



**Pesticides and  
Toxic Chemicals  
Control Board**

# ANNUAL REPORT 2008

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## **Executive Summary**

The activities, accomplishments and constraints of the Pesticides and Toxic Chemicals Control Board for 2008, along with proposed activities for 2009, are detailed in this report. The organisational chart was revised to include 26 persons headed by the Registrar, however at the end of 2008; only nine persons were on staff.

The pesticide laboratory was commissioned on February 8, 2008. During the first quarter all the equipment were received and installed, including the Gas Chromatograph / Mass Spectrometer. Gas lines, fire alarm system, water pressure system and glass doors were installed along with a vibration-free table. No analytical testing was performed during the year due to various reasons associated with the gas chromatograph electronic and gas failures. However, to ensure the efficient functioning of the laboratory and attain accreditation, a number of documentation and operating procedures were completed, highlighted by the Workplace Health and Safety Manual and Quality Manual.

Internationally, the Board represented Guyana at a number of meetings on chemical management associated with the Strategic Approach to International Chemical Management (SAICM) and the Rotterdam Convention on the Prior Informed Procedure for hazardous pesticides in International Trade.

Regionally the staff of the Board attended the 13<sup>th</sup> Meeting of the Coordinating Group of Pesticide Control Boards which led to Guyana agreeing to host the 14<sup>th</sup> Meeting. There were a number of meetings with stakeholders such as GuySuCo, Florida Chemicals and Trading, Berbice Anti-Smuggling Squad, pesticide importers and pesticide control operators. The Board also participated in several inter-sectoral meetings and those regarding the FAO project on Integrated Management of Aquatic Weeds.

The Board exceeded its training programme by 100% with 612 farmers trained on safe use, handling and storage of pesticides from Regions 2, 3, 4, 5, 6 and 10. Extension Officers, Custom Officers along with other GRA officials were also trained in understanding the importance of pesticides and the part they play in its management. Internally staff members received training on the GYS 223 (ISO / IEC 17925) Standard that deals with technical and management requirements of testing and calibration laboratories. The laboratory staff also received basic training on the equipment in the laboratory.

Nine entities requested registration for twenty-two new registration for the year. However, no product was registered for the year due to the period for registration being extended to 1<sup>st</sup> January 2009.

Importation for the year was again headed by herbicides and showed an increase by sixteen percent (16%) over the previous year with one hundred and twelve (112) pesticides imported by thirteen (13) importers.

One hundred and sixteen vending premises were licensed for the period with all premises inspected at least once per month with random enforcement inspections. There were twelve (12) seizures of illegal and unlicensed chemicals from vending premises.

The Auditor General's Office completed their examination of the Board's financial statement for 2007 and validated that the financial statements were in conformity with generally accepted accounting practice. For the year under review, there was an over-expenditure of \$24,186,114.00 which was approved by the Board of Directors and covered expenses associated with the establishment and operation of the laboratory for the year. The Board continued on the path towards self sustainability with assessed fees totaling thirty million five hundred and forty-seven thousand two hundred and sixty dollars (\$30,547,260.00). Subvention for the year was approximately sixteen million.

The proposed budget for 2009 was approximately forty six million (\$ 46 M). The Board prepared and submitted equipment specifications required under the Agricultural Diversification Programmeme. The two major pieces of equipment are a High Performance Liquid Chromatograph (HPLC) for residual analysis and a generator for supplying electricity.

The Board continued to participate in national exhibitions as part of its public awareness programmeme and launched its website and information database during the year. Other public awareness activities included launching of the Pesticide Corner in Secondary Schools in Guyana and the development of a booklet on the mode of actions of pesticides used in Guyana for extension officers.

Key issues that affected the Board operations, include the lack of an administrative building, illegal chemicals, disposal of containers and limited resources to do public awareness and education.

For 2009, along with general administrative work, inspections, licensing, registration and training activities, the Board proposes to include preparation of a newsletter, fulfilling the requirement of the Rotterdam and Stockholm conventions, developing and implementing a national chemical management plan for Guyana, hosting the 14<sup>th</sup> CPGC meeting in Guyana, analyse pesticides, developing a pesticide manual and pesticide magazine, and participating in more public awareness activities especially using radio and television.

## **Introduction**

This Report chronicles the Board's activities for the year 2008. It highlights the accomplishments and discusses constraints of the Pesticides and Toxic Chemicals Control Board objectives and activities initiated for the year 2008.

The Report also encompasses the Board's objectives and proposed achievements for 2009.

## **Administration**

The staffing establishments for the Board were as follows:

- (i) Basudeo Dwarka, Registrar, Pesticides and Toxic Chemicals;
- (ii) Usha Homenauth, Administrative Secretary, resigned June 2008;
- (iii) Pranita Bissoon, Administrative Secretary, employed August 2008;
- (iv) Trecia David, Inspector, Licensing and Registration;
- (v) Vivek Joshi, Inspector, Inspection and Enforcement, resigned July 2008;
- (vi) Suresh Amichand, Inspector, Training and Enforcement;
- (vii) Randey Fordyce, Analyst, employed January 2008;
- (viii) Lucina Singh, Assistant Analyst;
- (ix) Moonmattie Singh, Accountant;
- (x) Shivannaha Persaud - Office Assistant / Data Input Clerk; and
- (xi) Lolita Abrams, Cleaner /Charwoman.

The arrival of the laboratory equipment in late December 2007 allowed for the setting up of the Pesticides and Toxic Chemicals Laboratory, the Board contracted an Analyst, Mr. Randey Fordyce to head the Pesticides and Toxic Chemicals Laboratory. The vacancy was publicly advertised and there were four applicants. The top ranked candidate was Mr. Fordyce. The Administrative Secretary, Ms. Usha Homenauth, resigned her position with the Board and was replaced with Ms. Pranita Bissoon, who was the top ranked candidate from ten applicants. The Inspector, Inspection and Enforcement, Mr. Vivek Joshi, resigned his position with the Board in June. The responsibilities related to the vacant position of Inspection were reassigned to Mr. Amichand.

## **Board of Directors**

The Directorate of the Board appointed on the 1<sup>st</sup> August 2007 continued until 31<sup>st</sup> December 2008. The members of the Board were as follows:

1. **Dr. Leslie Munroe** – Chairman;
2. **Ms. Karen Alleyne** - Representative of the Environmental Protection Agency;
3. **Mr. Kuldip Ragnauth** – Deputy Chairman and Ex Officio Member;
4. **Dr. Dindyal Permaul** – Representative of the Ministry of Agriculture;
5. **Dr. Shamdeo Persaud** – Representative of the Ministry of Health;
6. **Dr. Dalgleish Joseph** – Member;
7. **Dr. Harold Davis** – Member; and
8. **Mr. Khame Sharma** – Member.

Mr. Basudeo Dwarka, the Registrar of Pesticides and Toxic Chemicals functioned as Secretary of the Board as required by the Pesticides and Toxic Chemicals Control Act (No. 13 of 2000).

## **Meetings**

Statutory meetings of the Board continued to be held on the third Wednesday of every month and technical meeting as required. There were no technical meetings during the period under review. There were twelve statutory meetings for the year and the attendance by Directors at the meetings had been excellent throughout the year.

## **Signatories of the Board**

The signatories of the Board for the year under review were:

- (1) Chairman of the Board – Dr. Leslie Munroe;
- (2) Secretary of the Board – Mr. Basudeo Dwarka;
- (3) Deputy Chairman – Mr. Kuldip Ragnauth; and
- (4) Dr. Dindyal Permaul.

The order of signatories of the Board remains the same – Chairman and/or Secretary with any other director.

## **Responsibility of the Board**

The Board is charged with the responsibility for making arrangements and providing facilities for controlling the manufacturing, importing, transporting, storing, selling, using and advertising of pesticides and toxic chemicals.

## **Objectives of the Board**

The foremost objective of the Board is to introduce a national pesticide and toxic chemical control scheme. In this respect consideration is given to the current and future ability of the country to operate the scheme with respect to the legal framework and the degree of support that the Government of Guyana is able to provide.

It is also the Board's objective to develop criteria and protocols that are effective and workable to achieve goals with the minimum dislocation of production or trade and to collaborate with the various stakeholders and other individuals to achieve economic goals.

The objectives of the Board for the year under review were as follows:

- (i) Procurement and installation of Laboratory Equipment (Phase I);
- (ii) Development of the specification of Laboratory Equipment (Phase II);
- (iii) Training on the major Laboratory Equipment;
- (iv) Operation of the Laboratory;
- (v) Publishing a list of chemicals prohibited in Guyana;
- (vi) Publishing a list of restricted chemicals for Guyana;
- (vii) Publishing a list of chemicals registered for use in Guyana;
- (viii) Licensing of vendors of agrochemicals and toxic chemicals;
- (ix) Training and certifying pesticide control operators;
- (x) Development and launching of the Board's Website and Database;
- (xi) Training of three hundred farmers in Regions 2,3,4,5, 6 and 10; and
- (xii) Continued implementation of the Regulations.



**The Pesticides and Toxic Chemicals Control Board's Achievements for the period under review were as follows:**

### **1.0 Pesticides Registration**

The Board received applications requesting registration of twenty two (23) pesticides from a total of nine (9) entities. These were made up of eleven (11) insecticides, nine (9) herbicides and two (2) fungicides. The following is a summary of the registration requested:

- (a) **Syngenta** -requested registration for two products – Daconil and Pegasus;
- (b) **Biesterfeld** - request made for two products – Paraquat Dichloride and S-metolachlor;
- (c) **Insectidas Internationales** - registration requested for three products – Designee, Tropel and Mentor;
- (d) **Atul Limited** - request made for the registration of four products – Metsulfuron Methyl, Indoxacarb, Imidacloprid and Lambda Cyhalothrin;
- (e) **Bayer Crop Science** - request made for the registration of one product - Verita;
- (f) **Agro Care Chemical Industry Group Limited** - request made for the registration of eight products – Imazapyr, Asulcare, Glycare, Metcare, Nomicare, Caprid, Pronto and Carbendazim;
- (g) **Cheminova** – request made for the registration of one product – Fyfanon;
- (h) **Guangzhou Hesenta Chemicals Co, Ltd** - request made for the registration of one product – Knock Dem Down; and
- (i) **Mc Laughlin Gormley King Company** - request made for the registration of one product - Evercide.

The list of the chemicals received by the Board at the end of 2008 along with the companies seeking their registration is shown as **(Appendix I)**.

### **2.0 PESTICIDE LABORATORY**

The Pesticides and Toxic Chemicals Laboratory was commissioned on the 8<sup>th</sup> February 2008 by the Honourable Robert M. Persaud, Minister of Agriculture. During the first quarter of the year the supplier and service provider for the laboratory equipment -

Western Scientific Company Limited – sent their technicians to set up and verify all the parts and equipment they supplied had arrived and was in working conditioning. Missing parts were replaced or reordered. The technicians also demonstrated the operation of some of the instruments to the laboratory staff.

## **2.1 Laboratory Equipment and Materials**

During the first quarter, the three gas lines for helium, compressed air and nitrogen, required for the operation of the Gas Chromatograph / Mass Spectrometer (GC/MS) were installed by the Demerara Oxygen Company Limited (DOCOL). A fire alarm system and a pressure water system were also installed during this quarter.

Due to number of differing problems that arose with the GC/MS, which is the major piece of instrument in pesticide analysis; no laboratory testing has been carried out for the period under review. The GC/MS which was assembled 18<sup>th</sup> – 20<sup>th</sup> February, was disassembled on 13<sup>th</sup> March when the technicians came to carry out the basic training on the instrument. This disassembling was due to the fact that the wooden table the instrument was placed on began to warp under the low-humidity conditions that are necessary for the proper function of the instrument. This table was replaced by a vibration free table in May and the technicians reassembled the GC/MS early June.

While awaiting the arrival of additional columns and other consumables needed for analytical work, the staff were familiarising themselves with the equipment. Early July it was discovered that the equipment failed the water-air spectrum test for leaks and an electrical test by the Mass Spectrometer. The technicians from Western Scientific Company Limited came into the country to fix the problems during 23<sup>rd</sup> – 25<sup>th</sup> July. They discovered a few leaks at the joints in the connections located in the gas room and one near the detector in the GC. However, they concluded that the main problem contributing to the leak was that the helium filter leading to the Mass Spectrometer needed changing. The electrical problem was resolved by changing of the electrical board located within the Mass Spectrometer.

Early December the filament test of the Mass Spectrometer failed, after contacting the service provider the filament was changed and the problem was resolved by the laboratory staff.

## **2.2 Documentation**

Although the laboratory was unable to operate with respect to evaluating pesticides, work towards accreditation commenced with the Guyana National Bureau of Standards (GNBS) based on the local laboratory standard GYS 223:2005. The Laboratory made the required financial contribution and training was provided to the staff of the Laboratory and Inspectors of the Board.

### **Workplace Health and Safety Manual**

This manual was developed to reduce the potential for hazards by promoting proper risk management using established safety procedures for laboratories, storage rooms and the Board as a whole. The policies of this manual resonate with the requirements of the Occupational Safety and Health Act 1997 and proper laboratory techniques and practices are emphasised through various forms of training.

### **Quality Manual**

This manual was developed to meet the requirements of GYS223:2005 ISO/IEC 17025:2005 Standard for Testing and Calibrating Laboratories. It covered all aspects of management and technical requirements of this Standard. Implementation of the manual will ensure that the integrity of the Laboratory is maintained for all operations with the ability to produce analytical results that are accurate, reliable and of appropriate quality for its intended use by customers. Adhering to the principles outlined here will also allow for traceability and increased effectiveness.

Emanating from this manual is a series of Standard Operating Procedures (SOPs), Work Instructions and Forms.

## **Standard Operating Procedures**

### ***Accommodation and Environment***

Describes the accommodation and environmental conditions the Laboratory should follow in order to maintain sample integrity from sample submission to the reporting of results.

### ***Calibration and Standardisation***

This SOP covers the establishment and maintenance of laboratory measurements. It outlines the procedures relating to calibration, measurement traceability, reference materials and standardisation of laboratory instruments.

### ***Client Communications***

This procedure provides for the details to ensure client confidentiality and proprietary rights, in addition to the process for client notification.

### ***Code of Conduct***

This SOP applies to laboratory staff and addresses the principles and ethical rules that should be followed by the staff in order to preserve the integrity of the Laboratory's operations.

### ***Control of Records***

This course of action addresses control of the written and electronic records generated by the quality management system. The process covers identification of records, indexing and filing, data collection and reproducibility, error correction and legibility, storage and record retention and maintenance, archiving and access.

### ***Corrective Action***

This *modus operandi* describes the procedure for correcting nonconforming work. It includes fixing responsibility for the action to be taken, documenting the steps taken and securing a report on the resolution to the problem.

### ***Disposal of Laboratory Waste***

This SOP embraces the procedure for safe storage and disposal of laboratory waste. The process describes the actions required when dealing with chemical waste, surplus samples and broken glass ware.

### ***Document Control***

This procedure describes the process for establishing, distributing, revising, recalling and archiving the Laboratory's quality system documents such as the quality manuals, standard operating procedures, work instructions, analytical test methods and documents from external sources.

### ***Laboratory Complaints***

This procedure outlines the process that must be followed in order to resolve any complaints received by customers.

### ***Laboratory Equipment Maintenance***

The procedure covers the maintenance records for laboratory balances, balance masses, digital volumetric delivery apparatus, thermometers and timers.

### ***Management of Test Items***

This SOP describes the process that must be followed during receiving, storing and disposing of both perishable and non-perishable samples.

### ***Management Review***

This SOP covers the management review process necessary to ensure the effectiveness of the laboratory's quality management system.

### ***Laboratory Audit***

This procedure outlines the internal audit activities carried out by the Laboratory to ensure consistency with the quality management system. It also encompasses the entire quality management system, inclusive of policies, procedures and their suitability for analytical work.

### ***Measurement Uncertainty***

This SOP addresses the processes that ensure that uncertainties of measurements are included in the results reported to customers.

### ***Method Selection***

This process basically describes the course of action through which official methods of analysis are selected, whether published in national, regional or international standards, scientific texts and journals or by reputable technical organisations or the manufacturer of the equipment or chemical.

### ***Non-conformance***

This SOP describes the actions taken when non-conformances occur due to testing or analytical operations, data validation, audit reports, deviation from documented policies and procedures or from customer complaints, management reviews and staff observations.

### ***Preventive Action***

This is a pro-active procedure to identify opportunities for improvement, initiate action and apply controls to ensure its effectiveness. It covers review of policies, objectives and operational procedures, audit results, data analysis, continual improvement actions and management review.

### ***Purchasing***

This SOP describes the process which must be followed when purchasing reference standards and materials, equipment, spares, accessories and services critical to the quality of analysis.

### ***Quality Control Charts***

The procedure outlines and aims at ensuring that the data given by the Laboratory is fit for its intended purpose. It addresses determination of whether the results are 'out of control' and provides for the necessary corrective actions.

### ***Reporting of Results***

This system describes the procedure the Laboratory follows when generating reports. It includes that components of the certificate of analysis and acts as a guide to filling out the required form.

### ***Review of Requests, Tenders and Contracts***

This procedure reflects the laboratory process for receiving client orders and clients from whom the Laboratory purchase small and large equipment, reagents and lab ware.

### ***Training***

This SOP covers how training for laboratory staff, both new and continuing employee, is identified, evaluated and documented.

### **Work Instructions**

Below is a summary of the Work Instructions completed during the period under review. However, during the course of 2009 approximately 15 other instructions based on laboratory processes and operation of the laboratory equipment will be developed.

### ***Certificate of Analysis***

The certificate of analysis is the report of the results from the laboratory analysis that is prepared by the laboratory for the customer. This work instruction provides guidance for the preparation of this certificate.

