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Message from the Executive Director

1.0 About the Environmental Protection Agency

1.1 Mission of the Environmental Protection Agency

The mission of the Environmental Protection Agency (EPA) is **to ensure management, conservation, protection and improvement of the environment, the prevention or control of pollution, the assessment of the impact of economic development on the environment and the sustainable use of natural resources.**

1.2 The Environmental Protection Act

On June 5, 1996, the **Environmental Protection Act (EP Act)** was passed by Parliament. This legislation comprehensively addresses the areas of environmental management and sustainable use of natural resources and established the Environmental Protection Agency (EPA). The EP Act mandates the EPA to oversee 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.

Although an Environmental Unit was created in the Office of the President after the passing of the EP Act, the EPA itself did not become fully staffed and operational until 1998.

The objectives of the EPA are to protect Guyana's environment and in so doing, contribute to global environmental protection. The EPA approaches environmental protection through education, partnership and collaboration and regulation and enforcement.

1.3 Functions of the EPA

The functions of the EPA are clearly stated in the EP Act, Part II 4 (1). These functions can be classified into three broad categories, namely, *regulatory, coordinating and the promotion of public participation in environmental protection.*

The Agency's regulatory function gives it the responsibility to monitor and enforce the EP Act and associated regulations. This function of the EPA ensures that development integrates measures for environment protection.

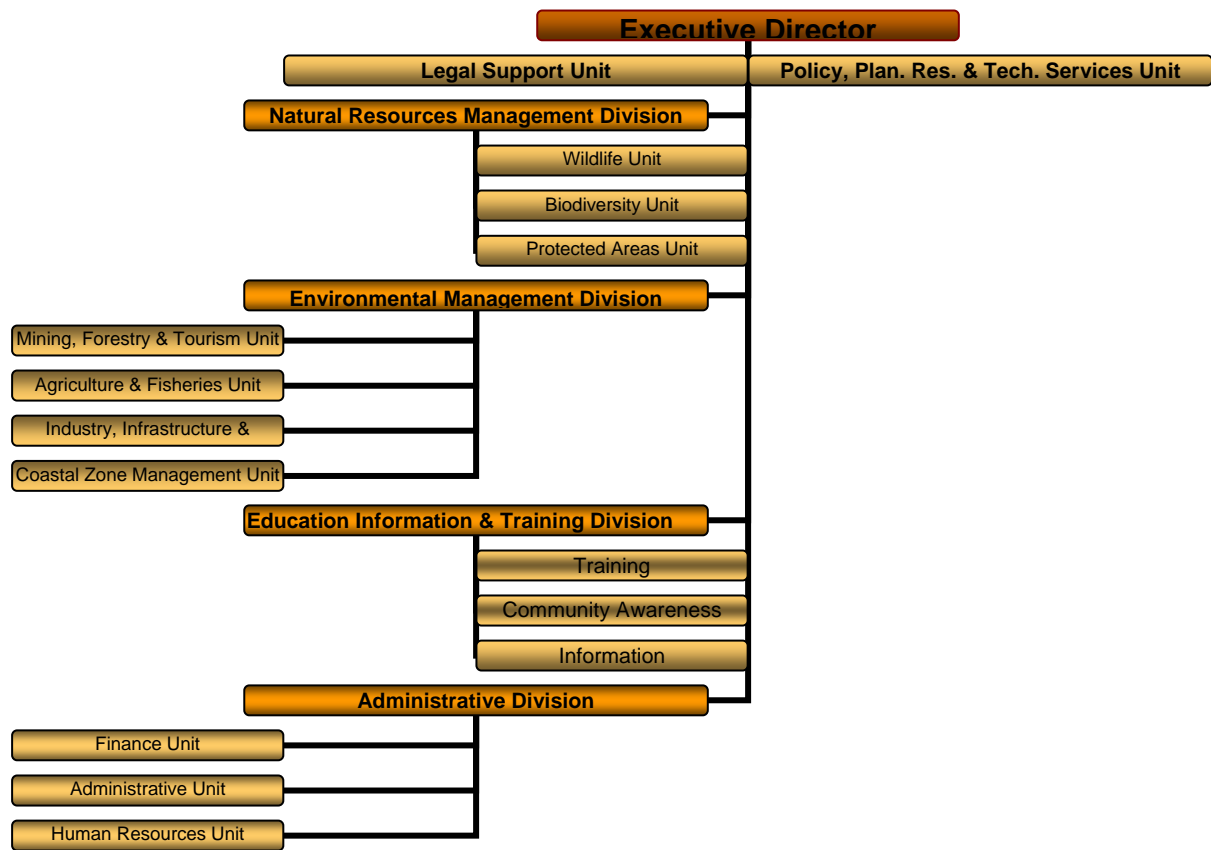
The EPA has a major coordinating function with regard to the sustainable use and conservation of Guyana's natural resources. The work of the EPA is complex, spanning a range of interconnected issues, making coordination with private and public sector and non-governmental organizations necessary for the accomplishment of its mandate.

The EPA has a responsibility to promote the participation of the public in the process of integrating environmental concerns in planning for sustainable development. This is achieved by

providing information to the public on environmental issues and problems and EPA’s procedures and processes.

1.4 The Organisational Structure of the EPA

The chart below shows the organizational structure of EPA in 2003. Both the Chairman of the EPA Board and the Executive Director of the EPA report to the President of Guyana. The President of Guyana is the Minister with responsibility for the Environment.



2.0 EPA Programmes

The work of the Environmental Protection Agency is implemented under four Programmes: Natural Resources Management, Environmental Management, Education, Awareness and Capacity Building and Cross-Sectoral Programmes.

2.1 Natural Resources Management

Having ratified the Convention on Biological Diversity, Guyana committed itself to developing National Strategies, Plans and Programmes for conservation and sustainable use of biodiversity and to take legislative, administrative and policy measures in achieving these tasks. The Environmental Protection Agency, by virtue of its mandate, has the national responsibility to coordinate and maintain a programme for the conservation of biodiversity and its sustainable use in Guyana. Within the Agency, the Natural Resources Management Division (NRMD) has been taking the lead in this direction through its various programmes / projects.

To achieve its objectives, the Division works in collaboration with various sectoral agencies/institutions in Guyana such as the Guyana Forestry Commission, Ministry of Agriculture, Wildlife Division, Guyana Geology and Mines Commission, University of Guyana, National Parks Commission and others. It also works with several local and international Non-Governmental Organization (NGOs), such as Conservation International – Guyana (CIG), the Guyana Marine Turtle Conservation Society (GMTCS), World Wildlife Fund for Nature (WWF) and Fauna and Flora International (FFI), among others, and most importantly with the local communities.

One of the most important strategy documents guiding the work of the Division is the National Biodiversity Action Plan (NBAP), which outlines the major programme areas for biodiversity management in Guyana. The work focuses mainly on Conservation of Biodiversity, Sustainable use of Biodiversity, Conservation and Sustainable use of Wildlife.

2.2 Environmental Management

The goals of environmental protection fall directly under the purview of the Environmental Management Division (EMD) and are to ensure that developmental projects conform to the goal of sustainable development. To ensure that these goals are met, the Division oversees the process of authorization and ensures that polluters remediate the environments they have polluted through the process of pollution control and enforcement. Some of the strategies adopted by the EMD to assure that the EP Act, 1996 is rigorously enforced include:

- **Authorising New Developments:** Any new development that may have a significant effect on the environment is required to conform to the EPAs authorization process which involves application, screening, publication of EPAs decision, EIA (or not), decision to grant environmental authorization or not.

- **Monitoring of Environmental Authorisations:** As part of EPA's responsibility to ensure that developments mitigate against pollution and remediate when necessary, monitoring of the ambient environment as well as specific environmental authorizations is necessary.
- **Authorising Existing Developments:** EMD through the EP Regulations has regularised existing industrial activities through a registration process. EMD, based on the registration process will develop sectoral compliance schedules that will upgrade these sectors to an acceptable environmental standard.
- **Developing Competencies in Environmental Management:** EPA recognizes that the role of the Agency would be much more effective if the stakeholders are aware of their responsibilities.
- **Developing Regulations:** In keeping with the EP Act, EMD has begun and will continue the pursuit of regulations development.
- **Reviewing and Developing standards, environmental and operational guidelines, codes of practice etc.**
- **Coordinating environmental management through stakeholder collaboration**
 - EPA-UG ongoing environmental management research programme
 - Inter-agency collaboration in the area of environmental authorizations and complaints responses has been strengthened
- **Managing Environmental Complaints:** EMD continues to resolve legitimate environmental complaints.
- **Preparing for environmental emergencies**

2.3 Information, Awareness, Education 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). This function of the EPA is the responsibility of its Education, Information and Training (EIT) Division.

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

Through its EIT Programme the EPA interfaces with a wide segment of the population and provides information in a range of formats to raise environmental awareness and knowledge of the populace.

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

The purpose of the EIT Programme is twofold; it promotes public awareness of and participation in environmental decision-making as well as informs the public of systems and procedures established by the EPA. The extent to which the public understands such established procedures and systems will determine their efficacy.

