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Message from Executive Director

In 2003, the Environmental Protection Agency (EPA) experienced a significant staff turnover with resignations submitted, for various reasons, by staff holding critical positions, including the positions of Executive Director and the Directors for the Environmental Management and Education, Information and Training Divisions. A new Executive Director was appointed on July 01, 2003 and the two other positions mentioned above were filled in October, 2003.

With the appointment of the new Executive Director, more appropriate systems and procedures were put in place for ensuring transparency and accountability and for discharging the responsibility of the Agency in accordance with its mandate. The Environmental Management Programme–Phase II, funded by the Inter–American Development Bank (IDB), was affected by the absence of an Executive Director, but was resuscitated in the second half of 2003. Activities under the Programme intensified and efforts were made towards achieving the overall objective of the Programme of consolidating a sustainable environmental management system for the country and for development of a sector–wide–capacity for the implementation of environmental programs.

In the core area of environmental management, significant progress was made in 2003 compared with previous years. An increased number of applications were received for environmental authorisations, reflecting the extent to which developers were prepared to comply with the environmental protection legislation. Environmental authorisations took the form of environmental permits, construction permits or letters of authorisation. In some cases, Environmental Impact Assessment (EIAs) and Environmental Management Plans (EMPs) had to be prepared. Public participation in the EIA process, as provided for in the environmental protection legislation, was always encouraged by the Agency.

Several complaints were received and investigated during 2003. Most of these complaints pertained to dust, noise, odour, smoke nuisance and solid waste pollution. Several of the legitimate complaints were resolved and in many cases mitigation measures recommended. Some complaints were referred to other Agencies which had responsibility for addressing them.

In its research and development activities, the Agency participated in the development of mining regulations. Environmental and operational guidelines were also drafted for ecotourism establishment and aquaculture. The Agency also continued to work with the Guyana National Bureau of Standards in finalizing standards for industrial effluents, noise and air quality.

Biodiversity research in Guyana continued to attract considerable interest in 2003. A number of applications for biodiversity research were received from researchers of various countries. Permits were issued for the research activities which included categories for plants, animals and filming. The Agency ensured that biodiversity research produced benefits for Guyana.

The Agency received support from a number of partners and donors in the critically important areas of conservation and sustainable utilisation of natural resources. These included: support for the establishment of a National Protected Areas System (NPAS), development of a national policy and regulations for Access and Benefit Sharing and Intellectual Property Rights (ABS/IPR). Arrangements in 2003 were being finalised with the United Nations Environmental Program (UNEP) for a National Biosafety Project and a proposal was developed and submitted to the Global Environment Facility (GEF) for a National Capacity Self Assessment Project.

The Agency worked in close collaboration with sectoral agencies and institutions as well as with several local and international Non-Governmental Organisations (NGOs). Local communities also participated in and benefited from a number of activities of the Agency.

The Agency successfully engaged in a number of activities aimed at promoting public awareness of and participation in environmental decision-making and keeping the public informed of systems and procedures of the Agency. Consistent with this objective, the Agency developed a number of brochures, fact sheets, information packages, flyers, booklets, posters, video documentary (mining) supported by the Canadian International Development Agency (CIDA) under the Guyana Environmental Capacity Development Mining Project (GENCAPD) and the usual environmental calendars funded by the United Kingdom DEFRA Darwin Initiative in participation with the Fauna and Flora International (FFI). There were also several effective outreach programmes and activities intended for providing assistance to Environmental Clubs and community groups in participating in environmental management.

The Audited Financial Statement for 2003 was only received on December 19, 2005. This caused a delay in the submission of the Annual Report to the Board of EPA. The Agency is disappointed that there was a “disclaimer of opinion” on the statement due to the non – inclusion of financial statements for the Wildlife Division. This position has been maintained by the Auditor General’s Office despite explanation that the Wildlife Division, during 2003, was not operationally under the purview of the EPA.

The Agency achieved considerable success in 2003 and would like to acknowledge the valuable support given by stakeholders, partners, collaborators and donors.

Executive Director

1.0 About the Environmental Protection Agency

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.**

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.

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 awareness and 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 environmental 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.

ORGANIZATIONAL 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.

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.

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 EPA's 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**

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 as 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.

Cross-Sectoral Programmes

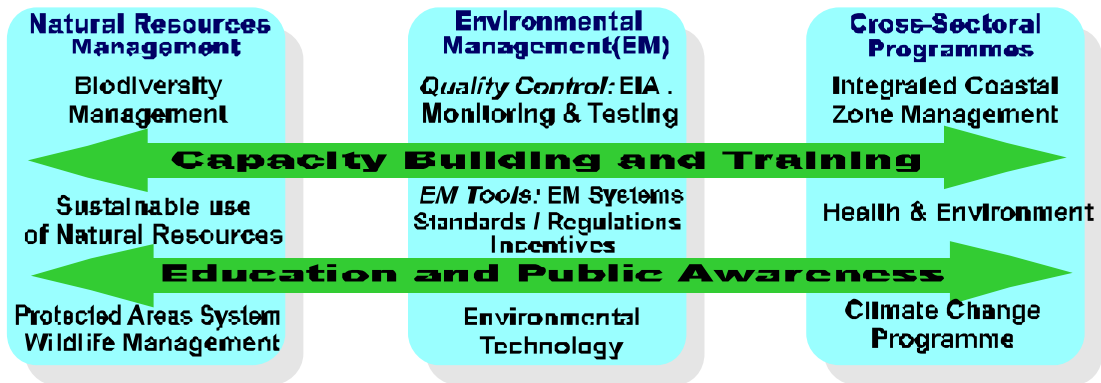
Currently, the EPA plays a major role in two cross-sectoral programmes in the areas of Integrated Coastal Zone Management and Climate Change.

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 FINANCING

The Agency received a subvention of G\$66.3 million in 2003 from a budgeted amount of G\$90.9 million. This placed constraints on the Agency with regard to providing support for field activities.

The audited financial statements for 2001 and 2002 were completed and submitted to the Office of the President. The Audit for 2003 has been completed and a copy is attached hereto.

All financial reporting requirements for the Board and Management were met in a timely and accurate manner.

All reporting requirements for the IDB- Phase 11 Environmental Management Program were met in accordance with the Bank's requirement.

3.2 HUMAN RESOURCES

During 2003, there was a complement of forty-six members of staff employed in the four Divisions as follows:

Division	No. of Staff
Administration	21
Environmental Management	15
Natural Resources Management	7
Environmental Information & Training	3
TOTAL	46

There has been no change to the EPA Organisational Structure in 2003. However, the Agency experienced a high rate of staff turnover during the year. While a number of staff left to pursue further studies, many left for higher paying jobs. This posed a human resource challenge for the Agency. Additionally, the Agency lost the services of the

Executive Director, Education, Information and Training Director and the Environmental Management Director during the year but these vacant positions were later filled.

Staff Appointments

Staff appointments made during the year were as follows:

1. Executive Director
2. Director, Environmental Management Division
3. Director, Education Information and Training Division
4. Environmental Economist
5. Accounts Clerk
6. Administrative Assistant
7. ED Driver
8. Executive Assistant
9. Four (4) Environmental Officers
10. Senior Environmental Officer
11. Network Administrator
12. Biodiversity Development Specialist
13. Environmental Officer II
14. Office Assistant

The following staff members were promoted during the year:

1. Mr Ronald Cumberbatch – from EO I to EO II
2. Ms Leeya Khan – from EO II to Senior Environmental Officer after returning from study leave and having completed a Masters Degree.
3. Ms Simone Osborne – from EO I to EO II
4. Mr Paul Sukhu - from Office Assistant to Senior Office Assistant

Training

Officers of the EPA participated in the following training programmes:

Overseas

- Ms. Preeya Rampersaud, EO II attended a training programme in Sweden on Mining and the Environment.
- Mr. Khalid Alladin, EO II attended Training in Environmental Policies in Japan.
- Ms. Andrea Mahammad, EO II attended a training course in Land Use Planning in Germany

- Mr Rajkumar Singh, GIS Specialist attended a training course in Geographical Information System and Remote Sensing in Netherlands
- Mrs. Simone Osborne, EO II was awarded a fellowship to Germany for training in Environmental Management & Emerging countries
- Ms. Sharifah Razack, Education, Information and Training Director and Mr. Lakshman Persaud, EO II attended a training course in Participatory Planning and Collaborative Management in St. Lucia

Others

1. A Staff Retreat was held and discussions focused on the following areas:
 - (a) succession planning
 - (b) alternative appraisal format
 - (c) salaries and benefits for staff
 - (d) job analysis
2. A salary review proposal was prepared and submitted to the EPA Board of Directors for endorsement.
3. The Overseas Development Assistance Fellowship for Mr. Moortaza Jiwanji ended during the year and Mr. Conor Fox replaced him at the Agency.
4. Mr. Kelvin Garnett, a former employee, initiated legal proceedings against the Agency for wrongful dismissal. The Attorney General's Chambers represented the EPA in this matter.