### ***Control Chart***

Quality Control Charts are used to determine the precision and/or repeatability of results. This work instruction describes the construction and interpretation of these control charts.

### ***Document Control***

The work instruction informs on the application of the SOP **PTCL 500, Document Control**, for those quality system documents that have been generated by the Laboratory.

### ***Purchasing***

This work instruction provides guidance on the purchasing process for analytical supplies, except for those under capital expenditure, stationery and those obtained locally.

### ***Training Schedule***

This working instruction provides guidance by means of a list of general training activities needed by the employees of the Laboratory.

### ***Washing of Glassware***

This work instruction provides guidelines for removal of chemical or biological residues from volumetric and general use glassware in order to prevent contamination of samples and equipment.

### **Forms**

These are a necessary part of the Laboratory documentation. Below the ones that have been developed during 2008 are listed. At least 15 more will be developed in 2009.

- (a) Certificate of Analysis;
- (b) Code of Conduct Form;
- (c) Cover Page Form;
- (d) Document Change Notice;
- (e) Document Master List;
- (f) Employee Training Record;
- (g) Equipment Information List;
- (h) Equipment Maintenance History;
- (i) Laboratory Gas Check Form;
- (j) List of Proficiency Test Facilitators;
- (k) Sample Disposal Form;
- (l) Sample Submission Form; and
- (m) Signature List.

### **Physical Alterations made to the Laboratory**

During March to May the following physical alterations were made within the Laboratory:



- 1) the gas room was raised to prevent against flooding during heavy rainfall;
- 2) pipelines were installed to make ammonia gas available to the GC;
- 3) the table in the quality analysis preparation room was replaced with a sturdier, vibration-free one on the advice of the technicians from Western Scientific Company Limited;
- 4) shelves were constructed in the store room located below the Laboratory; and
- 5) a vehicle shed was constructed.

### **3. MEETINGS & TRAINING**

#### **3.1 Meetings**

The Board was represented at four meetings in Panama by the Registrar. The attendance to the meeting led to the development of a project to determine the National Chemical Profile for Guyana. The Project has been submitted to the Quick Start Trust Fund of the Strategic Approach to International Chemical Management (SAICM). The names of the four meeting are as follows:

- (a) Polychlorinated Biphenyls (PCB) Management in Latin America and the Caribbean;**
- (b) Chemicals Management Infrastructure;**
- (c) Latin America and the Caribbean Regional Meeting on the Strategic Approach for Integrated Chemicals Management (SAICM); and**
- (d) Regional Consultation on Issues under Consideration by the Stockholm Convention POPs Review Committee (POPRC).**

An Outline of the Project and the meeting reports are shown as **Appendix II – Reports and Meetings**.

The Registrar also represented Guyana at the Conference of Parties (COP 4) of the Rotterdam Convention and the Open Ended and Legal Technical Working Group (OELTWG) of SAICM in preparation for the second meeting of the International Conference on Chemical Management (ICCM) held in Rome, Italy.

Inspector S. Amichand represented the Board at a meeting with GuySuCo National Cane Farming Manager that developed and prepared a schedule and training programme for cane farmers.

The Board was represented by Inspector S. Amichand and Assistant Analyst, Lucina Singh in the Food and Agricultural Organisation (FAO) project on Integrated Management of Aquatic Weeds. This project falls under the responsibility of the National Agricultural Research Institute (NARI) with the Board having a stakeholding interest in the Project. The FAO's independent consultant, Dr. Michael J. Grodowitz, an entomologist conducted field visits at Boerasirie Conservancy, Meten Meer Zorg, Uitvlugt Estate Cultivation, Burma Rice Research Station and Mahaicony River to determine the major weeds present in the water ways.

The Project objectives entail the strengthening of national capabilities on integrated management of aquatic and other invasive weeds affecting the irrigation network, including biological control of weeds and evaluating the feasibility of utilising weeds for biogas production and other commercial purposes. The Project outputs include:

- (a) identifying and preparing a list of additional weeds in the country;
- (b) identify and list indigenous natural enemies associated with aquatic weeds in Guyana; and
- (c) determine an efficient technique of rearing same.

The project is also involved with selecting pilot areas with the weeds and monitoring for insects and other pests present for utilisation as bio control agents.

The Board met with Florida Chemicals and Trading (FCT) Technologies on the 12<sup>th</sup> May 2008 to discuss the repackaging of pesticides by the Company. The Company made a formal request for repackaging of pesticides in smaller amounts. The Board requested the names of the chemicals to be repackaged, the amount to be repackaged, the package specifications, duration of the repackaging period and a visit to the repackaging facilities before permission was granted. The information was provided and permission was granted for a specified type and quantity of pesticide to be repackaged until 31<sup>st</sup> December 2008 when it was estimated that all the requested pesticides will be completely repackaged and the practice will be discontinued.

The Board held a meeting with the Head of Berbice Anti Smuggling Squad (BASS) on 16<sup>th</sup> May 2008 pertaining to the continued smuggling of pesticides across the Guyana - Suriname border. The meeting achieved nothing. This issue of smuggling continues to be a major problem for the management of pesticides locally and a number of products that have originated from Suriname have been seized by the Inspectorate of the Board.

The Board conducted a meeting on the 30<sup>th</sup> September 2008 with stakeholders of the Industrial and Domestic Pesticides Control Operators of Guyana. The meeting was to enlighten stakeholders on the Pesticides Regulations specific to their operation. A second meeting was held on the 27<sup>th</sup> November 2008. This meeting established a time frame for Pesticide Operators in Guyana to be registered under the Pesticides and Toxic Chemicals Act along with the associated costs for registration and training for operators. The opportunity was also taken by the Pesticides Operators to establish themselves as a functioning body, Urban Pest Control Association (UPCA) and elected members to bear office positions.

Representatives from the Board conducted a meeting with Pesticides Importers of Guyana on the 25<sup>th</sup> November 2008. The meeting was held to reiterate the need for complete registration documentation to be submitted to the Board by all importers for the chemicals they intend to import and the relevant permission granted by the Board before any import orders are placed with the supplier.

The Board facilitated a meeting with the Minister of Agriculture and stakeholders from the Pesticides Importing Agencies at the Ministry of Agriculture Boardroom. The meeting was convened to enlighten the stakeholders on the importance of their role with respect to availability of adequate pesticides for farmers for the success of the Ministry's Grow More Food Campaign. Parties took the opportunity to raise issues that affected them, such as, illegal pesticides entering the country through the Guyana – Suriname border and the negative impact this was having on their companies. Arising out of the meeting was the decision for the Board to liaise with the Department of Customs and Trade Administration and BASS to put mechanism in place to address these issues.

The Board was represented by Ms. Trecia David, Inspector, Registration and Training, at the 13<sup>th</sup> meeting of the Coordinating Group of Pesticide Control Boards of the Caribbean (CGPC) held in July in Belize.

The Board was also represented at the following national meetings:

- (a) National Committee on Conformity Assessment held by the Guyana National Bureau of Standards (GNBS);
- (b) Public Sector Management Modernisation - which examined the matrix of the programme such as missions and visions; financial management and human resource management;
- (c) Malaria Committee – which examined the malaria situation in Guyana and the options available for the control of the vector and the disease;
- (d) Heads of Department – an examination of the progress and status of the agricultural sector along with limitations and possible solutions; and
- (e) Sanitary and Phytosanitary Committee to review the functions of the Committee.

### **3.2 Training**

The Directors, Registrar and Inspectors of the Board provided training to farmers on the safe use, handling and storage of pesticides at a number of locations throughout the country. The training was done in collaboration with the Guyana Rice Development Board (GRDB) Farmers Field School Programme, GuySuCo Cane Farming Committee and the Extension Unit of the Ministry of Agriculture. These were held in **Regions 2, 3, 4, 5, 6 and 10.**

Training in all the locations targeted mainly rice, vegetables and cane farmers and workers with emphasis placed on the safe use, handling and storage of pesticides. Cane farmers were also trained in weed identification and associated herbicide control, manual versus mechanical application, and timeliness of application.

Extension Officers from the Ministry of Agriculture, Guyana Rice Development Board and the Rice Producers Association participated in a refresher training facilitated by the Board on the role of the Board along with pesticides and pesticides used in Guyana. The

training also examined the various types of pesticides formulation used and their mode of action

Originating from a meeting with the stakeholders of the Pesticides and Toxic Chemicals Control Board was a meeting with the Commissioner of Customs and Trade Administration on issues with the importation of pesticides. The meeting also led to the training of custom officers and other officials of the Guyana Revenue Authority so the participants can better understand their importance in the management of pesticides in Guyana. The interactive training specifically examined the importance and role of the Department of Customs and Trade Administration of the Guyana Revenue Authority in pesticides importation and use in Guyana.

The Board concluded its training of farmers and other agencies for 2008 in December 2008. A total of 612 persons were trained for the year in the safe use, handling and storage of pesticides (**Appendix III**). The farmers expressed appreciation of the training and requested the participation of the other departments within the Ministry of Agriculture to conduct similar training in crop agronomy and crop husbandry. Farmers also suggested if the chemicals companies can issue a price list as was previously promised and measuring utensil, respirator and gloves when purchasing chemicals.

Staff of the Pesticides Laboratory and Inspectors of the Board participated in training programmes and workshops on laboratory accreditation conducted by officers from the Guyana National Bureau of Standards. The accreditation entailed meeting the requirements of the GYS 223 (ISO/IEC 17025) standard and the general requirements for the competence of testing and calibrating laboratories. The objectives of the workshop were to:

1. Understand the difference between registration, accreditation and certification.
2. Provide a background to laboratory management.
3. Provide an in-depth examination of GYS 223: 2005 (ISO/IEC 17025).
4. Develop techniques for writing quality system documentation.

Laboratory staff participated in a basic training conducted by technicians of Western Scientific on the assembling and demonstration of the centrifuge, rotary evaporator, automatic pipetter, gas chromatograph/ mass spectrometer (GC/MS) instrument.

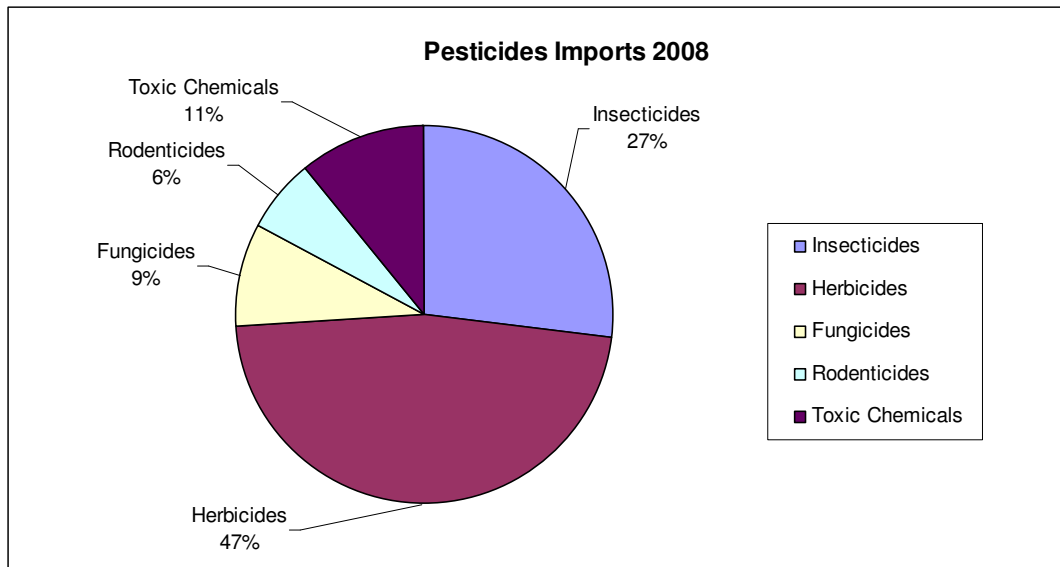
#### **4.0 COMPLAINTS AND INVESTIGATIONS**

The Board investigated two complaints for the period under review. One made by Ms. Sorojini of Number Two Village, Corentyne, Berbice of alleged effects of a sprayed substance affecting her applied by her neighbour. On the day of the visit she said that the neighbour had been spraying the substance everyday, however no indications were observed that either a herbicide or an insecticide was used since the vegetation or insect population in the yard did not show any effects of pesticides usage. Further investigation from neighbours revealed that Ms. Sorojini is suffering from medical problems and these types of falsified complaints have being ongoing for a number of years.

The second concerned a complaint made on the 4<sup>th</sup> August 2008 by personnel from the Guyana Rice Development Board (GRDB) of alleged spray drift damage to rice crop cultivated by Mr. Wazir Khan of Cotton Tree West Coast Berbice caused by GuySuCo aerial spray application at Blairmont Estate. The Board was unable to investigate the incident properly due to logistics failure by the Rice Producers Association. The report is attached as **(Appendix IV)**.

#### **5.0 PESTICIDE IMPORTATION**

The list of pesticides and toxic chemicals imported for the year in review is shown as **Appendix V**. There were one hundred and twelve (112) pesticides imported by trade name for the year by thirteen (13) importers **(Appendix VI)**. The total import for the year was one billion, two million, eight hundred and seventy five thousand, and nine hundred and fifty-seven dollars (\$ 1,002,875,957.00).



**Figure 1 Shows Pesticide Imports for 2008**

The largest category of chemicals imported for the year was herbicides, accounting for four hundred and seventy million, five hundred and twenty eight thousand, four hundred and thirty eight dollars (\$470,528,438.67) or forty seven percent (47%) of the total imports.

This was followed by insecticides with twenty seven percent (27%), toxic chemicals with eleven percent (11%), fungicides with nine percent (9%) and rodenticides with six percent (6%). There was a sixteen percent (16%) increase in total importation for the year in review (2008) in comparison to the previous year's total importation.

**Table 1 Value of Importation for 2008**

<b>Pesticides</b>	<b>Total Cost Imported</b>
Insecticides	\$271,432,677.43
Herbicides	\$470,528,438.67
Fungicides	\$86,951,744.88
Rodenticides	\$64,639,477.72
Toxic Chemicals	\$109,323,618.97
<b>TOTAL</b>	<b>\$1,002,875,957.67</b>

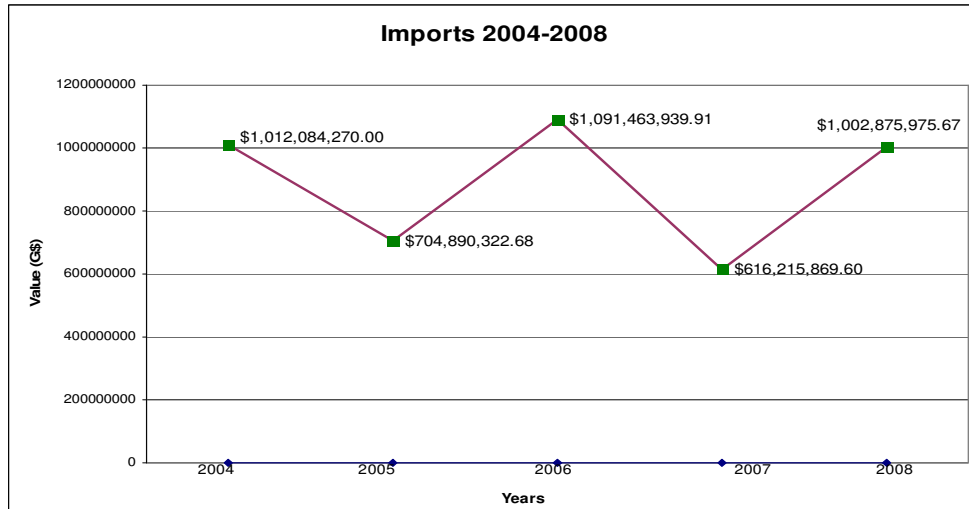


Figure 2 Chemicals Import Comparison for 2004 - 2008

### 5.1 Insecticides

For the year under review there were twenty nine (29) categories of insecticides imported with allethrin being the highest valued insecticide, followed by cyfluthrin and propoxur all of which are used for the control of household insects (**Appendix VII**). Comparisons for the previous four years are similar; however there was marked decrease in the import of monocrotophos for 2008 in comparison to the previous years.

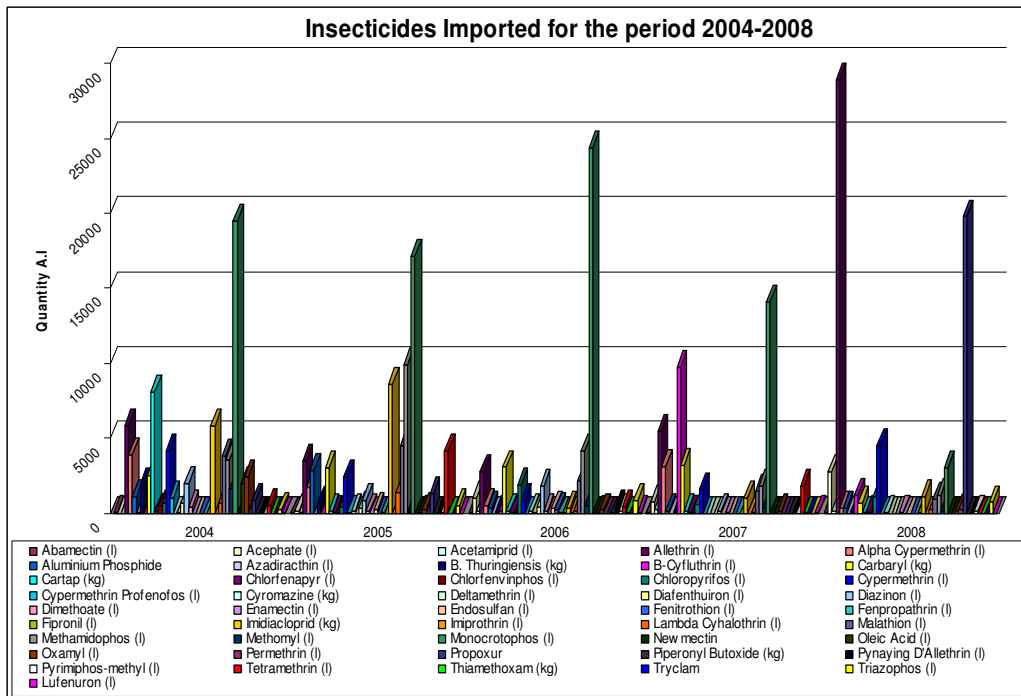


Figure 3 Insecticides Importation - Comparison for 2004 - 2008



## 5.2 Herbicides

Herbicides which accounted for forty seven (47%) percent of the total imports for the year was headed by the Glyphosate with one hundred and twenty five million (\$125M), followed by Metsulfuron Methyl with one hundred and twenty million (\$120M) and 2, 4-D Amine with ninety million (\$90M). All three of the herbicides stated above played very integral parts in the weed control strategies of the two major traditional crop grown in Guyana namely, sugar and rice. Overall importation covered sixteen (16) categories (AppendixVII).