2.4 Cross-Sectoral Programmes

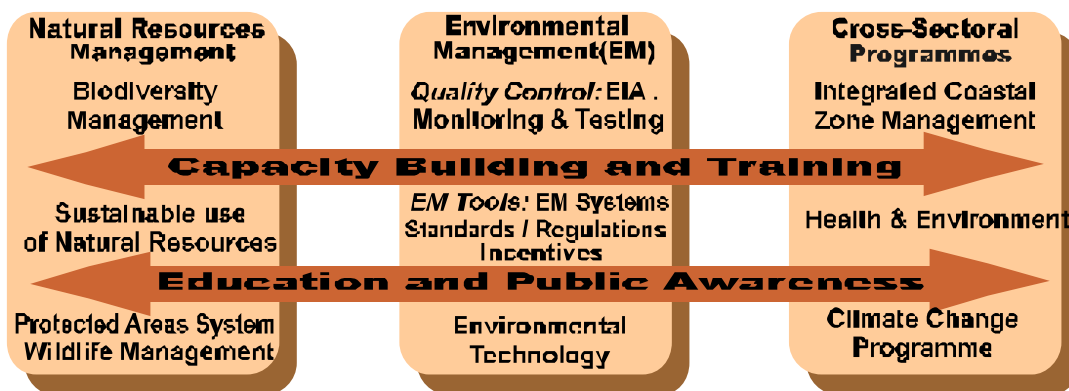
Currently, the EPA plays a major role in two cross-sectoral programmes in the areas of Integrated Coastal Zone Management and Climate Change.

The ICZM focuses on three major activities: assessment of the potential damage and loss to the Coastal Zone (vulnerability assessment) in face of sea-level rise, assessment of steps that are in place for the Coastal Zone to adjust/adapt to sea level rise and Management of infrastructure and natural resources.

The Climate Change program focuses on the establishment of measures for adaptation to consequences of climate-related environmental problems.

As part of its role regarding environmental coordination, the EPA's primary approach to environmental protection and management is to work through existing organizations dealing with the environment and create partnerships around important environmental activities.

The diagram below shows the EPA Programmes, their components and links.



3.0 Administrative Division

The Administrative Division comprises the Financial, Human Resources and Administrative Units and provides the financial and Human Resources and support services necessary for the work of the Environmental Protection Agency.

3.1 Human Resources

The EPA staff compliment of 49 was distributed in four divisions as follows:

Divisions	No. of Staff
Administration	23
Environmental Management	13
Natural Resources Management	7
Environmental Information & Training	6
TOTAL	49

Staff Appointments

Finance Officer, Senior Accounts Clerk, Environmental Officers (6), Administrative Officer, Human Resources Officer, Executive Assistant, Senior Environmental Officer, Technical Support Officer and GIS Specialist were appointed to fill vacancies within the Agency.

Staff Resignations

Eleven Staff tendered their resignations during 2004. The persons who resigned are listed below:

- (a) Pratima Doodnauth – EO II - EIT
- (b) Preetam Ramdeo – Snr. Accounts clerk (ag)
- (c) Keshwar Singh – Finance Officer (ag)
- (d) Clifton Paul – Senior Environmental Officer, EMD
- (e) Ronald Cumberbatch, EO II, NRMD
- (f) Rajkumar Singh, GIS Specialist
- (g) Leeya Khan, SEO-EITD
- (h) Suraj Nauth, EO – EMD
- (i) Pyria Rai, EO II
- (j) Vimla Roopchand, EO II-NRMD
- (k) Keshwar Singh, Finance Officer (Ag)

Training

Officers of the EPA participated in the following areas:-

- (a) Technology and Sustainable Development - IDB
- (b) Advanced application for remote sensing and GIS in earth science and geosciences. - IDB
- (c) Training in Human Resources Management - IDB
- (d) Training in Business Administration (MBA) - IDB
- (e) Biodiversity Monitoring and Assessment - IDB
- (f) Training in Integrated Environmental Planning and Management - Fellowship
(Malaysian Technical Cooperation Prog.
- (g) Training in Computer Packages and Data Base - IDB
- (h) Training in Project Management - IDB
- (i) Training in Dip in Business Administration - IDB
- (j) Project and Supervisory Management - IDB

Development

- Developed a draft Geographic Information Systems Policy
- Prepared a paper on metadata and metadata systems for review by the Guyana Integrated Natural Resource Information System (GINRIS) technical committee.
- Initiated a project to map the distribution of mangroves along the coastline of Guyana using Remote Sensing and IKONOS satellite imagery taken in 2003
- Provided support to the Shell Beach Protected Area (SBPA) Project. Developed protocols and procedures for data collection during biodiversity assessments of Shell Beach Study Area. The Unit has mapped the boundaries of this Study Area for the Global Environment Facility (GEF) funded Protected Areas Project, completed digitisation of 1:50,000 basemaps and developed geo-spatial databases. These databases will provide information needed for research to be conducted in Shell Beach.
- Under the Kanuku Mountains Protected Area Project, maps were prepared showing different draft study areas of the Kanuku Mountains Area in Region 9.
- Continue to provide support to the Guyana Sea Defences project on use of GIS in Sea Defences Management

3.2 Administrative Unit

The reconstruction of the eastern-side roof and the rewiring of the building were completed with the funding of GOG.

Field equipment, additional office equipment and computer equipment and accessories were procured through the funding from FFI and the Inter-American Development Bank.

Panel walls located in the Environmental Management Division were replaced and repainted.

One 4 x 4 Patrol Station Wagon vehicle and one sharp photocopier was purchased from the phase II program of the Inter-American Development Bank.

3.3 Finance Unit

The Agency received subventions totalling G\$ 69.1 million in 2004, compared to G\$ 66.3 in 2003. This placed constraints on the Agency with regards to filling vacant positions and providing support for field activities.

During the year the Agency received financial support from a number of projects including CREP, BIOSAFETY, FFI, and GENCAP.

The audit for the year ended 31 Dec. 2003 was completed in August 2004. EPA is awaiting the report from the Office of the Auditor General.

Approval was granted by IDB for the implementation of ACCPAC accounting software in order to maintain the daily operations of the Agency efficiently. The installation and training phase was completed.

Monthly Financial Reports were submitted to the Board of Directors & Management of EPA on a timely basis.

All financial reporting requirements for individual projects were met in accordance with each project guidelines.

4.0 Natural Resources Management

The Natural Resources Management Division (NRMD) continued its work towards fulfilling the Agency's functions, especially in "taking such steps as are necessary for the effective management of the natural environment so as to ensure conservation, protection, and sustainable use of its [Guyana's] natural resources". Towards this end, activities were undertaken by the three Units of the Division – the Biodiversity Unit, Protected Areas Unit, and the Wildlife Unit.

The NRMD was staffed with a Director who managed the operations of the Division. He was supported by a Biodiversity Development Specialist, three Environmental Officers II, and one Executive Assistant. The Director and the other members of the Division continued to undertake the activities for the Wildlife Unit.

The Division also included staff for three projects being implemented by it: A National Project Coordinator and an Administrative Assistant for the National Biosafety Framework Project (NBF); a Demonstration Project Manager for the Caribbean Regional Environmental Programme (CREP) Project for five months, and a Technical Officer for the Fauna and Flora International Project on Capacity Building for Protected Areas.

4.1 Sustainable Use of Biodiversity

Access and Benefit Sharing and Intellectual Property Rights (ABS/IPR)

Under the UNDP Capacity Building for the Management of Natural Resources and Environment Project, two project proposals were approved for funding. The first was the 'Review of the National Biodiversity Action Plan 1999-2004' (NBAP) with the objective to determine the extent to which the NBAP has been implemented, to make recommendations to enhance implementation, and to identify issues to be addressed by the NBAP 2005–2010. The consultant for this project visited the country and held discussions with stakeholders. He prepared and submitted a first draft of the report.

The second project was 'Capacity building to improve access to genetic resources, the sharing of benefits and managing biodiversity information for decision-making'. This project was designed to assist Guyana to establish the policy, legislative, and administrative measures on access and benefit-sharing and intellectual property rights. A team of three professionals, two overseas-based and one national, was identified to be contracted to undertake the task of developing the ABS/IPR policy and the legislation.

These projects are intended to fulfill Guyana's obligations to the Convention on Biological Diversity CBD which seeks, among other things, to promote the "*fair and equitable sharing benefits*" from the use of biological resources.

Biodiversity Research Process

The Biodiversity Unit (BU) continued to process applications for biodiversity research in Guyana. Twenty-two (22) Biodiversity Research Permits were issued during 2004. This number also included permits to conduct various biodiversity-related filming projects. It should be noted that although the Research Process was designed for the processing of biodiversity-related applications, the Unit continued to facilitate applications as it relates to other areas such as social and anthropological studies. Figure I shows the categories of applications received by the Agency during 2004. From the graph, applications for flora and faunal studies were in the majority and were equal in number.