3.3 ADMINISTRATIVE SERVICES

During the year a number of stationery items, office and scientific equipment were procured through funding from the Inter- American Development Bank (IDB), Caribbean Regional Environment Programme (CREP) and Government of Guyana (GOG).

Replenishment of stocks was done on a monthly basis to facilitate a smooth and efficient operation of the Agency.

Vehicles were managed on a timely basis as such having the most efficient and effective use.

A pin number system was introduced as a controlling mechanism for the monitoring and use of the telephone system.

4.0 ENVIRONMENTAL MANAGEMENT DIVISION

4.1 MANAGEMENT STRUCTURE

The structure of the Environmental Management Division remained the same as it has been for the past two years. During the year, Mining, Forestry and Tourism (MFT) Unit was staffed with three (3) Environmental Officers (EO); Agriculture and Fisheries (AF) Unit was staffed with two EOs and Industry, Infrastructure and Energy (IIE) Unit was staffed with three EOs, two of which were engineers. Complementing the Division over the years is an Executive Assistant and Field-Laboratory Technician, mainly responsible for data base management.

During the first half of the year, the Division was fully staffed with one Director, three Senior Environmental Officers (SEOs) dedicated to Authorisations, Research and Development, and Response, eight (8) EOs and a Technician. During the second half of the year, the Division lost a total of six staff members: the Director and the SEO (Response) and four EOs. The SEO (Development) was assigned Acting Director and was subsequently appointed to the position of Director, effective from the beginning of October 2003. One EO II from the MFT Unit was appointed Acting SEO (Response). Vacancies existed for two SEO positions: Response, and Development and Research. Four EO positions were vacant.

Constraints

Human Resources:

As is clear, the Division's main constraint was high staff turnover and as a consequence a shortage of staff. The Division began 2003 with a full complement of fourteen (14) staff including the Executive Assistant. Between the period September-November 2003, the Division lost a total of six (6) staff and this loss was exacerbated by the normal periods of annual leave etc:

- **September**
 - One EO from MFT left for further studies
 - The SEO (Response) left for other job opportunities
 - The Director moved on to another job
- **November**
 - One EO from AF resigned,
 - Both engineers in IIE resigned and
 - The remaining EO from IIE went to Germany on a pre-planned study opportunity in Waste Management.
 - The field-lab technician/lab assistant went on maternity leave

The year ended with the remaining eight (8) staff members in the Division. As a result, the work of the Division was affected as some items on the Work Plan could not be fully

completed, nor could the influx of applications for environmental authorization and complaints be dealt with in as timely a manner as would have been desired.

Achievements

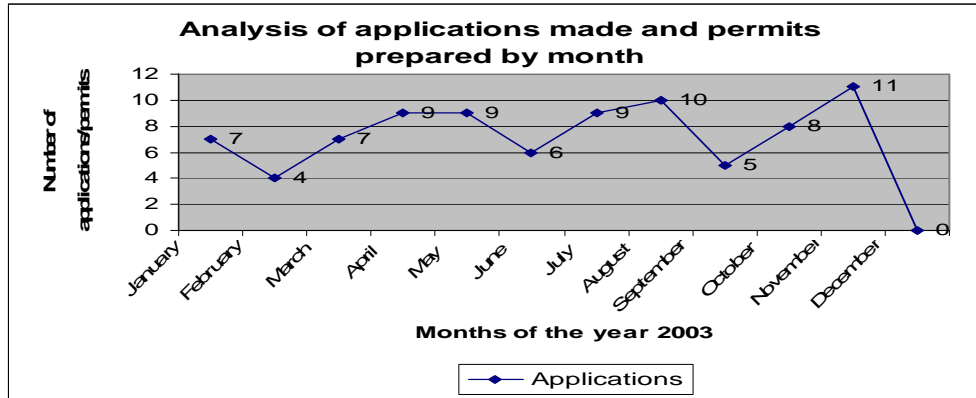
Despite the setbacks in human resources, the Division continued to represent the Agency on the following Boards: Central Housing and Planning Authority (CHPA), Guyana Geology and Mines Commission (GGMC), TAG, Sea Defence, Guyana National Shipping Corporation (GNSC), Technical Committees at Guyana National Bureau of Standards (GNBS) and received training, in the following areas:

Date	Course/Workshop/Meeting	Location	Duration	Trainee
March-April 2003	UNEP/IMA Workshop on Sewage Sludge Reuse and Disposal	Cuba	2 weeks	Alaxander Ramessar, EO, IIE
May-July 2003	JICA/ Global Environment Centre's course on Environmental Policy and Environmental Management Systems	Japan	6 weeks	Khalid Alladin, EO II, MFT
September 2003	Gencapd course on Development of Codes of Practice	Guyana		K Alladin, P Rampersaud, R Cumberbatch, R. English, A. Ramessar, S. Osborne, G. Atkinson, E. Florendo
September 2003	Technische Universitat Dresden /UNEP/ BMU – Biodiversity	Germany	3 weeks	Preeya Rampersaud, EO II, MFT
November	Regional Workshop on Enforcement and Compliance with International Multilateral Environmental Agreements	Jamaica	4 days	Eliza Florendo, Director
November 2003	Regional Workshop on Trade and Environment for Caribbean Countries	Jamaica	2 days	Clifton Paul, SEO (Authorisations)
November 2003	Capacity Building Workshop on Trade, Environment and Sustainable Development	Jamaica	2 Days	Clifton Paul, SEO (Authorisations)
December 2003	Technische Universitat Dresden /UNEP/ BMU - Solid Waste Management	Germany	3 weeks	Simone Osborne, EO II, IIE

4.2 AUTHORISATIONS

Environmental Permitting Process

A total of eighty five (85) applications for environmental authorizations were received for the year 2003. On average, the Division received seven (7) applications per month and granted six (6) permits. The month of November, followed by August received the majority of applications. In contrast, no one applied for authorizations in December, while only 4 applications were processed in February. Over the period of May to September, the majority of applications were received, with an average of nine (9) applications. See figure below.



The majority of applications, 14% were made for sawmills, and lumber yards, while 12% of applications received were for gas stations/fuel storage facilities and 8% for gold, sand and laterite mining. When compared to previous years, there was a significant increase in the number of applications for energy generation, inclusive of a wind farm and for fish processing, located primarily in the Eccles Industrial Estate. Only a few applications were made in 2003 for rice mills, logging operations, cement bagging plants and resorts. For the first time the Division received applications for asphalt plants and water supply projects. See table below.

Sector of Development	No. of Applications
Asphalt plants	2
Cement Bagging	1
Energy Generation	4
Fish Processing	5
Food Manufacturing	6
Gas Station	10
Hotels	5
Industries	6
Infrastructural Works	4
Logging	2
Mining	7
Other	4
Resorts	3
Rice Mills	2
Sawmills/Lumber Yard	12
Waste Disposal	5
Water Sanitation	4
Wood Working	3
Total	85

Management of the Permitting Process Across Sectoral Units in the EMD

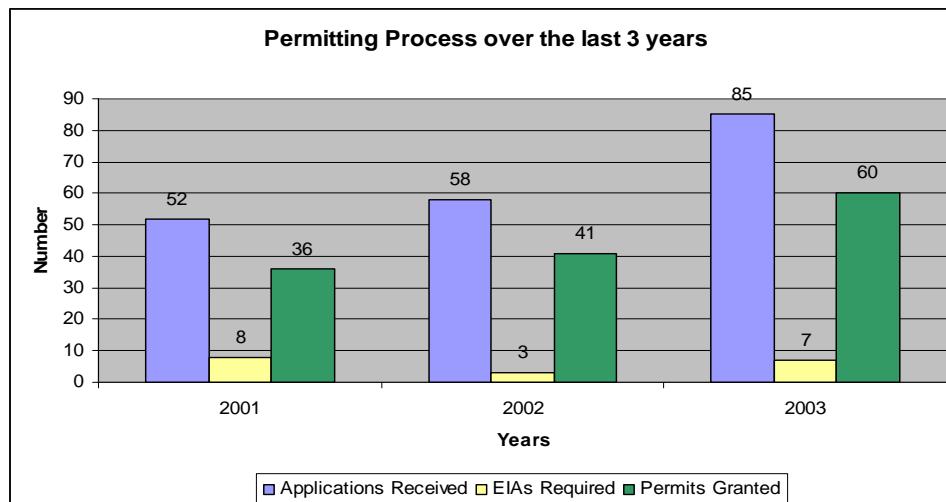
Of the 85 applications received 89% were granted environmental authorizations, 32 in the form of environmental permits, 9 construction permits and 19 letters of authorizations, 9% of this lot required EIAs, and 22% EMPs before they were authorized. One (1) request was made for renewal of an environmental permit and 1 for the transfer of the permit holder.