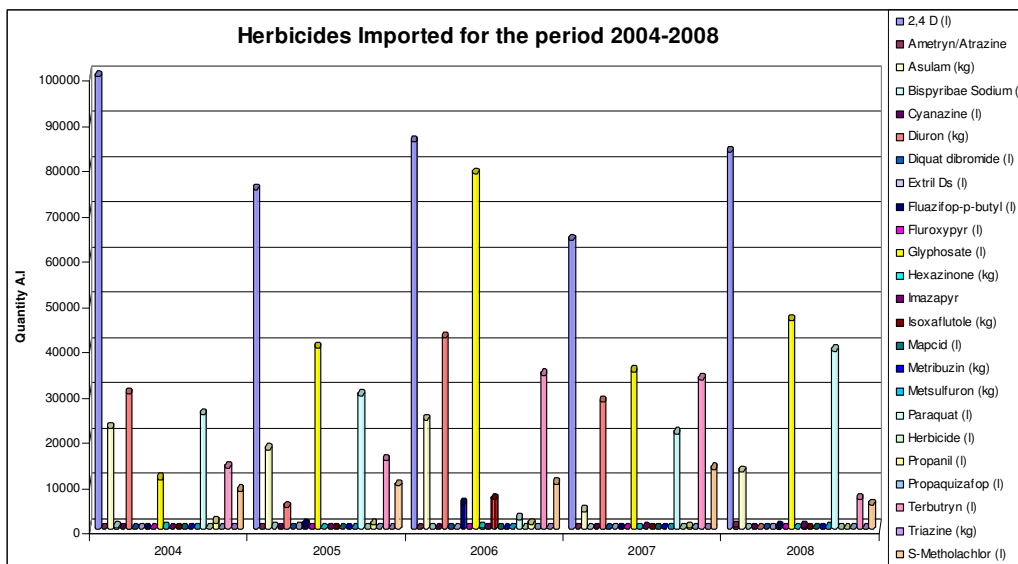


Figure 4 Herbicide Importation - Comparison for 2004 - 2008

## 5.3 Fungicides

The total import of fungicides for the year was approximately eighty six (\$ 86 M) million for twelve (12) categories with Chlorothalonil as the largest imported fungicide followed by Isoprothiolane and Mancozeb (Appendix VII). The largest product imported in the previous year was Azoxystrobin, which was the fourth highest imported product for the year under review.

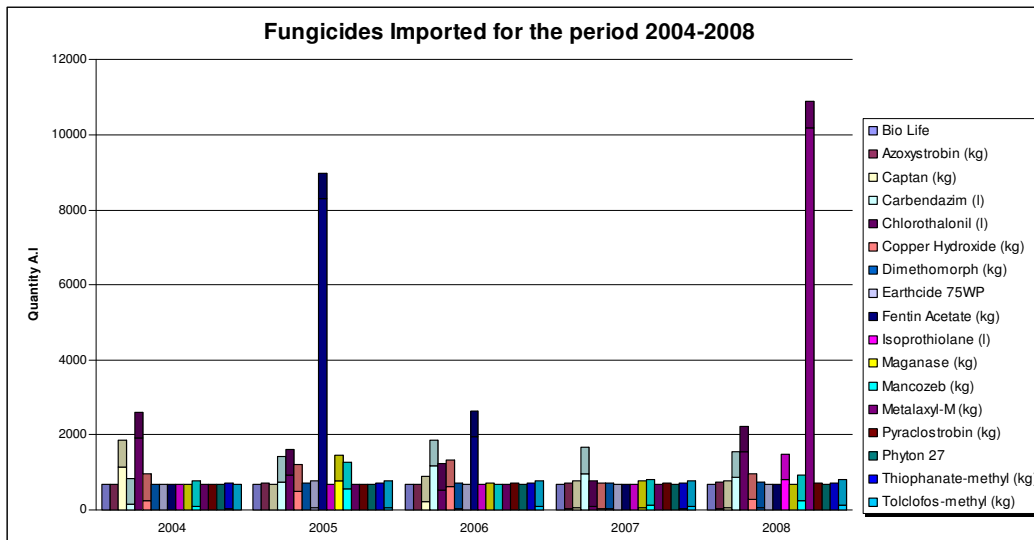


Figure 5 Fungicide Importation - Comparison 2004 - 2008

#### 5.4 Rodenticides

The total import of rodenticide for the year was approximately sixty four million (\$64M) in four categories. The largest was Brodifacoum which accounted for fifty million (\$50M) of the total value of rodenticides imported. The largest user of rodenticide in Guyana is GuySuCo.

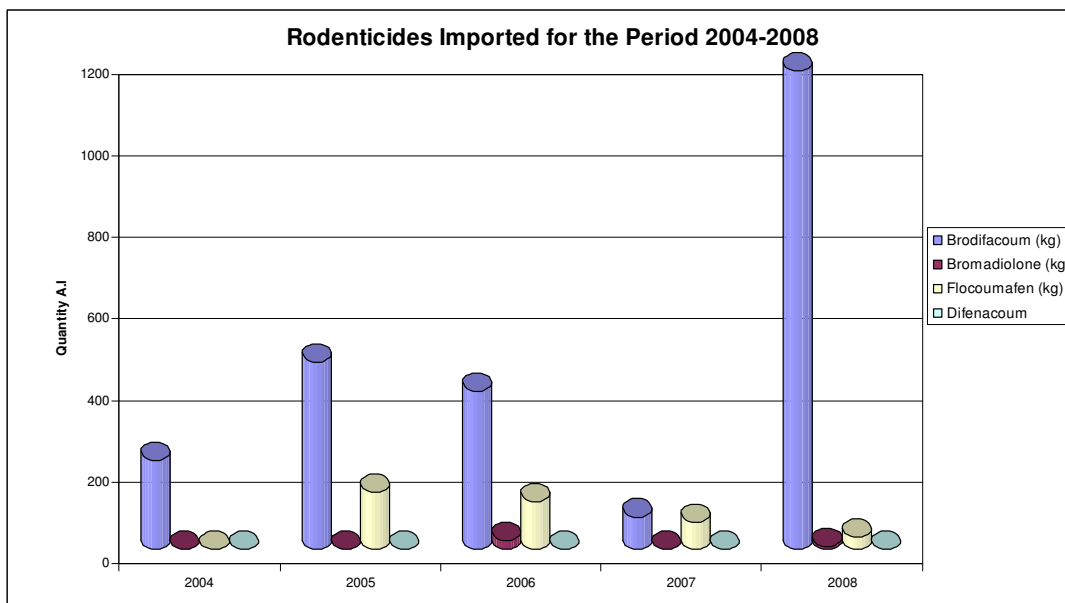


Figure 6 Rodenticide Importation - Comparison for 2004 - 2008

Toxic Chemical imports for the year were made up mostly of products such as disinfectants and chlorine used for the production of bleaches.

## **6.0 AGRICULTURAL DIVERSIFICATION PROGRAMME**

The Board contributed and participated in the preparation of the programme and budget of the Agricultural Diversification Programme as required by the Ministry of Agriculture and the Inter American Development Bank. The Board's submission was for the requirement of the Pesticides and Toxic Chemicals Laboratory Phase II and contained the equipment for residual analysis. The major equipment proposed is a High Performance Liquid Chromatograph (HPLC) along with a generator (**Appendix VIII**).

## **7.0 VENDING OF PESTICIDES AND TOXIC CHEMICALS**

The Board certified one hundred and sixteen vending premises for the year. The list of vendors is shown as **Appendix IX**.

There were twelve seizures of illegal and unlicensed chemicals during the year from vending premises across the country. This is in keeping with the regulations of registering all products being offered for sale by pesticides vendors.

## **8.0 TRAINING MANUAL**

The training programme for the training of farmers, farm workers and vendors under the theme "Management and Use of Agrochemical in Agricultural Production" continued during the year. The training manual for farmers and farm workers entitled "Bains and Boodhoo" were issued to farmers at all the training sessions conducted for the year. The Board also developed a booklet entitled "List and Mode of Action of Pesticides used in Guyana 2008". This booklet was developed for extension officers for them to have a better appreciation and understanding of the pesticides used in Guyana.

## **9.0 ACCOUNTS 2007**

The Auditor General's Office completed their examination of the Board's financial statement for 2007 as required under Section 41 of the Pesticides and Toxic Chemicals Control Act and the Financial Management Act and validated that the financial

statements present fairly, in all materials respects, the financial position of the Board as at 31 December 2007 and its deficit for the year then ended, in conformity with generally accepted accounting practice.

The audited expenditure for the Board for 2007 was twenty nine million, eight hundred and thirty seven thousand, nine hundred and forty six dollars (\$29,837,946.00) **(Appendix X)**.

## **10.0 EXPENDITURE & ACCOUNTS 2008**

The Board's proposed budget for 2008 was thirty three million, seven hundred and fifty five thousand dollars (\$ 33,755,000). The unqualified account for the year under review is shown as **Appendix XI**. The accounts reflect an expenditure of fifty seven million, nine hundred and forty one thousand, and one hundred and fourteen dollars (\$ 57,941,114). The accounts represent an over expenditure of twenty four million, one hundred and eighty six thousand and one hundred and fourteen dollars (\$ 24,186,114) which was met from funds held by the Board and administrative fees collected during the period under review. This over expenditure was due to the commencement of operations of the laboratory which was not budgeted for in accordance with budgetary requirement governing establishing new entities in 2007. The over expenditure represents adjustments required by the supplier of the equipment in the laboratory, employment of laboratory personnel, installation of gas lines, purchase of gases, construction of table for the equipment, housing for the gas bottles, uninterrupted power supply equipment, installation of a transformer for the laboratory by the Guyana Power and Light (GPL), installation of air conditioning units for the laboratory chemicals storeroom, supply of reference books for analyses of pesticides, filters for the gases along with other miscellaneous consumables.

In a move towards self sustainability, the Board continued to implement charges in the form of administrative fee on all imports for the year under review. This fee is charged on all imports covered by the Board and is calculated at three percent of Cost Insurance and Freight (CIF) of the chemicals. The fees collected for the year in review was thirty million, five hundred and forty seven thousand, two hundred and sixty dollars (\$30,547,260.00).

This fee is used for the improvement of the inspectorate in inspection and enforcement leading to the better management of pesticides and toxic chemicals in Guyana. It was estimated that the fees would allow the Board activities to be sustainable in five years.

## **11.0 BUDGET 2009**

The proposed budget for the Board for 2009 reflects a total expenditure of forty six million, three hundred and thirty three thousand, and two hundred and forty dollars (\$ 46,333,240.00). This increase in cost is for the operation and functioning of the pesticide laboratory in 2009 and basically covers the procurement of reagents and chemicals for the evaluation of pesticides in Guyana.

## **12.0 PUBLIC AWARENESS**

The Board participated in Grow More Food Festival hosted by the New GMC on the 19<sup>th</sup> July 2008 at the Providence Stadium.

As part of the Agriculture Month's activities the Board launched its pilot project with the establishment of a Pesticides Corner in Secondary School in Guyana on the 2<sup>nd</sup> October. St. Stanislaus College was the first school to benefit from this project. The aim of the project is to enhance agricultural development in secondary schools. The launching was graced by the Honourable Ministers of Agriculture and Education with the feature address given by the Honourable Robert M Persaud, MBA, MP, Minister of Agriculture

The Board launched its website, <http://www.ptccb.org.gy> along with the Guyana Pesticide Management Information System (GPMIS) developed with the assistance of the Pan American Health Organisation (PAHO) at the Guyana School of Agriculture Auditorium on the 8<sup>th</sup> October. The launching was graced by the Minister of Agriculture who delivered the feature address supported by the Minister of Health and representatives from PAHO.

As one of the activities of Agriculture Month, the Pesticides Laboratory hosted an Open Day along with the National Agricultural Research Institute (NARI). On display were many of the Laboratory's equipment and visitors were given the opportunity to see typical sample preparations of food items and liquid formulations of pesticides. They

were introduced to the operations of the Gas Chromatograph / Mass Spectrometer, its functions and capabilities along with its usefulness and relevance to agriculture production and export. The Open Day attracted approximately 170 individuals, with the majority being students and the feedback was extremely positive

The Board participated in the World Food Day Exhibition under the theme “World Food Security: The Challenges of Climate Change and Bio-energy.” The display by the Board was well received by those present.

The Board participated in a Booth Display at the West Berbice Nite at the Bath Community Centre Ground and the Providence National Stadium to mark the Rice Fest activities organised by the Private Sector in collaboration with the Ministry of Agriculture.

### **13.0 WEBSITE**

The Board officially launched its Website and GPMIS <http://ptccb.org.gy> on pesticides in Guyana at the Guyana School of Agriculture Auditorium on the 8<sup>th</sup> October. The website will assist agriculturist, agro businesses, farmers, resource personnel and students on information relating to the Board and pesticides usage in Guyana.

### **14.0 AGRICULTURAL DATABASE**

The Board launched its Agricultural Database as part of the activities to commemorate Agriculture Month. The database will contain the chemicals registered by the Board, the pests and the crops. The database is anticipated for use by farmers, vendors, students, extension agents and scientists. The database would also be accessed through the Board’s website. Due to technical glitches, the Board was unable to upload the required information to the website. Work is continuing to resolve this issue with the engineer of the database.

### **15.0 PROHIBITED PESTICIDES**

The Order for the declaration of the list of prohibited chemicals was signed by the Minister of Agriculture and *Gazetted* on the 18<sup>th</sup> November 2006. There are no chemicals

currently used in Guyana listed as prohibited. No chemical was added to the list in 2008. The list of chemicals is shown as **Appendix XII**.

## **16.0 EXPERIMENTAL PESTICIDES**

Only one pesticide – Cruiser FS – was declared for evaluation. The pesticide with the common name, Thiamethoxam, was submitted for evaluation by Syngenta to the Guyana Rice Development Board through Trading and Distribution Limited. The product is due for evaluation in first crop 2009. The product will be evaluated as a seed treatment in rice in Regions 2, 3, 4, 5 and 6.

## **17.0 SECTORAL COORDINATION**

There was no sectoral coordination committee convened for the year under review.

## **18.0 ENFORCEMENT**

Inspectors from the Board conducted a number of inspection and enforcements across the country, highlighted as follows:

### **Region IV**

Inspections were conducted on the East Coast of Demerara for illegal and unregistered chemicals on the 17<sup>th</sup> and 18<sup>th</sup> of March. Quantities of illegal and repackaged chemicals (**Appendix XIII**) were confiscated from the following vending premises:

1. Medic Aid Pharmacy – 38 Logwood, Enmore, East Coast Demerara
2. Narine's Pharmacy – 29 Logwood, Enmore, East Coast Demerara
3. Jailall Persaud – 6 Beehive, East Coast Demerara
4. Yodhan Raghunandan – 8 Riverview, Lancaster, East Coast Demerara
5. Stall #25 – Mahaica Market, East Coast Demerara

### **Region V**

Inspection was conducted on the 31st March. Illegal and repackaged chemicals (**Appendix XIII**) were found and confiscated from the following vending premises:

1. Agri Quality – 19 Section B Bush Lot, West Coast Berbice
2. Katcha General Store – B1 Bath Settlement, West Coast Berbice
3. R.Parmanand General Store – 27 Section C Bath Settlement, West Coast Berbice

### **Region IV and V**

Inspections were conducted in Georgetown, East Coast Demerara and West Coast Berbice on the 1<sup>st</sup> and 3<sup>rd</sup> July 2008. Illegal pesticides were confiscated from the vending premises of China Trading, 32 Robb Street Georgetown (**Appendix XIII**).

### **Region III**

Inspections and enforcement were conducted on the West Bank Demerara, West Coast Demerara and East Bank Essequibo on 12th September 2008. A number of Supermarkets were inspected for illegal domestic and household pesticides. Illegal pesticides were confiscated from the following businesses (**Appendix XIII**):

- |                 |                     |
|-----------------|---------------------|
| 1. Mohamed Hack | 3-4 La Jalousie WCD |
| 2. U. Chaitram  | 84 Tuschen EBE      |

### **Region VI**

Inspections and enforcement were conducted in Berbice on the 16<sup>th</sup> and 17<sup>th</sup> September. A vibrant communication mechanism with the Custom Officers in Berbice and the Board resulted in the confiscation of illegal and unregistered pesticides from a suspected smuggler marketing pesticides brought in from Suriname (**Appendix XIII**):

- |                  |                               |
|------------------|-------------------------------|
| 1. Shiek Sattaur | #71 Village Corentyne Berbice |
|------------------|-------------------------------|

## **19.0 ORGANISATIONAL CHART**

The Organisational Chart of the Pesticides and Toxic Chemicals Control Board was revised and shown as (**Appendix XIV**). The organisation of the Board contains four divisions: Licensing and Registration, Enforcement and Training, Administration and Analytical. Each division will be headed by senior personnel. The total staff under the Board is proposed at twenty-six (26) persons headed by the Registrar.