The BU also issued eighteen (18) Specimens Export Permits during the year. It should be noted, however, that some permits were issued for collections made in the previous year or for collections made as part of previously approved ongoing studies.

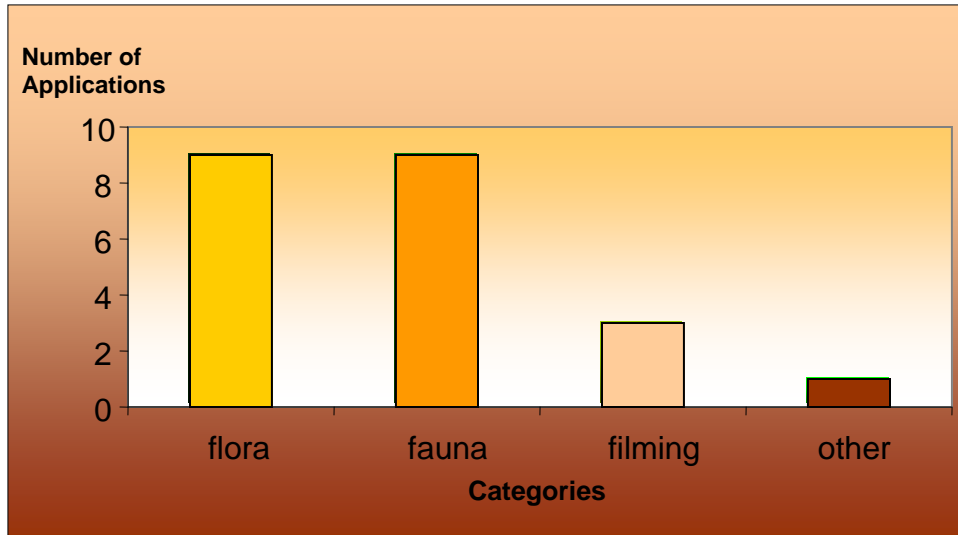


Fig. I Categories of Research Applications Received by the Agency

Improvement of the System for Review of Applications

Throughout the year, the BU continued to work to find ways to ensure that the Research Process continued to be effective and beneficial to both the nation and researchers, building on previous efforts to strengthen it.

These efforts included the sharing of applications with stakeholder bodies in an attempt to solicit comments which were included in the decision-making process. This activity has proven to be worthwhile since it enabled the Agency and the Applications Sub-committee to obtain views pertaining to the applications or proposed studies not otherwise available.

The year 2004 also saw the closer screening of applications and proposed studies. This proactive approach was aimed to uncover any undesirable intentions on the part of researchers and to safeguard the country's biodiversity resources. Stricter enforcement of the research guidelines was also achieved during this year. As a result, there was an increase in the number of local counterparts being attached to research expeditions and also a larger number of preliminary research reports being received by the Agency.

The National Biosafety Framework (NBF) Project

In 2004, the National Biosafety Framework Project commenced. The Project is funded by the GEF and implemented by UNEP. It is in response to the Cartagena Protocol on Biosafety. Guyana has not yet a Party to this Protocol but the Government has articulated its intention to do so before the completion of the NBF Project. Guyana is one of 120 countries undertaking such projects.

The Project officially started in May 2004 with the hiring of a National Project Coordinator (NPC). During the start-up phase of the project (Phase 0), activities aimed at assembling a National Coordinating Committee (NCC) for the Project were carried out. The NCC was established by the EPA to advise and guide the preparation of the National Biosafety Framework. To this end, all Government Agencies with mandates relevant to the Cartagena Protocol on Biosafety and some private sector organizations were invited to select representatives to sit on this Committee. An Administrative Assistant was also hired to assist the NPC.

The formal launching of the project and first national Biosafety Public Awareness seminar was held during the period July 26–29, 2004 at the Oceanview International Hotel Convention Centre, Greater Georgetown. These activities coincided with the visit of the Regional Project Coordinator, Dr. Giovanni Ferraiolo. The Coordinator also made a courtesy call on His Excellency, President Bharat Jagdeo. A report of these activities was prepared.

The first set of survey consultancies under the project was also advertised and the first three consultants were contracted. The consultancies focused on the following topics:

- The State of Science and Technology and related expertise in Guyana;
- The Existing uses of Biotechnology, arrangements for safe use and related expertise in Guyana; and
- The Review and Assessment of existing Legislation that may impact on modern Biotechnology and related expertise in Guyana.

Biodiversity Monitoring

The work of this Unit focused on the development of various strategies for the monitoring of biodiversity. Two strategies were completed. These dealt with the *Monitoring of Forests* and the *Impact of Mining on Biodiversity*. It was anticipated that funding could be acquired for the implementation of these strategies.

Apart from the development of the strategies, the Unit played an integral part in the activities of the Guyana National Initiative for Forest Certification (GNIFC) in an effort to develop national standards for forest certification.

4.2 Conservation of Biodiversity

Coordination of the Establishment of a National Protected Areas System

During the year, the EPA continued its collaboration with its partners and donors in the establishment of a National Protected Areas System (NPAS). The EPA coordinated the technical discussions with the World Bank, Lead Agencies and other relevant Ministries and Agencies, for the proposed Guyana Protected Areas System (GPAS) project to be funded by the GEF and implemented by the World Bank.

The EPA participated in the Appraisal Mission, and Post-Appraisal Mission, of the GPAS project by the World Bank in March and June 2004 respectively. A Post-Appraisal Aide Memoire was prepared and agreed.

The following conditions were met by the EPA for negotiations with the World Bank:

- Project Study Areas delineated and Moratorium established based on legal opinion approved by the Attorney General Chambers;
- GPAS Grievance Mechanism submitted and accepted by the World Bank;
- Operating Agreements between the GoG and the two Lead Agencies (Conservation International-Guyana and Guyana Marine Turtle Conservation Society) submitted and accepted by the World Bank;
- Memorandum of Understanding between EPA and the Ministry of Amerindian Affairs (MoAA) submitted and accepted by the World Bank;
- Budget for components 1, 2, 3 and 4 submitted and accepted by the World Bank; and
- Procurement Plan for year 1 submitted and accepted by the World Bank

Negotiations with the World Bank were scheduled to be held in December 2004, when the Project Appraisal Document (PAD) and GPAS Grant Agreement were to be discussed. However, the World Bank Task Team Leader had a fatal accident and instead of the negotiations, Technical Discussions were held on the documents.

The EPA also participated in discussions to formulate a Term Sheet for the National Protected Areas Trust for the GPAS project. The purpose of the Trust Fund is to ensure the long-term sustainability of the National Protected Areas System through the establishment of a long-term financing vehicle with an independent governance and management structure. A draft Term Sheet was prepared for consideration by the Government.

Two agreements were negotiated and signed with Kreditanstalt für Wiederaufbau (KfW) of Germany, as a co-financier of the GPAS project. These were the 'Financing Agreement' and the 'Separate Agreement to the Financing Agreement'. Through these agreements, sub-projects related to infrastructure within the pilot sites would be implemented. The total grant for this component is EUR 2,556,459.

KfW also agreed to finance a project for ‘Training in Participatory Natural Resources Management’ to be implemented by the Iwokrama International Centre. This would be for a further sum of EUR 370,000. The EPA held discussions with Iwokrama to formulate this project proposal.

The GoG and Conservation International-Guyana (CI-G) continued to work towards establishing the Southern Region as a Community-owned Conservation Area (CCA). The Government formally granted the Wai Wai community a legal title to the lands of the Kanashen District. The community approached the government with a proposal to establish their titled lands as a CCA in partnership with CI-G and the MoAA. The EPA held discussions with CI-G and the MoAA to formulate a Memorandum of Cooperation (MoC) with the Wai Wai Community of Kanashen, CI-G and the GoG. This MoC was signed in November 2004.

The Caribbean Regional Environment Programme (CREP) is a Regional Project involving thirteen CARIFORUM countries, and funded by the European Union. The goal of CREP is to enhance Regional Cooperation and capacity in the conservation, management and sustainable development of Amenity Areas. It is administered by the CREP Project Management Unit (PMU) in Barbados.

Guyana was assigned as a non-core site to develop an Amenity Area Demonstration Project (AADP) in an area between No. 43 and No. 74 Village on the Corentyne Coast. A Memorandum of Understanding (MoU) between the GoG and CREP was signed to this effect.

A Demonstration Project Manager (DPM) was hired, and after extensive consultations with stakeholders during two visits to the site, and a stakeholders analysis, a refocused project proposal was submitted to the PMU for consideration and approval. In the proposal, the goal of CREP Guyana is to establish an Amenity Area within the No. 43-74 Villages of the Corentyne Coast for the protection of threatened natural resources and to provide enhanced livelihood opportunities through management of the area. The project will focus on water melon farmers, management of the No. 63 Beach, and public awareness on the value and need for the conservation of the mangroves in the site.

The EPA was invited to participate in two training sessions sponsored by the CREP. The first training course focused on Protected Areas Management and Planning and was held in Trinidad in May, 2004. The second training course focused on Participatory Project Management held at Iwokrama field station in October, 2004. This formed part of the overall capacity building component for the EPA staff to implement the CREP Guyana Amenity Area Demonstration Project.

