

3.1.1 Guyana Protected Areas System (GPAS)

KfW Small Grants Component

A EURO 2.56M Financing Agreement signed in July, 2004, between the Governments of Guyana and Germany (the latter represented by the Kreditanstalt für Wiederaufbau (KfW)) continued to support the Small Grants Component of the Guyana Protected Areas System (GPAS) Project. Specifically, these funds were used to conserve ecosystems and enhance the livelihoods of Amerindian communities in or in close proximity to protected or proposed protected areas.

The GFA Group, a German Consultancy Firm contracted by KfW, maintained its assistance to the EPA, as the implementing Agency of the Small Grants Project. Under the Project, Amerindian communities at Shell Beach, Kanuku Mountains, and Kaieteur National Park and the Upper Mazaruni Region continued to benefit from grants to conduct small sub-projects.

During the year, a total of seventeen (17) visits were made to the communities in intervention areas to monitor the progress of current sub-projects and provide guidance on implementation activities as necessary. Of these four (4) were made to the Kanuku Mountains, seven (7) to Shell Beach, three (3) to Kaieteur, two (2) to Moraballi and one (1) to the Upper Mazaruni Region. More details on these visits can be found in the Appendix III.

A total of forty-seven (47) sub-projects have been developed under the KfW Small Grants Component, among them, the drafting of Protected Areas Legislation. Twenty-three (23) projects have been implemented and closed while twenty-one (21) continue to be implemented and Grant Agreements are to be signed for two (Table 2).

Table 2: Status of Sub-Projects Implemented in the different Intervention Areas.

Intervention Area	Grant Agreements to be signed	No. of Closed Sub-projects	No. of On-going Sub-projects	TOTAL
Kaieteur National Park	2	3	4	7
Kanuku Mountains	0	11	5	16
Shell Beach	0	8	11	19
Moraballi Reserve	0	0	1	1
Upper Mazaruni Region	0	1	0	1
TOTAL	2	23	21	46

(A) Sub-projects Completed

Ten (10) sub-projects were closed in various communities in 2010. These are:

1. Shea: Fencing Farmlands.
2. Kwebana: Citrus Farming Project.
3. Yupukari: Irrigation for Kitchen Gardens.
4. Meriwau: Livestock Project.
5. Upper Mazaruni Area: Beekeeping.
6. Proposed Kanuku Mountains Protected Area: Participatory Collaborative Management Planning.
7. Wallaba: Farming Project.
8. Parishara: Farming Project.
9. Warapoka: Procurement of Additional Materials & Furnishing of Multi-purpose Building.
10. Nappi: Poultry Farming Project.

(B) Sub-projects being implemented

Twenty-one (21) sub-projects were at various stages of implementation during the year. These included the following:

Kaieteur National Park Intervention Area:

1. Kaieteur: Construction of a Visitor Arrival Centre.
2. Tukeit: Construction of a Rest House/Warden Building.
3. E & A Consultancy - for designing and supervision of works for the Visitor Arrival Centre and Rest House/Warden's Building.
4. Chenapau: Completion of Airstrip.

Kanuku Mountains Intervention Area

1. St. Ignatius: Construction of Benabs for Accommodation and for Use as a Traditional Skills Centre.
2. Shulinab: Cashew Farming Project.
3. Maruranau: Construction and Furnishing of the Village Guesthouse.
4. Parikwaranawa: Equipment and Materials for Farms.
5. Sand Creek: Fencing of Farmlands.

Shell Beach Intervention Area:

6. Three Brothers' Village: Construction of a Multi-Purpose Centre in St. John's Community.
7. Little Kaniballi: Equipment and Materials for Farms.
8. Proposed Shell Beach Protected Area Delineation using Community Participatory Approaches and Mapping Tools.
9. Kumaka: Construction and Furnishing of a Multipurpose Building and Guesthouse.
10. Kamwatta: Construction and Furnishing of a Multipurpose Building and Guesthouse.
11. Manwarin: Construction and Furnishing of a Multipurpose Building and Guesthouse.
12. Warapoka: Construction of a Multi-purpose Center.
13. Kumaka: Procurement of Additional Materials & Furnishing of Multi-purpose Building.
14. Kamwatta: Procurement of Additional Materials & Furnishing of Multi-purpose Building.
15. Manwarin: Procurement of Additional Materials & Furnishing of Multi-purpose Building.
16. Three Brothers: Furnishings for the Multi-purpose Building.

Others:

1. Moraballi Forest Reserve – Enhancing Forest Conservation And Monitoring for the (C) Sub-projects approved - Agreements to be signed.
1. Furnishings for the Visitor Arrival Center (Kaieteur).
2. Furnishings for the Rest House/Warden Building at Tukeit (Kaieteur).

(D) Protected Areas Legislation

The draft Protected Areas Bill, along with the accompanying explanatory notes, has been submitted to the Office of the President (OP) for consideration.

Capacity Building within EPA to Support Protected Areas Development & Management & Promote Sustainable Livelihoods in Amerindian communities in Guyana

The Division was strengthened for its work on protected areas with the employment of two Technical Officers (TOs) for a period of eighteen (18) months. These positions were supported with funds being provided by the World Wildlife Fund (WWF). During the year, both Officers were actively involved in the monitoring and implementation of KfW sub-projects particularly in the Kanuku Mountains and Shell Beach Intervention Areas while one of them also participated in the consultations for the delineation of the proposed Shell Beach Protected Area.

The contract of the TOs ended on June 30, 2010, the end date of the WWF Project. However, the EPA submitted a proposal to WWF for a one-year extension of the Project to support the recruitment of a Senior Level Officer to provide higher level support to the work programme of the Division, particularly the Protected Areas Unit. This proposal was approved by the WWF and a Senior Technical Officer has since been employed.

Wetlands Assessment Project

The EPA made inputs on the proposal for the Assessment and Prioritization of Wetland Ecosystems in Guyana Project which was finalized by the WWF. The Project seeks to identify major wetland ecosystems in Guyana, determine their status, prioritize wetlands of major importance based on management needs and suggest interventions for their conservation and management; it is currently being implemented by the WWF in collaboration with the EPA.

Several wetland sites were identified under the Project through remote sensing techniques. The Team, including representatives from the WWF and the EPA, conducted a Biological and Social Assessment of the Canje Basin Area in December. Other sites identified in the Project are scheduled to be surveyed during the first half of 2011.

Amazon Cooperation Treaty Organization (ACTO) Collaboration

Guyana, as a member of the Amazon Cooperation Treaty Organization (ACTO), has been participating in programme areas relating to protected areas. Guyana is working towards developing programmes in conjunction with other member countries to strengthen collaboration for sustainable management of Amazon protected areas through information-sharing and trans-boundary conservation initiatives.

The ACTO conducted a Technical Mission to Guyana during April 28-30, 2010. A workshop was held to present and discuss the components of the Regional Plan of Action for Amazonian Biodiversity. Comments on the Science and Technology Strategy for the Conservation and Sustainable Use of Amazon Biodiversity, the Draft Cooperation Mechanism for the Monitoring and Control of Wild Fauna and Flora

Trafficking in the Amazon, the Regional Amazon Bio-trade Programme, and the Regional Programme for the Sustainable Management of Amazonian Protected Areas were compiled and submitted to the ACTO Secretariat. The Regional Action Plan was finalised and circulated by the Secretariat.

The Latin American Network for Technical Cooperation on National Parks, Other Protected Areas, and Wild Flora and Fauna (REDPARQUES)

A draft Regional Report (in Spanish) on the status of Protected Areas and Conservation in the Amazon Biome was submitted by REDPARQUES to all participating countries for review and comment. These comments were compiled by the EPA and forwarded to the REDPARQUES Coordinator. Comments on the REDPARQUES Regional Report were requested from the EPA; these were also compiled and submitted to REDPARQUES.

REDPARQUES, in collaboration with the World Wildlife Fund (WWF) and the International Union for the Conservation of Nature (IUCN), conducted a two-day workshop in Guyana on conservation experiences of local and indigenous communities in protected areas of the Amazon Region during April 19-20, 2010. The workshop comprised delegations from the nine Countries of the Amazon, including Guyana, Suriname, French Guiana, Brazil, Bolivia, Colombia, Ecuador, Peru and Venezuela. The local coordinating committee comprised the WWF Guianas, the Environmental Protection Agency (EPA), and the Ministry of Amerindian Affairs.

The objective of the workshop was to share the experiences of local and indigenous communities regarding conservation and protected areas in a regional context, and to identify institutional and policy-related constraints and opportunities to carry out joint conservation processes between governmental entities and local and indigenous communities.

The EPA also participated in the workshop on Financial Sustainability in Amazon Protected Areas in Sao Paulo, Brazil, during February 03-05, 2010.

Criteria for Identifying Priority Areas for Biodiversity within Guyana's Forests

The EPA conducted a national stakeholder workshop on June 22, 2010, focusing on the establishment of criteria for identifying priority biodiversity areas in Guyana's forests. A report on the workshop was prepared and circulated to all stakeholders for review and comments. The report was revised and submitted to the Office of the President.

3.2 BIODIVERSITY

3.2.1 Biodiversity Research

The Biodiversity Unit (BU) is responsible for the processing of Research Applications and the issuance of Permits to conduct Research in Guyana. For the period, January to December, 2010, applications were received from students, professionals, and institutions worldwide. These included University of Leeds, U.K; University of London, U.K.; University of Cambridge, U.K.; British Broadcasting Cooperation (BBC), London; JGP Consultancy Ltd., Brazil; Royal Ontario Museum, Canada; Simon Fraser University, Canada; University of Pennsylvania, U.S.A.; University of Minnesota, U.S.A.; American Museum of Natural History, U.S.A.; National Geographic Television, U.S.A.; University of Florida, U.S.A.; University of Georgia, U.S.A.; Smithsonian Institution, U.S.A.; Humboldt State University, U.S.A; Boise State University, U.S.A; Red Bull Media House, Austria; Research Institute and Nature Museum, Germany; Deutsche Welle TV, Germany; and, the University of Guyana.

The majority of the Research Projects were concentrated primarily in the interior locations of Guyana, such as, Kaieteur National Park, and the Iwokrama Rainforest, Region 8; the Rupununi, Region 9; the Pakaraima Mountains, and the Upper Mazaruni District, Region 7.

Research Applications

For the reporting period, thirty seven (37) Research Applications were received by the Natural Resources Management Division (Figure 4).