## **20.0 INDUSTRIAL DEVELOPMENT**

The Guyana Sugar Corporation continue to request a letter from the Board stating that the pesticide supplied to the corporation is registered or approved for use in Guyana. This was introduced in 2007 in keeping with the requirements of the Pesticides and Toxic Chemicals Control Regulation 2000 (No. 8 of 2000).



## 22.0 INTERNATIONAL DEVELOPMENT

There was no new international development during the year that required any adjustment or created any implication for Guyana or the Board for the period under review.

## 23.0 FUNDING

The Government of Guyana continues to fund the current activities of the Board through subvention as reflected in the annual accounts. The Board's move towards sustainability continued during the year in review.

## 24.0 PROPOSED ACTIVITIES 2009

24.1 The proposed activities for the Board for 2009 and the budget are as follows:

<b>Programmeme</b>	<b>Administration</b>		
<b>Activities</b>	<b>Commencement</b>	<b>Finish</b>	<b>Budget ('000)</b>
<b>General Administrative Work</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	3,000.0
<b>Preparation of Annual Report</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	75.0
<b>Preparation of Newsletter</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	750.0
<b>Monthly Report of Board Activities</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	100.0
<b>Monthly Meetings</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	25.0
<b>Fulfilling International Requirement of the Board - Rotterdam Convention</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	100.0
<b>Fulfilling International Requirement of the Board - Stockholm Convention</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	100.0
<b>International Requirement of the Board - Strategic Approach for International Chemical Management (SAICM)</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	25.0
<b>Attending International, Regional and National Meeting where necessary</b> <ul style="list-style-type: none"> <li>- Jamaica – February - Stockholm;</li> <li>- Barbados – March - SAICM; and</li> <li>- Geneva – May – Stockholm &amp; SAICM.</li> </ul>	1 <sup>st</sup> Jan	31 <sup>st</sup> May	25.0.
<b>Implementing QSP Project - Developing an Integrated National Programmeme for the Sound Management of Chemicals and SAICM Implementation In Guyana</b>	1 <sup>st</sup> May	31 <sup>st</sup> Dec	20,000.0
<b>Hosting of 14<sup>th</sup> CGPC Meeting In</b>	1 <sup>st</sup> Jun	31 <sup>st</sup> Jun	6,000.0

<b>Guyana</b>			
<b>Commence the Development of National Implementation Plan for Guyana</b>	1 <sup>st</sup> April	31 <sup>st</sup> Dec	2,000.0
<b>SUB – TOTAL</b>			32,200.0

**Remarks:**

**QSP and NIP to be funded through International Agencies and hosting of CGPC to be fully recovered.**

<b>Programmeme</b>	<b>Inspection and Enforcement</b>		
<b>Activities</b>	<b>Commencement</b>	<b>Finish</b>	<b>Budget</b>
<b>Inspection – General</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	1,200.0
<b>Inspection – Vending Premises</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	600.0
<b>Sampling of Pesticides at Entry Points</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	600.0
<b>Licensing of Vendors</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	600.0
<b>Licensing of Pest Control Operators</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	500.0
<b>SUB – TOTAL</b>			3,500.0

**Remarks:**

**This cost is projected to cover all the Board's Inspection and Enforcement Expenses**

<b>Programmeme</b>	<b>Registration and Licensing</b>		
<b>Activities</b>	<b>Commencement</b>	<b>Finish</b>	<b>Budget</b>
<b>Examination of Registration Submission</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	1,250.0
<b>Preparation of Report and Communication to Applicant</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	1,100.0
<b>Preparation and Updating of List of Registered Chemicals</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	50.0
<b>Preparation and Updating List of Prohibited Chemicals</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	50.0
<b>Preparation and Updating List of Restricted Pesticides</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	50.0
<b>Preparation of permission to Import and Invoice</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	250.0
<b>Issuance of Import Licensing</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	250.0
<b>Preparation of Monthly Import Statements</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	100.0
<b>Preparation of Yearly Import Statements</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	100.0
<b>SUB – TOTAL</b>			3,200.0

**Remarks: None**

<b>Programmeme</b>	<b>Financial Management</b>
--------------------	-----------------------------

Activities	Commencement	Finish	Budget
Preparation of Monthly and Yearly Financial Statements	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	75.0
Receiving and Issuing Receipts for Cash Received	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	75.0
General Banking	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	100.0
Preparation of Petty Cash Statements and Monthly Salary for Employees	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	500.0
Preparation of Budget 2010	1 <sup>st</sup> June	31 <sup>st</sup> Aug	100.0
Preparing Accounts for Auditing	1 <sup>st</sup> Jan	28 <sup>th</sup> Feb	100.0
Preparation of Bank Reconciliation Statement	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	100.0
<b>SUB – TOTAL</b>			1,050

Remarks: None

Programmeme	Quality Control		
Activities	Commencement	Finish	Budget
Preparation of samples and evaluating	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	3,250.0
Preparation of report for each sample	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	3,200.0
Ordering Reagents for the Laboratory	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	5,750.0
Publishing of Results of Samples	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	100.0
Perform GAP Analysis for Accreditation	1 <sup>st</sup> Oct	31 <sup>st</sup> Dec	5,500.0
Pesticide Evaluation in Drainage Systems	1 <sup>st</sup> Aug	30 <sup>th</sup> Nov	5,750.0
Commence Residual Evaluations	1 <sup>st</sup> Sep	31 <sup>st</sup> Dec	5,500.0
<b>SUB – TOTAL</b>			29,050.0

Remarks:

This is a projected cost based on the laboratory functioning at 75% capacity along with the commencement of performing residual analysis projected for September 2009.

Programmeme	Training and Awareness		
Activities	Commencement	Finish	Budget
Training of Farmers & Farm Workers	1 <sup>st</sup> Apr	30 <sup>th</sup> Nov	750.0
Pesticide Manual	15 <sup>th</sup> Jan	15 <sup>th</sup> Sept	750.0
Training of Vendors	1 <sup>st</sup> Apr	31 <sup>st</sup> Dec	250.0
Preparation of Quarterly Newsletter	1 <sup>st</sup> Apr	30 <sup>th</sup> Nov	400.0
Pesticides Magazine	1 <sup>st</sup> Apr	30 <sup>th</sup> Nov	400.0
Participation in National Exhibition and Other Events	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	500.0
GuyExpo	1 <sup>st</sup> Aug	30 <sup>th</sup> Sep	500.0
GROW MORE Activities	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	300.0
World Food Day Activities	1 <sup>st</sup> Oct	31 <sup>st</sup> Oct	200.0
Guyana Nite	1 <sup>st</sup> Oct	31 <sup>st</sup> Oct	200.0
Regional Exhibitions	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	300.0
Radio and Television Programmemes	1 <sup>st</sup> Feb	31 <sup>st</sup> Dec	500.0
Preparation of 30 Seconds Public Notice	1 <sup>st</sup> Apr	30 <sup>th</sup> Sep	500.0

<b>on Pesticides Use and Management</b>			
<b>Development of Household Pest Control Training Manual</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Aug	500.0
<b>Expansion of Pilot School Project</b>	1 <sup>st</sup> Mar	30 <sup>th</sup> Nov	500.0
<b>Training of GSA Student in safety and Pesticides Usage</b>	1 <sup>st</sup> Mar	30 <sup>th</sup> Nov	200.0
<b>Development of Crops and Pest Management Posters</b>	1 <sup>st</sup> Mar	30 <sup>th</sup> Nov	750.0
<b>Assist NDIA with General Weed Management in the D&amp;I System</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	250.0
<b>Training of Extension Agents, Customs Officers, and Other National Stakeholders</b>	1 <sup>st</sup> Jan	31 <sup>st</sup> Dec	250.0
<b>SUB – TOTAL</b>			8,000.0
<b>GRAND TOTAL</b>			77,000.0

**Remarks:**

There are two foreign funded project included at a cost of 28 million dollars for the year with national budgeted proposed for 49 million. The construction of the Administrative Building at a proposed cost of 22 million is not included. This construction cost is projected to be covered under the ASSP Project for approximately fifty percent and the Board providing the other fifty percent.

**25.0 KEY ISSUES AND CHALLENGES**

The key issue facing the Board continues to be the implementation of the Pesticides and Toxic Chemicals Regulations with the key challenge being monitoring of the regulations throughout Guyana. However the following issues are the major challenges facing Board in its quest for the management of pesticides and toxic chemicals in Guyana

- (1) Administrative Building – Required urgently for housing staff, facilitating meeting and training of pest control operators in 2009. Proposed housing of the personnel for the two projects proposed will be affected and could create unbudgeted expenses for the Board;
- (2) Illegal Chemicals – Assistance of BASS and Customs must be acceptable since they are both failing to deliver on their respective mandate to reduce illegal entry of goods into Guyana. This illegal entry is also affecting the financial status of the Board and will eventually affect the standard of Guyana’s agricultural production and quality of agriculture produce.
- (3) Disposal of Containers – The disposal of pesticide containers continue to be a problem especially with the limit on financial resources facing developing countries such as Guyana. A number of proposals are currently being examined for possibly alleviating this problem.

- (4) Public Awareness and Education – In light of limited financial resources, this continues to be problematic as the Board is unable to achieve its full programme on raising awareness with the farming and household communities. However with the limited resources available, the current programme would be accepted as a success.

## **26.0 FUTURE PLANS: 2010 ONWARDS**

The Board's future remains in establishing a comprehensive registration scheme and being able to provide the necessary infrastructure required for the establishment of appropriate educational, advisory, health-care and extension services for enabling and exercising adequate control over quality, sale and usage of pesticides. The establishment of the completed Pesticide Laboratory would enhance the Board's monitoring and enforcement capabilities which would take Guyana's agriculture to another level whereby export could be properly monitored for residues and agriculture production will be more standardized with respect to pesticide usage.

## **27.0 CONCLUSION**

In conclusion, the Board's objectives, achievements and proposed activities continue to be an attempt to establish a comprehensive registration scheme and to provide the necessary infrastructures required for the establishment of appropriate educational, advisory, health-care and extension services for enabling and exercising adequate control over quality, sale and usage of pesticides while ensuring that the interest of end-users and importers' rights are well protected.

In this regard, it is concluded that the Board had a successful year and would attempt to improve on this in the future years.

## APPENDIX I

### List of Pesticides submitted for Registration along with Applicant and Manufacturer

Name of Company	Agent Designate	Registration Document Submitted
Agro-Care Chemical Industry Group Limited	Caribbean Chemicals Guyana Limited	Abamectin 1.8%
		Aluminium Phosphide 57%
		Chlorpyrifos TC
		Cyromazine 75%EC
		Diazinon 60%EC
		Ethephon
		Fastak 5%EC
		Karatax 5%
		Methamidophos 25%Ec
		Monocrotophos 60WSC
		Pronto WDG
		Sev7en 85%
		Superoxone
		Triazophos 40%
		Weedkiller D7
		Imidacloprid 24%
		Glycare
Metcare		
Nomicare		
Caprid 20SL		
Pronto WDG 50%		
Carbendazim 50SC		
Agro-Care Chemical Industry Group Limited	Guyana Sugar Corporation	Aresenal
		Asulcare
Monsanto Company	Caribbean Chemicals Guyana Limited	Round Up Ultra
Atul Limited, Agrochemicals Division	Caribbean Chemicals Ltd	2,4 D Amine Salt
Insecticidas Internacionales (INICA)	Associated Industries Limited	Amidor
		Aminex 720
		Batazo 80PM
		Cyper 25
		Danol 60E
		Inimectin
		Inisan 60
		Inithion 57
		Propanil 360EC
		Thionil 35-E
Torpedo 350CE		

		Sofion 200SC
Biesterfeld	Associated Industries Limited	2,4 D Amine
		Alpha Cypermethrin 5EC
		Paraquat
		Paraquat 20SL
		Metolachlor 960g/l
Biesterfeld	Ainlim	2,4 D Acid 98TC
Certis USA	Associated Industries Limited	Agree 50WP
Novartis	Associated Industries Limited	Agil 100EC
Proyefa	Associated Industries Limited	Glifosan LS
Bayer Crop Science	Associated Industries Limited	Merlin 75WG
		Sevin 85WP
Syngenta	Trading & Distribution / Geddes Grant	Actara 25 WG
		Actellic 50EC
		Amistar 50 WG
		Demand 2.5 CS
		Dual Gold 960 EC
		Engeo
		Fusilade 2000
		Gramoxone Super
		Igran 500SC
		Klerat Wax Blocks
		Krismat
		Match 50 EC
		Ninja 5 EC
		Reglone 200 SL
		Terbutryn
		Touchdown IQ
		Trigard 75 WP
		Vertimec 1.8 EC
		Daconil 720SC
		Pegasus 500SC
Nanjing Chivalry Chemical. Co Ltd / FCT Technologies (Americas) Inc.	FCT Technologies (Guyana)	2,4 D Amine 720g/l SL
		Abamectin 1.8% EC
		Bispyribac-Sodium 10% SC
		Brodifacoum 0.005%
		Brodifacoum 0.005% Pellets
		Brodifacoum 0.005% Wax Blocks
		Carbaryl 80%WP

		Carbendazim 500g/l SC
		Cypermethrin 40% EC
		Diuron 80% WDG
		Diuron 80% WP
		Ethephon 480g/l SL
		Fenitrothion 50% EC
		Fentin Acetate 60% Wp
		Glyphosate 41% SL
		Hexaconazole 40g/l SC
		Imidacloprid 35% SC
		Imidacloprid 70% WS
		Lambda-Cyhalothrin 5% EC
		Metalaxy + Mancozeb 72% WP
		Methamidophos 60% EC
		Metsulfuron-Methyl 60% WDG
		Monocrotophos 60% WSC
		Paraquat Dichloride 24% SL
		S-Metolachlor 960g/l Ec
		Terbutryn 500g/l FW
Drexel	FCT Technologies	Ametryn 500SC
		Ametryn plus Atrazine 500
		Carbaryl 80% WP
		Diazinon 60EC
		Dimethoate 40 EC
		Diuron 80% DF
		Terbutryn 500 SC
		Glyphosate 480 EC
		Surf-Ac 910
		Malathion 57 EC
Guangzhou Hesenta Chemicals Co, Ltd.	Agri Quality Inc.	Paraquat Dichloride 240g/l SL
		Imidacloprid 70%WP
		Diuron 80% WP
		2,4 D Amine salts 720g/l SL
		Knock Dem Down
Katwaroo Maniram	Gubas Ramrup	Mancozeb 89% WP
		2,4 D Amine Salts 720g/l SL
		Admajor
		Aluminium Phosphide
		Bestac 10% EC
		Chlorpyrifos 20%EC
		Fusirore
		Glyphosate 41% SL
		Isoprothiolane 40% EC
		Kristan 60% WP
		Kronto 70% WDG
		Lambda Cyhalothrin 2.5 % EC



		Malathion 57% EC
		Metsulfuron Methyl 60% WDG
		Niclosamide 83% WP
		Now-me 25% WDG
		Pyribaden 20% EC
Marketing Arm International	Marketing Arm International	Agro IBA 98SP (Plant Growth Regulator)
		Bio Neem OL
		Biolife 20SL
		IsoProMap 40Ec
		Mapcid 12.5EC
		Mapclorax 25Sc
		New Cyper-M 10EC
		Newmectin 1.8EC (Insecticide)
		PH-Plus
		Phyton 27 Bactericide-Fungicide
		Tryclam 50SP
		Xenic
Research & Development Rentokil Initial PLC	Rentokil Inital Guyana	Bromard
		Bromatrol Concentrate
		Difenard
		Fentrol Concentrate
Superior Angran	Rentokil Inital Guyana	AgresZor 75WSP
		Final Rodenticide
Roma Manufacturing Company Limited	Roma Manufacturing Company Limited	Fish Brand Vapour Mats
		Fish Mosquito Coils
Shanghai Agrochina International Trade Cooperation Limited	Mr. Sheik Sattaur	2, 4 D Amine 720g/l SL
		2, 4 D Amine 860g/l SL
		Abamectin 1.8% EC
		Alpha Cypermethrin
		Byspyribac Sodium 25% WP
		Cypermethrin 25% EC
		Fenoxaprop-p-ethyl 7.5% EW
		Fentin Acetate 60% WP
		Glyphosate 480g/l SL
		Imidacloprid 20% SC
		Imidacloprid 20% SL
		Imidacloprid 70% WDG
		Lambda Cyhalothrin 2.5% EC
		Lambda Cyhalothrin 5% EC
		Paraquate 27.6% SL
		Quizalofop-p-ethyl EC 5%

Dupont de Colombia	Caribbean Chemicals Guyana	Karmex DF
		Kocide 101
		Lannate LV 24%
		Lannate LV 29%
		Manzate 75DF
		Velpar DF 25%
		Velpar DF 75%
		Vydate L
Patsan Trading Services	Patsan Trading Services	Sprigone
McBride Caribbean Limied	Pharmagen Enterprises	Go!! Insect Repellant
		Citronella BOP Insect Spray
		Evergreen BOP Insect Spray
		BOP Insecticide Spray
BASF	Caribbean Chemicals Ltd. Guyana	Acrobat MZ69 WP
		Arsenal 24SL
		Bellis 38WG
		Herbadox 40Ec
		Pirate 24Sc
		Storm 0.005BB
Sulphur Mills Ltd		Pronto 35SC
		Pronto 70WG
Carasol Ltd	Trading & Distribution	Det Aerosol
Sinochem Ningbo Ltd	Caribbean Chemicals Ltd. Guyana	2,4 D Amine 720g/l SL
		Asulam 80%WG
		Diuron 80%WG
		Flazifop-p-butyl 150g/l Ec
		Paraquat Dichloride 276g/l SL
Sinochem Ningbo Ltd	Associated Ltd	Imidacloprid 70%WG
Ivorychem PTE Ltd	Ainlim	Plunge 85Wp
		Raze 20SL
		Viking 48Sc
		Zantan 72SL
Excel Ag.	Geddes Grant	Assex 80% DF
		Aval
		Fifa 20%Sc
		Flip 800DF
		Swift Gel
Degesh De Chile	Degesh De Chile	Phostoxin RT333
Cheminova	Caribbean Chemicals Agencies Ltd.	Fyfanon
Bayer Crop Science	Ainlim	Verita 71.1WG
Insecticidas Internacionales	Ainlim	Designee 40Sc
		Tropel 40SC
		Mentor EC

Atul Limited, Agrochemicals Division	Caribbean Chemicals Ltd	Metsulfuron Methyl 60% WDG
		Indoxacarb 14.5 % SC
		Imidacloprid 17.8% SL
		Lambda Cyhalothrin 5% EC
McLaughlin Gormley King Company	Twins Manufacturing Chemists	Evercide Residual Insecticide Concentrate 2662

## APPENDIX II

### Meetings and Reports

#### REPORT ON MEETINGS IN PANAMA

The Registrar of Pesticides and Toxic Chemicals, Mr. Basudeo Dwarka was approved and released by the Ministry Of Agriculture to attend and participate in a number of regional meetings in Panama City, Panama during the period 11<sup>th</sup> – 17<sup>th</sup> February 2008.