Participation in Community Consultations

The EPA was involved in a number of community consultations to move the process forward for the establishment of a National Protected Area System (NPAS), a summary of which is presented below.

Shell Beach

- The EPA participated in the World Bank's visit to the Region One communities. This visit contributed to the development of the social components of the Grant Agreement of the GPAS Project.
- The formal consultation process for the Shell Beach Protected Area (SBPA) process was officially launched at Mabaruma and Santa Rosa, Region One. This process was led by the EPA and the GMTCS with support from World Wildlife Fund for Nature (WWF), Fauna and Flora International (FFI), Ministry of Amerindian Affairs (MoAA), and the Regional Democratic Council (RDC) of Region One. The sessions outlined the way forward in the SBPA process and its relationships with the different conservation-based initiatives in the Region.

Kanuku Mountains

- The communities of Region 9 were consulted on the proposed study area for the proposed Kanuku Mountains Pilot Protected Area. A detailed map and proposal from the Government were distributed and discussed with participants.
- The EPA held discussions with the stakeholder communities and the Regional Advisory Committee (RAC) of Region 9 regarding the establishment of the Community Representative Group (CRG) for the proposed Kanuku Mountains Pilot Protected Area.

Southern Region, Guyana

A Government-led team comprising representatives from the EPA, MoAA, Region 9 RDC, and CI-G consulted with the Wai Wai community, Masakinyari of the Kanashen District in southern Guyana, in October 2004 for the Southern Region Protected Area. The team collected baseline data necessary for the development of a plan of action and to determine the way forward.

Meetings with Regional Advisory Committee (RAC)

The EPA held meetings with the Region 9 RAC for the establishment of the CRG, and the proposed Study Area for the Kanuku Mountains Pilot Protected Area.

Continuation of Support to Lead Agencies for Preparatory Work in Proposed Protected Areas

The EPA supported activities of the Lead Agencies for the Kanuku Mountains, Shell Beach and the Southern Region. These activities focused largely on community consultations, public awareness and capacity building.

For the Kanuku Mountains, the study area was agreed, and the CRG members were nominated. A Terms of Reference was developed for the CRG.

For the Southern Region, the EPA led community consultations together with the MoAA, the RDC of Region 9, and CI-G. These consultations and working sessions focused on understanding the MoC and translating the MoC into the Wai Wai language; gathering of resource use information, and a threats/opportunities analysis. There were also presentations with special focus on protected areas.

The EPA also worked with the GMTCS, FFI, and the MoAA regarding capacity building and the consultation process for the proposed SBPA.

GMTCS presented its work plan for 2004 to the EPA for review. As outlined in the work plan, turtle conservation continued at Shell Beach with funding from the WWF. Also, the EPA participated in a strategic planning exercise for the GMTCS held at the EPA.

FFI continued to fund specific capacity building activities within the National Protected Areas process with a specific focus on Shell Beach. During 2004, three workshops were held that focussed on Biodiversity Assessments, Protected Areas Planning and Management, and Community Resource Evaluations. The reports of these workshops have been prepared.

Meetings with Donors

The EPA met individually and together with the Lead Agencies for the GPAS project with the World Bank and the KfW. Discussions were held regarding the GPAS project documents. These included the PAD, Operating Agreements, MoU with MoAA, Budget, Procurement Plan, and the Grant Agreement.

The FFI Americas Programme Manager visited Guyana and held discussions with EPA and GMTCS. The Manager expressed good faith in the EPA/FFI project and looked forward to future projects with the Agency.

The EPA also held discussions with WWF and the GMTCS regarding the SBPA process.

Other Activities related to Protected Areas

The EPA attended a meeting at the MoAA where a short-term strategy to combat the illegal activities affecting Kaieteur National Park (KNP) was outlined. This included scheduling a scoping visit for the Park. The Biodiversity Development Specialist visited KNP along with MoAA and NPC as part of the strategy to curb these illegal activities.

The EPA continued to support the Wetlands Monitoring Project for the North Rupununi. The purpose of this project is to help build capacity for effective biodiversity management in Guyana through training and the development of ecosystem management plans and associated monitoring systems for the North Rupununi Region. Iwokrama plays a major role in the implementation of this project.

Monitoring is being conducted at 33 sites, and it includes taking water chemistry readings, bird surveys, caiman surveys, fish surveys (food and aquarium), and recording changes in land

morphology and land use activities. This information is being entered into a database. Also, a draft 'North Rupununi Field Manual' has been prepared, including a monitoring protocol, and is intended to be a model for biodiversity monitoring throughout Guyana, and to help develop the capacity for national monitoring and environmental information systems to assess biodiversity conservation within the country.

4.3 Conservation and Sustainable Use of Wildlife

Activities in this programme area were limited because of staff constraints. The Director and the Biodiversity Development Specialist participated throughout the year in the meetings of the Wildlife Scientific Authority (WSA) and Wildlife Management Authority (WMA).

In September 2004, the Director visited Dadawana Ranch, Rupununi, to consult with the South Rupununi Conservation Society (SRCS) and stakeholders. This visit was made possible by funds provided by the American Bird Conservancy (ABC) to CI-G. The SRCS is a registered non-governmental organisation working on conservation issues in the South Rupununi, especially the conservation of the Red Siskin (*Carduelis cucullata*). The objectives of the visit were:

- to receive an overview of community-based initiatives taken so far to protect the bird;
- to develop community-based conservation strategies that includes monitoring and enforcement to mitigate trapping; education and awareness programmes; monitoring and research on the population and habitat; and building capacity for implementation of a strategy;
- to conduct a stakeholder analysis to determine partners (those with impacts on and/or will be impacted by conservation of the species);
- to agree on the roles and responsibilities of each partner in the implementation of the conservation strategies; and
- to facilitate the finalisation of an MoU between the SRCS and the GoG.

The visit achieved the objectives, and the MoU between the SRCS and the GoG was prepared and submitted to the Government for approval. In implementing the conservation strategies, the SRCS prepared and submitted a proposal to British Petroleum for funding. The EPA endorsed this proposal.

The EPA was given approval to enter into an agreement with the WMA for the Agency to provide scientific and other services to the WMA. This agreement was prepared and signed by both parties in December 2004.

Capacity Building

The Division participated in the following workshops and capacity building activities:

- Eco-Regional Conservation Planning held by WWF, Suriname, January 2004;
- Community Environmental Workers (CEWs) Training Workshop held by EPA, FFI and GMTCS in February 2004;
- Biodiversity Assessment Training held by EPA/FFI, March 2004;

- Protected Areas Management and Planning Training held by CREP, Trinidad, May 2004;
- Management Planning for Protected Areas held by EPA/FFI, August 2004;
- Community Resource Evaluations Training held by EPA/FFI, September 2004;
- Participatory Project Management Training held by CREP, Iwokrama Field Station, October 2004;
- Environmental Economics Training held by EPA's Environmental Economist, March – December 2004;
- Supervisory Management Training held at the EPA;
- Project Planning and Management Training held at EPA;
- Workshop on Biosafety in Trinidad was attended in May 2004;
- FFI and GMTCS workshop to deliver a training manual to the CEWs of Region One; and
- The first national Biosafety Public Awareness Workshop held at Oceanview International Hotel in July 2004.

Public Awareness

The Division facilitated the training of three Community Environmental Workers (CEW's) from Region One. It is expected that these trained personnel will encourage local support for the SBPA process among other environmental issues.

Activities in observance of International Day for Biodiversity (22 May) were done in collaboration with the Education Information and Training Division (EITD). The theme for this year was "*Biodiversity: Food, Water and Health for All*". The Divisions joined forces to plan a programme for the day which included a radio message, a panel discussion on GTV 11, and school talks at various secondary schools along the coast.

The BU participated in the World Environment Day (WED) exhibition on June 5 under the theme "*Wanted! Seas and Oceans: Dead or Alive?*". A model depicting the effects of solid waste pollution on oceans and seas was made in conjunction with EITD and EMD. The model served to educate the public on the importance of protecting our seas and oceans from the effects of solid waste pollution and was placed on display at the WED exhibition held at the Umana Yana. The Division also participated in other activities in celebration of the day.

The Division networked with the EITD to develop a 2004 calendar titled, "Environmental Protection Regulations 2000 - Improvements to Society and Business" The calendar highlighted the various aspects of the Regulations regarding best environmental practices.

The Division continued to support the production of the EPA's first newsletter, "The Greenleaf", by maintaining a seat on the Editorial Board whilst assisting in the provision of literature resources and the preparation of articles.

5.0 Environmental Management Division



5.1 Management Structure

The Environmental Management Division structure remains the same. The Division was fully staffed with Director, three Senior Environmental Officers (SEOs) dedicated to Authorizations, Development and Research and Response, eight (8) EOs and a Technician. The Mining, Forestry and Tourism (MFT) Unit was staffed this year with four (3) Environmental Officers (EO); Agriculture and Fisheries (AF) Unit was staffed this year by two (2) EOs, and the Industry, Infrastructure and Energy (IIE) Unit had two (2) EOs for most of the year. Complementing the Division over the years is an executive assistant responsible for secretarial duties and data base assistant responsible for updating the authorisation and complaints registers.