Sectors	No. of Applications Received	No. of Environmental Authorizations Issued	No. of Applications Requiring EIAs	No of Applications requiring EMPs
MFT	34	29 = 88%	4 = 12%	2 = 6%
AF	12	11 = 83%	1 = 8%	7 = 58%
IIE	39	20 = 48%	3 = 7%	10 = 25%
Total	85	60 = 89%	8 = 9%	19 = 22%

The Industry, Infrastructure and Energy Unit received 39 applications; the largest number of applications in the Division, which may have resulted because this unit covers a wider spectrum of development activities. Forty-eight percent (48%) of applicants were issued with environmental authorizations, a significant number of these were for gas stations, fuel storage, energy supply facilities, waste disposal and infrastructure works on roads, bridges, wharfs, wells, etc.

The Mining, Forestry and Tourism Unit received 34 applications and were most efficient in authorizing 88% of these. The majority of applications received were for lumber yards and sawmills, followed by hotels and resorts, sand, laterite and gold mining operations.

The Agriculture and Fisheries Unit processed 12 applications and authorized 83% of these. A significant number of applications were received for fish processing plants, rice mills, abattoirs and poultry processing and food manufacturing industries.



There was an increase of 5% in the number of applications received from 2000 to 2001 and a further increase of 19% from 2002 to 2003. The performance of the Division in granting authorizations also improved to 7% from 2002 to 2003 and a significant increase was realized in 2003 with an increase of 19%. In 2002, there was a drop of 45% in the number of projects requiring EIAs, while in 2003, this number increased by 40%.

Achievements

In comparing the Permitting Process with the last 2 years, it should be noted that:

- EPA participated on the Ministry of Health/PAHO initiative on the Solid Waste Sectoral Analysis (SWSA) which plans to initiate projects towards national policy and coordination in the sector.
- EPA worked with SIMAP and BEAMS to develop environmental criteria for incorporation into the planning, design, construction and operation of developments under these programmes and conducted introductory workshops on environmental management for the stakeholders of these programmes.

EIA Consultants

During the year, sixteen (16) Environmental Consultants registered with the Agency, eight (8) less consultants registered than in 2002. This registration process will continue in 2004.

Program for Existing Industries

Registration

The registration process for pollution management continued in 2003. For the year, twenty nine (29) additional businesses had registered in addition to four hundred and ninety five (495) which registered since the process commenced. This gave a total of five

hundred and twenty four (524) operations that registered under the pollution management programme. The drop in registrants during the year was expected since most of the operations country wide registered under the 2001-2002 registration drive, promoted by the Agency. Registrants in 2003 were mainly persons sent by other sectoral Agencies, e.g. GFC and CH & PA or persons who were registering due to changes in location of their business.



Verification

Verification continued during 2003. However, less than 5 visits were made during the year, due to a number of limitations including budget constraints. Operations were only verified if requested by other authorities in an effort to facilitate their licensing process, or if a complaint was made for a registered business and the Agency felt it timely that a compliance schedule be established.

Inter-Agency Mechanisms

Lumber yards and sawmills, based on a joint decision between the EPA and GFC to implement a mechanism that directed lumber yards to undergo environmental scrutiny, are now directed by GFC to approach the EPA for authorization before issuing the yearly licence.

The CH & PA also required certain developments to approach the EPA for environmental authorization before they consider granting land use permissions.

4.3 RESEARCH AND DEVELOPMENT

Development of Regulations

The Division continued to support the GGMC in the development of Mining Regulations; this should be finalized in 2004.

Development of Environmental/Operational Guidelines

The following operational guidelines and fact sheets have been drafted:

1. Environmental Guidelines for Ecotourism Establishments
2. Aquaculture Guidelines

Development of Standards

The Division continued to support GNBS in the finalization of standards for industrial effluent, noise and air quality.

Projects

The division also participated in the following projects:

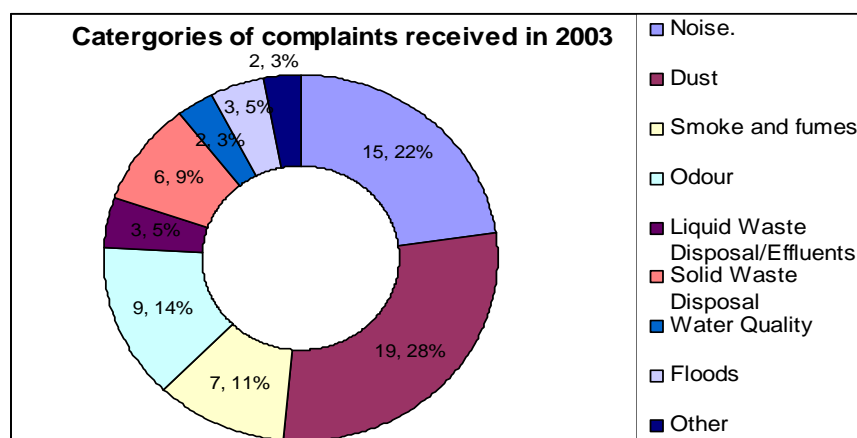
- CIDA Funded **Climate Change Project**:
- EMD participated in the conceptualization of the **CPEC Capacity Building Project** for the Shipping Association and its compliance with relevant international conventions. EMD represented EPA in 2003, as a member of the Steering Committee for this project.
- EPA developed Water Group intended to establish the Agency's policy on water related matters. A number of meetings were held with participation from all Divisions. Initial stakeholder and situation analyses were completed and it is expected that the work of the Water Group will continue in 2004.

The Development component of the Division's Work Program was affected. This resulted mainly from human resources and time constraints. Most efforts were dedicated towards ongoing activities, such as permit and complaints management for which strict time schedules were set.

4.4 RESPONSE

Complaints and Emergencies

The Division investigated 108 complaints during 2003. Based on established procedures and post-investigations, the 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. Few complaints were based on water quality pollution and floods. See figure below for categories of complaints.

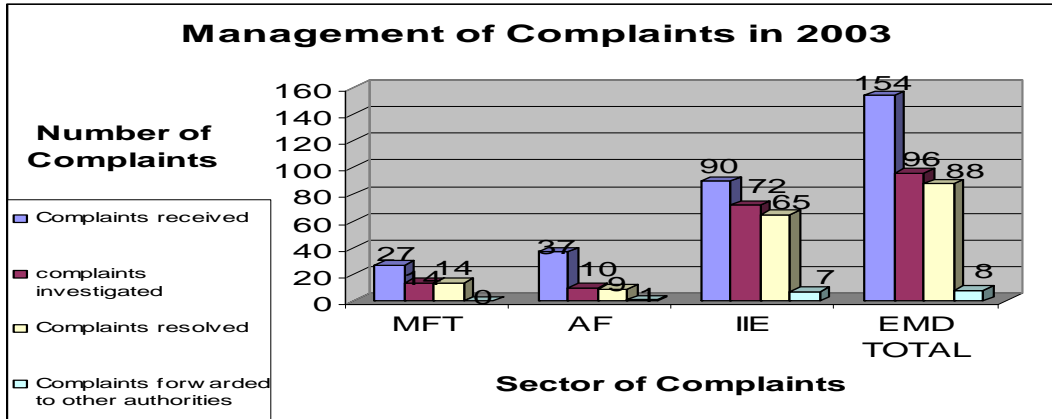


There was a 4% decrease in the number of complaints received by the Agency, compared with 2002. There was a significant improvement in the complaints management process, 70% of the complaints were investigated and 59% were resolved, compared with 59% that were investigated and 37% resolved in 2002. A number of matters were 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, 11%, were forwarded to other Sectoral Agencies for investigation or enforcement.