In keeping with the requirement by the Minister of Agriculture, the following is a brief on the various meeting:

#### **Polychlorinated Biphenyls (PCB) Management in Latin America and the Caribbean, February 11 – 12 2008**

Polychlorinated biphenyls (PCBs) are a mixture of individual chlorinated chemicals compounds known as congeners (approximately 209 compounds) which are no longer produced in the world, but are still found in the environment. PCBs do not readily break down in the environment and thus may remain there for very long periods of time. Health effects that have been associated with exposure to PCBs include acne-like skin conditions in adults and neurobehavioral and immunological changes in children.

PCBs have been used as coolants and lubricants in transformers, capacitors, and other electrical equipment because they don't burn easily and are good insulators. The manufacture of PCBs was stopped in 1977 because of evidence they build up in the environment and can cause harmful health effects. Products made before 1977 that may contain PCBs include old fluorescent lighting fixtures and electrical devices containing PCB capacitors, and old microscope and hydraulic oils.

The meeting examined the management of the PCB's in the world specifically looking at Latin America and the Caribbean. The management of PCB's falls under the Stockholm Convention. Guyana acceded to this Convention on the 12<sup>th</sup> September 2007. The following are some points that could aid in the management of PCB's in Guyana:

- (a) **Guyana needs to name a focal point for the Stockholm Convention.** The focal point for this convention should be the Pesticides and Toxic Chemicals Control Board and should be named through the Ministry of Foreign Affairs to the Convention.
- (b) **Guyana management of PCB's and other chemicals can be managed through the development of a National Implementation Plan (NIP) under the Convention which can be managed by the funds available under the Convention amounting to a maximum of US \$ 500,000.00.** The development of the NIP would be funded by the United Nations Environmental Programme or the Global Environmental Fund (GEF).

#### **Chemicals Management Infrastructures, February 12 – 13 2008**

The workshop examined the development of legal infrastructure for the management of chemicals throughout the lifecycle as a requirement for the implementation of the Strategic Approach for Integrated Chemical Management (SAICM). In Guyana, all chemicals are managed by the Pesticides and Toxic Chemicals Control Board based on the following definition contained in the Pesticides and Toxic Chemicals Control Act (No. 13 of 2000):

- (a) “toxic chemical” means **any disinfectant or any other substance known to be poisonous, corrosive, irritating, sensitizing or harmful to man or animal that is used in agriculture, the arts, commerce or industry, or for any domestic or other purpose**, other than any antiseptic, drug or pesticide; and
- (b) “pesticide” means **any substance or mixture of substances intended for preventing, destroying or controlling any pest, including vectors of human or animal disease, unwanted species of plants or animal causing harm during or otherwise interfering with the production, processing, storage, transport, or marketing of food, agricultural and industrial commodities, wood and wood products, or animal feedstuffs or which may be administered to animals for the control of insects, arachnids or other pests in or on their bodies** but the term does not include any anti-septic, disinfectant or drug.

One of the major concerns facing Guyana in the management of pesticides and toxic chemicals is the **disposal of containers especially pesticide containers which are not biodegradable**. A **management proposal for the disposal of these containers would need to be developed by the Pesticides and Toxic Chemicals Control Board in conjunction with the Environmental Protection Agency and the Ministry of Health**. The proposed allocated time frame for this is six months.

#### **Latin America and the Caribbean Regional Meeting on the Strategic Approach for Integrated Chemicals Management (SAICM), February 14 – 16 2008**

Since the various measures of the strategy are to be implemented by countries on an individual basis according to their applicability for each country, this meeting provides Guyana with a comprehensive review of the status and general activities surrounding requirements of the plan and make provisions for Guyana’s concerns along with other countries surrounding acceptance and implementation of the strategic approach for chemical management. The Approach also provides a number of defined outputs and outcomes that, when implemented, will decisively improve chemical management in Guyana

Some of the issues addressed at the meeting and are of interest to Guyana during the implementation stage of the Strategy included:

- (a) Identification of priorities and initial planning to implement SAICM, including the involvement of Governments and the Industry;
- (b) Role and responsibilities of regional and national focal points;
- (c) Quick Start Funding and Programmeme;
- (d) Regional Implementation of SAICM;
- (e) Possible Regional Projects; and
- (f) strengthening the capacities of all concerned to ensure the sound management of chemicals;
- (g) mobilizing new and additional national and international financing from public sources, as well as from private sources involved in the life-cycle management of chemicals; and
- (h) eliminating the gaps and discrepancies in the capacity to achieve sustainable chemicals management between developed countries on the one hand and developing countries and countries with economies in transition on the other.

#### **Regional Consultation on Issues under Consideration by the Stockholm Convention POPs Review Committee (POPRC), February 17 2008.**

The Secretariat of the Stockholm convention provided an overview of the review process of the Persistent Organic Pollutants Review Committee (POPRC) along with the information and screening process through which a chemical can be added to the existing list of chemicals under the Convention. The secretariat also provided a list of chemicals and the various stages of the review process that they are currently reviewed.

#### **Regional Consultation on Mercury, February 17 2008**

The consultation examined the following points among the Latin American and Caribbean Countries -

1. development of national inventories in relation to emission sources, stockpiles, mercury containing products, contaminated sites, and mercury loading in humans and the environment;
2. access to mercury-free technologies for the artisanal, small scale and industrial gold-mining sectors, taking into account possible socio-economic impacts; and
3. identification and implementation, through the provision of technical and financial assistance, of measures for the environmentally sound management of mercury wastes.

The meeting only discussed the points; a summary is expected to be circulated for further examination.

#### **Conclusion**

The meeting further strengthened the resources and capacity of the Pesticides and Toxic Chemicals Control Board to undertake the implementation of the Strategic Approach for International Chemical Management and will enable sustainable and improved management of hazardous pesticides and toxic chemicals used in Guyana and traded internationally.

## **REPORT OF THE FOURTH CONFERENCE OF PARTIES OF THE ROTTERDAM CONVENTION ON THE PRIOR INFORMED CONSENT PROCEDURE FOR CERTAIN HAZARDOUS CHEMICALS AND PESTICIDES IN INTERNATIONAL TRADE**

The fourth meeting of the Conference of the Parties (COP 4) of the Rotterdam Convention on the Prior Informed Consent Procedure (PIC) for Certain Hazardous Chemicals and Pesticides in International Trade convened on 27-31 October 2008, at the headquarters of the Food and Agriculture Organization of the United Nations (FAO) in Rome, Italy. Over 510 participants, representing more than 126 governments, UN agencies, and intergovernmental and non-governmental organizations (NGOs), attended the meeting.

### **COP 4 REPORT**

During the week, delegates addressed all agenda items in plenary, with additional meetings of contact groups on implementation, non-compliance and budget, and a Friends of the Chair group addressing the listing of chrysotile asbestos and endosulfan. A high-level segment was held on Thursday and Friday, together with a special pledging event on Friday afternoon. The following report summarizes the discussions on each agenda item.

### ***IMPLEMENTATION OF THE CONVENTION***

**STATUS OF IMPLEMENTATION:** COP 4 addressed the Convention's status of implementation on Monday, Wednesday and Thursday in plenary. Delegates considered several documents including: on the status of implementation, a review of the implementation of the Convention's key obligations, opportunities for information exchange on chemicals recommended for listing, and ensuring the Convention's continued effectiveness.

In the final decision on progress in the implementation of the Rotterdam Convention, the COP, *inter alia*:

- acknowledged the importance of adequate national infrastructure for pesticide and industrial chemical management in developing countries for their submission of notifications of final regulatory action to ban or severely restrict those substances and to take decisions and report on the import of chemicals listed in Annex III;
- encouraged parties to make use of the information on national regulatory actions to ban or severely restrict chemicals under the Convention and the evaluations of chemicals by the Stockholm Convention's Persistent Organic Pollutant Review Committee (POPRC) to strengthen national decision-making;
- invited parties to consider which obstacles prevented the submission of proposals to list severely hazardous pesticide formulations in Annex III;

- requested parties that have yet to submit import responses for all of the chemicals listed in Annex III to do so in a timely manner; and
- requested the Secretariat to undertake a review of the current regulatory processes for industrial chemicals and pesticides to determine their relationship to the definitions of banned or severely restricted chemicals in Article 2 of the Convention and to submit the results of its review for consideration at COP 5.

## ENSURING CONTINUED EFFECTIVENESS

Delegates discussed how to ensure the Convention's continued effectiveness in plenary on Monday. On Monday afternoon, a contact group was established. It met throughout the week and ended its deliberations on Thursday evening. Consensus on a draft decision on the continued effectiveness of the Convention was not reached, and the bracketed text was forwarded to plenary. Delegates considered documents on implementation relevant to ensuring the Convention's continued effectiveness. Discussions focused primarily on the Secretariat's note on effectiveness and a proposal introduced by Switzerland, which put forward six options to address chemicals that meet the Convention's criteria and have been recommended by the CRC for listing, but on which the COP does not reach consensus about inclusion in Annex III. The options proposed to:

- introduce voting on the addition of chemicals to Annex III;
- create a new annex for chemicals that cannot be listed;
- create a new annex for parties that cannot agree to listing certain chemicals;
- adopt a standalone decision with a list of countries for which the entry into force of listing a specific chemical is delayed;
- include a clause specifying that the entry into force of the PIC procedure is delayed for specific countries, in the COP decision that lists a certain chemical in Annex III; and
- take a standalone decision with a list of chemicals recommended for listing in Annex III but for which the COP was unable to reach consensus (option six).

The standalone decision envisaged in option six included: a recognition that the requirements of the Convention are fulfilled and that the chemical will be discussed again at the next COP; a request to the Secretariat to circulate the draft DGD to all parties and to assist parties to adopt and submit import decisions and make them available through the PIC Circular; and a call on parties to apply the PIC procedure on an interim basis.

Delegates agreed on preambular paragraphs of a draft decision but could not agree on the operational paragraphs. During Friday's closing plenary, the COP decided to forward the draft decision including bracketed text to the next COP for further consideration.

The draft decision contains preambular paragraphs that are largely without brackets. They, *inter alia*:

- acknowledged the objective of the Convention and the need to enhance information exchange;
- recognized the concerns raised at COP 3 and COP 4 about those chemical(s) recommended by the CRC for inclusion in Annex III, but for which consensus could not yet be reached by the COP; and
- recognized the need of developing countries for enhanced in-depth information exchange, strengthened technical assistance and capacity building.



Consensus could not be reached on the operational paragraphs, which remain bracketed, concerning, *inter alia*:

- the voluntary application of the PIC procedure;
- the kind of information to be exchanged;
- whether the information should be published only on the Convention's website or also through the PIC Circulars; and
- the provision of technical and financial assistance to developing country parties.

### **CONFIRMATION OF THE APPOINTMENTS OF GOVERNMENT-DESIGNATED EXPERTS TO THE CRC**

On Tuesday in plenary, delegates considered the confirmation of appointments of government-designated experts to the CRC. The Secretariat reported that following the end of the two-year term of Bettina Hitzfield (Switzerland) as Chair of the CRC, the Committee had appointed two new members at its third meeting in March 2007 to serve *ad interim* subject to confirmation by COP 4. On Wednesday, the Secretariat introduced, and the COP adopted, the draft decision on confirmation of the appointments of CRC members.

In the final decision on appointments, the COP confirmed that 15, as opposed to 14, experts were to be appointed to the CRC for a period of four years commencing on 1 October 2007. Hyacinth Chin Sue (Jamaica) was retroactively elected as the Chair of the 4th CRC meeting, while Karmen Krajnc (Slovenia) was appointed Chair of the Committee for its fifth meeting.

### **NOMINATION OF GOVERNMENTS TO DESIGNATE NEW EXPERTS FOR THE CRC**

On Tuesday in plenary, delegates considered the nomination of governments to designate experts for the CRC and the list of governments identified by COP 1 and COP 3 to nominate a member to the CRC. Following consultations among regional groups, delegates adopted the decision in plenary on Friday.

The COP decided that the following parties shall designate, by May 2009, CRC experts for the four-year period from 1 October 2009: Iran, Pakistan, Qatar and Yemen for Asia and the Pacific; Ecuador, Jamaica and Peru for GRULAC; *Côte d'Ivoire*, Kenya, Mauritania and Sudan for the African Group; Armenia and Poland for the Central and Eastern European States; and Canada, the Netherlands, New Zealand and Spain for the Western Europe and Others Group.

### **REPORT OF THE CRC ON THE WORK OF ITS THIRD AND FOURTH MEETINGS**

On Wednesday in plenary Karmen Krajnc, Chair of the CRC's fifth meeting, presented, and the COP took note of, the report of the CRC's third and fourth meeting and on chemicals scheduled for review at the Committee's fifth meeting.

### **CONSIDERATION OF CHEMICALS FOR INCLUSION IN ANNEX III OF THE CONVENTION**

#### **Tributyltin compounds**

On Tuesday the Secretariat introduced the document on the inclusion of TBT compounds in Annex III, and summarized the procedure followed in developing the Decision Guidance Documents (DGD). On Friday, the draft decision was formally adopted without amendment.

In its decision, COP 4 decided to amend Annex III of the Convention to include all tributyltin compounds after the entry for “Toxaphene,” and have the amendment enter into force for all parties as of 1 February 2009.

### **Chrysotile asbestos**

On Tuesday, the Secretariat introduced the document on the inclusion of chrysotile asbestos in Annex III, a decision deferred from COP 3. After initial discussions indicated divisions among delegates on whether to list chrysotile asbestos, the Chair asked a Friends of the Chair group to work out a compromise on a draft.

On Friday, the Friends of the Chair presented a draft decision moving consideration of chrysotile asbestos to the agenda of COP 5. The decision was adopted without amendment.

In its final decision, COP 4:

- decided to refer the inclusion of chrysotile asbestos in Annex III to COP 5; and
- encouraged parties to make use of all available information on chrysotile asbestos to assist others, particularly developing countries and countries with economies in transition, to make informed decisions regarding its import and management and to inform other parties of those decisions using the information exchange provisions laid down in Article 14 of the Convention.

### **Endosulfan**

On Tuesday, the Secretariat introduced a document on the inclusion of endosulfan in Annex III of the Convention. Following lack of agreement, a Friends of the Chair group met throughout the week and prepared a draft decision, which was adopted on Friday.

In its final decision, the COP is aware that the failure to reach consensus so far has created concerns in all parties. Additionally, taking into account that a small number of parties considered that criterion Annex II (d) had not been applied correctly, the COP *inter alia*:

- requested that parties and interested observers provide their views on the application of criterion Annex II (d) to the Secretariat;
- requested that the Secretariat provide these views to the UNEP legal office for it to review its previous advice to the CRC regarding clarification of the meaning of “intentional misuse” and the application of criterion Annex II (d);
- requested that the Secretariat provide this opinion to the CRC and to all parties and interested observers;
- decided that the COP 5 agenda shall include further consideration of a draft decision to amend Annex III to include endosulfan; and
- encouraged parties to make use of all available information on endosulfan, to make informed decisions regarding the import and management of endosulfan and to inform other parties of those decisions using the information exchange provision.

## ***ISSUES ARISING OUT OF PREVIOUS COP MEETINGS***

### **NON-COMPLIANCE**

On Monday, the Secretariat introduced to plenary a document containing a draft mechanism on non-compliance, including procedures and institutional mechanisms for determining non-compliance with the provisions of the Convention and for the treatment of parties found to be in non-compliance. The document contained text with brackets on issues outstanding since COP 3. A contact group was established and met throughout the week. Notwithstanding efforts made, delegates could not reach consensus.

The decision forwards to COP 5 the draft text on procedures and mechanisms on compliance with the Rotterdam Convention to be used as a basis for further discussions.

The draft mechanism on compliance includes agreed text in sections on: establishment of a compliance committee, membership, election of members, officers, monitoring, general compliance issues, report to the COP, other subsidiary bodies, information sharing with other relevant multilateral environmental agreements, review of the compliance mechanism and relationship with settlement of disputes.