At various periods in the year the human resource capacity in the Division was changed due to staff turnover. The EMD lost three (3) Officers and gained five (5).

- The SEO (Response), Ms. Pravina Singh left the Agency in 2003 to take up another local job opportunity. Ms. Preeya Rampersaud acted in this position for the period of September 2003 to April 2004 when Ms. Singh was officially replaced by Ms. Emilia Maslen in April 2004.
- Ms. Fianna Holder returned from further studies to the EPA in April 2005 and occupied the position of SEO (Authorizations).

- Mr. Clifton Paul, SEO (Research and Development) also left the Agency for further study in August 2004 but was not replaced until Ms. Preeya Rampersaud was promoted to this SEO position in December 2004.
- The Environmental Officer for Coastal Zone Management programme, Ms. Neetu Singh was also appointed during the latter half of the year. This Officer also assisted the other units with their work programme.
- Ms. Pryia Rai (EOII) and Mr. Suraj Nauth both resigned in late 2004 from the IIE unit. The Agency was able to recruit Mr. Raphael Singh as an EOII in the later part of 2004 as a replacement for Ms. Rai,
- Ms. Stacey Phillips was recruited as an EO in the AF Unit

All vacancies in the Division were filled at by the end of 2004, except for the position of a third Environmental Officer for the A&F Unit, which has remained vacant for the past three years.

A University of Guyana Final Year Environmental Studies Student, Mr. Gavin Agard, worked voluntarily (work study programme) with the Agency while undertaking his Final Year Project. The Agency acted in a Supervisory Capacity on his project which looked at the Caribbean Containers Inc. Paper Recycling Facility.

5.2 Achievements

Despite the setbacks in human resources, the Division continued to represent the Agency on the following boards: CHPA, GGMC, TAG, Sea Defence, and GNCS and Technical Committees at GNBS and received training or attended conferences in the following areas:

Date	Course/Workshop/Meeting	Location	Duration	Trainee
10 th –12 th Feb. 2004	The Director attended the Consultative Workshop on the Global Plan of Action	Colon City Panama	3 days	Eliza Florendo, Director
10 th –12 th February 2004	Regional Training Workshop on Integrating Natural Hazard Impact Assessment into National EIA	Christchurch, Barbados	3 days	Preeya Rampersaud, EO II, MFT
28 th June to 23 rd July 2004	Integrated Environmental Planning and Management	Kuala Lumpur, Malaysia	1 month	Khalid Alladin. EO II, MFT
October 2004	EU Earth Observation Partnership Conference	Brussels, Belgium	1 week	Fianna Holder, SEO Authorisations
29 th November to 4 th December 2004	ACTO First Regional Workshop on Mercury Contamination in the Amazon Basin	Rio de Janeiro, Brazil	1 week	Eliza Florendo, Director
	Supervisory Management and Waste Management Regulation 2000 workshops	Guyana		Emilia Maslen, Fianna Holder, Preeya Rampersaud (SEOs)

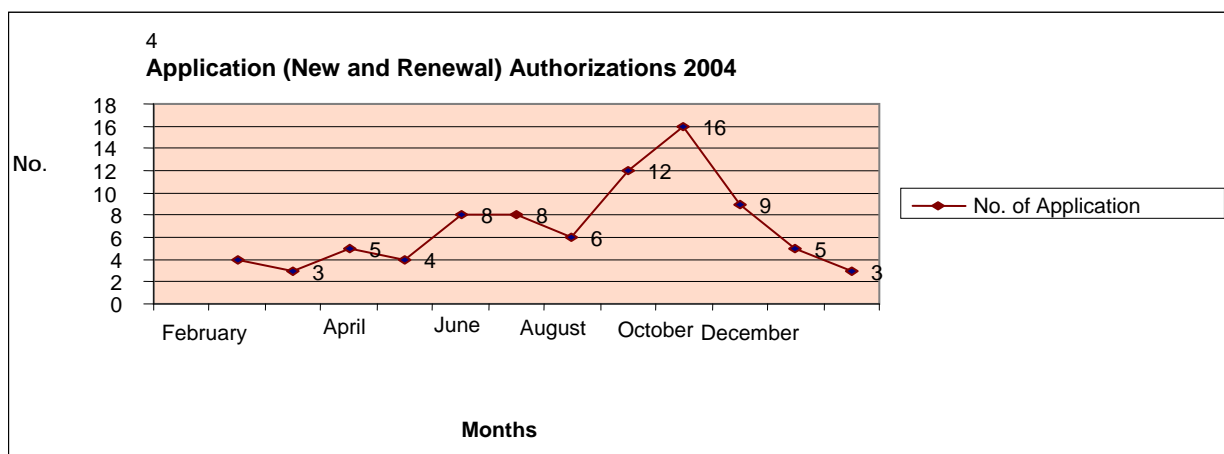
5.3 Authorisations

Under the Environmental Protection Act 1996, EPA is responsible for the protection of environment and prevention of pollution. EPA has an established permitting programme for old and new development projects and public and private sector level to obtain environmental authorizations as first development consent and incorporate environmental management in their operations.

Environmental Permitting Process

A total of eighty-three (83) applications - seventy three (73) applications for new projects, nine (9) applications for renewal of permits for existing projects and 1 application for a transfer of authorisation to a new owner, were received for the year 2004. On average seven (7) applications were received per month for the period. August to October had the highest number of applications, while the trend from November to December had a dramatic decline in applications. This trend is consistent with previous years and level of investment in the country.

A total of eighty-six (86) environmental authorizations were issued for the year. This include renewed and transfer of environmental Authorization. Forty-five (45) authorizations were issued from 2004 applications and forty-one (41) authorizations were issued for previous years.



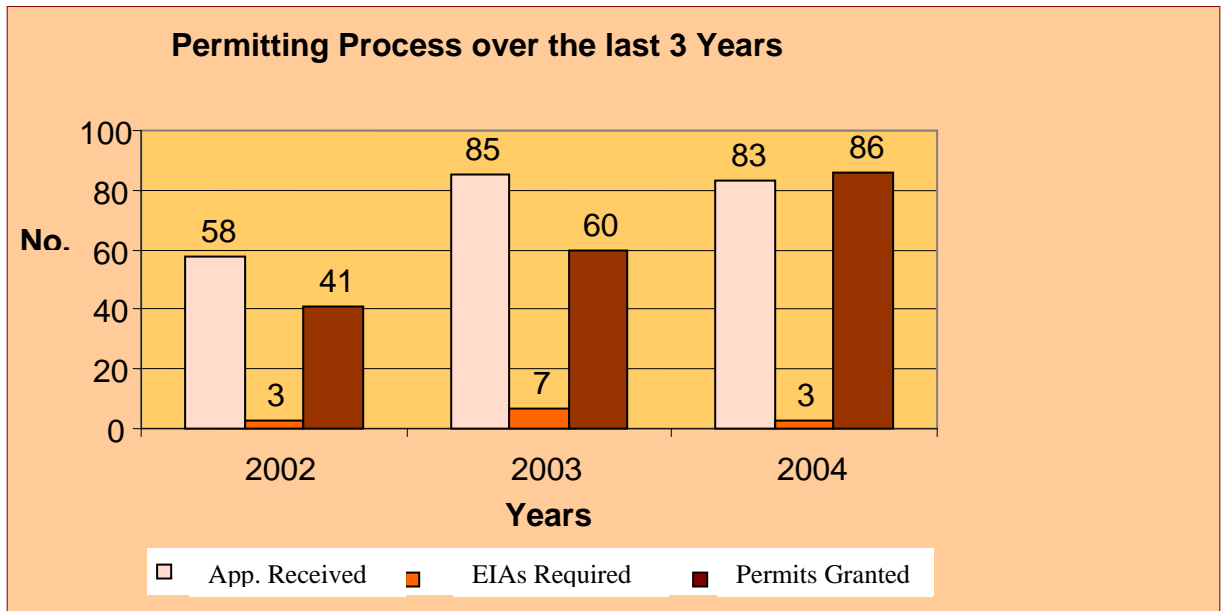
This year service stations/fuel storage facilities stand out as the development sector with the highest number of applications followed by sand mines, lumber yard, waste disposal facilities, hotels, apartments and guest houses, fish and shrimp processing plants and markets. See table below.