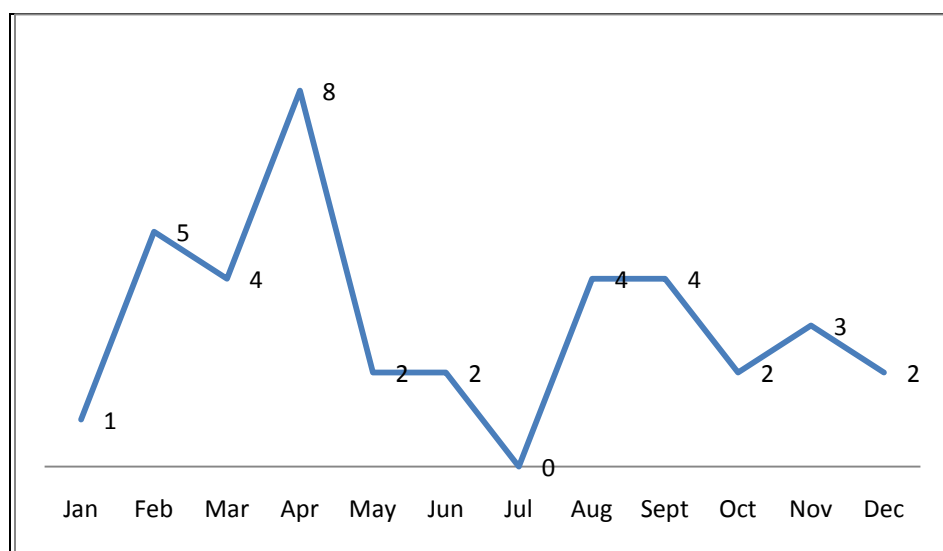


Figure 4: Number of Research Applications received in 2010.

Processing of Research Applications and Issuing of Permits

Applications Processed: A total of twenty six (26) research applications were processed and approved. Seven (7) applications were at various stages of processing. Three (3) applications were processed but the Agency was informed that the applicants will no longer be conducting research. One (1) application was discontinued due to late application.

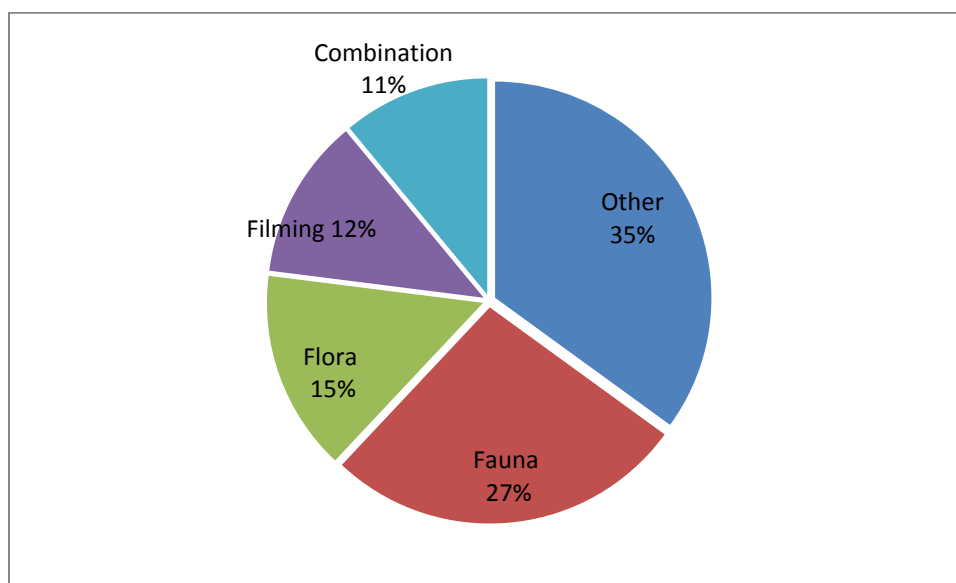


Figure 5: Categories of Research Applications Permitted in 2010.

Research Permits Issued: Twenty six (26) Research Permits were issued for the reporting period - twenty four (24) Research Applications in 2010, and two (2) from 2009 but processed and approved in 2010. Three (3) Research Permits were extended, and request for extension for another was on hold pending submission of additional documents requested by the Agency. These Permits were for flora, fauna, a combination of flora and fauna, filming, and others (in particular climate and hydrology, archaeological, anthropological) studies. Figure 5 above shows the categories of Applications permitted by the EPA during the reporting period.

Export Permits: At the end of the reporting period, eleven (11) Export Permits were issued for specimens collected under Research Permits while another three (3) Export Permits were granted for specimens collected under Research Permits that were issued in 2009. The specimens exported included faunal (museum and tissue samples), flora from different plant families (herbarium and tissue samples), and fungi (herbarium specimens). All specimens will be used in accordance with the Guidelines for Biodiversity Research in Guyana and are to be returned as specified by the University of Guyana, Centre for the Study of Biological Diversity (verification body acting on behalf of the EPA).

Analysis: 70.2% of all Research Applications received were completely processed, approved, and issued with Permits to conduct Research (representing 26 Of 37 applications) while 8.1% of Research Applications processed were not executed (representing 3 of 37 Applications), and 2.7% of all Applications was discontinued from processing by the Researcher (representing 1 of 37 Applications); 18.9% were at various stages of being processed (representing 6 of 28 Applications). During the period, no Application was denied approval.

Comparative Analysis (2009 vs. 2010): Figure 6 below shows a comparison of research applications received for the review period during 2009 and 2010. There is a significant increase in the total number of applications received in the year 2010, with January being the only month when a higher number of applications were received in 2009. April recorded the highest number of applications and July the least.

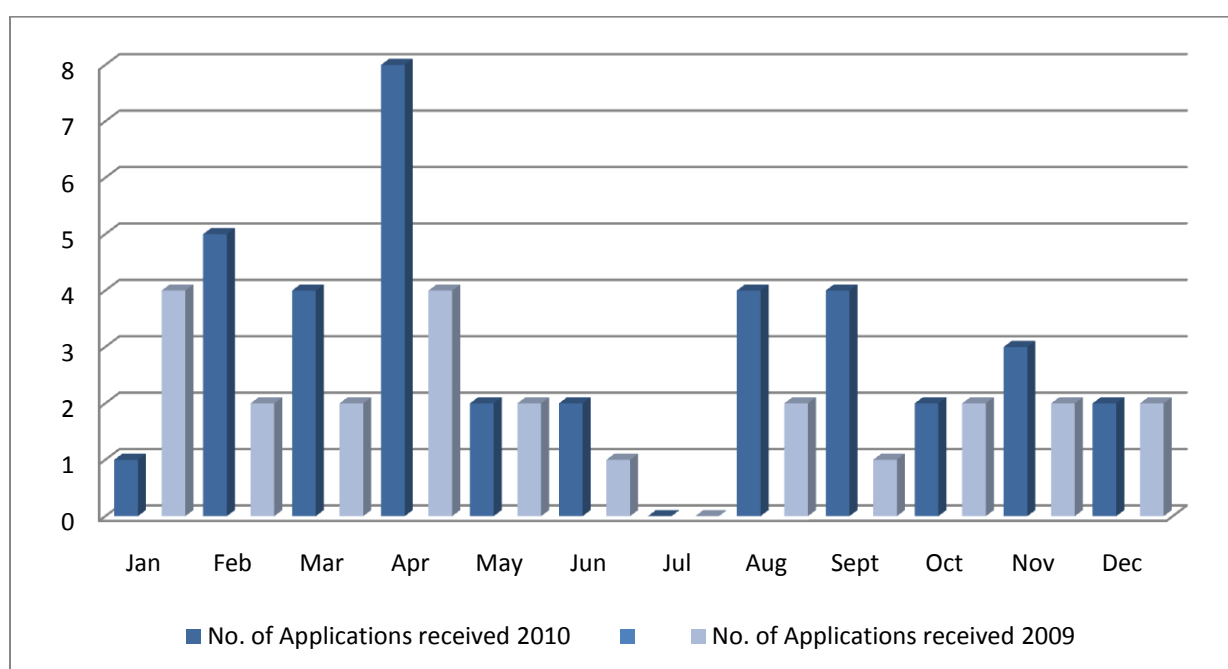


Figure 6: Number Research Applications received in 2010 compared with 2009.

Monitoring and Enforcement

The monitoring and enforcement aspect of the Research Process was maintained by local counterparts from the University of Guyana, when possible. The Agency continued to preserve linkages with other relevant sector agencies and organizations such as the Ministry of Amerindian Affairs, the University of Guyana, Iwokrama International Centre, Conservation International - Guyana, the Walter Roth Museum of Anthropology, the Kaieteur National Park, National Parks Commission, and Local Communities in order to ensure researchers' adherence to the National Research Guidelines and the Terms and Conditions of their respective Research Permits. The Biodiversity Unit continued to ensure that

researchers fulfil reporting obligations as stipulated by their research permits prior to departing Guyana and the issuing of any export permits.

Revenue Generation

A total of eleven thousand and twenty-five United States dollars (US\$11,025.00) was generated from application, late application, and permit fees (this excludes permit fees for applications currently being processed, to be processed, and, in some instances, application and late application fees).

3.2.2 Biodiversity Projects

A number of projects were executed to support the conservation and sustainable use of biodiversity in Guyana. These are presented below.

National Biosafety Framework (NBF)

The National Biosafety Framework (NBF) was developed to ensure adequate level of protection in the field of the safe transfer, handling and use of living modified organisms (LMOs) resulting from modern biotechnology in Guyana. This document provides a framework for the control and monitoring of Genetically Modified Organisms (GMOs) and LMOs in order to prevent adverse effects on Guyana's biological diversity. The project was conducted over an eighteen-month period with support from UNEP/GEF.

The Agency received approval for the utilization of the remaining funds under the National Biosafety Framework. Two posters on Biodiversity were produced and a digital camera and two pieces of audiovisual equipment were purchased with these funds. The EPA prepared and submitted the Fifth and Sixth Quarterly Expenditure and Progress Reports which received no-objections from UNEP. The Agency is currently collaborating with the Audit Office to conduct an audit for the period January, 2008 to June, 2010.

Regional Project on Biosafety

Guyana endorsed the project proposal "Implementation of a National Biosafety Framework in the Caribbean Sub-Region countries of Bahamas, Belize, Grenada, Guyana, Jamaica and Suriname" with the support of UNEP.

The Status Report: "Progress for presenting the project to the GEF", submitted by Ms. Tea Garcia, under the Caribbean Regional Biosafety Project, was reviewed by the EPA and a correspondence was submitted to UNEP.

The EPA provided UNEP with a Tracking Tool and a correspondence highlighting the country's co-financing contribution towards the Caribbean Biosafety Regional project. The project document was submitted to GEF for internal review.

Biosafety Clearing House Phase II

The Biosafety Clearing House (BCH) will foster and formalize the facilitation of the exchange of scientific, technical, environmental and legal information on Biosafety and Living Modified Organisms (LMOs) among sector Agencies in Guyana.