Brackets remain on text pertaining to: decision making by the Committee by voting or consensus; triggers to the non-compliance mechanism by other parties and the Secretariat; measures to address compliance issues, namely whether the Committee may recommend to the COP to consider and undertake additional actions; and sources of information that the committee will be able to consider in evaluating a case.

### **REPORT ON THE IMPLEMENTATION OF DECISION RC-3/5 ON FINANCIAL MECHANISMS**

On Wednesday, the Secretariat introduced this agenda item and relevant documents. Chile, supported by China, presented a proposal for a decision to establish a team of three independent experts to assess costs for implementing the Convention during the 2009-2012 period for developing countries and countries with economies in transition, and pointed out that a similar team had been used by the Stockholm Convention. Noting lack of consensus, the Chair asked Chile to serve as informal facilitator to develop a way forward. On Friday, Chile presented a draft decision that was adopted by plenary without amendment.

In its final decision the COP:

- welcomed information received on the issue of the costs of implementing the Convention from 2007-2008;
- invited parties and others to provide information that can assist in assessing the implementation costs;
- requested the Secretariat to work with relevant partners such as the Global Environment Facility and the UN Institute for Training and Research (UNITAR) to ensure that provisions relevant to the Convention are taken into account when developing technical assistance projects and activities in follow-up to decision RC-3/5; and
- invited the 20th Meeting of Parties to the Montreal Protocol to consider the extent to which cooperation between the Protocol and the Rotterdam Convention can be enhanced.

### **NATIONAL AND REGIONAL DELIVERY OF TECHNICAL ASSISTANCE**

On Monday in plenary, the Secretariat introduced a report on the regional and national delivery of technical assistance and a list of regional, sub regional and national meetings undertaken in support of the ratification and implementation of the Rotterdam Convention. Delegates from more than 30 developing countries and countries with economies in transition highlighted national and regional experiences, noting the importance of continuing and strengthening work on technical assistance. The Secretariat introduced a costed programme for the regional and national delivery of technical assistance activities in the 2009-2010 biennium and delegates commenced discussions on this item on Wednesday.

In its final decision, the COP noted the programme for the regional and national delivery of technical assistance for 2009-2011 and requested parties to contribute to the Voluntary Special Trust Fund. It further requested the Secretariat to, *inter alia*:

- facilitate the implementation of technical assistance in line with Article 19 of the Convention and to focus the programme of work on issues and needs identified by developing countries and countries with economies in transition;
- take into account opportunities for joint activities with the secretariats of the Basel and Stockholm Conventions and with the Strategic Approach to International Chemicals Management (SAICM); and
- prepare a detailed costed programme of activities for the regional and national delivery of technical assistance to present to COP 5, based on the level of resources likely to be available from all sources for the biennium 2012-2013.

#### **CURRENCY OF CONVENTIONS' ACCOUNTS AND BUDGET**

On Tuesday, the plenary considered the outcome of a study on the use of the Euro, Swiss franc and US dollar. The issue was referred to the budget contact group, which decided that there was no need to establish a reserve fund to protect the Rotterdam Convention budget from currency fluctuations.

#### **COOPERATION WITH THE WORLD TRADE ORGANIZATION**

The Secretariat introduced this issue, including a report by the Chair of the WTO Committee on Trade and Environment in Special Session to the Trade Negotiations Committee on Wednesday.

In the final decision, the COP took note of the progress made towards the implementation of decision RC-1/15 on cooperation between the Secretariat and the WTO; and requested the Secretariat to seek observer status in the WTO Committee on Trade and Environment, and to inform parties when the request has been submitted and when it has been granted.

#### **COOPERATION AND COORDINATION BETWEEN THE ROTTERDAM, BASEL AND STOCKHOLM CONVENTIONS**

On Tuesday, three Co-Chairs of the *Ad-Hoc* Joint Working Group on Cooperation and Coordination among the Basel, Rotterdam and Stockholm Conventions (AHJWG) presented on the group's work and delegates discussed the relevant documents. During discussion on Tuesday, the Co-Chairs highlighted: the innovative consultative approach adopted by the AHJWG and that the group's recommendations had been adopted with minor amendments by COP 9 of the Basel Convention, in its decision IX/10, in June 2008. The draft decision was adopted in plenary on Friday.

In the final decision, the COP adopts the recommendation of the AHJWG that consists of five parts:

- organizational issues in the field, including: coordination at the national level, programmatic cooperation in the field, and coordinated use of regional offices and centers;
- technical issues, including: national reporting, compliance mechanisms and cooperation on technical and scientific issues;
- information management and public awareness issues, including: joint outreach and public awareness, information exchange/clearing-house mechanism on health and environmental impacts, and joint input into other processes;
- administrative issues, including: joint managerial functions, resource mobilization, and financial management and audit functions; and
- decision making, including: coordinated meetings, extraordinary meetings of the COPs in which it decides to convene simultaneous extraordinary meetings of the COP to the Basel, Rotterdam and Stockholm Conventions, and review arrangements.

### ***REPORT ON THE ACTIVITIES OF THE SECRETARIAT***

On Monday, the Secretariat presented, and delegates took note of, the reports on Secretariat activities and finances. The Secretariat noted a cut in technical services due to insufficient contributed funds.

### ***PROGRAMME OF WORK AND CONSIDERATION OF THE PROPOSED BUDGET FOR THE BIENNIUM 2009–2010***

On Monday, Donald Cooper, Co-Executive Secretary of the Rotterdam Convention (UNEP), introduced the programme of work and budget, proposing a triennial (instead of biennial) budget for 2009-11, in order to align the Rotterdam Convention budget cycle with that of the Stockholm and Basel Conventions.

A contact group on budget, and met throughout the week. The contact group addressed: shared staff positions; priorities in the programme of work of the Convention; contributions by parties to the core budget of the Convention; the situation of parties in arrears with their contributions to the Convention; income and expenditures; changes in reserve and fund balance for the years 2005-2008; and the status of the Rotterdam Convention Trust Fund.

On Friday, Contact Group Chair presented to plenary a draft decision on financing and budget for the triennium 2009-2011. He noted that, considering budget restrictions, the contact group had identified priority activities in the programme of work, based on suggestions by the African Group and GRULAC. COP 4 adopted the decision with minor amendments.

In its decision, COP 4, *inter alia*:

- adopted a three-year budget cycle for the period 2009-2011 in order to facilitate synchronization of the budget cycle of the Rotterdam Convention with that of UNEP, FAO, and the Stockholm and Basel Conventions;
- approved a budget of US\$11,714,199 for the triennium;
- invited the Executive Secretaries to write to the relevant parties in arrears noting the importance of submitting contributions on time, and authorizes the

- Executive Secretaries to agree with parties in arrears on payment schedules to clear all outstanding arrears within six years; and
- welcomed the establishment of four chemicals and waste cluster officials funded by UNEP and notes they will service the three chemicals conventions and SAICM.

The annexes to the decision include financial tables and contain a procedure for the allocation of funding from the special voluntary trust fund for facilitating the participation of parties in the COP.

### ***HIGH-LEVEL SEGMENT***

On Thursday and Friday afternoon, delegates heard statements by ministers and high-level authorities in plenary. Closed ministerial panel discussions on the theme: “Sound chemicals management: relieving the burden on public health” were held Thursday afternoon.

**REPORT ON MINISTERIAL PANELS:** Bakary Kante, UNEP, reported to plenary on Friday regarding the ministerial panels held on Thursday. He defined topics discussed as

- (i) the need to evaluate the status of issues addressed at the Rotterdam Convention to determine priority actions;
- (ii) the importance of developing enabling legislation and a regulatory framework to govern chemicals trade;
- (iii) the need to empower customs authorities and the judiciary to combat corruption; and
- (iv) cross-cutting issues identified included technical assistance, information exchange and funding.

On the global perspective, ministers identified the need to enhance synergies among the chemicals conventions, including through:

- (a) the streamlining of meetings;
- (b) South-South cooperation and information sharing; and
- (c) ensuring the principle of reciprocity in trade.

### ***CLOSING PLENARY***

On Friday afternoon, a special ceremony convened at 3:00 pm to encourage parties to support specific aspects of the programme of work, in funding or in kind as technical assistance. The EC announced an additional €2.1 million contribution to the SAICM Quick Start Programme and said it was seeking a further €400,000 over the next two years for the Rotterdam Convention. The Czech Republic noted that it would co-sponsor a side event on the green customs initiative together with Nigeria at the next UNEP Governing Council and is donating €25,000 toward that event. Switzerland said it would strengthen its work with UNITAR on national programmes to implement the Rotterdam Convention. The Pesticide Action Network offered its support in monitoring of health impacts of chemicals.

Delegates returned to the plenary hall at 4:00 pm to tackle outstanding issues, including the listing of endosulfan and chrysotile asbestos, the budget, non-compliance, and implementation of decision RC-3/5 on financial mechanisms. They also adopted the report of the credentials committee and elected the Bureau for COP 5 including: Nolwazi Cobbinah, South Africa (Chair);

Kerstin Stendahl, Finland (Rapporteur); Hamoud Darwish Salim Al-Hasani, Oman; Magdalena Balicka, Poland; and Rocío Eden Wynter, Mexico.

The Secretariat then announced that the fifth meeting of the COP will be convened in 2011, either in June or in December, in Geneva, Switzerland. Following concern by the EU that holding the COP in December would stretch the intersessional period to three years, and requesting that the dates be brought forward as much as possible, the Secretariat agreed provisionally adopt the dates of 20-24 June 2011 for the meeting, with a view to exploring possibilities for a slot earlier in the year.

The final item was the adoption of the report of the COP. The Secretariat introduced the two report documents which were subsequently adopted including minor comments and amendments from the floor.

## CONCLUSION

COP 4 adopted 13 decisions, including the addition of tributyltin compounds (TBT) to Annex III of the Convention (Chemicals subject to the PIC procedure). The meeting also adopted: a programme of work and budget for the triennium 2009-11; a decision on implementation; and the recommendations of the Ad Hoc Joint Working Group on Enhancing Cooperation and Coordination among the Basel, Rotterdam and Stockholm Conventions (AHJWG). However, it could not agree on the inclusion of endosulfan in Annex III. Delegates also addressed those issues that eluded consensus during the last meeting of the COP but could not agree on mechanisms and procedures for non-compliance and the inclusion of chrysotile asbestos in Annex III of the Convention. A high-level segment was held on 30–31 October, with ministers and heads of delegation holding panel discussions on the theme: “Sound chemicals management: relieving the burden on public health.” A special pledging event held on Friday garnered some support for specific items in the Rotterdam Convention’s programme of work.

The inclusion of TBT compounds in Annex III, the adoption of the decision on synergies with other conventions and the agreement on priorities in the programme of work and budget provided evidence of progress in the work of the COP. Issues unresolved at this COP and forwarded to COP 5 pertain to: compliance, effective implementation, and listing of chrysotile asbestos and endosulfan in Annex III.



# **REPORT OF THE FIRST MEETING OF THE OPEN-ENDED LEGAL AND TECHNICAL WORKING GROUP OF THE INTERNATIONAL CONFERENCE ON CHEMICALS MANAGEMENT**

## **INTRODUCTION**

The first meeting of the Open-ended Legal and Technical Working Group (OELTWG) of the International Conference on Chemicals Management (ICCM) and informal discussions on preparations for the second meeting of the International Conference on Chemical Management (ICCM-2), was held from 21-24 October 2008, in Rome, Italy. The meeting was attended by over 200 participants, representing governments, UN agencies, and intergovernmental and non-governmental organizations.

This brief analysis looks at the achievements and shortcomings of the meeting, for both its formal and informal segments, and addresses the implications for ICCM

## **BACKGROUND**

The first International Conference on Chemicals Management (ICCM-1) was held in Dubai, United Arab Emirates. Delegates completed negotiations and adopted SAICM, including an overarching policy strategy and global plan of action. The Dubai Declaration on International Chemicals Management was also adopted. In the Declaration, participants committed to strengthening the capacities of all concerned in order to achieve the sound management of chemicals and hazardous wastes at all levels, and to continue mobilizing national and international financing from public and private sources. They also reaffirmed the goal to minimize the significant adverse effects on human health and the environment by 2020.

SAICM is a policy tool that was endorsed by over 100 governments, as well as environment, labour and health organizations. The overarching goal of SAICM is to change how chemicals are produced and used to minimize their harmful effects on human health and the environment.

## **OBJECTIVES**

The OELTWG held in Rome was the stepping stone to ICCM-2, scheduled for May 2009 and mandated to undertake the first periodic review of SAICM's implementation. As the body charged with agreeing on the *modus operandi* for ICCM, the OELTWG not only had to agree on the draft rules of procedure and provide guidance for the Secretariat's work during the intersessional period, it also needed to initiate discussions on the substantive issues to be tackled at ICCM-2 to put the Conference on the right path for achieving its 2020 goal.

## **ISSUES**

The OELTWG discussed the rules of procedure for the ICCM, using the rules of procedure for the preparatory committee for the Strategic Approach to International



Chemicals Management (SAICM) as a guide. Protracted debate ensued in plenary on Tuesday and Wednesday, in contact groups throughout the week and in plenary on Friday, in an attempt to agree on the rules of procedure. Although some progress was made on the composition of the Bureau, delegates were unable to reach agreement on the entire text, and as several delegates stated “nothing is agreed, until everything is agreed.” As such, negotiations will continue at ICCM-2 in May 2009.

The informal discussions included preparatory dialogue on issues to be considered at ICCM-2 including: emerging policy issues; modalities for SAICM reporting; financial and technical resources for SAICM implementation, including evaluating the performance of financing of SAICM; review and update of SAICM; and the relationship between the Intergovernmental Forum on Chemical Safety (IFCS) and SAICM. Delegates also agreed on a way forward for addressing emerging policy issues, which includes a section on immediate actions to select emerging issues to be addressed by ICCM-2.

## **RULES OF PROCEDURE**

The controversies regarding rules of procedure closely mirrored those of multilateral environmental agreements (MEAs) with no agreement on voting rules (voting versus consensus) but the composition of the Bureau was agreed

On Thursday and Friday morning, delegates attended the informal session of the OELTWG to address substantial matters related to the preparation for ICCM-2. The informal discussions saw progress on dealing with emerging issues and a frank exchange of views on substantive issues to be addressed at ICCM-2.

Discussions on evaluating implementation of SAICM saw divergence over evaluating progress on activities of the SAICM Global Plan of Action (GPA) or its Overarching Policy Strategy (OPS).

The issue of integrating the IFCS into SAICM was addressed briefly as part of the discussions on subsidiary bodies and in the informal discussions.

While no agreement was reached on evaluating SAICM, or on the issue of integrating the IFCS into SAICM, the exchange of views was useful.

While Friday evening saw both the formal and informal segments wrapped up, the lack of agreement on the rules of procedure meant that at least the first day of ICCM-2 will be spent completing the OELTWG’s work. There was also concern that the US stated its right to reserve discussion on several specific rules and China noted that since all rules of procedure were not agreed, it held the right to reopen any rule.

## **CONCLUSION**

In conclusion, looking ahead to the substantive issues to be considered at ICCM-2, IFCS integration and sustainable financing are likely to be high on the agenda and resolution of these may pave the way to getting SAICM “on track” to becoming a meaningful instrument to improve the management of chemicals. Finally, it can be concluded that making ICCM-2 action oriented rather than “yet another talk-fest” would increase the

possibility of reaching the 2020 goal to minimize the significant adverse effects of chemicals on human health and the environment, but that sustainable financing and renewed commitment to meaningful stakeholder involvement were necessary to achieve the ultimate objective of the strategy.

## **Developing an Integrated National Programmeme for the Sound Management of Chemicals and SAICM Implementation in Guyana**

### **Pesticides and Toxic Chemicals Control Board**

#### **Project background**

The importance of developing an integrated and coordinated approach to national chemicals management is one of the key messages of SAICM. This can be achieved, as the SAICM outcomes suggest, through the development of a national programmeme for the sound management of chemicals and chemical wastes. Such a programmeme can facilitate, *inter alia*, interministerial coordination, access to and exchange of information, stakeholder participation, and coordinated priority setting for improved chemical safety.

An important component of an integrated national programmeme is the development of a national interministerial coordination mechanism that can provide a sound basis for coordination and information exchange. Establishing this formal mechanism could help ensure coordination of all national activities concerned with chemicals and waste management including national participation in relevant international meetings and negotiations, including SAICM.

Faced with a wide range of issues pertaining to chemicals management, countries today have a need for a fundamental, up-to-date baseline (to assess the country's national legal, institutional, administrative, and technical infrastructure for chemicals management) to assist with achieving the sound management of chemicals throughout their life-cycle. Establishing this baseline can be achieved through the development of a National Chemicals Management Profile. At the international level, National Profiles provide others with a better understanding of the existing capabilities of countries, as well as their needs.

Focusing specifically on SAICM, countries can build on the National Chemicals Management Profile (and other relevant materials, such as National Implementation Plans for the Stockholm Convention), through the collaboration of government, business and industry, and public interest and labour organizations in preparing a National SAICM Capacity Assessment. The assessment can document existing capacities (and gaps) in government, business and industry, and public interest and labour organizations, and highlight possible opportunities for specific partnership projects involving government and other stakeholders. The assessment can also generate a list of priority chemicals management issues that could be included in national development planning strategies.

Following the development of the National Profile and preparation of a National SAICM Capacity Assessment, a key step in sound chemicals management is to set priorities for capacity building for a number of key areas considered particularly important and urgent.