Sector of Development (2004)	No. of Applications
Agriculture Support Services Programme (ASSP)	1
Agrochemical Bond	2
Asbestos Removal and Disposal	1
Bridge Construction	1
Cement Distribution and Bagging	1
Fish and Shrimp Processing Plant	4
Foam Manufacturing	1
Food Packaging	1
Guy Gas - LPG Storage & Bottling Facility	1
Guyana International Conference Center	1
Guyana International Cricket Stadium	1
Hospital	1
Hotel/Suits/Apartments/Guest House	4
Loam and Sand Mining	7
Logging	2
Lumber Yard	5
Market	4
Pharmaceutical and Cosmetic (manufacturing and packaging)	2
Poultry	1
Power generation	2
Relocation Georgetown Prison (New Prison)	1
Resort	1
Rice Mill	2
Roads rehabilitation/development	3
Sawmill	3
Service Station/Fuel Deposit/Bulk Storage/Aviation Fuel	9
Solid Waste Disposal	4
Telecommunication Towers	1
Timber deposit/log pond	1
Well and Pumps	4
Wharf	2
Woodworking/Furniture Workshops	3
Others	6
Total	83

Management of the Permitting Process across Sectoral Units in the EMD

Sector	No. of Applications Received 2004 (New and Renewal)	Number of Environmental Authorization Issued 2004	No. of Applications Requiring EIAs 2004	No. of Applications Requiring EMP 2004
AF	11	12	-	4 = 9%
IIE	47	41	1 = 2.2%	12 = 27%
MFT	25	33	2 = 4.4%	2 = 4%
Total	83	86	3 = 7%	18 = 21 %

The Industries, Infrastructure and Energy (IIE) units received 47 applications; again the largest number of applications went to this unit. The majority of the applications received by this unit were for service stations/fuel storage facilities and waste disposal facilities. The Mining, Forestry and Tourism (MF&T) Unit received 25 applications. The majority of applications received were for Sand mining, lumber yards and hotels, apartments and guest houses. The Agriculture and Fisheries (A&F) Unit processed 11 applications. The majority of the applications were for fish and shrimp processing plants.



In 2004 average of eighty-three (83) applications were made. Fifty-two (52) percent of the environmental authorizations issued were from 2004 applications and forty-eight (48) % from previous years. Only three (3) projects or 7% of applicants were required to do EIAs, however, most of the EIAs required in 2003 were still in the review and approval process this year. More Environmental Management Plans (EMPs) were submitted in 2004 than previous years, especially for service stations. EMPs were prepared and approved for eighteen (18), i.e. 21% of development projects, which was a significant increase from previous years.

Some of the major development projects which were granted Environmental Authorizations over this period are:

Project	Developer	Location
Cement Bagging Plant	TLC (permit transferred from GNIC to TLC)	2-9 Lombard Street, Charlestown, G/Town.
Asbestos Removal and Disposal from schools	Ministry of Education/BEAMS/PIU	Bladen Hall Secondary School, EBD. North Ruimveldt Secondary School, G/Town
Logging	Variety Woods and Greenheart Limited	Upper Demerara/Upper Berbice River
	Case Timbers Guyana Limited	West Bank, Upper Berbice River.
Bauxite Mining	Romanex Guyana Limited	Rupununi (No. 6) Mining District.
	Omai Bauxite Mining Inc.	Linden and McKenzie, Guyana.
Wind Energy Plant	DELTA Caribbean N.V	Hope Beach

5.4 Capacity

EIA Consultants

During the year twenty (20) Environmental Consultants registered with the Agency, a considerable increase from the last year.

Registration

Registration process for pollution management continued in 2004. A drop in the registration process was expected. Again registrants in 2004 were mainly persons sent by other sector Agencies, e.g. GFC and CHPA or persons who were registering due to changes in locations of the business.

Compliance Monitoring

One of the greatest weaknesses of the Division continued to be compliance monitoring and enforcement of authorized operations. This has been limited due to staff shortage, availability of equipment and budgetary constraints. However even among these limitations, the division continued:

- to conduct compliance monitoring of Omai Gold Mines Ltd. operations through ground and surface water testing and review of quarterly environmental reports 6 times per year.
- To review data on Guysuco's Sentinel Agricultural Waste Treatment Plant.
- to review progress reports and EMP, compliance checks - Ogle Airport Expansion Project and Cheddi Jagan Airport Expansion and Sewage Treatment Project
- Several Road Construction and Rehabilitation Projects – Ministry of Public Works
- To send out correspondences to permit holders and polluters reminding them of their compliance obligations.

5.5 Development and Research

Since the development of the EPA Act 1996, the EPA was mandated to continuously develop over time a number of regulations, standards and guidelines and to engage in research to gather baseline data on the state of our environment.

Development of Regulations

The Division:

- Continued to support the GGMC in the development of Mining and Environment Regulations; this should be finalized in 2005.
- A Solid Waste Management Bill was drafted and awaits approval by stakeholders.
- An Environmental Health Bill was also drafted by the EPA's legal consultant in consultation with sector Agencies, but little progress has been made to date to move the process of enactment.

Development of Environmental/Operational Guidelines:

The following guidelines and fact sheets have been drafted:

1. Preparing Environmental Audits
2. How to undertake surface water monitoring
3. Site Visits Checklist to be used by EPA Officers

Development of Standards

The Division continues to support GNBS in the finalization of standards for industrial effluent, noise and air quality. The standards for Industrial Effluent and Noise have been finalized.

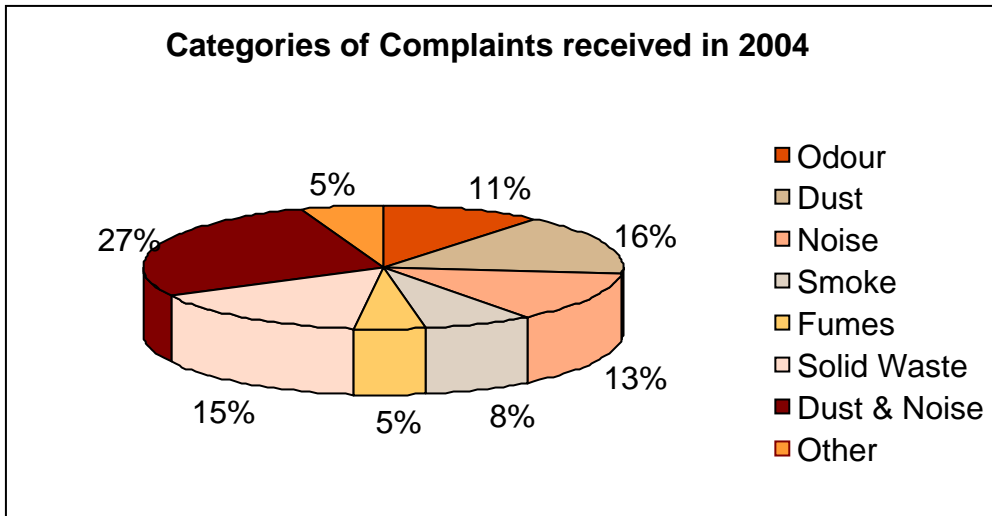
Projects:

- Work Continues with the EPA Water Group. A number of meetings were held with participation from all divisions. Initial stakeholder and situation analyses were completed.

5.6 Response

Complaints and Environmental Emergencies Response

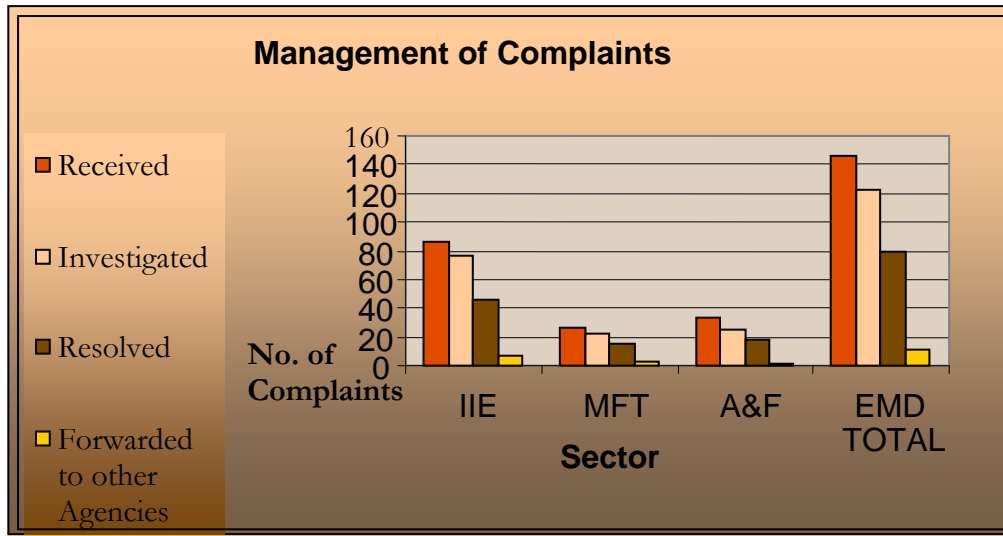
The Division received 146 complaints and investigated 123 complaints during 2004. Based on established procedures, post-investigations, EPA recommended mitigation measures to be adopted by the polluters. A significant number of complaints were related to dust, noise, odour, smoke nuisances and solid waste pollution. A significant number of complaints have been resolved and the environment improved due to EPA's intervention. However, some complaints are reoccurring and EPA faces a challenge especially when it comes to enforcement and processing litigation, which has been slow under the Attorney-General Office. Some complaints are also referred to other local authorities to follow up and EPA seldom receives any feedback on progress or resolution of such matters.