Two Prohibition Notices were prepared, but none were issued. However, a Cease Order was issued on one rice mill, which was required to stop further developments and apply to the Agency for an environmental authorization before commencement of operations.

Sectors	No. of Complaints Received		No. of Prohibition Notices Issued		% of Complaint Investigated		% of Complaint Resolved by EPA		% of Complaint Referred to other Agencies	
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
MFT	24	27	1	0	88	82	33	82	25	0
AF	32	37	2	2	50	52	44	48	22	3
IIE	111	90	3	1	55	80	36	72	18	8
Total	167	154	6	3*	59	70	37	59	20	11

The Industry, Infrastructure and Energy (IIE) Unit received a significant number of complaints, i.e. 60% Mining, Forestry and Tourism received 24% and the Agriculture and Fisheries Unit received the least number of complaints of 17%. IIE in 2003 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 actions 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.

2. 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 in spite of 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 and
- to send out correspondence to permit holders and polluters reminding them of their compliance obligations.

Achievements

The Division presented a paper to the Parliamentary Management Committee on Natural Resources and the Environment on "***Public Participation in Environmental Protection***".

4.5 INTERDIVISIONAL COLLABORATION

EMD-Administration:

- The Division began training under the Environmental Economics Programme during the last quarter of 2003.
- 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.

EMD-NRMD:

- EMD will continue to involve the NRMD in review of project EIAs that affect the programme areas of this Division

5.0 NATURAL RESOURCES MANAGEMENT DIVISION

The Natural Resources Management Division (NRMD), during 2003, engaged in activities which were aimed at fulfilling the EPA's mandate of ensuring the conservation and sustainable utilization of Guyana's Natural resources. These activities were accomplished through the work of the three Units of the Division - Biodiversity, Protected Areas, and Wildlife.

During 2003, the NRMD was staffed with a Director who was tasked with overseeing the day-to-day operations of the Division. The staff comprised a Biodiversity Development Specialist, and three Environmental Officers in the Biodiversity, and Protected Areas Units. For the Wildlife Unit, the Director and the other members of the Division continued to undertake the activities for this Unit.

5.1 SUSTAINABLE USE OF BIODIVERSITY

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

The ABS/IPR Committee was convened in September 2003, when it was agreed that the Committee would first develop a national policy document related to ABS/IPR from which Regulations would be formulated.

Each member of the ABS/IPR Committee was tasked with drafting an area of the policy which was best related to his/her area of expertise. The existing Draft Bioprospecting Regulations were also included in this process.

The Agency networked with the Iwokrama International Centre for Rainforest Research and Development in this area by using this organisation's Draft ABS/IPR Policy to guide the development of the national policy. This was done in accordance with an agreement between the two organisations.

Biodiversity Research Process

The Biodiversity Unit (BU) continued to receive a steady flow of applications for biodiversity research in Guyana. Twenty-four (24) Biodiversity Research Permits were issued during 2003. This number included permits to conduct various biodiversity-related filming projects. Figure I below shows the number of applications received during the year for the various categories of biodiversity research. The types of applications were categorised as plants, animals, filming or other. Figure II shows nationalities of the researchers who applied. From the chart, it is clear that the majority of researchers were from the USA followed by the United Kingdom, Germany and others nations.

The BU also issued eighteen (18) Specimens Export Permits for the export of collections made during this year (see Fig III). Throughout the year, the BU continued to work assiduously to find ways to ensure that the Research Process continued to be effective and beneficial to both the nation and researchers.

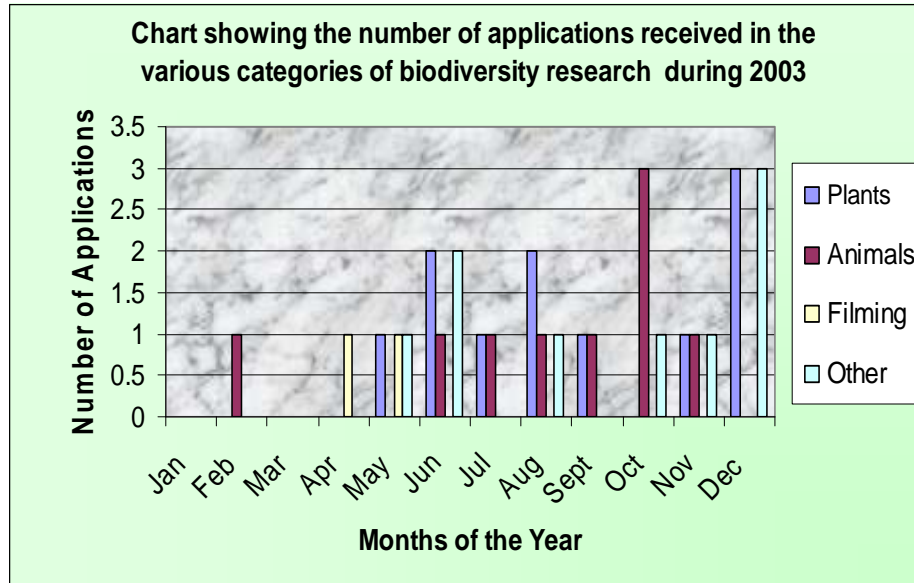


Fig. I

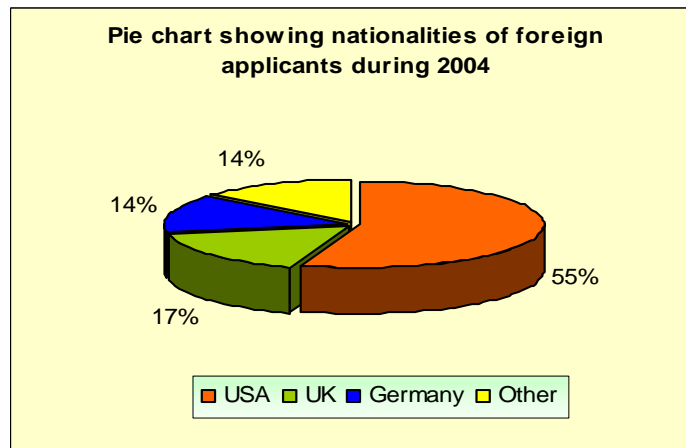


Fig. II

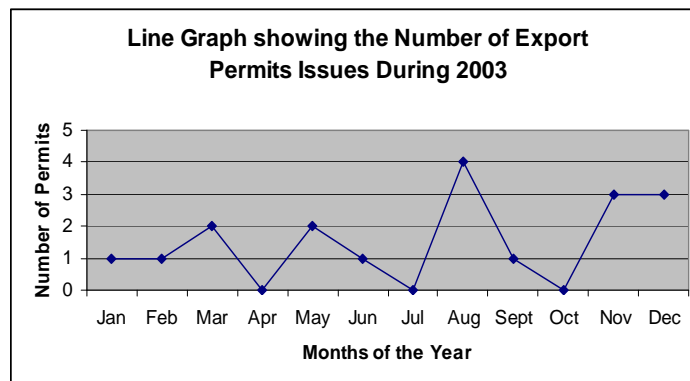


Fig. III

The Division commenced discussions with a local supplier to procure seals and tapes for the Biodiversity Research Process but had to abandon those efforts after it was found that the supplier was not reliable.

Improvement of the System for Review of Applications

In its endeavour to improve the review system for applications, the BU began forwarding particular research applications to relevant stakeholder bodies in order to solicit comments which were incorporated in the decision-making process.

The Memorandum of Understanding (MoU) between the EPA and the Smithsonian Institution – Biodiversity of the Guianas Programme was signed and became effective on 19th December of the year. This MoU was designed to improve specimen and data-sharing between the two Parties.

The BU, in collaboration with the Environmental Economist, conducted an audit of the Biodiversity Research Process for the entire 2003 in an effort to determine the cost centres and to make recommendations for improvements.

Strengthening of the NBAC

Invitations were extended to various stakeholder bodies to nominate representatives for the National Biodiversity Advisory Committee. This was done in order to widen the representation of the Committee so as to improve its effectiveness and efficiency. The NBAC serves to advise and make recommendations on biodiversity-related issues of national interest whenever requested to do so by stakeholder institutions/ agencies.

The first meeting of this Committee, for the year 2003, was held in February.

Implementation of findings from Workshop on Priority Setting for Biodiversity Research

The Workshop Report on Priority Setting for Biodiversity Research was distributed to relevant stakeholders. This report was based on a previously conducted workshop which aimed to prioritise and bring to the fore, the areas of biodiversity research which are of current national interest and importance.