This can result in a realistic set of priority areas of chemicals management to be addressed in years to come; and can bring national and international attention (such as ICCM) to priority issues and needs in the field of sound chemicals management. Furthermore, National Priority Setting for SAICM Implementation, bringing together government, industry, and civil society, can provide an opportunity to further discuss and formally endorse the outcomes of the above activities. By the end of a National Priority Setting Workshop, national priorities (and possible partnership projects) for SAICM implementation would be identified. In follow-up to the National Workshop, a National SAICM Implementation Plan would be developed.

Throughout the development of the national SAICM Implementation Plan, efforts will be made to ensure its sustainability by seeking commitment to fully integrating chemicals management into national development planning (e.g. through having the national programmeme and chemicals management issues referenced as priority topics in national poverty reduction strategy papers or national sustainable development planning documents).

The proposed project will build on the experiences gained in the current UNITAR/IOMC project, “Developing an Integrated National Programmeme for the Sound Management of Chemicals and Waste”, which includes a focus on governance, stakeholder participation, and partnerships to support national SAICM implementation. These “National SAICM Pilot Projects” are currently being implemented in Belarus, Panama, Pakistan, and Tanzania from approximately September 2006 to August 2009. Funded by the Government of Switzerland under the Quick Start Programmeme, the Pilot Projects also builds upon the experience gained and lessons learned through earlier projects on integrated chemicals management which were implemented in eleven countries since 1996.

In addition to bringing national and international attention to priority issues and needs in the field of sound chemicals management and SAICM implementation, these activities can also act as strong catalysts for long-term cooperation and networking on chemicals issues and national level SAICM implementation. All IOMC participating organizations will be invited to participate in the project at the national level in Guyana, where appropriate. In addition, all IOMC organizations are being invited to provide input to the revision and/or development of project guidance materials.

### ***International Policy Framework***

SAICM’s *Overarching Policy Strategy*, under Section VII, “Implementation and taking stock of progress”, states: “Implementation of the Strategic Approach could begin with an enabling phase to build necessary capacity, as appropriate, to develop, with relevant stakeholder participation, a national Strategic Approach implementation plan, taking into consideration, as appropriate, existing elements such as legislation, national profiles, action plans, stakeholder initiatives and gaps, priorities, needs and circumstances”(para 22).

The *Overarching Policy Strategy* further recognizes the importance of clear priorities, as it states: “The objectives of the Strategic Approach with regard to governance are... (c) To provide guidance to stakeholders in identifying priorities for chemicals management activities” (para 16). It also outlines that the functions of the ICCM will be: “To focus

attention and call for appropriate action on emerging policy issues as they arise and to forge consensus on priorities for cooperative action” (para 24).

The *Overarching Policy Strategy* also emphasizes the importance of strengthened governance mechanisms for achieving sound chemicals management through “appropriate national, regional and international mechanisms that are multi-sectoral, comprehensive, effective, efficient, transparent, coherent and inclusive and ensure accountability, taking into account the circumstances and needs of countries” (Para 16). This includes important aspects such as strengthening stakeholder participation (16.g) and enhancing “cooperation on the sound management of chemicals between Governments, the private sector and civil society at the national, regional and global levels” (16.n).

SAICM’s *Global Plan of Action* emphasizes strengthening sound governance frameworks (objective 3), through a number of activities such as formalization of “interministerial and multi-stakeholder coordinating mechanisms“, development of “national chemicals safety information exchange systems”, development of “policies of systematic stakeholder involvement” (activity 166); frameworks to “promote the active involvement of stakeholders...in the sound management of chemicals and wastes” (activity 187); “establish national multi-stakeholder coordination bodies on chemicals to provide information and increase awareness of their risks” (activity 195); and inclusion of “civil society representatives in Government, committees formulating, carrying out and monitoring SAICM implementation plans” (activity 206).

The *Global Plan of Action* includes the development of National Profiles as associated activities, indicators of progress, and/or implementation aspects for work areas addressing “risk reduction (objective 1)”, “governance (objective 3)”, and “capacity-building and technical cooperation (objective 4)”. It states, for example: “Provide assistance and training for the development of national profiles” (activity 207) and “Promote programmes to develop chemicals-management instruments (national profiles, national implementation plans, national emergency preparedness and response plans)” and “Sharing of experiences on national profiles” (activity 211).

The *Global Plan of Action* also makes numerous references to the importance of identification of capacity needs for sound chemicals management and SAICM implementation, and priority setting, such as Para 6: “The Global Plan of Action also serves as guidance to all stakeholders at the global, regional, national and local levels, including when assessing the current status of their actions in support of the sound management of chemicals and identifying priorities to address gaps in such management. It is emphasized that priorities and timeframes will differ among countries, reflecting, for instance, the current state of chemicals management and the capacity to carry out a given measure in a given country.”

Importantly, the Quick Start Programme includes the “development or updating of national chemical profiles and the identification of capacity needs for sound chemicals management” as a strategic priority.

The Intergovernmental Forum on Chemical Safety (IFCS) has also recommended its use by countries as a sound tool for chemicals management. During its Second Session in Ottawa, Canada, February 1997, the IFCS issued a statement which “encourages countries to prepare and continuously update national profiles, using the

UNITAR/IOMC guidance document, with the involvement of all concerned parties, and to use conclusions based on these assessments to define priorities to be addressed through national action programmes for strengthening chemicals management”. The Global Environment Facility (GEF) has also endorsed the development of National Profiles as an early step in Stockholm Convention implementation.

### ***Supporting Guidance and Training Material***

UNITAR, in close cooperation with other IOMC participating organisations, other international organisations, and national governments, has developed the National Profile methodology and training package to assist countries in preparing/updating this national assessment. UNITAR is in the process of updating its National Profile Guidance Document, taking into account the outcomes of ICCM and lessons learned in countries as they have developed National Profiles.

To-date, over 100 countries, including several OECD Member States, has prepared or is preparing a National Profile following the UNITAR/IOMC National Profile Guidance Document. UNITAR, as the primary UN agency responsible at the international level for assisting countries with National Profile development, has directly assisted some 100 countries with National Profile development. UNITAR also has extensive experience in assisting countries with undertaking national capacity self-assessments, national priority setting for sound chemicals management, and development of integrated national programmes.

Recognising the utility of National Profiles over the last ten years, it became evident that the methodology could be applied to a wider range of subjects. UNITAR has jointly developed guidance and training materials with UNEP to facilitate applying the methodology to issues related to the Stockholm Convention on Persistent Organic Pollutants (the Companion Guidance Document—*Developing/ Updating a National Profile as Part of a Stockholm Convention National Implementation Plan*—is intended to be read alongside the original UNITAR/IOMC National Profile Guidance Document). In addition, UNITAR and UNECE have developed a pilot National Profile Guidance Document which provides suggestions for preparing a National Profile to assist with implementation of the Aarhus Convention (Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters).

Coordinating with IOMC participating organisations, UNITAR has also developed guidance on national priority setting which highlights a wide range of national and international chemicals management issues and agreements. UNITAR has prepared a draft guidance document and training package on preparing a National SAICM Capacity Assessment to facilitate preparation of this assessment and national SAICM priority setting.

In addition, UNITAR has prepared guidance and training material on developing and sustaining an integrated national programme for sound chemicals management, interministerial coordination, stakeholder involvement, information exchange, action plan development, and partnership project development. These guidance materials will be used to assist with the formalisation of the national interministerial committee and with the development of the National SAICM Implementation Plan.

### ***National Profile Homepage/CD-Rom and UNITAR Website***

The National Profile Homepage (<http://www.unitar.org/cwm/nphomepage>) provides direct access to National Profiles which have been made internationally available by countries. It has been developed through cooperation of the United Nations Institute for Training and Research (UNITAR) and the European Chemicals Bureau (ECB) of the European Commission. This “Homepage” will also host the National Profile developed as part of this project. (The National Profile Homepage highlights National Profiles as key tools for implementation of SAICM, and indicates which countries are developing or updating their National Profiles as part of their effort to reach the objectives of SAICM.)

Should this proposal be accepted, some of the key deliverables for Guyana (e.g. National Profile, National SAICM Capacity Assessment) will be posted on the UNITAR website. UNITAR also plans to update the first edition of a CD-Rom that contains National Profile guidance, and completed National Profiles from countries. This CD-Rom would be made available free of charge.

Overall, this is expected to provide a strong supportive and complementary role to raising awareness on, and encouraging, SAICM implementation.

### **Project total budget and total amount requested from the QSP Trust Fund**

The project total budget is 118,500 USD. The total amount requested from the QSP Trust Fund is 90,000 USD.

### **Project responsibility and management**

Guyana will provide support for the following project activities:

- *A facility* for National Profile development activities and workshop, National SAICM Capacity Assessment activities and workshop, national interministerial coordination activities, and development of the National SAICM Implementation Plan, including necessary communications equipment
- *Travel and related expenses* for national-level workshop participants and development of National Profile, National SAICM Capacity Assessment, and National SAICM Implementation Plan
- *Participation of the Coordinating Team* in workshops and National Profile, National SAICM Capacity Assessment, Priority Setting, and National SAICM Implementation Plan
- *Workshop reports* (including *workshop participants' lists*)
- *Developing and publishing drafts and a final version of the National Profile, National SAICM Capacity Assessment, and National SAICM Implementation Plan*

UNITAR will serve as the “executing agency” responsible for overall administration and delivery of the project in partnership with Guyana (this will be undertaken in partnership with other IOMC participating organizations where appropriate). UNITAR will



complement all of the national and local level activities by providing all “international components” of the project, such as:

- *A Memoranda of Agreement* (in cooperation with Guyana)
- *Guidance and training material* for National Profile, National SAICM Capacity Assessment, National Priority Setting, and National SAICM Implementation Plan development
- *Resource persons* to attend the endorsement meetings for National Profile, National SAICM Capacity Assessment and Priority Setting, and National SAICM Implementation Plan development workshop (including a UNITAR “helpdesk” to facilitate these activities)
- *Hosting* the National Profile, National SAICM Capacity Assessment, etc. prepared by Guyana on UNITAR’s website

## **Project description**

### ***Methodology***

#### 1. Establishment of Project Management Infrastructure and Reviewing the existing interministerial committee to include SAICM implementation

- Establishing a Project Steering Committee (with appropriate representation of government and other stakeholders including Ministries of Trade, Industry and Commerce, for example, in order to ensure early linkages to national development planning processes) to oversee project design and implementation
- Developing brief terms of reference (TOR) for the Project Steering Committee (The Project Steering Committee will meet regularly (e.g. once a month) throughout the duration of the project and arrangements will be made for the chair of the meetings of the Committee to rotate from among the members of the Committee.)
- Designating a Project Secretariat from among the ministries participating in the Project Steering Committee to be responsible for:
  - preparing regular meetings of the Project Steering Committee, including preparation of agendas for and minutes of the meetings
  - providing administrative services for the project
  - acting as the primary link to UNITAR for all general project matters
  - providing overall leadership to promote and coordinate chemical safety and waste management
- Holding a Planning and Inception Workshop for National SAICM Implementation to:
  - discuss and finalise the terms of reference and work plan for the project
  - act as a “launch” or “kick-off” for the project (including participation by relevant development planning agencies)
  - meet with international and bi-lateral organizations, where possible (e.g. country offices of UNDP, ILO, FAO, WHO, and offices of bilateral aid agencies such as World Bank, GTZ, SDC, USAID) to brief them on the project and secure their participation in potential areas of collaboration (interested organizations will also be invited to the National Priority Setting for SAICM)

- Based on existing chemicals coordinating committees (e.g. the Pesticides and Toxic Chemicals Control Board) as well as the project Steering Committee, formalize an interministerial coordinating mechanism for SAICM implementation:
  - Review TOR and mandate of existing interministerial committees to include SAICM implementation

## 2. National Profile development

Guyana will follow a well-tested step-by-step process for developing a National Profile (as outlined in the UNITAR/IOMC Guidance Document) and take the lead in carrying out all national and local level activities. This includes the following practical steps:

- Provision, by UNITAR, of guidance and training materials to Guyana for timely distribution in advance of the National Profile/National SAICM Capacity Assessment Planning Workshop
- Obtaining political commitment to develop a National Profile
- Holding a National Profile Planning Workshop with interested parties to reach agreement on, for National Profile development (it can be held back-to-back to the Inception meeting):
  - the identification of parties which should be represented on a National Coordinating Team and the identification of the National Coordinator;
  - the role and functions of the National Coordinating Team and of individual members of the Team (Terms of Reference)
  - the need for, and establishment of, working parties responsible for, developing parts of the National Profile
  - a work plan and budget for developing the National Profile
- Establishing a network of contact points and gathering relevant information
- Developing draft(s) of the National Profile
- Holding regular interim meeting(s) to discuss progress
- Preparing a final draft of the National Profile
- Holding a Final National Profile Review Meeting (this can be held back-to-back with the National SAICM Capacity Assessment Planning Workshop)<sup>1</sup> and obtain stakeholder endorsement
- Publishing and distributing the National Profile (including publishing on the UNITAR/ECB National Profile Homepage and related CD-Rom)

## 3. National SAICM Capacity Assessment preparation

Guyana will follow the following process:

- Provision, by UNITAR, of guidance and training materials to Guyana for timely distribution in advance of the planning workshop for the National SAICM Capacity Assessment
- Obtaining political commitment to implement SAICM
- Holding a National SAICM Capacity Assessment Planning Workshop (this can be held back-to-back with the Final National Profile Review Meeting) (with UNITAR

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<sup>1</sup> Final determination of the number and sequence of meetings and workshops in the project would be undertaken in consultation with Project Steering Committee and UNITAR.



- resource person) with interested parties (including government, business and industry, and public interest and labour organizations)
- Using the National Profile (and other relevant materials, such as National Implementation Plans for the Stockholm Convention) to inform the assessment
- Developing draft(s) of the National SAICM Capacity Assessment
- Holding regular interim meeting(s) to discuss progress
- Preparing a final draft of the assessment
- Publishing and distributing the assessment (in particular, in preparation for the National SAICM Priority Setting Workshop)
- Publishing the assessment on the UNITAR website

#### 4. Holding the National Priority Setting Workshop for SAICM Implementation

- Provision, by UNITAR, of guidance and training materials to Guyana for timely distribution in advance of the National Priority Setting for SAICM Implementation
- Workshop preparatory considerations, including agenda development and relevant logistics
- Publishing and distributing background materials such as the SAICM capacity assessment, and draft list of SAICM-related priorities.
- Holding the National Priority Setting with UNITAR participation resource person, aiming at the following outcomes:
  - a final National SAICM Capacity Assessment is presented and endorsed;
  - national priorities for SAICM implementation and linkages to national development planning are identified
- Publishing and distributing (e.g. to all relevant ministries, to Cabinet) the endorsed documents: results of National SAICM Capacity Assessment, national SAICM priorities, and interministerial coordination mechanism

#### 5. Developing a National SAICM Implementation Plan

The developed National SAICM Implementation Plan will be in line with the work areas and associated activities outlined in SAICM's *Global Plan of Action*.

- In preparation of the National SAICM Implementation Plan development, a series of topic-specific training activities will take place, including:
  - Provision, by UNITAR, of guidance and training materials to Guyana for timely distribution in advance of the Action Plan Skills Building Workshop for SAICM Implementation
  - Holding an Action Plan Skills Building Workshop (including addressing financial resource mobilisation issues) with interested parties and UNITAR resource persons.
  - Other capacity building/training topics to be determined
- Developing action plans to implement SAICM, outlining:
  - Project goal and objectives
  - Situation analysis
  - Activities required by all partners and possible partnership projects
  - Workplan and budget

- Commitment of partners
- Linkage to national development priorities
- Finalising and endorsing the National SAICM Implementation Plan, which summarises the main National Profile findings, SAICM Capacity Assessment, national SAICM priorities, and selected action plans
- Identifying next steps and possible actions to ensure (i) effective implementation of National SAICM Action Plan in general and (ii) further consolidation of chemicals management into national development planning

### ***Target beneficiaries***

The involvement of concerned parties from within Guyana is a prerequisite for the success of developing an integrated national programme. Without the input from all concerned parties, important concerns will be omitted, language will fail to communicate clearly, and some significant ongoing chemical use and management activities as well as development planning activities will escape notice. Furthermore, comprehensive input and participation from a wide range of stakeholders are key to identifying true national priorities and achieving consensus. Such participation can also help ensure support from concerned parties in the eventual implementation of chemicals-related priorities—thus their participation early on in the process is desirable.

The target beneficiaries include:

- **Government ministries and agencies:** Government ministries and agencies are a primary target group for the project due to their direct key legal, administrative, and institutional responsibilities for ensuring that chemicals management occurs while protecting health and the environment at the country level, and for the promotion of chemicals management issues within a framework of economically, environmentally, and socially sustainable development. Ministries particularly involved in national development planning are integral participants. A second tier of ministries/agencies also undertake activities and/or make decisions that directly or indirectly affect the management of chemicals (e.g. Ministries of Finance and Planning).
- **Other levels of government:** Other levels of government often have responsibilities related, directly or indirectly, to chemicals management and development planning. Therefore their active participation in project activities is key to its success and sustainability. In many cases, chemicals-related activities often require implementation at local levels in order to be successful.
- **Private industry:** The role of industry in chemicals production, distribution, and use; as the major regulated party in Guyana; as a partner in the creation and implementation of solutions to chemicals-related challenges; and as an employer with a key role in worker health and safety, makes them a stakeholder of primary importance. In addition, industry has resources and skills that, when mobilised, can complement or strengthen project activities.
- **Organised labour:** Workers are often in the front lines of chemicals use and exposure, in the industrial, agricultural, and transport sectors. Their participation in the project is

of primary importance due to the experiences and information they can bring, and their key role as front-line implementers of any priority activities that are agreed.