Guyana has successfully completed its activities under the UNEP-GEF Biosafety Clearing-House (BCH) Project and as a result, this project was officially closed as of November, 2008.

To strengthen capacity in effectively utilizing BCH and promoting regional and sub-regional collaboration, networking and exchange of experience for national and regional BCH Management, a proposal for the BCH Phase II project was developed.

The EPA reviewed the Project Identification Form (PIF), "Continued Enhancement for building capacity for effective participation in the BCH Phase II" submitted by UNEP. A correspondence submitted to UNEP indicating Guyana's endorsement of the proposal for the GEF-funded Project and its interest in participating in the project. The Global Environment facility (GEF) Council approved the BCH Phase II project.

CBD: International Regime for ABS, ABS Protocol

The Ninth Meeting of the *Ad Hoc* Open-ended Working Group Meeting on Access and Benefit-sharing of the Convention on Biological Diversity (CBD ABS9) was held in Santiago de Cali, Republic of Colombia, from March 22-28, 2010. The meeting preceded two days of regional and inter-regional consultations at which Guyana worked with the Group on Latin America and the Caribbean (GRULAC). A revised draft ABS Protocol was prepared and circulated to Parties of the Convention for review.

Guyana also participated in the Meeting of the Interregional Negotiating Group (ING) on Access to Genetic Resources and Benefit-sharing during September 18-21, 2010 in Montreal, Canada. This meeting sought to continue negotiations on the text of the draft Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity. The results were submitted to the Working Group at its ninth meeting held in Nagoya, Japan, on October, 2010.

A report, along with the revised draft ABS Protocol on the proceedings of the Meeting was submitted to the Office of the President.

The Nagoya Protocol (ABS Protocol), which came out of the Tenth Conference of Parties, was agreed on by delegates on October 29, 2010. The criteria to sign onto the Nagoya's Protocol and the Supplementary Cartagena Protocol are being reviewed by the Agency.

Capacity Building Workshop for Indigenous and Local Communities of Latin America and the Caribbean

Guyana will be hosting a Capacity Building Workshop for Indigenous and Local Communities of Latin America and the Caribbean on the CBD including Article 8 (j) and Access and Benefit Sharing during March 16-18, 2011.

A planning committee to coordinate logistics and other aspects of the workshop was assembled and included representatives from the EPA, Ministry of Amerindian Affairs, Ministry of Foreign Affairs, and the Office of the President; Ms. Melinda Janki is the CBD's local representative.

Access and Benefit Sharing of Genetic Resources Regulations

The review of the Regulations was placed on hold pending negotiations on the text of the draft Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity. The Agency continued to review the Nagoya's Protocol to ensure synergy with the draft ABS Regulations.

National Biodiversity Research Information System (NBRIS)

The National Biodiversity Research Information System was brought to the final stages of becoming fully operational. This will enable better management of data arising out of research on biological diversity. More importantly, the NBRIS will facilitate on-line registration and application by researchers.

Other components of the system include on-line evaluation of applications, a Document Management System, a General Information Component, and a Specimens Tracking and Inventory System.

The synchronization feature was addressed and NBRIS is now located on its own server and has a functional website. Further testing on this system is to be carried out to ensure all components of the website are operational.

National Capacity Self-Assessment (NCSA)

The EPA implemented Action 2.2.1 of the NCSA Action Plan: Institutional Structures and Mandates (a) streamline institutional structures and mandates to address requirements of the three Conventions; and (b) integrate the activities of the three Conventions into annual work programmes of Agencies.

The Agency also commenced the implementation of the Monitoring and Evaluation Framework Consultancy. The first draft of the Framework was submitted to the Agency but the contract was terminated due to non-delivery of the final draft. The Biodiversity Unit will undertake this deliverable.

Biodiversity Enabling Activity Project

The EPA received funding from GEF-UNDP for the Biodiversity Enabling Activity Project which assessed Capacity Building Needs, and resulted in the preparation of second and third National Reports (CBD), and the establishment of the Clearing House Mechanism for the CBD.

The following consultancies were conducted under this project:

1. Traditional knowledge incorporation into biodiversity management.
2. Initial Assessment and Monitoring, including Taxonomy.
3. Access to Genetic Resources and Benefit Sharing.
4. Implementation of Incentive Measures.
5. Stocktaking of existing Capacity and Mechanisms.

A Community Assessment Tool (CAT) was developed under the Consultancy for the incorporation of traditional knowledge into biodiversity management. Distributed to Stakeholders, this capacity assessment examined the preservation and maintenance of biodiversity-related indigenous knowledge in Guyana. The assessment was intended to contribute to the preparation of the second and third National reports to the CBD.

Final drafts of the Assessment and Thematic Reports, Strategy and Action Plans were submitted for the Consultancy.

Clearing House Mechanism (CHM)

A national training exercise for the establishment of a Country-Driven Biodiversity Clearing House Mechanism was conducted by a CHM Expert Consultant from Romania. A total of fifteen (15) persons participated in the CHM Training. Participants from the various sector agencies benefited from the training during the first two (2) days, while the third day focused on training in CHM administration. The EPA prepared a Report on the CHM Training and a copy of this document was submitted to UNDP for its records.

A Contract was prepared and signed between the EPA and Eau de Web SRL for the installation of Guyana's CHM on the remote server and the satisfactory completion of the three-day training course.

The EPA subsequently signed a Special Service Agreement with K3designz for hosting of the CHM.

A Strategy for the gathering and uploading of Biodiversity information onto the CHM was prepared. The Main Menu for the CHM was developed and the uploading of relevant information has commenced.

Second National Report to the CBD

The final draft of the Second National Report to the CBD received a no-objection from the Office of the President and was submitted to UNDP for its Records.

Third National and Fourth National Reports to the CBD

The Third National Report to the CBD is a component of the Biodiversity Enabling Activity Project funded by the UNDP. The Fourth National Report was funded by UNEP-GEF through the *UNEP-GEF Project for Support to GEF eligible CBD parties for carrying out the 2010 Biodiversity targets National Assessments – Phase III*. Both reports were prepared simultaneously by the Environment Management Consultants (EMC).

Two National Workshops which focused on the review of the Third and Fourth National Reports to the CBD were conducted. The final drafts of the Third and Fourth National Reports received no-objection from the Office of the President. Copies of the Third National Report were sent to UNDP for its records and will be sent to the CBD Secretariat shortly while copies of the Fourth National Report were submitted to UNEP and CBD for their records.

Unspent funds remained under the Small Scale Funding Agreement for the preparation of the Fourth National Report. As such, the Agency received a no-objection from UNEP regarding the use of these funds for the printing copies of the Fourth National Report.

Invasive Alien Species

The EPA requested that unspent funds remaining under the BEAP be used to implement a project to examine the issue of Invasive and Alien Species (IAS) in Guyana. The objectives of the Consultancy are to: 1) Create a National IAS inventory/database; 2) Complete a Thematic Report on IAS; 3) Prepare an IAS Assessment report for Guyana; and 4) Develop a Strategy and Action plan to address the threats of existing or potential IAS in Guyana. This was approved and extension was granted until March 2011. UNDP also submitted a revised budget for 2010 which received a no-objection from the EPA.

The advertisement for the IAS Consultancy was placed in the local newspapers, however, due to limited submissions, it was re-advertised on the UN Jobs website. Forty-one (41) applications were received.

The Operational Work plan for 2010 was completed under the Enabling Activity Project. The Annual Performance Report for 2009 and Progress Report were prepared and submitted to UNDP.

GEF 5

Guyana's GEF 5 allocation for 2010 of US \$6.38 M was distributed among the three Focal Areas as follows: Biodiversity - US \$3.26 M; Climate Change - US \$2 M and Land Degradation – US \$1.12 M. Guyana is among the countries which have the flexibility to utilize these allocations across all or any of the focal areas and has also been selected a participating country in the GEF Small Grants Programme (SGP).

In considering the use of GEF 5 resources, project concepts were prepared by the various Focal Agencies. The EPA, in collaboration with UNDP, GFC and GGMC, drafted a proposal for the mainstreaming of biodiversity into key natural resources based sectors. The estimated budget was US \$4M. Additionally, the Office of Climate Change (OCC) and the Guyana Lands and Surveys Commission (GL&SC) submitted concepts which would fully utilize funding under their respective focal areas.

A proposal titled, 'Sustainable Energy Programme for Guyana', was subsequently prepared by the Inter-American Development Bank and submitted through the Office of the Prime Minister, for the sum of US\$5.5 M. This proposal was endorsed by Cabinet, and submitted for consideration through the Political Focal Point. Options for the utilization of the remaining US\$880,000 would have to be developed.

National Biodiversity Action Plan (NBAP), 2007-2011 Implementation

The Concept paper under Programme area 11 - Habitat Destruction and Associated Impacts, for the proposed project entitled "Fostering the effective management of Guyana's coastal biodiversity to minimize and prevent the destruction of coastal habitats and to protect Guyana's coastal biological diversity", was approved by the Group on Earth Observations (GEO). The NRMD finalized the project proposal and submitted same to the GEO in keeping with the May 01, 2010 deadline.

International Biodiversity Day, 2010

The Division participated in activities to observe International Biodiversity Day under the theme "Biodiversity, Development and Poverty Alleviation". A report on these activities was submitted to the CBD which also provided materials (jerseys, pens, CDs, folders, pins, bookmarks, books, and posters, etc.) to the EPA for distribution to commemorate International Year of Biodiversity.

3.3 CONSERVATION AND SUSTAINABLE USE OF WILDLIFE

3.3.1 Draft Wildlife Management and Conservation Regulations

The draft Wildlife Management and Conservation Regulations and its Explanatory Note were submitted to the Senior Council, AG.

The Convention on International Trade in Endangered Species (CITES) Secretariat undertook a legislative assistance mission to Guyana in February, 2010. During and following that mission, the following legislative texts were reviewed: the revised Regulations on Wildlife Import and Export, the draft Regulations on Wildlife Management and Conservation, the Environmental Protection Act No. 11, 1996, and the Species Protection Regulations, 1999. The Secretariat subsequently submitted comments on the above text and on the discussions held with the Wildlife Division, EPA, HPS, Ministry of Legal Affairs, and the Legal Consultant who assisted in preparing the Regulations. The draft Wildlife Management and Conservation Regulations and its Explanatory Notes were also submitted to the Head of the Presidential Secretariat (HPS) for consideration.

3.3.2 Specially Protected Areas and Wildlife (SPA) Protocol

Guyana was represented by the EPA at the 6th Conference of Parties (COP) of SPAW in October, 2010, in Montego Bay, Jamaica.

The EPA was invited to nominate experts for the Working Groups on Exemptions under the Article 11(2) of the SPAW Protocol by January 20, 2011.