Potential researchers were directed to the Report when seeking ideas for research. To make it accessible to the public, it was added to the shared drive of the EPA intranet and to the EPA's external web site. The report would serve to steer researchers into research areas that are of interest to the nation at this time.

Biodiversity Monitoring

An investigation of a report regarding a school of dolphins trapped in a fishing net at Non Pariel, off the East Coast of Demerara, was conducted.

Investigation of the report revealed the following:

- there were approximately nine (9) dolphins originally caught in a fishing net;
- some of the dolphins had died;
- dolphins were reportedly captured by some residents and taken away with the intention of eating;
- the high tides along with the lure of the fish catch in the seine nets were cited as the cause of the dolphin presence in the fishing net; and that
- the Dolphins sighted measured from approximately 0.5 metre (2 feet) (the young dolphins) to approximately 2 metres (9 feet) in length.

Subsequent action by a group of concerned persons resolved this problem.

Based on the findings of the investigation, the following were recommended by the group of concerned persons:

- Measures be put in place to avoid a reoccurrence;
- A strategy and/or a contingency plan should be formulated to deal with marine species presumed to be of ecological importance; and
- A public awareness programme should be developed to make Guyanese more aware of dolphins and their significance, and to also sensitise fishermen and other maritime operators as to the relevant actions they should take, should the situation recur.

The EPA facilitated a survey of traditional medicinal practitioners in Guyana in order to fulfil a request made by the Commonwealth Science Council through the Office of the President. The information garnered from the survey was intended for use in the creation of a database on traditional healing in Guyana.

A field visit, in collaboration with EMD, was made to the Turkeyen seawall to investigate a report of shark sightings near the shore. The Officers observed shark-like fins protruding out of the water at high tide but were unable to draw a conclusion since they lacked appropriate equipment and training to carry out such an investigation.

A field visit, along with the GMTCS, was made to the Ogle seawall, to investigate sightings of a sea turtle. The field visit revealed that:

- a grey green sea turtle was beached on the shore of the seawall;
- it was dead and there was evidence of bleeding from the head, back (shell) and rear end;
- there was, what appeared to be, internal organs of the turtle protruding from beneath the shell;
- the weight of the turtle could be averaged at about 91 kg (200 lbs); and
- the turtle smelled as though it had been dead for about one day.

Investigations revealed that the turtle was an Olive Ridley (*Lepidochelys oliveacea*) which is one of four species of sea turtle that nest on Guyana's shore. All four species are endangered.

A field visit, in the company of a Veterinarian from the Wildlife Division, Office of the President, was made to investigate complaints of poor conditions at a wildlife holding station at Haslington East Coast Demerara.

The investigation revealed the following about the holding station:

- it had been in operation at the present location for the last two (2) years, and has been operated by Hussein Jawaheer;
- it contained several different species of animals and birds, viz: turtles, night monkeys, toucans, two-toed sloths, agouti, parrots, macaws and kites;
- it was housed at the back of the proprietor's yard;
- it appeared to be well kept and relatively clean;
- there was no pungent odour or smell coming from the pens and immediate area of the holding station;
- there was no excessive noise coming from the pens or immediate area around the holding station;
- there were no other complaints from other neighbours concerning noise nuisance or pungent odour coming from the holding station; and
- the accompanying veterinarian reported that the proprietor had a good record with the Wildlife Division.

Based on the findings of the investigation, no recommendations were made.

A draft proposal for forest biodiversity monitoring was prepared for review, whilst a strategy for monitoring biodiversity in the natural resource sectors was completed and submitted for review. In addition, a draft proposal for the monitoring of impacts of the mining sector on biodiversity was prepared for review.

Biosafety

Information necessary to enable Guyana to exchange information on the Biosafety Clearing House of the Cartagena Protocol was submitted to the CBD.

The first meeting of 2003 for the National Biosafety Committee was held in November, 2003. The BU collaborated with the EITD to prepare an information package which was distributed to the Committee members in order to ensure that they were apprised of the purpose of the Committee and the issues it was expected to address.

The budget of the National Biosafety Framework Proposal was revised based on comments from the Regional Coordinator for Latin America and the Caribbean, UNEP-GEF Project. It was then submitted to UNEP Headquarters in Nairobi, and approval was eventually granted.

5.2 CONSERVATION OF BIODIVERSITY

Coordination of the Establishment of a National Protected Areas System for Guyana

During the year, the EPA continued its collaboration with its partners and donors in the establishment of a National Protected Areas System (NPAS). The Community Resource Evaluations (CREs) for the Kanuku Mountains were completed and the CRE Master Report was presented to national and regional stakeholders.

The Government of Guyana and CI-G continued to work towards establishing the Southern Region as a Protected Area. CI Washington has pledged USD 2,000,000 to the National Protected Areas Trust Fund for designation of this site as a Protected Area.

The EPA prepared, in collaboration with the Office of the President, draft boundaries for the proposed Southern Region Protected Area.

The EPA and the Guyana Marine Turtle Conservation Society (GMTCS) developed a MoU that was approved by the Office of the President and signed by EPA and the Vice-Chairman of the GMTCS in August, 2003. This MoU recognises GMTCS as the Lead Agency for the Protected Areas process for Shell Beach.

The Caribbean Regional Environment Programme (CREP) is a Regional Project with thirteen CARIFORUM countries. Guyana was assigned as a non-core site to develop an Amenity Area Demonstration Project (AADP). Guyana's project proposal was submitted to the CREP Project Management Unit (PMU). The MoU between the GoG and CREP was finalised and submitted to the PMU for signatures.

The EPA was invited to participate in two training sessions sponsored by the CREP. This formed part of the overall capacity building component for the EPA staff to implement

the EPA/CREP Amenity Areas Demonstration Project on the selected site on the Corentyne Coast.

Participation in Community Consultations

EPA participated in the Kanuku Mountains Regional Advisory Group meeting in Region 9, and the National Advisory Group meeting in Georgetown.

A Government-led team comprising representatives from the EPA, GFC, MoAA, RDC Region 9, APA and CI-G consulted with the stakeholder Amerindian communities in Southern Guyana in March and May 2003 for the Southern Region Protected Area process.

The EPA and its partners held Public Disclosure fora for the Guyana Protected Areas System (GPAS) Project in Georgetown and in Region 1, at Maburuma and Santa Rosa, and in Region 9 at St Ignatius, Lethem.

Meetings with Regional Advisory Committee (RAC)

CI-G held a stakeholder meeting in June 2003 at which the EPA was represented. The RAC participated in the GPAS Public Disclosure held in Region 9 in November 2003.

Quarterly Site Visits

Quarterly site visits were not conducted as planned due to lack of funds. Visits were made to the Regions as part of other conservation initiatives.

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

The EPA fully participated in the activities of the Lead Agencies in the Kanuku Mountains, Shell Beach and the Southern Region. These activities focused largely on community consultations, the Community Resource Evaluation (CRE), and public awareness and capacity building.

For the Kanuku Mountains site, a major output was the CRE Report which contains a holistic review and analysis of the resource use of the eighteen stakeholder communities that interface with the mountains. The EPA was involved during the various phases of the CRE survey and contributed to the discussions during the launch of the Report, both at the community and national levels.

For the Southern Region, the EPA was involved in the consultations together with the Ministry of Amerindian Affairs, the Regional Democratic Council of Region 9,

Conservation International-Guyana and other sectoral agencies that interact with the Wai Wai communities. These consultations focused on understanding protected areas, community partnerships, and understanding issues within the communities.

The EPA also worked with the Guyana Marine Turtle Conservation Society, Fauna and Flora International, and the Ministry of Amerindian Affairs as regards capacity building and the consultation process for the proposed Shell Beach Protected Areas.

GMTCS presented its workplan for 2003 to the EPA for review. As outlined in the workplan, turtle conservation continued at Shell Beach with funding from the World Wildlife Fund for Nature (WWF). Finally, the EPA fully supported Shell Beach as a pilot site for inclusion in the GPAS Project.

Fauna and Flora International (FFI) continued to fund specific activities within the National Protected Areas process with a specific focus on Shell Beach. During 2003, four workshops were held that focused on areas such as Community Consultations, Public Awareness, Project Management and Administration and preparation of Project Proposals.