It was found that there has been a decrease in the number of complaints received by the agency compared with the 2003 of 5.2 %. There was a significant improvement in the complaints management process, a 76% of complaints were investigated and 55% were resolved, compared with 71% that were investigated and 67% resolved in 2003. A number of matters are still not closed and EPA continues to work with the offenders in establishing compliance schedules for the implementation of mitigation measures. Only a few complaints 8% were forwarded to other sector Agencies to investigate or enforce. Four (4) Prohibition Notices and Cease Orders were issued to polluters who failed to comply with EPA's requirements. There had been an increase on the number of furniture and spray painting workshops accounting for a higher % of complaints related to dust and noise.

MANAGEMENT OF COMPLAINTS IN 2004										
Sectors	No of Complaints Received		No of Prohibition Notice Issued		% of Complaints Investigated		% of Complaints Resolved		% of Complaint Referred to other Agencies	
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
MFT	27	26	0	2	82	65	82	58	0	12
A&F	37	34	2	0	52	74	48	53	3	3
IIE	90	86	1	2	80	88	72	53	8	8
Total	154	146	3	4	71	76	67	55	4	8

The Industry, Infrastructure and Energy Unit, received a significant number of complaints, i.e. 58.9%, the Agriculture and Fisheries unit received 23.3% and Mining, Forestry and Tourism received the least number of complaints 17.8%. IIE in 2004 also had the greatest number of unresolved complaints and complaints forwarded to other authorities.



Inter-Agency Mechanisms:

There was an improvement in collaboration with other sectoral agencies in responding to complaints. Joint inspections were frequently carried out, and a number of complaints were referred to other agencies, GGMC, GS&WC, CH&PA, City Councils and NDCs, GFC, etc. for action to be taken.

In particular, EMD found that some complaints received were based on entities that existed illegally. EPA-CHPA inter-agency relationship is to be accordingly improved to ensure that such entities are brought to the attention of all the relevant authorities for coordinated action to regularize or prohibit. A number of complaints brought to the Agency are also neighbourly disputes, which go beyond an environmental nuisance requiring EPA's attention. Others are minor issues that the local authorities themselves can resolve do not require the effort and resources expenditure of the EPA.

Interdivision Collaboration

EMD-Administration:

- The Division continued training under the Environmental Economics Programme during 2004.
- The Division worked with the Environmental Economist to review the existing permit fee structure.

EMD-EIT:

- The Division participated in the EIT Media Programmes through participation on the GTV 11 televised Guyana Today morning show.
- Participation in workshops hosted by the EIT or at which EIT was invited to present
- Supported work in the development of EPA Calendars, New Letter, posters, flyers, facts sheets, etc.

EMD-NRMD:

- EMD will continue to involve the NRMD in review of project EIAs that affect the programme areas of this division
1. The Division continues to struggle in the research and developmental aspects in its work program, which resulted mainly because of human resource and time constraints, most efforts, were dedicated towards ongoing activities, such as permit and complaints management for which strict time standards are set.

5.7 Future Plans

Management Structure:

- EMD plans to have on board an engineer and officer to fill the vacancy in the AF Unit.

Authorisations

Permitting Process:

- To begin applying compliance schedules and permitting those operations which have registered with the Agency post 2000.
- To institute fines and penalties to all non-registrants and operators who are in offence of the environmental protection regulations.
- To ensure that sector assessments are carried out to inform the Agency's position on compliance issues for a number of sectors (Rice, Mining, Forestry, Tourism, and Energy).

Development and Research

Development of Regulations, Environmental/Operational Guidelines, Standards

- The development of a procedure for guidelines development incorporating sectoral review
- The review of all existing guidelines
- To finalize air standards with the Guyana Bureau of Standards.
- The development of ambient water quality standards.
- The development of air quality standards as they relate to rice mills and wood working establishments.
- Development of a Public Disclosure System and the First State of the Environment Report

Response

- To promote short term and long-term training in data collection for the noise, air and water quality in furtherance of the EPAs mandate to protect the environment.

- To foster greater collaboration with policy makers.
- To foster greater coordination at the inter-agency level in monitoring pollution causing activities
- To review existing MOUs and to develop MOUs with other organizations.
- To implement a water quality management and monitoring program.
- To collate existing baseline data and collect baseline data in environmental hot spots.

Interdivision Collaboration

- EMD will continue to assist EIT in the preparation of materials for dissemination
- EMD will work in a collaborative manner with this division under the UNDP Project for Capacity Building for Natural Resources and the Environment and the IDB Phase II Project on Environmental Management set to continue in 2004

6.0 Education, Information and Training Division

The Education Information and Training Division (EITD) of the Environmental Protection Agency continued to promote and encourage a better understanding and appreciation of the natural environment and its role in social and economic development. The Division also informed and educated the public on the need for and methods of protection of the environment and promoted the participation of members of the public in the process of integrating environmental concerns in planning for development.

A Director, Senior Environmental Officer, three (3) Environmental Officers and a Documentation Assistant implemented the Division's programme of work for 2004 which addressed the four following areas:

- (i) Development of Education Materials
- (ii) Outreach
- (iii) Capacity Building
- (iv) Information and Communication



Environmental Officers facilitating training of Environmental Clubs

6.1 Development of Education Materials

During 2004, several materials were created and or compiled for use by the public and as resource for schools, community and other target groups. The subjects of these materials are reflected in Table 1 below:

Type	No.	Title
Lists	3	These were created to inform the public of the resources available at the EPA on: <ol style="list-style-type: none"> i. Education Materials ii. EPA created posters <p>A list of strategies to change public perception of landfills was compiled for use by the Environmental Management Division.</p>
Packages	3	Packages were compiled on the following subjects: <ol style="list-style-type: none"> i. Environment and Your Health for Schools ii. The Environmental Protection Act 1996 for the participants of the Guyana Police Force Annual Junior Officer's Course. iii. Information Materials on Solid Waste Management were prepared and organized for the RDC region 3.
Videos	2	<ol style="list-style-type: none"> i. The proceeding of the National Capacity Building Workshop for Environmental Clubs held on 4-5th August 2004 was recorded on video. ii. A video documentary on Environmental Best Practices in Mining was completed under the CIDA funded Guyana Environmental Capacity Development.
Calendar	1	A 2005 Calendar was produced on the theme: Environmental Protection Regulations 2000. This production was funded under the IDB Environmental Management Programme Phase II. The EPA Calendar was distributed widely to Business, Government, Schools and NGOs.
Reports	2	<ol style="list-style-type: none"> i. The 2002 and 2003 Environmental Protection Agency's Annual Reports 2003 were compiled and distributed to the EPA Board, Government and Private Sector and posted on the EPA Webpage. ii. A Report on the National Capacity Building Workshop for Environmental Clubs held on 4-5th August 2004 was prepared and sent to the UNDP, PAHO/WHO and UNICEF which agencies provided support for the Training Workshop.
Newsletter	1	The 4 th Issue of the EPA Newsletter Green Leaf was produced and circulated to Sector Agencies and posted on the EPA Webpage

6.2 Outreach Programmes

Exhibitions

The EITD took advantage of opportunities to host booths a number of exhibitions organised by partners. At these fora the EITD in collaboration with the EMD and NRMD interfaced with a wide cross section of the public to share information on environmental best practices. The exhibitions in which the EPA participated in 2004 include:

- “Ecotourism in Guyana.” - This activity was coordinated by the Ministry of Tourism at the Zoological Park on the occasion of the visit of HRH the Duke of York, Prince Andrew.

- “I am Alive.” – This was coordinated by the Young & Thoughtful Environmental Club at the YMCA Thomas Lands. Several NGO participated in this event.
- “UG Open/Career Day”. The forum was used to disseminate educational materials mainly to schools and youth groups. Also visitors to the booth were able to observe displays that illustrated the skills required to conduct the work of the EPA.
- “Environmental Mining Exhibition” – This exhibition was coordinated by the Guyana Geology and Mines Commission and provided the EPA with an opportunity to share information on environmental best practices in mining.



The Environmental Protection Agency's Booth at an exhibition

Presentations

The EPA conducted talks and presentations as shown in Table 2

Topic	Target Audience
About Solid Waste Management	This talk was presented to three (3) schools
The Environmental Protection Act (1996)	This presentation was made to the Guyana Police Force - Annual Junior Officer's Course
"Food, Water and Health for All"	This presentation delivered to several schools in the observance of 'International Biological Diversity Day' 2004.
About the EPA	This talk was delivered to teachers and students of RCV private school who visited the EPA.