3.3.3 Regional Collaboration

French Guiana (DIREN) also requested Marine Turtle Data to develop a Regional Marine Turtle Database.

Sea Turtle Symposia

The EPA received literature on the proceedings of the Twenty-Eight Annual Symposium of Sea Turtle Biology and Conservation held during January 22-26, 2008, in Loreto, BSC, Mexico.

The Division participated in the 11th Regional Marine Turtle Conference held at the Regency Suites, on September 29 and 30, 2010 under the theme, *conserving marine turtles through responsible fisheries, innovative science and technology, and social transformation outputs*. The main output of the workshop was the development of a work plan for marine turtles conservation for the period, 2010 to 2012.

Regional Marine Mammals Project

The French National Marine Protected Areas Agency, French Guiana, indicated attempts to manage a regional project on marine mammals after a rapid aerial survey in the Exclusive Economic Zone (EEZ) of French Guiana found an extraordinary richness in marine mammals. The EPA has since expressed its interest in developing and participating in any regional marine mammals' projects and a response is being awaited.

Wildlife Species Identification Manual

The Unit procured two copies of the Wildlife Species Identification Manual which address the species-specific requirements for international trade in the Guianas and facilitate quick and accurate identification of wildlife species.

3.3.4 Mara Caiman Project Proposal

The Wildlife Unit, through the EMD, received a proposal from prospective developers to engage in Caiman Ranching Activities. The project titled "Mara Caiman Project" entails caiman ranching for commercial gains. Comments were submitted to the Environmental Management Division (EMD) which recommended that the prospective developers submit an Environmental Management Plan (EMP); the EMD is awaiting the submission of the EMP.

3.3.5 *Acacia* Tree Planting Project

This project was funded by GENCAPD and was carried out in the decommissioned mining sites in Mahdia. Since the genus, *Acacia*, is not native of Guyana, the Unit sought formal documentation from those involved to determine whether or not the species was invasive. According to the project's lead researcher, Mr. Mortimer Livan, *Acacia* is well known for its rapid growth. As a result, steps were taken to curtail its spread by ensuring adequate ground cover. However, it was determined that no formal research was carried out in the localized ecosystem prior to the planting of acacia.

The EPA received, upon request, copies of reports of past re-vegetation projects under the purview of the GGMC. The documents submitted were: Excerpt from GGMC Environmental Division Annual Report, 2005 and Re-vegetation of the North East Kara Kara Mined out Area. Further collaboration between the Unit and the various *Acacia* replanting initiatives was planned for 2011 in order to ensure proper management of the species distribution.

3.3.6 Others

- **Staff Appointment** - A Senior Environmental Officer was appointed to the Unit from December 1, 2010. The Unit now has two staff members - an SEO and an Environmental Officer;
- **2011 Work Programme** - The Unit started the process of revising the work programme;
- **Guidelines for the Transport of Live Animals** - In an effort to regulate how live animals are transported, the Unit commenced working on Guidelines governing the transport of live animals and plants.

3.4 INTRA- AND INTER-AGENCY COLLABORATION

The NRMD continued to collaborate with the other Divisions of the Agency. The Division contributed to activities for International Day for Biological Diversity, 2010, and provided information for the preparation of articles for the EPA quarterly Greenleaf, reviewed Environmental Impact Assessments such as the EIA submitted by the Guyana Goldfields Inc. for the Aurora Gold Mine, Romanex Guyana International Inc, an ESIA for a proposed logging and sawmilling operation for CPT Inc.; and Memoranda of Understanding between the EPA and other institutions. The Division also participated at the University of Guyana Career Day held in February, 2010, the annual Green Walk held on May 30, 2010, and International Coastal Cleanup Day, on September 18, 2010.

3.5 MEETINGS, WORKSHOPS AND TRAINING

Staff participated in meetings and workshops which have contributed to capacity building in the Division. The majority of the meetings were associated with the implementation of the KfW Small Grants Project while some meetings were related to GEF, CBD and the WWF Capacity Building Project. Major workshops included one hosted by REDPARQUES, in collaboration with WWF and IUCN on conservation experiences of local and indigenous communities in protected areas of the Amazon Region and several hosted by the Guyana Forestry Commission to review the National Forest Policy and draft National Forest Action Plan; Chainsaw Milling; and Establishment of Criteria for identifying Priority Biodiversity Areas in Guyana's Forests among others. Details on the meetings and workshops attended can be found in the Appendix II.

Staff continued to participate on various Sectoral Boards and Committees such as the Kaieteur National Park Board, Wildlife Management Authority Board, and WWF National Coordination Committee (NCC).

4. ENVIRONMENTAL MANAGEMENT DIVISION

4.1 ENVIRONMENTAL MANAGEMENT

In keeping with its responsibility under the EP Act, 1996, the Environmental Protection Regulations, 2000, and the Environmental Protection Amendments, 2005, the Agency continued to manage the processes of Environmental Authorization, Complaints and Response, and Monitoring and Enforcement during the year. Research and Development activities also continued to be conducted to improve environmental management processes, practices, procedures and guidelines.

To maintain efficiency in the processing of Applications for Environmental Authorization, development projects continued to be placed into one of the following three categories:

- Agriculture, Fisheries and Tourism (AFT);
- Industry, Infrastructure and Energy (IIE); and
- Mining and Forestry (MF).

Permitted operations continued to be monitored; Applications for Renewal, Variance and Transfer processed and an Anti-littering Programme coordinated.

During 2010, Integrated Coastal Zone Management (ICZM) was challenged by the lack of human resources; resuscitation of the Integrated Coastal Zone Management Committee (IZCMC) and the pursuance of funds for ICZM activities are the intended focus of this Programme.

To improve the efficiency of the Environmental Management Programme, its organizational structure was revised to maximize the available human resources and it is expected to be under full implementation in early 2011. In the revised structure, one Senior Environmental Officer has responsibility for a one category of development projects, i.e. AFT, IIE or MF.

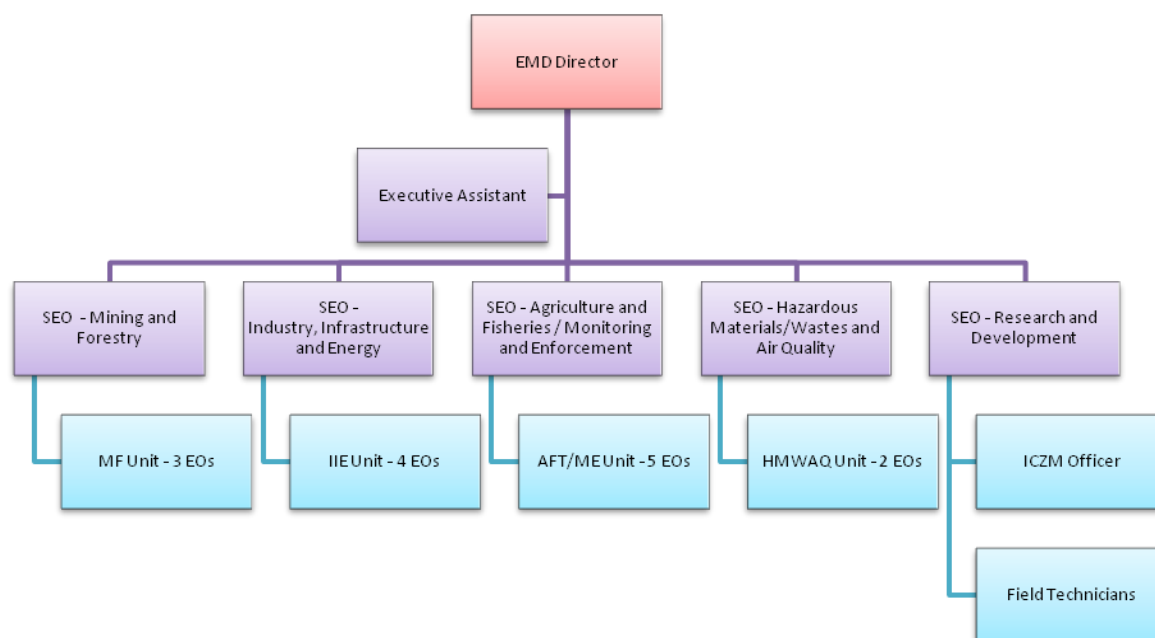


Figure 7: Revised Organizational Structure of Environment Management Programme.

4.2 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 using a comprehensive approach to environmental management, based on Regulations and Standards.

The Agency continued to support the work of the Environmental Assessment Board (EAB). The Board met on (twenty (20) occasions during the year 2010 and provided comments and recommendations on the following projects: Durban Quarries, Guyana Goldfields Inc., Romanex Guyana International, CPT Inc., GINMIN Addendum, and Sherwood Forrest Inc.

Sixteen (16) professionals with a range of expertise in environmental management registered with the Agency to provide a number of services to developers applying to the Agency for Environmental Authorisation.

4.2.1 The Permitting Process

The Agency continued to process and grant Environmental Authorization for new developments. During the year 2010, three hundred and sixty-two (362) applications were received for Environmental Authorizations. Of these, one hundred and five (105) were for new projects (see Appendix IV for more details), thirty-two (32) for existing operations, thirty-three (33) for renewals, six (6) for transfer, and

four (4) for variance (Figure 8). In addition, one hundred and eighty-two (182) noise applications were received during this period (Figure 8).

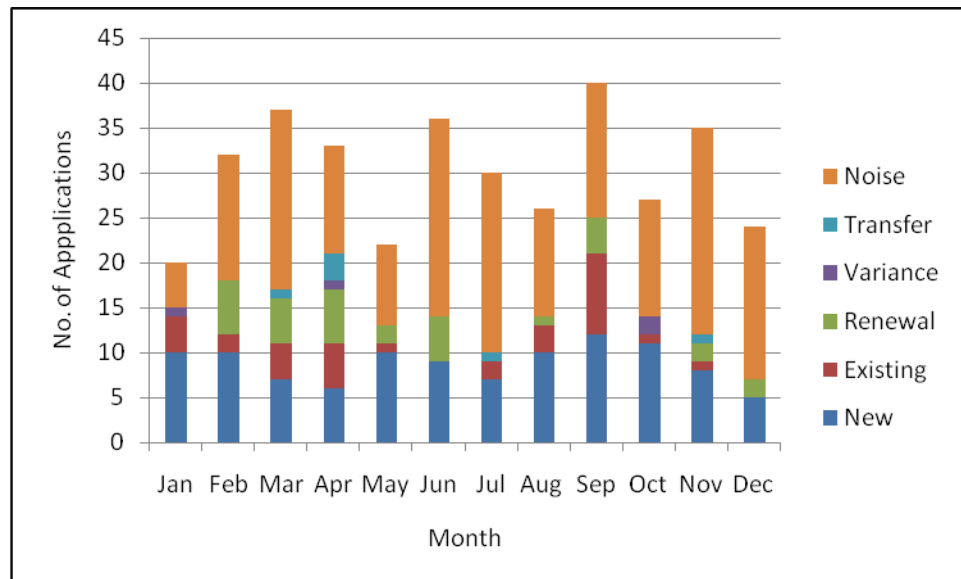


Figure 8: Environmental Authorisation Applications received in 2010.