Meetings with Donors

The EPA met individually and together with the Lead Agencies for the GPAS project with the World Bank and the German Bank for Reconstruction (KfW) to discuss and review the draft Project Appraisal Document (PAD). Meetings were also held with other donors such as UNDP and WWF.

5.3 CONSERVATION AND SUSTAINABLE USE OF WILDLIFE

Work continued with respect to the finalization of the outstanding reports from the WWF funded Wildlife Surveys Project which terminated in 2002. Ten (10) of the reports were completed. These included two socio-ecological reports for the North West District, a Reconnaissance Report to identify areas to be included in socio-ecological surveys, the Holding Stations Report, the Caiman Survey Report, and four reports on Background Information on species in the Wildlife Trade. The species concentrated on were Part I: Amphibians, Part II: Birds, Part III: Mammals, and Part IV: Reptiles.

Capacity Building

The Division obtained the services of a United Nations Consultant for the development of a proposal for a National Capacity Self-Assessment (NCSA) Project. This proposal was completed and submitted to stakeholder groups for comments. It was then forwarded to the Global Environment Facility (GEF) for funding.

The Director of NRMD, as Chairman of the Wildlife Scientific Authority, together with the Head of the Wildlife Division, attended a Regional CITES Capacity Building Training Workshop in St Lucia, 15-19 September, 2003.

Workshops

Members of the Division attended two workshops held by the EPA in collaboration with FFI under the Darwin Initiative and with support from Demerara Tobacco Company (DEMTOCO). The first one was for three days under the theme 'Project Proposal Writing'. The second one was for two days and dealt with 'Project Management and Administration'. Both workshops were conducted by FFI personnel. Participants at the national level, including Region 1, attended.

Other capacity building activities, from which the Division benefited, included the following:

- Assessing the Effectiveness of Protected Areas Management (French Guyana), hosted by WWF;
- World Bank Safeguard Policies Training (Jamaica) hosted by World Bank;
- Anthropology 369, Guiana Amerindian Studies (Guyana), conducted by Prof. Mentore, University of Virginia;
- Community Consultation Processes (Guyana), hosted by EPA/FFI;
- Participatory Planning and Collaborative Management (St Lucia), hosted by CREP;
- Protected Areas Management Categories (Guyana), hosted by EPA/FFI; and
- Focal Point Organisation Project Implementation (Barbados) hosted by CREP.

Linkages and Partnerships

The Division participated in '*A Charette to plan for three of Guyana's Tourism Products*' which was hosted by the Ministry of Trade Tourism and Industry from March 9 to 12, 2003.

The Division also participated in the WIPO National Workshop on the Intellectual Property System which was organised by the World Intellectual Property Organisation in cooperation with the Ministry of Foreign Trade and International Cooperation of Guyana, held in Georgetown on March 3 and 4, 2003.

A representative of the Division participated in the testing of the indicators proposed for use in the Certification Standard for Forestry, as well as field exercises for the evaluation of the environmental indicators proposed for certification. This exercise was conducted in the Demerara Timbers Limited (DTL) concession.

The Division's Director participated in an evaluation of the Conservation and Sustainable Utilization of Biodiversity in the Iwokrama Forest Programme, which was conducted by an independent European Union evaluator.

The EPA/FFI Capacity Building Project for GPAS continued with deliverables for professionals at the national level, including Region One.

The EPA has received two computers from CREP which will link Guyana to the other project sites *via* the Regional Amenity Areas Network (RAAN).

The EPA submitted a letter of support to the Darwin Initiative for a proposal by the Royal Holloway University of London for a project in the North Rupununi.

The Memorandum of Understanding between the Ministry of Foreign Affairs and Jacksonville Zoo, USA, was signed by the Office of the President

Public Awareness

The BU collaborated with the GIS Unit in the creation of maps of Guyana showing the location and distribution of some of Guyana's biodiversity at the request of the Ministry of Education.

For International Biodiversity Day (22 May) with the theme "Biodiversity and Poverty Alleviation – Challenges for Sustainable Development", the Division collaborated with EITD to plan a programme for the day. The activities in which the Division participated were a radio message, a panel discussion on GTV 11, and school talks at various schools along the coast.

The BU participated in the World Environment Day exhibition on June 5. A model depicting a watershed and a wetland was made and displayed in conjunction with EITD. The model served to educate the public on the importance of wetland and watersheds to the supply of fresh water. The Division also produced three supporting posters. Some officers of the Division also made presentations on the radio and television media regarding the importance of watershed and wetland protection.

The Division networked with the EITD to develop a 2004 calendar titled, "Guyana's Biodiversity – Ours to conserve and enjoy." The calendar highlighted four categories of biodiversity, namely Montane, Wetland, Savannah, and Forest Biodiversity. The production of the calendar was funded by FFI. The calendars were widely distributed.

The Division played an integral part in the production of the EPA's first ever newsletter, "The Greenleaf", by maintaining a seat on the editorial board whilst assisting in the provision of literature resources and the crafting of articles.

Public awareness materials for Shell Beach Protected Areas Process were produced in collaboration with the EITD. These included:

- A brochure which include a bio-geographical description of the entire Shell Beach Area and a brief outline of the Protected Area Process in that area;

- A question and answer pamphlet on frequently asked questions on Protected Areas; and
- A poster promoting the Protected Area Process at Shell Beach.

6.0 EDUCATION INFORMATION AND TRAINING

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 accomplished under its Education, Information and Training (EIT) Programme.

The major objectives of the EIT Programme are to promote public awareness of and participation in environmental decision-making and to inform the public of systems and procedures established by the EPA. These objectives are addressed using a range of strategies including workshops, information materials, media and exhibitions. Additionally, the delivery of the EIT programme entails close collaboration with the other Programmes of the EPA and with Sectoral Agencies and Non-Governmental Organisations.

In 2003 the outputs of the EIT Programme of the EPA were as follows:

6.1 DEVELOPMENT OF EDUCATIONAL MATERIALS

The following informational materials were developed:

TYPE	No.	TITLE
Brochure	3	Hazardous Waste
		Water Conservation
		Skills and Focus Areas at EPA
		About the Green Fund
		Guyana Protected Areas System Project
Fact Sheet	3	Water Conservation
		52 Ways You Can Help the Environment"
		Alternative Sources of Energy
Information Packages	1	Ozone
Flyer	1	Solid Waste Management
Booklet	2	Climate Change
		Guyana Protected Areas System Project The booklet presented in a simplified format the contents of the Social Annex of the Guyana Protected Areas System Project and was distributed to communities within the Proposed Pilot Sites Kanuku Mountains and Shell Beach during the Public Disclosure process.
		Our Environment Articles 2002
Poster	2	Point and Non-Point Sources of Pollution
		Guyana Protected Areas System Project
Video Documentary		Sound Environmental Practices in Gold Mining The first version of this video was presented to the EPA by the consultant hired under the Guyana Environmental Capacity Development Project (GENCAPD).
Calendar	1	"Guyana's Biodiversity" - "Ours to protect and enjoy" The design was done in-house and the printing outsourced. Funding for the printing of the Calendar was provided by the UK DEFRA Darwin Initiative in partnership with the Fauna and Flora International.

6.2 OUTREACH PROGRAMMES

In its outreach, the EITD utilized a number of strategies including media, exhibitions, presentations and worked with Environmental Clubs.

Media

A number of media opportunities were utilized by the EIT Division to disseminate environmental information to the public.

Newspaper

- A weekly article on environment related topics for the “Our Environment” column in the Sunday Chronicle.
- A Press Release on the current EPA- SENES Climate Change Adaptation Project being funded by CIDA. This Project focuses on the collection of data on rice and wood industries with the objective of identifying feasible options for reducing waste through the use of cleaner technology and co-generation of energy.

Radio

- Two appearances on Banking on Guyana, a fortnightly radio programme that focuses on environmental issues.
- Appearances on the “Let’s Gaaf” programme aired on the Voice of Guyana to share information with the public on:
 - Solid Waste Management
 - Guyana Environment Week Activities
- World Day to Combat Desertification and Drought (this was done in conjunction with the Hydrometeorological Department of the Ministry of Agriculture)
- A 1 hour radio feature on the Greenhouse Gas Emissions Reduction Project. The Project is implemented by EPA in conjunction with SENES Consultants and focuses on the rice and wood industries in Guyana.
- A World Environment Day Message.
- The Green Fund.