Environmental Clubs

Visits

Over one hundred (100) Environmental Clubs exist across the country. Officers of the EITD visited a fifteen (15) Clubs during the year to check on their progress and encourage them to write proposals to access the Green Fund. The Clubs

Affiliations

The EPA affiliated five (5) new Environmental Clubs in 2004, bringing the total number to 101. The new Environmental Clubs are:

- i. Eco-trust University of Guyana
- ii. Graham's Hall Primary Green Ambassador Club
- iii. Nehemiah Comprehensive School (Earth Restorer)
- iv. Young & Thoughtful Youth Club
- v. Evergreen Nature Study Club

Meetings

Meetings were held with the following four (4) Environmental Clubs members to table activities which would stimulate dynamic Club activities

- i. Graham's Hall Primary School and
- ii. Nehemiah Private and the
- iii. Stewartville Youth Group
- iv. "Teenage Action Rangers" Environmental Club of North West Secondary School

Proposals

Seven (7) proposals were received from Environmental Clubs for funding under the Green Fund Micro Grant being implemented by the EPA. These proposals were reviewed by the Green Fund

Steering Committee which recommended changes. These modified proposals remain pending as Committee lost most of its members and did not meet again in 2004. The Committee is expected to be reconstituted in 2005.

Workshops

Two Environmental Clubs participated in a Play Writing Workshop organized by the Ministry of Culture and Sports and conducted by a VSO Ms Judy Davidson. At this workshop the Club members were exposed to elements of Social theatre.



An Environmental Officer conducting training at Annai North Rupununi

Environmental Days

The EPA observed International Day for Biological Diversity and World Environment Day with a number of activities.

School talks were conducted in nine (9) schools on the theme for International Day for Biological Diversity. These schools were drawn for Regions 3, 4, 5 and Georgetown. A panel discussion was aired on television channels NCN Channel-11 and MTV Channel 65 to mark International Day for Biodiversity.

A Green Walk was coordinated by the EPA in observance of World Environment Day 2004. There was wide participation in this activity from Public and Private Sector, Non-Governmental Organisations, schools and members of the public. An Environmental Exhibition was also coordinated by the EPA as part of World Environment Day observances. A number of Public Sector Agencies presented displays at this event which drew many visitors from schools, the teachers training college and the University of Guyana as well as members of the public. Additionally, there was a radio message and a panel discussion of TV on the World Environment Day theme.

6.3 Media Programmes

The EPA continued to coordinate the Environment segment of the Guyana Today Show which is aired on Tuesday on NCN Channel 11. The EPA has been successful in getting a wide range of stakeholders to appear on the programme and to share information on their work in relation to environment. The groups and organisations that contributed to the programme are shown in Table 3 below:

Groups And Organisations	Appearances For The Year
Guyana Zoo Volunteer	3
Environmental Club	1
St Roses ' Environmental Club	1
Amazon Birds Environmental Club	3
Evergreen Nature Study Club	1
EPA	8
FFI	1
Iwokrama	1
Regional Democratic Councils Region # 4	1
GFC	1
M&CC	2
Hydro-meteorological Department	1
CI- Guyana (Jenman Education Centre)	1
PAHO	3

Panel discussions were also aired to mark International Day for Biodiversity and World Environment Day.

Newspapers

The EPA continued to write articles for the weekly Environment Column published in the Guyana Chronicle. These articles targeted secondary school students and featured topical environment subjects including international Environmental Days. The range of subjects presented for the year included:

- Roles and Responsibilities in Environmental Management
- Wetlands
- Mangroves
- Health Day
- Earth Day
- International biodiversity Day
- Environment Day,
- International Oceans Day
- World Day to Combat Desertification & Drought
- Ozone
- Natural Resources Management.
- Asbestos
- Acid Rain, Pond Ecosystems and Biomes
- Plastics
- Christmas and the Environment

6.4 Capacity Building

Environmental Officer (Training) of EITD attended a GENCAPD workshop on preparing Cumulative Environmental Effects Assessment (CEEA). This Officer also attended a workshop on the reviewed Mining Regulations and Mining Code of Practice

A “National Capacity Building Workshop for Environmental Clubs” was conducted on 4-5 August 2004. The major objective of the workshop was to train the youths in the writing of sound project proposals. Igor Swidin President of Latin American Eco-Clubs participated in the meeting and shared the Latin American experience with local clubs.

Three Officers of EITD conducted a three-day workshop on proposal writing for the fourteen (14) Environmental Clubs in the North Rupununi. The workshop was held at the Bina Hill Institute, Annai and organized by Iwokrama Thirty nine (39) club members participated.

A Forum on Conservation Ecology and Population for Environmental and Environmental Health Clubs was held involving Clubs from across Guyana. The two-day event involving eighty (80) participants occurred at the YWCA on 25-26 September 2004. University of Michigan,

WWF – Guyana and Peace Corps Volunteers, Iwokrama and UNICEF served as facilitators and sponsors.

The EO (Tr.) within the EITD attended a workshop on Rapid Assessments convened by Fauna and Flora International.

A meeting was convened at the EPA towards the development of a National Environment Education Framework. Several institutions involved in Environmental education were involved in this meeting. The National Environmental Education Strategy was used as the basis for the discussions.

The Environmental Protection Agency and Fauna & Flora International held a workshop on Community Environmental Workers for the Shell Beach Protected Area process.



Meetings

The Green Fund Steering Committee met and reviewed six micro project proposals. It was noted that all of them required significant modifications.

The EITD participated in a workshop convened by the Ministry of Foreign Affairs for identification of potential interventions under the Pollution Component of the UNDP Funded Environmental Capacity Building Project. The Senior Environmental Officer in EITD attended the second workshop organized under the same project but focusing on the Natural Resources Component.

The EPA participated in a Public Education and Outreach (PEO) Workshop organized by the Mainstreaming Adaptation to Climate Change Project. The workshop which was held in Trinidad from 6-8 April 2004, sought to develop an Action Plan for PEO on Climate Change.

The EPA participated in a one-day workshop on Monitoring and Evaluation of the Poverty Reduction Strategy.

The EPA participated in a workshop in St Lucia in September to construct a template for a Knowledge, Attitude and Behaviour / Practice on Climate Change.

6.5 Information and Communication

The Documentation Centre continues to provide access to environmental resources to members of the public. The major users of the resources were students of the University of Guyana.

The Information Technology Unit (ITU) of the EPA is a key stakeholder in the agency's day-to-day activities. The IT unit serves the entire network of more than 40 users with a network throughput of 100mbps and a number of servers both physical and virtual.

The Information Technology (IT) vision is to promote IT in a professional and business like manner for organizational efficiency. We are currently producing in-house applications that compete with the level of quality and skill. We also have a network infrastructure that surpasses that of many of our sister agencies.

Our Intranet services are providing web access, email, and database applications.

During the past year we have uploaded issues of the newsletter (volume one) to the EPA's website. In addition there are ongoing updates on the EPA events and several new materials added to web Site.

The Complaints Database was modified and is still in the process of being developed using web technologies with this type of applications the database can be used from a web browser. New reporting features were also implemented for this application.

The Human Resource Data Management System (HRDMS) was started using MS Access and Visual Basic. This is scheduled to be completed as a web/windows application in the future.

There were some refinements to the permitting database which is still under development.

The EPA's internal and external websites underwent numerous changes and updates. New tools were developed on the internal Intranet for administrative management of the network. The IT Tracker database was implemented as part of the management of networked devices.

A draft IT policy document was created.

The network administrator was sent on training in the area of database management. This training was funded by the IDB and was to allow the Network administrator to continue the development of the in-house databases. A technical support officer was hired to assist in day to day troubleshooting and network administration.

One of the future plans of the IT unit is to have a semi-wireless network with internet browsing capabilities. In addition to that we would like to start hosting some of our databases online so that there can be more accessibility to unclassified information.

6.6 Geographical Information System

Preparation of Maps

- Kanuku Mountain and Shell Beach proposed Pilot Study Areas and their description
- Environmental Clubs in Guyana
- Distribution of complaints along the coastline of Guyana
- Proposed sites for hydro-power stations in Guyana
- Caiman Densities in Mahaica, Mahiacony and Abary (WWF funded Wildlife Surveys Project)
- Maps requested by internal and external stakeholders
- and many more

Data Management

- Developed procedure for updating and managing EPAs GIS database
- A web-based Map Management System was developed for managing the GIS resources within the GIS Unit
- Developed a new internal GIS website for the EPA using a content management system (CMS) for the integration of various services. The services currently available are a GIS glossary, places gazetteer of Guyana and places finder, real time map viewer and digital atlas for end-users who can browse, and search for places and maps. New training materials on GIS and remote sensing were also uploaded to the website.
- Developed a pricing list in an attempt to recover costs for preparing and printing maps for external stakeholders. In addition, a policy was developed to guide decisions regarding conditions of waivers and discounts for stakeholders, general public and students.

Training

- Introductory GIS training was given to new staff members of the EPA and staff of the Guyana Sea Defence during 2004 on the use of:
 - o ArcGIS 8.3 GIS Software
 - o Global Positioning Systems (GPS) using a GARMIN GPS System.
- Provided training to staff of the Guyana Sea Defences on georeferencing images and vectorising the coastline of Guyana
- Provided support to GINRIS for training local counterparts

CDB Coastal Zone Management

- The GIS Unit continues to provide assistance in the Caribbean Development Bank funded Coastal Zone Information Management Project.
- Developed methodology along with the Coastal Zone Unit for vectorising the coastline of Guyana