The majority of Applications received were for Mining and Forestry Projects such as Sawmills and Lumber Yards. Applications for Industry, Infrastructure and Energy Projects were second highest in number while applications for Agriculture, Fisheries and Tourism were lowest in number (see Appendix IV for more details on projects for which applications were received in 2010). For projects going through the Environmental Authorisation process, three (3) were required to conduct an Environmental Impact Assessments (EIA), while ten (10) were required to prepare Environmental Management Plans (EMP).

Table 3 below show the distribution of Applications received in 2010.

Table 3: Distribution of Applications Received in 2010.

Units	Applications Received	Permits Issued	EMP	EIA/SEA
AFT	12	4	3	
IIE	51	20	7	
M&E	43	16		
M&F	74	30		3
Noise	182	184		
Total	362	254	10	3

The Agency continued to improve its efficiency in the processing of Applications for Environmental Authorization. However, except in the case of noise permits, the number of permits being issued is below that of the Applications received; this is largely due to the incongruence between workload and available human resources. Additionally, many Applications have had to be put on hold because outstanding information had not been submitted by applicants. In view of this, the Agency has been developing a new strategy to better control the acquisition of all required information prior to acceptance of Applications; this strategy is expected to be implemented during the first quarter of 2011.

4.2.2 Distribution of Permits Granted in 2010

Two hundred and fifty-four (254) Environmental Authorizations were issued this year. Of these, there were forty (40) Environmental Permits, twenty-four (24) Operational Permits, four (4) Construction Permits, two (2) Letters of Authorization, and one hundred and eighty-four (184) for Noise (Figure 9).

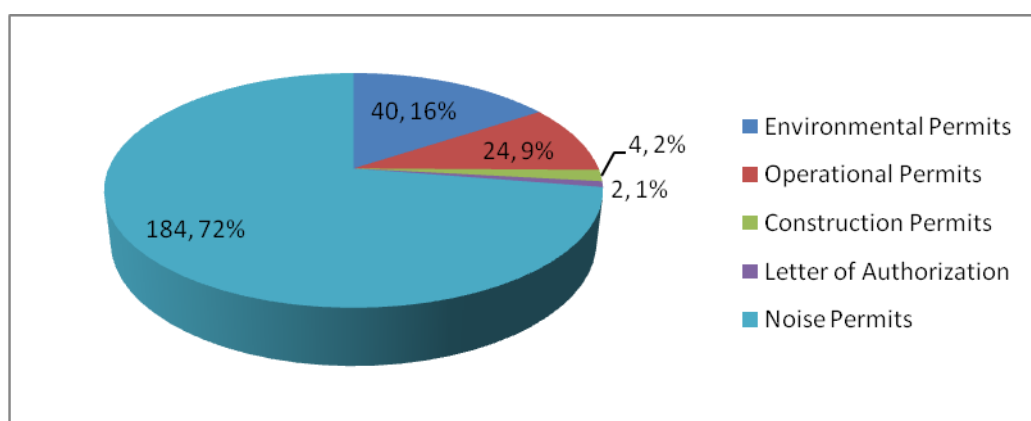


Figure 9: Distribution of Permits granted in 2010.

4.3 MONITORING AND ENFORCEMENT

During the year, the Agency continued to process Applications for renewals, variance and transfer of Environmental Authorisation. All operations with Permits that expired in 2010 were notified of that they are required to apply for Renewal of Environmental Authorisation.

This year, the Agency received thirty-three (33) Applications for Renewal of Environmental Authorisation, six (6) for transfer, and four (4) for variance. The Agency responded to the Applications received and conducted thirty-five (35) Environmental Audits. The environmental audits entailed the verification of a company's compliance with existing Environmental Authorisations.

The Anti-Littering Work Programme continued to be maintained. The Agency in collaboration with the Ministry of Agriculture, National Irrigation and Drainage Authority, undertook several exercises intended

to warn identified polluters against littering; this activity will be the basis for taking prosecuting actions against recurring polluters.

To improve the enforcement of the Environmental Protection Act, 1996, and the Regulations of 2000, the Agency continued to strengthen its existing monitoring and enforcement capabilities by arduously working with its legal representative to find a legal solution for recurring polluters.

4.4 COMPLAINTS AND RESPONSE

4.4.1 Complaints Received in 2010

The Agency continued to respond to environmental complaints and emergencies. This year, a total of three hundred and fifty (350) complaints were received by the Agency. Of these, one hundred and eighty-three (183) were new and one hundred and sixty-seven (167) were recurring complaints (Figure 10). There was a twenty percent (20%) decrease in the number of complaints received by the Agency in 2010 compared to 2009, when four hundred and thirty-nine (439) complaints were received.

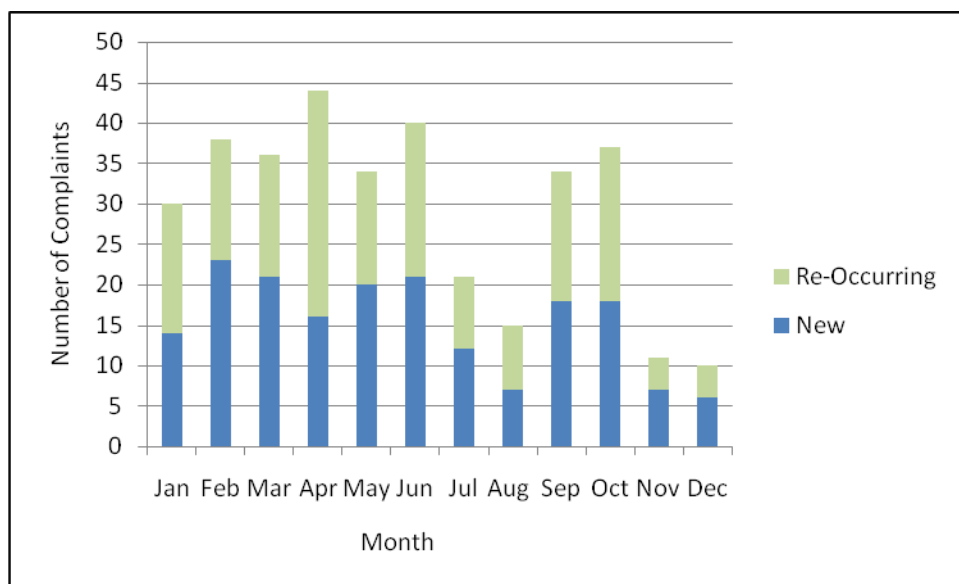


Figure 10: Complaints received in 2010.

4.4.2 Management of Complaints

During the year under review, the Agency inspected one hundred and forty-two (142) complaints (Figure 11). Subsequent to the investigation of these complaints, a number of defaulters were instructed in writing of mitigation measures to be implemented to ensure that their operations are managed in keeping with appropriate environmental standards. In keeping with the Agency's policy of continuous

monitoring, one hundred and thirty-one (131) follow-up inspections were conducted. Additionally, nineteen (19) complaints were inspected and subsequently referred to the relevant Agencies.

Follow-up inspections allowed the Agency to monitor the implementation of mitigation measures as well as address non-compliance with measures prescribed. With the large number of recurring complaints received by the Agency, these visits were essential to the resolution of complaints. Eight (8) complaints were closed as a result of the Agency's efforts towards compliance with mitigation measures.

The Agency received several complaints that were not under the purview of the Agency; these were referred to the relevant Agencies for action. During the year, thirty-one (31) complaints were referred to agencies such as NDCs and the Central Housing and Planning Authority (based upon the initial information collected from complainants).

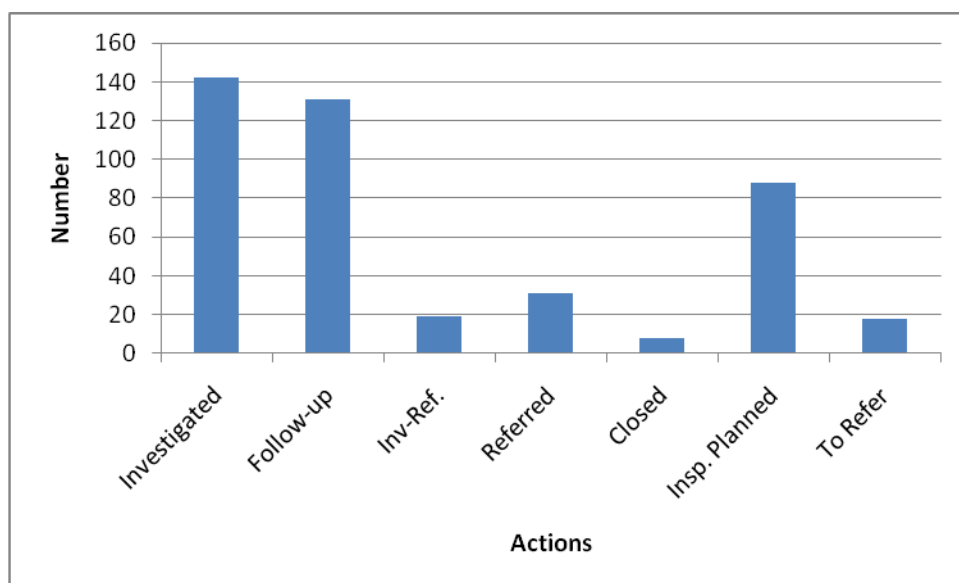


Figure 11: Complaints Management in 2010.

The Agency continued to carry out enforcement action when defaulters were in direct contravention of the EP Act, 1996, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection Regulations, 2000. This year, one (1) Cease Order and seven (7) Prohibition Notices were served, and one (1) Environmental Authorization (permit) was suspended.

The majority of complaints received were for generators, poultry rearing, and furniture and woodworking operations. Significant numbers of complaints were also received for swine rearing and waste disposal activities.

Of the complaints received this year, Industry, Infrastructure and Energy (IIE) and Agriculture, Fisheries and Tourism (AFT) operations accounted for fifty percent (50%) and thirty-five percent (35%), respectively (Figure 12). Fume and noise from generators; offensive animal odour, insect infestation, and improper waste disposal from livestock rearing were the most common complaints received in IIE and AFT operations. Complaints of dust, noise, and odour nuisances from furniture operations continued to be received during the year; several complaints of improper methods of waste disposal were also received. Of note, were the many complaints received for noise nuisance from music and liquor restaurants.