Television

- A weekly TV segment on “Guyana Today” aired on GTV Channel 11. EPA coordinates a broad range of stakeholders including Public and Private Sector, International Agencies and Non-Governmental Organisations on the programme.
- A TV Panel Discussion on the occasion of International day for Biodiversity. Representatives from UNDP, EPA and Iwokrama served as members of the panel discussing the International Theme for 2003:
- GWTV Channel 2 Programme “Care and Share”. EIT Director and the EMD Director discussed solid waste management.
- GTV Channel 11 “Breaking the Silence”. EIT Director along with Mr. Lewis of the Mayor and City Council addressed the topic “Solid Waste Management in the City”.

Exhibitions

During 2003 the EIT coordinated the EPA’s participation in a number of exhibitions which include:

- UG Career Day - EPA hosted a booth at the UG Career Day Exhibition in February 2003. A brochure reflecting all the poster exhibits was prepared and distributed to potential graduates of UG.
- Entries for the Poster Competition in observance of Earth Day were displayed at a Mini-Exhibition held on Earth Day at the National Library on 22 - 23 April.
- Mining Exhibition - EPA participated in this event during 19-22 August 2003. The public were able to observe issues with small-scale mining via a slide show. Information on the environmental effects of mining, solid waste management, the Environmental Permitting Process and Water Pollution were also distributed at the exhibition.
- EPA participated in a one-day Learning Fair at Critchlow Labour College. At this event environmental education materials were distributed to visitors and a display mounted on biodiversity of Guyana.

Presentations

Presentations were made during the year as shown in the table below:

Topic	Target Group
"The Role of the EPA"	Foresters - Guyana Forestry Commission Training Centre
"Benefits of EIA to Development Projects."	Foresters - Guyana Forestry Commission Training Centre
"Water for the Future" (World Water Theme - 2003)	Secondary Schools in Regions 3 & 4
"Biodiversity and People"	Schools in Regions 3 & 4 and Georgetown
"Strategies for Increasing Public Participation in Waste Management"	Parika and Grove Neighbourhood Democratic Councils
"Pollution, its causes and impacts"	School of the Nations on field trip around Georgetown
'Taking Care of the Environment'	Students - Guyana Industrial Training Centre
"Environmental Health and the Rice and Saw-Milling Industries"	Rice millers and Saw millers of Regions 5 & 6 (as part of Green House Gas Reduction Project being implemented by EPA in collaboration with SENES Consultants).
"Managing Waste at Home"	Church Members - Church of Jesus Christ
"About the Green Fund"	Youths of Conservation International's Annual Summer Camp
An Assessment of the Impacts of the Environmental Education, Awareness and Capacity Building Program in Guyana: <i>A Case Study in Parika, Region 3.</i>	EPA Staff

Environmental Clubs

- An agreement was signed between the Environmental Protection Agency and the UNDP to establish a Green Fund. This fund originated from the EPA/UNDP Education, Awareness and Capacity Building Programme and aims at providing "seed resources" to Environmental Clubs and community groups to assist them to participate in environmental management activities. An initial amount of US\$30,000 was allocated to this Green Fund.
- A Steering Committee was set up to oversee the utilization and running of the fund. The committee comprises representatives from EPA, UNDP, Ministry of

Education, Ministry of Foreign Affairs, Iwokrama and the Environmental Clubs of Guyana. A Chairman of the Committee was elected, a Green Fund Coordinator employed and a management plan and operational manual developed. The Steering Committee met for the first time in February, 2003.

- The following activities were carried out in relation to Environmental Clubs:
- Two Environmental Clubs received micro grants through the Green Fund. These Clubs are the Green Thumbs Environmental Club and the Guyana Zoo Education Volunteers.
- EPA attended the third Annual Wildlife Festival on 14-16 April 2003. The festival brought together twelve Environmental Clubs from the North Rupununi for three days of learning. During the event Clubs showcased their talent and experiences through art, drama, music as well as formal methods.
- A draft proposal for sponsorship of an Environmental Quiz was prepared. This was submitted to the Ministry of Education and received favourable consideration. However, the Ministry later changed its position because of budgetary constraints.
- Visits were made to ten Environmental Clubs with the objective of mobilizing applications for grants from the Green Fund.
- A summary paper on the Green Fund and its management was prepared using excerpts from the Green Fund Management Plan.
- An Applicants Manual for the Green Fund was prepared to guide potential applicants through the process of achieving support for their environmental activities.
- A poetry Competition was launched for the Environmental Clubs on the topic "My Guyana".
- A request was made to the Regional Democratic Councils for assistance as facilitators for the Environmental Clubs in the various Regions of the country.
- A meeting was held with Ms. Carmen Jarvis, Secretary General of the UNESCO Office, who worked closely with the EPA in harmonizing programmes aimed at schools and their environment.
- Two new Environmental Clubs were affiliated to the EPA.
- Fifty (50) copies of the safari brochure produced by the Guyana Zoo Volunteers were printed for the club in keeping with the agreement with the EPA and the group.

- The Green Fund Steering Committee met on 13th November to review and approve a project submitted by the Guyana Zoo Volunteers. It was agreed that funding would be made available for the implementation of a project on production of information materials on animals at the zoo. These materials would be sold to visitors of the zoo.
- A letter of request for extension of the Green Fund was prepared and sent to UNDP.

6.3 ACTIVITIES TO MARK ENVIRONMENTAL DAYS

During the year, International Environmental Days were observed with activities as summarized in the table below:

International Environmental Day	Activities
World Wetlands Day – 2 nd February	<ul style="list-style-type: none"> ▪ Article on Wetlands featured in the weekly “Our Environment” column in the Guyana Chronicle. ▪ Book display on Wetlands in the EPA Documentation Centre
World Water Day – 22 nd March 2003 Theme: “Water for the Future”	<ul style="list-style-type: none"> ▪ Article on 2003 Theme: “Water for the Future” featured in the weekly “Our Environment” column in the Guyana Chronicle. ▪ Presentations made to schools in Regions 3 and 4 and in Georgetown.
Earth Day – 22 nd April	<ul style="list-style-type: none"> ▪ EPA coordinated a Poster Competition for schools. Winning entries were displayed at a Mini-Exhibition held on Earth Day at the National Library.
International Day for Biodiversity – 22 nd May 2003 Theme: “Biodiversity and Poverty Alleviation – Challenges for Sustainable Development”	<ul style="list-style-type: none"> ▪ Article on 2003 theme featured in the weekly “Our Environment” column in the Guyana Chronicle. ▪ TV panel discussion ▪ Radio Message ▪ Presentations to schools.
World Environment Day -5 th June 2003 Theme: “Water: two billion people are dying for it.”	<ul style="list-style-type: none"> ▪ Green Walk from the Umana Yana to the Botanic Gardens. Brief messages delivered by Mr. Thomas Gass of UNDP and Mayor of Georgetown, Hamilton Green. A trophy for Best Green Walk Banner was presented to the Guyana Forestry Commission. ▪ Environmental exhibition. Public Sector agencies, schools and a business company participated in the exhibition. ▪ <i>Linden Nature Walk</i> - EPA staff participated in this event organized by the RDC of Region 10 to mark World Environment Day. ▪ Radio Message on the WED Theme ▪ Article on 2003 WED Theme featured in the weekly “Our Environment” column in the Guyana Chronicle.
International Ozone Day -16 th September	<ul style="list-style-type: none"> ▪ An Ozone Education package was sent to fifty eight (58) schools to assist them in conducting awareness raising activities in schools in observance of International Ozone Day



EPA Officer explaining a Wetland model to visitors – Environmental Exhibition 2003

6.4 CAPACITY BUILDING AND TRAINING

- An Environmental Officer (Training) attended a workshop on Project Proposal writing and Project Administration and Management hosted and facilitated by Fauna and Flora International.
- The Documentation Assistant participated in a five-day training in library science. During this phase she was on a 2-day attachment at the Caricom Library.
- A Draft Memorandum of Understanding between CCA-CREP and the EPA for the Amenity Area (43-74 Villages Corentyne) was reviewed.
- An Environmental Officer (Community Awareness) co-facilitated a five-day training workshop at Annai, North Rupununi in School Yard Ecology (SYE). SYE is a methodology for Environment Education based on the inquiry cycle.

- The EPA participated in a Guyana Environmental Network of Communicators and Media Practitioners (GENCAMP). This is a group that aims at encouraging members to give focus to environment.
- The EPA participated in a workshop to refine the Terms of Reference and formulate an action plan for a Working Group on Water, Sanitation and Hygiene. This activity took place on 25 June 2003 at the Georgetown Club.
- The EPA participated in a two-day workshop aimed at analysing the efficiency of current Solid Waste Management Systems. The inputs of the working groups would supplement a consultant report on the subject.
- The EIT Director and the Environmental Officer (Protected Areas) participated in a one-week training workshop on Participatory Planning and Collaborative Management, sponsored by the Caribbean Regional Environment Programme (CREP) and conducted by the Caribbean Natural Resources Institute (CANARI).