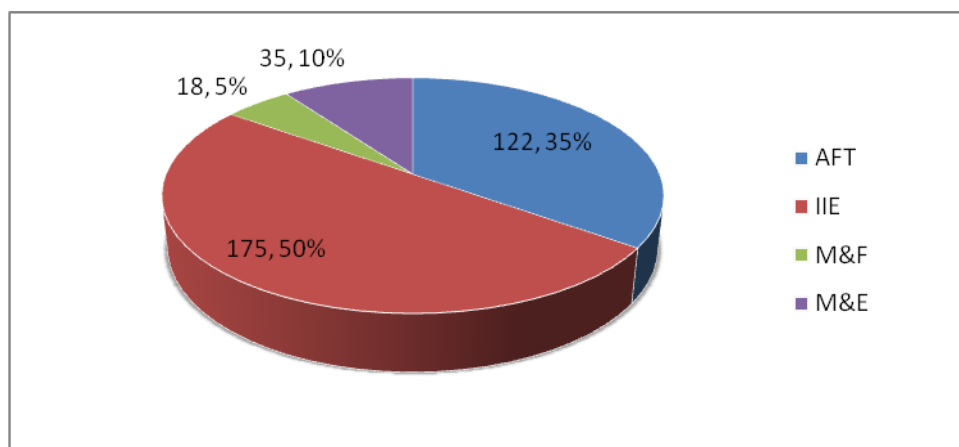


Figure 12: 2010 Distribution of Complaints by Sectors/Units.

4.5 RESEARCH AND DEVELOPMENT

Research and Development continued to enable the Agency to make progress with regard to its responsibilities under Section (4) of the EP Act, 1996: *In exercising its functions, the EPA is mandated under, 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.*

4.5.1 Guidelines, Standards and Code of Practice

Through collaboration with the GNBS and other relevant sector agencies, the Agency continued to develop Standards, Guidelines and Codes of Practice. The primary purpose of these instruments is to provide sound, and practical guidance to achieve good environmental management. Progress made in 2010 was as follows:

- Interim Standard for the Emission of Noise into the Environment: This was reviewed and finalized by the Technical Committee – Environment, and approved by the GNBS Council.
- Interim Standard for Industrial Effluent Discharge: The Technical Committee – Environment has commenced its review of the Standard.
- Code of Practice for Bed and Breakfast Facilities: The Technical Committee– Tourism successfully drafted the Code of Practice and following a public consultation, it was finalized.
- National Conformity Assessment System (NCAS): The Agency continued to support the GNBS with the development of the NCAS through the National Committee on Conformity Assessment.
- ISO 17020 Standard for Inspection Bodies: The Agency continued to work towards the implementation of this Standard. To this effect, The Agency participated in a Training Workshop coordinated by GNBS to identify gaps and has made significant progress with the development of the *Quality Manual and Procedures* in accordance with the ISO 17020 Standard for Inspection Bodies; all procedures are expected to be finalized in the second quarter of 2011.
- Procedure for the Development of Environmental Guidelines: This Procedure was created and sent to the EAB Board for approval. It outlines the steps for the development of Environmental Guidelines (EG) for industries and operations within different sectors.
- Environmental Guidelines for Swine Rearing Operations and Spray Painting Operations: Both of these Guidelines were drafted and would be finalized in the first quarter of 2011.

4.6 PROJECTS

The GoG through Local Stakeholder Agencies partnered with the Caribbean Environmental Health Institute (CEHI) and US Government in the execution of a Joint Demonstration Project Linking National Programmes of Action (NPA) and Water Safety Plans (WSP) in the Demerara Watershed and the Community of Linden. The Agency continued to support the implementation of the NPA/WSP.

A proposal for Hazardous Waste Capacity Building was developed and submitted to IDB for funding. The proposal was approved and SENES Consultants were designated by IDB to provide the Agency and relevant stakeholders with a 2-day training session in Hazardous Waste Management. This project provided support to the recently established Hazardous Waste and Air Quality Unit within the Agency.

4.7 MULTI-LATERAL ENVIRONMENTAL AGREEMENTS

The Agency continued to meet national obligations under the Basel Convention. This year, the Agency continued to manage the trans-boundary movement of hazardous waste through the processing of notification documents to countries of import as well as communicating with countries that wished to use Guyana as a transit point. It was noted that during the year, used lead acid batteries were the major hazardous waste exported; shipments were generally destined for Korea and Israel for recycling purposes.

Guyana acceded to the Cartagena Convention and all three of its Protocols (Oil Spills, SPAW and LBS) in June 2010; it was the 8th Party to the LBS Protocol. Following Guyana's accession, representatives of the Agency attended the Fourteenth Intergovernmental Meeting (IGM) on the Action Plan for the Caribbean Environment Programme and Eleventh Meeting of the Contracting Parties to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention). During the meeting, Guyana was elected among the Contracting Parties to the Convention and CEP Member Governments attending the IGM, to form part of the Monitoring Committee for the Action Plan of the Caribbean Environment Programme for the period 2010 – 2011.

4.8 COLLABORATION

- Support was provided to the Natural Resources Management Programme in the review of the Document *“Comité Editorial - Avances en el desarrollo del Programa de Trabajo sobre Áreas Protegidas”* (Editorial Committee – Progress on Protected Areas Work Program).
- Representatives of the Agency continued to actively participate on national statutory Boards and technical committees at the CHPA, GGMC, GFC, GNBS, Sea Defence and the National Trust.

4.9 FIELD AND LABORATORY SUPPORT

During the year, the Agency continued to obtain laboratory analysis services from GUYSUCO.

4.10 LEGISLATION AND LEGAL SERVICES

The Agency obtained legal assistance through the Office of the President.

4.11 CROSS-SECTORAL PROGRAMMES

Integrated Coastal Zone Management (ICZM)

The ICZM work programme remained dormant for the most part of the year. However, since the recruitment of an ICZM Officer, research has commenced for the development of a strategy for the delineation of the Coastal Zone.

4.12 CONSTRAINTS

The Environmental Management Programme faced many challenges during the year. Among them were:

- Legal Support: This remained a challenge over the last six (6) years at the Agency and considerably affected progress with compliance and enforcement, especially with regard to resolution of complaints and legal advice on matters related to the Authorization process.
- Resources: Inadequate field staff and scarcity of financial resources, transportation, and equipment to undertake monitoring and inspections continued to be major limitations.
- Workload: Due to the persistent high demands placed in the permitting process and complaints management, the verification of existing industries, compliance monitoring and enforcement, and research and development were affected.
- Budgetary constraints: This affected performance in cases where field activities were planned for monitoring, permitting or complaints response and were delayed; some projects and programmes were also not implemented.
- Untimely submissions: Consultants and developers sometimes delayed the submission of additional information for processing of environmental authorizations hence delaying the issuance of environmental authorizations. Sectoral Agencies were also slow in providing necessary feedback.
- High staff turnover: This continued to plague the Agency, and affected the performance of the Programme, since new employees take time to get fully acquainted with the work of the Agency.

4.13 IMPORTANT MEETINGS / CONFERENCES

Staff participated in a number of meetings and workshops which can be found in Appendix II.

5. EDUCATION AWARENESS AND CAPACITY BUILDING

The Education, Information and Training Division implements the Education and Awareness Programme of the Agency. Capacity Building is cross-cutting and is undertaken by all of the Divisions. 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.

During the first half of the year, one Environmental Officer II was seconded to the Natural Management Programme. However, with careful division of labour and effective teamwork, the objectives of the EA and CB Programmes for 2010, were planned and implemented successfully.

Achievements of the EA and CB Programmes during 2010 are summarized below.

5.1 DEVELOPMENT OF EDUCATIONAL MATERIALS

The development of educational materials is a key element of the work of the Division. During the year, relevant information was selected and developed to meet the needs of varied target groups. This information was packaged on a range of topics and in varied formats for dissemination to groups and individuals throughout the country.

5.1.1 Information Packages

A total of sixty-six (66) Information Packages were prepared and distributed to schools, environmental clubs, wildlife clubs of the North Rupununi, and Researchers.

5.1.2 Environmental Education Tool

A concept for a mining jig-saw puzzle as an environmental education tool was developed and guided to completion. The puzzle engages the user in an interactive way to learn about good environmental practices in mining. The tool is fun while still making users think creatively; it has proved to be a source of much interest when used at exhibitions.

5.1.3 Calendar 2011

The concept for the 2011 Calendar was also developed in keeping with the international theme for 2011 – International Year of Forests. This theme was adapted to “Forests – Integral to Life” for the Calendar which was designed to highlight twelve (12) environmental functions of forests. One thousand copies of

the Calendar were printed for distribution to a wide range of agencies, organizations, schools and indigenous communities.

5.1.4 Conceptualisation and Review of Materials

The dynamic nature of education and training necessitates continuous adaptation, flexibility in creation and presentation of education materials.

Two Manuals created in 2009 – “Home-Makers and Climate Change” and “Climate Change Workbook for Primary Schools” were prepared and utilized in training during the year; these proved to be effective environmental education tools for women and children audiences.

A Booklet on “Environmental Issues” on Water, Biodiversity Loss, Land Degradation, Climate Change, and Air Pollution was produced during 2010.

5.1.5 Green Leaf Newsletter

The bi-monthly edition of the EPA’s news organ, the *Greenleaf* was produced on time and distributed in PDF to various agencies, organizations and schools.

5.1.6 Brochures and Handouts

Brochures, flyers, and handouts continued to be produced to aid in the dissemination of information on environmental issues. These were designed to be simple and user-friendly, and addressed topics such as Water, Climate Change, Waste Management and Climate Change and Biodiversity.

5.1.7 Poster, Stickers, Bookmarks and Flyers

In collaboration with the NRM Programme, a poster on Biodiversity was created and existing Bio-safety posters were formatted for reprinting.

Bookmarks on the topics: Guyana’s Low Carbon Development Strategy and Mining were created while Flyers on Climate Change, Steps to Composting, Energy Conservation, and Safety Tips in the Home were produced.

5.1.8 Banners

Three Banners were created by the Division during the year as follows: Occupational Health and Safety, International Year of Biodiversity, World Environment Day.

5.1.9 Presentations

A number of presentations were prepared and used during the year, at outreach and training sessions conducted by the Division. These focused on the following topics:

- Biodiversity and Climate Change;
- Water and the Environment;
- Earth Day: Green Generation;
- Climate Change;
- History of Environmental Education;
- Environmental Education – Concept, Principles and Practice;
- Infusion and Diffusion of Environmental Education; and
- Experiential Learning.

5.1.10 EPA Annual Report

The Agency's 2009 Annual Report was compiled and approved by the EPA Board of Directors.

5.2 OUTREACH

Outreach is carried out to increase awareness of environmental issues as a first step towards making sound decisions for the maintenance of a safe and healthy environment. During the year, Outreach was successfully conducted as follows.

5.2.1 International Year of Biodiversity (2010)

The Agency collaborated with a number of stakeholders for the observance of International Biodiversity Day (IDBD) in order to synchronize and give heightened focus to the celebration of International Year of Biodiversity. Partners in this venture included the University of Guyana, the National Library, the Guyana Post Office Corporation, the National Museum, the Guyana Anthropological Museum, and the National Parks Commission.

The stakeholder collaboration saw the expansion of IDBD activities to include two new initiatives, namely, a *Film and Lecture Series* and a *Youth Forum*. The intended beneficiaries of the Film/Lecture Series were members of the Public. The Series was hosted for four (4) evenings at the Walter Roth Museum of Anthropology; titles of the presentations are as follows:

- *The Rupununi – Rediscovering the Lost World* – (presented by Dr. Graham Watkins)
- *Managing Biodiversity – Who is Responsible?* – (presented by Mr. Calvin Bernard, UG)
- *Integrated Conservation and Development* – (presented by Ms. Chuvika Harilal, EPA)

- *Conservation and use of Biodiversity for Food and Agriculture* – (presented by Dr. Partick Chesney, UNDP).

Participants of the Youth Forum involved a total of forty-eight (48) students from the following ten (10) institutions:

- Marian Academy;
- Bishop's High School;
- President's College;
- Queen's College;
- Mackenzie High School;
- Christianburg Wismar High School;
- St Rose's High School;
- St Joseph High School;
- CPCE; and
- GSA.

In addition, activities were organized by Stakeholders as follows:

- Biodiversity display - CSBD – UG;
- Book and Pictorial Exhibition - National Library;
- Stamp Exhibition - Guyana Post Office Corporation;
- Biodiversity Exhibition - National Museum;
- Tour and Educational Session - National Parks Commission;
- Lecture - Cyril Potter College of Education; and
- Butterfly Watching – Iwokrama.

5.2.2 World Wetlands Day

In collaboration with the Nature School at the Guyana Zoo, visiting Primary Schools were targeted for World Wetlands Day (WWD) 2010. A total of one hundred and eighty-two (182) students were involved in activities focusing on the WWD Theme: *Biodiversity and Climate Change*.

5.2.3 World Water Day

The Agency collaborated with the Guyana Water Inc. for the observation of WWD this year by participating in a Schools Water Forum. Additionally, the Agency conducted interactive presentations at several primary and secondary schools in West Berbice to raise student awareness of water issues.

5.2.4 Earth Day

In observation of Earth Day 2010, an interactive presentation on the topic Earth Day - The Green Generation - was made at two (2) Schools: Georgetown International Academy; and Marian's Academy.

5.2.5 WED 2010

World Environmental Day 2010 was observed with activities as follows:

- Appearance on Guyana Today Show;
- Annual Green Walk;
- The first ever 'Ride-for-the-Environment' was successfully coordinated in Linden; a total of forty (40) Cyclists participated in the activity; and
- TV Panel Discussion.

5.2.6 International Coastal Clean-up

Opportunity was taken to expand the reach for International Coastal Cleanup (ICC) 2010 to include more communities in Essequibo, West Demerara, and Berbice. Presentations on *Marine Litter* and *ICC Participation* were also done at Schools in these locations prior to the activity.

5.2.7 International Ozone Day

In collaboration with the National Climate Unit, a half day workshop with trainee teachers of CPCE was conducted. The workshop focused on raising awareness on the Montreal Protocol and Ozone Depletion, and effective integration of this topic into various subjects.

5.2.8 Exhibitions

The Agency participated in exhibitions during the year as follows:

- Career Day/ Open Day 2010, coordinated by University of Guyana under the theme: **Study Options and Career Choices for Youth Empowerment;**
- National Mining Exhibition coordinated by the Guyana Geology and Mines Commission under the theme: **Mining Our Resources, Minding Our Future;** and
- Shared Exchange Sports and Riverfront Festival hosted by the Youth Neighbourhood Development Movement – Linden. Posters and information materials were presented to organizers for distribution to members of the public.

5.2.9 Environmental Clubs

Work with Environmental Clubs continued throughout the year with a resuscitation drive being undertaken to overcome the challenge of non-functioning Clubs. A number of schools in Georgetown and Berbice were visited during the year.

5.2.10 Environmental Camp

An Environmental Camp was held at the Yarrowkabra Training Centre this year. Twenty-seven (27) students and six (6) teachers drawn from Environmental Clubs in Berbice, East Coast and East Bank Demerara, and Essequibo participated in the exercise.

The Camp focused on Biodiversity and Climate Change and activities included presentations, practical sessions, games, programme planning, fieldwork and dramatic and cultural presentations. As part of the field sessions, participants engaged in bird-watching, avifaunal survey and data collection; this was facilitated by the Amazon Tropical Bird Society.

5.2.11 Iwokrama's Wildlife Festival

Officers of the Agency participated in the Annual Wildlife Festival, which was held at Annai, North Rupununi, during March 27–29. One day of the Festival was dedicated to interfacing with Environmental Clubs attending the event to share information on their activities and to introduce them to simple programme planning and reporting techniques.

5.2.12 Annual Taxidermy Camp

A presentation on the topic “Climate Change” was made to eighty participants attending the Annual Taxidermy Camp hosted by the Guyana National Museum.

5.2.13 Teacher Training Workshop

A Teacher Training Workshop was undertaken as another new initiative in 2010. It was conducted at Camp Wesleyana, on the Linden Highway, and focused on “Integrating Environmental Education into the School Curriculum.” A total of twenty seven (27) 3rd Students and two (2) Lecturers from the Cyril Potter College of Education participated in the Workshop.

Participants were introduced to the use of different tools and methods to develop and deliver Environmental Education (EE) and were taken through sample lessons of an EE Curriculum Supplement developed by the Agency. At the end of the workshop, each teacher was able to develop a lesson plan integrating EE into one of the four core subjects of the Primary curriculum.

5.2.14 Women's Workshops

In collaboration with the Women Affairs Bureau, a workshop was conducted, targeting women in Regions 5 and 6. The objectives of the workshop were to raise awareness of Energy and Water Conservation and Waste Management in the home and to introduce participants to basics aspects of Climate Change and Guyana's Low Carbon Development Strategy.

5.2.15 Conservation International Workshop

A presentation on the "Development of a Community Environment Education Strategy" was delivered to Environmental Club members at workshop organized in Lethem by Conservation International (Guyana). Approximately 36 participants attended the Workshop from 17 Communities of the South Rupununi. The EPA also presented Certificates of Affiliation to fourteen (14) Wildlife Clubs of the South Rupununi attending the workshop.

5.3 MEDIA PROGRAMMES

5.3.1 Print Media

Maximum use was made of the free space provided during 2010, to the Agency, by the Guyana Chronicle and Guyana Times newspapers. However, the Guyana Chronicle stopped providing space to the Agency in May, 2010. Articles featured in the print media for the year addressed a range of topics and issues including:

- International Themes for Environmental Days;
- Climate Change;
- Biodiversity;
- Water Protection and Management;
- Waste Management;
- Wetlands;
- Renewable Energy;
- Environmental Health; and
- Pollution of Air, Water and Soil.

5.3.2 Television

Guyana Today Show

During the year, full advantage was taken of the opportunity provided by the National Telecommunications Network (NCN) to feature discussions on topical activities and events on the environment on the Guyana Today Show. In collaboration with other stakeholders, discussions during the year centred on:

- Noise Standards;
- Darwin Day;
- World Health Day;
- International Day of Biological Diversity;
- World Oceans Day;
- Annual Taxidermy Camp;
- Guyana Mining Exhibition;
- World First Aid Day;
- EPA's Complaints Process;
- Survey of Fish Species in Guyana;
- International Coastal Clean-up;
- Workshop for Environmental Women;
- Hydrometeorological Services;
- Biodiversity and Tourism;
- Education and Leadership Workshop in Lethem; and
- Work of the World Wild Life Fund.

View Points/ Messages

In observance of International Day of Biological Diversity, the following items were broadcasted on NCN radio and television:

- A Message was presented by the Honourable Prime Minister; and
- A Viewpoint was presented by the Office of Climate Change.

Panel Discussions

TV Panel Discussions were coordinated in observance of:

- International Day of Biological Diversity, 2010; and
- World Environment Day.

5.3.3 Press Releases

Two (2) Press Releases focusing on plans/activities for IYBD and the Women's Workshop on Climate Change, respectively, were prepared and sent to GINA for publication and distribution to Media Houses

5.3.4 Interviews

There was participation in Television Interviews to highlight:

- Youth Forum and International Day of Biological Diversity Observances; this was broadcasted on NCN six-o clock news;
- International Day of Biological Diversity; this was broadcasted on TVG, Channel 28;
- World Environment Day – Actions and Tips; this was broadcasted on CNS, Channel 6; and

- World Oceans Day - Value of Oceans; this was broadcasted on TVG, Channel 28.

5.4 CAPACITY BUILDING

In addition to the routine work, staff capacity was built through the development and delivery of training modules as follows:

- A Curriculum for Outreach with Women's Groups;
- A Curriculum for Environmental Clubs;
- A proposal for Climate Change Education for Children; and
- Framework of programme for EPA's in-house discussion on LCDS.

During the year relevant Staff benefited from training sessions organized by the Agency in the following areas:

- Principles of Supervisory Management Module;
- Energy Efficiency Standards and Labelling conducted by OLADE;
- Customer Care/Promoting the Right Image;
- Understanding the Requirements of ISO/IEC 17020:1998 Standard for Inspection Agencies; and
- Training in Principles of Secretarial Practice.

5.5 DOCUMENTATION CENTRE

Materials in the Document Centre have been unpacked onto shelves and the electronic organization of materials has been completed.

6. CONCLUSION

The Agency successfully implemented its work programme in 2010. This is laudable in view of the many challenges that emerged and were addressed. The Agency was able to make up for down-time from the movement of its Administrative and Environment Management Divisions to the new location at Sophia, gaps in power supply, and telephone and internet services. 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.

Particular success was achieved in the areas of fulfilling the responsibilities under the Convention of Biological Diversity through the Biodiversity Enabling Project. The finalization and submission of the 2nd, 3rd and 4th Reports to the CBD are notable achievements particularly in view of the elaborate processes involved in their preparation.

Environmental Management by its very nature is challenging, and the Agency is particularly satisfied with the proactive move it has taken to pursue the renewal of authorisations, and the response it has received over the year.

The complaints 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, 2010.