The workshop was held in St Lucia on 15th -20th September 2003 with participants drawn from seven of the thirteen Focal Point Organisations (FPOs) benefiting from the CREP.

- EIT officers received in-house training in desktop publishing using Corel Draw 11. This training was conducted by the Coordinator of the Green Fund.
- EIT Director and the Green Fund Coordinator participated in a one-day workshop aimed at finalizing Guyana's Assessment of Barbados Plan of Action Plus 10 Report. The EIT officers served as Facilitator and Rapporteur on Capacity Building component of the Report.
- EPA participated in two one-day training workshops:
 - Production of Environmental Codes of Practice for the Mining Industry of Guyana (GENCAPD)
 - Health Promoting School Initiative for Guyana (PAHO).
- An Environmental Officer (Training) participated in a three-day Seminar on Codes of Practice with regard to Mining.
- An Environmental Officer (Training) participated in a seminar on Mercury Surveys.
- EIT Director participated in a workshop on CREP Project Implementation 19th - 21st November 2003

- EIT Director participated in the GPAS Public Disclosure – National Forum 14th November 2003.
- An Environmental Officer (Training) participated in a workshop on Developing a Public Awareness Strategy for Guyana’s Protected Areas – A Focus on Shell Beach sponsored by the FFI in collaboration with EPA.
- Discussions were held with GENCAPD on the approach to be used for Phase II of the Public Awareness Component of the Project. It was agreed that a collaborative approach would be used involving input from the GGMC, MoH and EPA.

6.5 INFORMATION AND COMMUNICATION

Documentation Centre

The Centre continued to facilitate the information needs of UG students, EPA staff and members of the public.

Fifteen informational brochures developed by EPA were posted on EPA’s web page: <http://www.epaguyana.org>

Web Based Newsletter

EPA published its first Newsletter, the Green Leaf. The publication is edited by an editorial body comprising EITD, and one staff member from each of the other three Divisions of the Agency. Volume Issues 1-4 were published in 2003. The publication is available on the EPA website at <http://www.epaguyana.org> . Printed copies were circulated to EPA partners and relevant agencies.

Network

The Information Technology Unit of the EPA manages the local area network (LAN) for optimum use as a tool by EPA staff. 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 IT vision is to promote IT in a professional and business-like manner for organizational efficiency. Applications were produced in-house that competed with the quality and skill of similar externally produced applications.

The EPA has a network infrastructure that adequately meets the needs of the organization. Intranet services provide web access, email, and database applications.

During the past year, the EPA newsletter (volume I) has been uploaded to the Agency's website. In addition, there are ongoing updates on EPA events and several new materials added to web Site.

The Asset Register Database was completed using web technologies and as a result can be used from a web browser. Initial phases of the Biodiversity Database and the Complaints DB were started

Six new Dell Dimension computers were acquired as well as a number of other IT equipment. These allowed for an expansion of the Network to accommodate the officers for the GPAS project.

One of the future plans of the IT Unit is to have a semi-wireless network with internet browsing capabilities. In addition, it is hoped that some of EPA's databases would be hosted online to allow for more accessibility to unclassified information.

6.6 GEOGRAPHICAL INFORMATION SYSTEM

The GIS Unit of the EPA provided support of a geographic nature to other Divisions and Units of the EPA which enabled informed decision-making. Support included management of all geographic data of the Agency, creation of specialized applications, analysis of data and preparation of maps. Support was also provided at a broader level to our stakeholders, in particular GINRIS (Guyana Integrated Natural Resource Information System) and its members.

Major Accomplishments

- Support was provided to the World Wildlife Fund (WWF) funded Wildlife Surveys Project in the analysis and presentation of collected field data. The major output was a map showing Caiman Densities in the Mahaica, Mahaicony, and Abary area.
- Prepared a draft template for the entry of metadata based on the ISO/DIS 19115 metadata standard. This was presented to the GINRIS technical committee for their comments and inputs.
- Research into the development of metadata and systems to support it were done for the GINRIS technical committee. A rough draft was prepared and submitted to the committee.
- A web based map management system was developed to assist the GIS Unit. This included the ability to add, update and delete maps from the database as well as the ability to list, display and search for particular maps within it.
- The digitization of the proposed biodiversity park map project for the National Parks Commission (NPC) was closed. The closing process included the handing

- over of a technical report, a finalized map (showing results of the digitization process) and a CD containing all the data and reports generated by the project to the NPC.
- Various data sets of importance were updated:
 - The extent of Shell Beach was redefined to better align with the natural boundaries
 - The boundary of the Kanashen Amerindian settlement was digitized.
 - The EPA internal GIS web site was redesigned to be more user-friendly and updated with many new features such as quick access to various search features.
 - Staff were made aware of many aspects of GIS
 - A presentation was given on how to make use of the many internal GIS services offered by the GIS Unit
 - Another presentation was made for all staff on helping them to interpret GIS content when they encounter it in their work.
 - A crash course was given to a member of staff from the NRM Division on the use of ArcView 8.2. This was to support the presentation of data collected from a field trip undertaken by that individual.
 - Research was done in coming up with a price list for maps produced by the GIS Unit. This was in response to the numerous requests the Unit received for maps and the need to recover some of the costs involved in preparing these.
 - The GIS Unit was actively involved in the Caribbean Development Bank (CDB) funded Coastal Zone Management Information System project. It was involved in many of the various logistical items involved in moving towards the initiation of the project.
- As usual, maps were prepared upon request, for the various Divisions and stakeholders.

7.0 STAFF LIST - December 2003

	Name of Officer	Designation
1.	Doorga Persaud	Executive Director
ADMINISTRATIVE DIVISION		
2.	Dhanrajie Madray	Director - Admin
3.	Sarita Mohanlall	Executive Assistant
<i>Office of the Executive Director</i>		
4.	Farida Wali	Executive Assistant
5.	Mohamed Chan	Driver
<i>Policy, Planning & Research Unit</i>		
6.	Conor Fox	Natural Resource Economist
<i>GIS Unit</i>		
8.	Rajkumar Singh	GIS Specialist
9.	Andrea Mahammad	Environmental Officer I
<i>IT Unit</i>		
11.	Michael Persaud	Network Administrator
<i>Human Resources Unit</i>		
12.	Joan Yussuff	Human Resources Officer
13.	Rookmin Sukhrum	Office Attendant
14.	Laverne Rampersaud	Office Attendant
<i>Finance Unit</i>		
16.	Vacant	Finance Officer
17.	Keshwar Singh	Senior Accounts Clerk
18.	Preetam Ramdeo	Accounts Clerk
<i>Procurement Unit</i>		
19.	Vacant	Administrative Officer -General
20.	Monique Jones	Administrative Assistant
21.	Vacant	Executive Assistant
22.	Paul Sukhu	Office Assistant
23.	Orlando Kirton	Office Assistant
24.	Asrath Ali	Driver
25.	Ramsarran Etwaroo	Driver
26.	Andrew Adams	Driver
Environmental Management Division		
27.	Eliza Florendo	Director - EMD
28.	Clifton Paul	Senior Environmental Officer
29.	Hance Thompson	Environmental Officer I
30.	Preeya Rampersaud	Environmental Officer I
31.	Khalid Alladin	Environmental Officer I
32.	Simone Lewis - Osborne	Environmental Officer I
33.	Samantha Heyligar	Field & Laboratory Technician
34.	Nadine Livan	Environmental Officer I
35.	Louella Benjamin	Executive Assistant
Education Information & Training Division		
36.	Sharifah Razack	Director - EITD
37.	Leeya Khan	Senior Environmental Officer
38.	Sonia Gumbs	Environmental Officer I
39.	Renwick English	Environmental Officer I
40.	Simone Kellman	Documentation Assistant
Natural Resources Management Division		
41.	Indarjit Ramdass	Director - NRMD
42.	Ramesh Lilwah	Biodiversity Specialist
43.	Lakshman Persaud	Environmental Officer II
44.	Adjua Bernard	Environmental Officer I
45.	Ronald Cumberbatch	Environmental Officer I
46.	Parbattie Kehemraj	Executive Assistant