	Name of Officer	Designation
	<i>Office of the Executive Director</i>	
1	Indarjit Ramdass	Executive Director (ED)
2	Kerean Geer	Executive Assistant to ED
3	Ramsarran Etwaroo	Driver to ED
	<i>ADMINISTRATIVE DIVISION</i>	
4	Rajesh Majeed	Director – Administration (AD)
5	Faneeza Koorbanally	Executive Assistant to AD
	<i>Policy, Planning & Research Unit</i>	
6	Toams De Staic	Environmental Economist
	<i>GIS Unit</i>	
7	Enrique Monize	Environmental Officer I (GIS)
8	Nadia Nasir	GIS Technician
	<i>IT Unit</i>	
9	Antonio Valenzuela	Network Administrator
10	Jason Pedro	Technical Services Officer (IT)
	<i>Human Resources Unit</i>	
	Vacant	Human Resources Officer
	Vacant	Office Attendant
	Vacant	Office Attendant
	<i>Finance Unit</i>	
	Vacant	Finance Officer
11	Raywattie Singh	Accounts Clerk
12	Fiona Marshall	Accounts Clerk
13	Hollee Ragnauth	Accounts Clerk
	<i>Administrative Unit</i>	
14	Victor Wills	Administrative Officer -General
15	Deborah Wilkinson	Administrative Assistant
	<i>Support Unit</i>	
16	Kumardev Samaroo	Office Assistant
17	Afzal Baksh	Office Assistant
18	Garth Husbands	Driver
19	Kamal Ramdial	Driver
20	Deodat Puranram	Driver
21	Marc Dannett	Handyman
	<i>Environmental Management Division</i>	
22	Geeta Singh	Director
23	Tashana Redmond	Senior Environmental Officer

24	Tejvartie Persaud	Senior Environmental Officer
25	Sonia Gumbs	Senior Environmental Officer
26	Marle Pantoja	Senior Environmental Officer
27	Felicia Adams	Environmental Officer I
28	Asma Sharief	Environmental Officer II
29	Rameena Mangal	Environmental Officer II
30	Anzaleen Hoosein	Environmental Officer I
31	Nalissa Persaud	Environmental Officer II
32	Colis Primo	Environmental Officer II
33	Karen Alleyne	Environmental Officer I
34	Savitri Etwaru	Environmental Officer I
35	Samantha Semple	Field & Laboratory Technician
36	Shellaun Cox	Field Technician
37	Radika Motoo	Executive Assistant
<i>Education Information & Training Division</i>		
38	Sharifah Razack	Director
39	Padmini Persaud -Roberts	Senior Environmental Officer
40	Yasmin Farouk	Environmental Officer I
41	Sean Mendonca	Environmental Officer I
42	Candacie Brower-Thompson	Environmental Officer II
43	Renwick English	Environmental Officer II
44	Fareena Ali	Documentation Assistant
<i>Natural Resources Management Division</i>		
45	Damian Fernandes	Director - NRMD
46	Dominique Saheed	SEO
47	Chuvika Harilall	Environmental Officer II
48	Oumardatt Ramcharran	Environmental Officer II
49	Juliana Persaud	Environmental Officer II
50	Stacy Lord	Environmental Officer I
51	Roger Astwood	Environmental Officer I
54	Ashiana Persaud	Executive Assistant

Total Staff

Males 20

Females 34

54

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

<u>Meetings</u>
Meeting with the Ministry of Amerindian Affairs on KfW Sub-projects.
Meeting with Conservation International on Interim Management Arrangements for the proposed Kanuku Mountains Protected Area.
Meeting with Consultant on status of the WWF Project, “Capacity Building within the Environmental Protection Agency to Support Protected Areas Development and Management and Promote Sustainable Livelihoods in Amerindian Communities in Guyana’.
Project Implementation Team Meetings.
Project Monitoring Committee Meetings.
Bilateral Portfolio Review Meetings.
Meetings with the Ministry of Amerindian Affairs to discuss preparations for the REDPARQUES Workshop on Indigenous Peoples and Protected Areas.
Meeting on the Kaieteur National Park Management Planning Project.
Inaugural meeting of the GFC’s Inter-Agency, Social Development Committee.
National Toshao’s Meeting.
Meeting with the IDB to discuss the Amaila Falls Hydropower Project.
National Coordination Committee Meeting.
Meetings on Pandemic Influenza Committee.
Wildlife Management Authority Board Meeting.
Meeting with the Caribbean Disaster Emergency Management Agency (CDEMA).
GEF Working Group Meetings.
Ninth and Resumed Ninth Meetings of the <i>Ad Hoc</i> Open-ended Working Group Meeting on Access and Benefit-sharing of the Convention on Biological Diversity (CBD ABS9).
Meetings to discuss the export of plants and animals Specimens from Guyana.
Mangrove Management Implementation Committee Meeting.
Meeting at CDC for the Committee on Disaster Response.
CDC–Disaster Preparedness Management Committee.
National Committee for Conformity Assessment.
HCFC Phase Out Stakeholders Policy Meeting at GFC.
National Disaster Risk Reduction Coordination Platform Committee Meeting.
<u>Workshops/Seminars</u>
Workshop hosted by REDPARQUES, in collaboration with WWF and IUCN on conservation experiences of local and indigenous communities in protected areas of the Amazon Region.
Workshop to review the National Forest Policy and draft National Forest Action Plan.
Workshop for the Establishment of Criteria for identifying Priority Biodiversity Areas in Guyana’s Forests;
Workshop on Adapting to Climate Change: Towards Climate Smart Agriculture in Guyana.
Workshop, Preparation of National Reports to the Convention on Biodiversity.
Stakeholder Workshops for the Shell Beach Delineation Project

United Nations Workshop.
Multi-stakeholder dialogues on Chainsaw Milling.
Workshops on Avian and Pandemic Influenza.
Early Warning Systems Training Workshop.
Damage Assessment and Needs Analysis (DANA) Workshop – stakeholders reviewed and provided feedback on the proposed DANA plan for Guyana.
Workshop on Mangrove Restoration.
Regional Project Management Workshop for Senior Environmental Professionals.
Workshop on Development of a National Flood Preparedness and Response Plan.
Supervisory Management Training Workshop hosted by the Public Service Ministry Training Division.
Seminar on Infrastructure Design for the Sea Defence Programme.
Low Carbon Development and Community Planning Workshop.
PSM Training on the "Principles of Supervisory Management - Module II".
Understanding the requirements of the ISO 17020:1998 Standard.
Damage Assessment and Needs Analysis Committee Meeting/Workshop held at the CDC.
Damage Assessment and Needs Analysis Team Workshop held at the CDC.
Training Workshop at CDC regarding NEOC management.
Training workshop “Good Regulatory Practices (GRP) and Regulations Impact Assessment (RIA)”.
Disaster Risk Indicators & Flood Risk Evaluation Methodology.
14th Intergovernmental Meeting (IGM) on the Action Plan for the Caribbean Environment Programme and 11th Meeting of the contracting Parties to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention).
Training
Training on the establishment and operation of the Country- Driven Biodiversity Clearing House Mechanism.
Motivational Leadership and Effective Management: Module 1, and Stress Management and Counselling Techniques to Improve Staff Performance: Module 2, held at the Public Service Ministry, Training Division.
Training on Introductory Methods on Archaeology.
Visit to Kaizen Environmental to observe the products and services offered by the company to aid in environmental management and environmental emergency response.
National Customs Train-the-Trainers Workshop for the phase out of Ozone Depleting Substances.
Supervisory Management Training Course (Public Services Ministry).
Supervisory Management Training Module II.
Training on Code of Practice for Mining Operations.
Flood Preparedness and Response Exercise (Table top exercise).

APPENDIX III: FIELD TRIPS MADE TO KFW INTERVENTION AREAS IN 2010.

Dates	Area	Officer
07-14 January, 2010	Kanuku Mts.	C. Harilal and S. Singh
19-22 January, 2010	Shell Beach	J. Persaud and S. Clarke
20-21 February, 2010	Shell Beach	J. Persaud and S. Singh
24-26 February, 2010	Kaieteur	C. Harilal
09-13 April, 2010	Kanuku Mts.	C. Harilal & S. Singh
28 April, 2010	Upper Mazaruni	D. Fernandes, C. Harilal, J. Persaud, B. ter Welle & D. Madray
03-07 May, 2010	Shell Beach	J. Persaud & S. Clarke
06 May, 2010	Moraballi	D. Fernandes, C. Harilal & B. ter Welle
16-18 June, 2010	Shell Beach	J. Persaud & S. Clarke
26-28 June, 2010	Kanuku Mts.	C. Harilal
30 June - 02 July, 2010	Kaieteur	C. Harilal
30 July – 02 August, 2010	Shell Beach	J. Persaud & N. Chin
15-17 September, 2010	Kaieteur	J. Persaud
09-13 October, 2010	Shell Beach	J. Persaud & R. Smith
31 October – 03 November, 2010	Kanuku Mts.	J. Persaud & R. Smith
16 November, 2010	Moraballi	C. Harilal & R. Smith
11-14 December, 2010	Shell Beach	J. Persaud & R. Smith

APPENDIX IV: DISTRIBUTION OF APPLICATIONS RECEIVED IN 2010 BY SECTOR.

New Projects	No. of Applications
Agro Forestry and Forestry Experiential Project	1
Amaila Falls Access Road and Transmission Line	1
Aquaculture Farm	2
Asbestos Removal	1
Automobile Assembly Plant	1
Bauxite Mining	3
Charcoal Operation	1
Commercial Alligator Ponds- Mara Caiman Project	1
Compost Organic Fertilizer	1
Concrete Block Making Facility	1
Container Scanner	1
Crab Island Refinery Inc./ Crude Oil Refining	1
Drying and Storing of Paddy	1
E-Government Infrastructure Project	1
Firewood Operation	1
Fuel Depot/ Gas/Service Station	5
Funeral Home	1
Furniture Workshop	3
Gold and Diamond Mining	1
Guyana Deliverance Temple Camp Site	1
Hollow Block Operation	1
Hotel	1
Integrated Farm Project (Crop & Livestock Farming)	1
Logging and Sawmilling Operation	4
LPG Storage and Bottling Facility	1
Lumber Yard (With and Without Processing)	12
Petroleum Exploratory Drilling	3
Portable Sawmills	21
Poultry Farm	1
Pre-concrete Products & Sand Storage	1
Rehabilitation Roads	1
Removal and Disposal of Asbestos	1
Rice Packaging	1
Sand Mining	4
Sawmill	7
Ship Breaking Operation	1
Ship Breaking, Plastic Recycling and Lumber	1
Storage of Used Lead Acid Batteries	1

New Projects	No. of Applications
Telecommunication Tower	5
Timber Depot	2
Timber Processing Plant	1
Waste Management/Recycling	1
Waste Water Treatment Plant	1
Water Production Plant and Ancillary Facilities.	1
Wood Processing Facility	2
Total	105