- Public interest non-governmental organisations: Public interest NGOs often have unique skills and knowledge with regard to chemicals issues. They can also serve to collect information and implement other project activities in Guyana. These NGOs also often represent the points-of-view of certain sectors of society that are not always effectively voiced in national discussions. They also can be a primary supporter of chemical safety-related activities, and often have the ear of the public-at-large on environment and human health-related issues. Their support of the project is, in many instances, essential to its ultimate success.
- Academia: Academia can have tremendous knowledge on chemicals issues, and are seen in Guyana as neutral figures that can provide needed analysis. They can, in some cases, also serve as national consultants for project implementation.

### ***Outputs and outcomes***

- A comprehensive assessment of the national infrastructure, relating to the legal, institutional, administrative, and technical aspects of chemicals management along with an understanding of the nature and extent of chemicals availability and use in Guyana—the National Profile—which provides crucial input into the decisions that need to be made regarding sound chemicals management including SAICM implementation and chemicals-related international and regional agreements
- A National SAICM Capacity Assessment
- An interministerial coordination mechanism that raises awareness and strengthens information exchange among government ministries and stakeholders (including NGOs) on the sound management of chemicals and SAICM implementation
- Agreed SAICM-related priorities for implementation
- Strengthened national coordination to ensure ongoing dialogue on chemicals safety/management involving all concerned parties and sectors
- Design of action plans in line with the work areas outlined in SAICM's Global Plan of Action
- Agreed National SAICM Implementation Plan
- Public access to the National Profile, National SAICM Capacity Assessment, and other relevant documents on UNITAR's website

### **Project objectives and justification**

The project aims to, *inter alia*:

- Develop a comprehensive assessment of the national infrastructure, relating to the legal, institutional, administrative, and technical aspects of chemicals management, along with an understanding of the nature and extent of chemicals availability and use in the country, throughout the chemical life cycle—the National Profile
- Undertake a thorough assessment of existing capacities
- Establish a national mechanism for multisectoral collaboration and stakeholder involvement on SAICM implementation

- Undertake national SAICM priority setting in order to identify, by consensus, key gaps and to prioritize actions related to national level SAICM implementation
- Design a National SAICM Implementation Plan based on the SAICM capacity assessment and identified priorities for sound management of chemicals
- Develop skills, procedures, and mechanisms to facilitate sustainable SAICM implementation beyond the duration of the project
- Contribute to the development of methodologies and knowledge-sharing at the international level about SAICM implementation

The project addresses the importance placed on National Profiles, identification of capacity needs for sound chemicals management and SAICM implementation, and priority setting as fundamental components of many of the “work areas” listed in the Global Plan of Action, and acknowledges the “development or updating of national chemical profiles and the identification of capacity needs for sound chemicals management” as a strategic priority of the Quick Start Programme. In addition, this project helps to establish the National Profile as a “living document”—revisited and updated at regular intervals, in order to maximise its effectiveness as an important tool for sound chemicals management.

Through efforts to design the National SAICM Implementation Plan, Guyana will achieve concrete progress towards sound planning of chemicals and waste management and lay the course for further concrete, agreed activities.

Through the project, Guyana will increase its understanding of, and strengthen, the foundations of sound chemicals management, which will greatly assist the country in the successful implementation of SAICM and chemicals-related international and regional agreements, such as the Stockholm and Rotterdam Conventions. Guyana will also develop greater capacity to strengthen the integration of chemicals management in national development planning processes.

The proposed activities are seen as key tools to meeting the overall objective of SAICM—to achieve the sound management of chemicals throughout their life-cycle so that, by 2020, chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment.



No.	Activities	Outputs/Outcomes	Lead Responsibility	Timeframe																							
				Year 1												Year 2											
				1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
6	Obtain political commitment to develop a National Profile	Strengthened commitment of key partners involved in chemicals management at the national level and raised awareness	Guyana	1	2																						
7	Hold National Profile Planning Workshop	Agreed National Profile development coordinating mechanisms including TOR and workplan	Guyana		2																						
8	Provide technical advice on developing the National Profile	Increased knowledge on chemicals management, SAICM, and National Profile	UNITAR			3	4	5	6	7	8																
9	Establish a network of contact points and gather relevant information	Strengthened coordination and collaboration of key partners involved in chemicals management at the national level	Guyana			3	4	5	6	7	8																
10	Develop drafts of the National Profile	Draft National Profile prepared	Guyana			3	4	5	6	7	8																
11	Hold interim meetings to discuss progress	Interim meetings held and strengthened coordination and collaboration	Guyana			3	4	5	6	7	8																



No.	Activities	Outputs/Outcomes	Lead Responsibility	Timeframe																							
				Year 1												Year 2											
				1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
17	Hold a National SAICM Capacity Assessment Planning Workshop with interested parties (including government, business and industry, and public interest and labour organizations) and UNITAR	Agreed details for preparing a National SAICM Capacity Assessment including coordinating mechanisms, TOR and workplan	Guyana, UNITAR																								
18	Use the National Profile (and other relevant materials, such as National Implementation Plans for the Stockholm Convention) to inform the assessment	Utility of National Profile highlighted; awareness raised	Guyana																								
19	Develop draft(s) of the National SAICM Capacity Assessment	Draft National SAICM Capacity Assessment prepared	Guyana																								
20	Hold regular interim meeting(s) to discuss progress	Interim meetings held and strengthened coordination and collaboration	Guyana																								
21	Prepare a final draft of the assessment	National SAICM Capacity Assessment prepared	Guyana																								
22	Publish and distribute the assessment (in particular, in preparation for the National SAICM Priority Setting Workshop, and on UNITAR's website)	Publicly-available National SAICM Capacity Assessment; awareness raised	Guyana																								
<b><i>Holding the National Priority Setting for SAICM Implementation</i></b>																											







## **Evaluation plan**

In order to evaluate the project, Guyana will regularly review their progress against the activities listed in the workplan (confirmed/developed at the National Profile development planning meeting, National SAICM Capacity Assessment planning meeting, etc.) and the Memorandum of Agreement with UNITAR. These documents will include key milestones and deliverables. In addition, Guyana will be required to develop quarterly reports on substantive and financial matters.

A final independent monitoring and evaluation of the project will also take place evaluating project impact and the quality of the National Profile, National SAICM Capacity Assessment, national SAICM Implementation Plan and related activities. A Guyana final report and a UNITAR final report will be prepared on completion of the activities planned under this project.

Key objectives and planned activities—such as holding a National Profile development planning meeting, National SAICM Capacity Assessment planning workshop, and National Forum; stakeholder involvement and endorsement; strengthened understanding of chemicals management; establishment or strengthening of existing, national chemicals management bodies; and publication and distribution of the National Profile, National SAICM Capacity Assessment, etc.—will provide the indicators for the evaluation plan.

### Appendix III Training Conducted for 2008

<b>Date</b>	<b>Location</b>	<b>Target Group</b>	<b>Number of Participants</b>
03.04.2008	Mibicuri BBP Berbice	Farmers	21
11.04.2008	Crane WCD	Farmers	16
18.04.2008	Onverwagt WCB	Farmers	44
22.04.2008	Canal #2 WBD	Farmers	8
13.05.2008	Skeldon Berbice	Cane Farmers	11
15.05.2008	Albion Berbice	Cane Farmers	8
22.05.2008	Main Street G/Town	Customs Officers	24
28.05.2008	Eversham Berbice	Farmers	43
29.05.2008	NARI ECD	Extension Officers	31
03.06.2008	Anna Regina Essequibo	Vendors	11
05.06.2008	# 79 Village Berbice	Vendors	11
09.06.2008	Wales WBD	Cane Farmers	25
23.06.2008	Supenaam Essequibo	Farmers	28
14.07.2008	FairField Mahaicony ECD	Farmers	39
24.07.2008	Anna Regina Essequibo	Farmers	30
29.07.2008	Parika Backdam EBE	Farmers	22
05.08.2008	Christianburg Wismar Linden	Farmers	32
08.08.2008	Little Biaboo Mahaica River	Farmers	47
15.08.2008	Hubu EBE	No Turnout	0
28.08.2008	Leguan Island	Farmers	15
29.10.2008	Bath Community Center WCB	Farmers	86
29.10.2008	Cotton Tree WCB	Farmers	60
<b>Total</b>			<b>612</b>

**TRAINING SEMINAR AT MIBICURI IN COLLABORATION WITH THE GUYANA  
RICE DEVELOPMENT BOARD**

**3<sup>rd</sup> April, 2008**

<b><u>NAME</u></b>	<b><u>ADDRESS</u></b>
1. Seenarine Ramlakhan	29 Lesbeholden South
2. Michael Jainarine	260 Mibikuri North
3. Navendra Namar	117 Mibikuri North
4. Ghannarine Deonarine	105 Mibicuri North
5. M.C. Sukhram	14 Mibikuri North
6. M.P. Namsarran	C214 Mibikuri South
7. Dipnarine	162 Mibicuri North
8. Philip Jainarine	260 Mibicuri North
9. G. Paiarg	104 Mibicuri South, Black Bush Polder
10. Andy Arman	9c2 Lesbeholden South
11. Rajendra Kumar	94 Lesbeholden North
12. Mahendra Sahadeo	107 Leaseholder, BBP
13 M. Nandlal	30 Lesbeholden South, Black Bush Polder
14. Rafeek Mohammed	146 Mibicuri North, Black Bush Polder
15. R. Henful	252 Mibicuri North, Black Bush Polder
16. R. Raghubir	Mibicuri South, Black Bush Polder
17. J. Jainarine	260 Mibicuri North
18. N. Premnauth	222 Mibicuri North
19. Naresh Nandlall	58D Mibicuri South
20. Balraj Mangar	8 Mibicuri North
21. Philip Charles Oodho	22 Mibicuri North

**TRAINING SEMINAR AT RPA OFFICE, CRANE, WEST COAST DEMERARA IN  
COLLABORATION WITH GRDB**

**11<sup>TH</sup> APRIL, 2008-04-14**

<b><u>NAME</u></b>	<b><u>ADDRESS</u></b>
1. Moses Narain	115 Best Village, WCD
2. R. Deen	Lot 9, Crane Village, WCD
3. Sookdeo	Pouderyon
4. Lakeram Bhajan	93 Best Village
5. Noel Sookram	Lot 454 Crane Housing Scheme
6. Lakenarine Singh	7 & 8 Crane, WCD
7. R. Narine	RPA, Crane
8. J. Persaud	GRDB
9. Pramanauth Samaroo	Crane Village, WCD

10. O. Samaroo	RPA, Crane
11. M. Locknauth	RPA, Crane
12. R. Khusial	RPA, Crane
13. J. Atkins	Vreed-en-hoop
14. Haniff Zabar	Harlem, WCD
15. R. Singh	R.P.A.
16. Sandeep Ramsarran	GRDB

**TRAINING SEMINAR AT GUYANA RICE DEVELOPMENT, WEST COAST  
DEMERARA IN COLLABORATION WITH GRDB FARMERS FIELD SCHOOL**

**18<sup>TH</sup> APRIL. 2008**

<b><u>NAME</u></b>	<b><u>ADDRESS</u></b>
1. P. Rampersaud	Bush Lot, West Coast Berbice
2. S. Mukhlall	Bath Settlement, WCB
3. N. Bhikam	Onverwagt
4. Maniram Brijnandan	Huntley, Mahaicony
5. Hemraj Hardat	Now or Never, Mahaicony
6. Pamela Wilson	79 Edward Street, Rosignol
7. Shelie Gibbons	Strath Campbell, Mahaicony
8. Marcia Morrison	Pln Fortindale, Mahaicony
9. Charlton Bourne	Onverwagt
10. Zaman Ally	Onverwagt
11. Shamire	Onverwagt
12. Balram	Onverwagt
13. Chaitram Prashad	Wash Clothes, Mahaicony
14. Mahadai Jaikarran	Mortice, Mahaicony
15. Ramnarine Samaroo	Mahaicony
16. Kamrool Bacchus	17 Strathcampbell, Mahaicony
17. Yetaram Boodhoo	Bush Lot Village, WCB
18. Inteaze Omar	Burma Road
19. Saikarram Jaikarran	Champayne, Burma Road
20. Carol Grant	Ministry of Agriculture, Onverwagt
21. Lhakenauth Bissoon	Guyana Rice Development Board
22. Inderjit Ramjit	Bush Lot
23. Noor Chintaman	Bush Lot
24. Gowkarran Shadeen	Bush Lot
25. Shemron Vyphuis	
26. Azrudeen Hassan	
27. Wazim Abdool	
28. Jubaidah Ishawk	Bush Lot

29. Kuntie Ramkissoon	Bush Lot, WCB
30. Rachell Noble	Bush Lot Secondary School
31. Shabeer Bacchus	Bush Lot, W.C.B
32. Brijmohan	Chinese Volunteer
33. Delon Bristol	Fort Wellington Secondary School
34. Telicia Bristol	Fort Wellington Secondary School
35. Brian George	Lot 11, #40 Village, WCB
36. Deonarine Dindyal	Good Faith, Mahaicony
37. Satish Sookram	GRDB
38. C. Roopchand	Burma Road
39. Eineel Mangal	Woodley Park, WCB
41. Bassoondo	Burma Road, Onverwagt
42. Rmbarose	Burma Road, Onverwagt
43. S. Albert	GRDB
44. Lakheram Khan	Rosingol Village

**TRAINING SEMINAR AT RESOURCE – CANAL NO 2, WEST BANK DEMERARA IN  
COLLABORATION WITH MINISTRY OF AGRICULTURE – REGION 3  
EXTENSION UNIT**

**22<sup>ND</sup> APRIL, 2008**

NAMES	ADDRESS
1. Gavin Gounga	MOA Extension Officer
2. Simone Taylor	MOA Extension Officer
3. Andre Charles	Lot 4 Resource, Canal Polder
4. Beverley Sumner	MOA, WBD
5. Prettipaul	Lot 5 Resource, Canal Polder
6. Jairam Seelochan	Lot 8 Resource, Canal Polder
7. Ruth Dover	MOA, Canal Polder
8. Nandkrishna Paland	27 North Section, Canal #2, WBD

## TRAINING OF EXTENSION AGENTS

**Held on Thursday May 29, 2008 at NARI Conference Centre, Mon Repos**

	Name	Home Address
1.	Earl Williams	Onverwagt, Berbice
2.	Charles Spellen	Regina Essequibi Coast
3.	Lavindra Deonarine	Affiance, Essequibo Coast
4.	Lionel Budhram	Betersuccess, Essequibo Coast
5.	Bassoodeo	No. 11 Village, West Coast Berbice
6.	Siriramantlall Mukhlall	Lot 31, Section E, Bath Settlement
7.	Joseph McAllister	25 Stanleytown, WCD
8.	Ruth Dover	Bella Dam, Pouderyon
9.	Ava Class	Canje
10.	Maimodeen Hussain	194 Betterhope
11.	Seraita Moseley	Lamaha Park
12.	Baliram Shivdas	294 Mon Repos
13.	Simone Taylor	Timehri Fire Service Area
14.	Candy Thomas	
15.	Shamie Mc Calmont	Lot 7 James Street, Hopetown
16.	Kawall Mangal	Canje, Berbice
17.	Francis Parks	Princess Elizabeth Road, New Amsterdam
18.	Desmond Hendrax	Williamsburg, Corentyne
19.	Andre Marks	Ministry of Agriculture
20.	Shalona Joaquin	172 North Haslington
21.	Winston David	Bartica Potaro
22.	Forleann Vanklaveren	Linden
23.	Cermelita Heming	Linden
24.	Jadoonauth Persaud	Region 3
25.	Sandeep Ramsarran	Windsor Forest
26.	Satish Sookram	Little Biaboo, Mahaica River
27.	Shabeer Bacchus	Bush Lot, West Berbice
28.	Phillip Jainarine	269 Mikubwain, Berbice
29.	Sheeram Najessar	Black Bush Polder
30.	Dhirendranath Singh	Johanna Cecilia
31.	Divendra Singh	Essequibo



**TRAINING OF FARMERS AND FARMHANDS AT EVERSHAM, BERBICE****28<sup>TH</sup> May, 2008**

<b>Names</b>	<b>Address</b>
1. Narine Persaud	Bengal Village
2. Loaknauth Phagoo	No. 43 Village
3. Hazel Thompson	Eversham Village
4. Chaitram Sooraj	
5. S. Seenauth	Brighton Village
6. R. Ramsarran	No. 36 Village
7. L. Clarke	
8. C. David	Everhsam Village
9. H. Sutherland	Eversham Village
10. Vera France	Eversham Village
11. John Williams	Kiltearm Village
12. Drepaal Cordwell	Eversham Village
13. James Bransford	Kiltearm Village
14. Fenton Bhola	Eversham Village
15. K. Kendall	Eversham Village
16. Stephen Simon	Kiltearm Village
17. Denzil Leroit	Brighton Village
18. Newburn Pompey	Kiltearm Village
19. Thomas Newton	
20. Seecharan Seelall	Kiltearm Village
21. Margarath Pattay	Bighton Village
22. Anand Akloo	
23. William Albert	Epsom Village
24. Floyd Austin	Epsom Village
25. Oswald Bisolth	Brighton Village
26. Iphogene Sagar	Kiltearm Village
27. Rudolph Mathasar	
28. Agnes Sinclair	Kiltearm Village
29. Sohan Budhai	Bengal Village
30. Crinston Budhai	Bengal Village
31. Vivakanand Ghansam	Bengal Village
32. Thakurdial Goobardhan	No 43 Village
33. Komal Persaud	Bengal Village
34. Evan Haynes	Eversham Village

35.	Ramotar Gooberdhan	No. 43 Village
36.	Peter Mc Bean	Kiltearm Village
37.	Nairome Ross	Kiltearm Village
38.	James Bhowmath	Kiltearm Village
39.	Egerton Garaway	Kiltearm Village
40.	Mahendra Gulab	Brighton Village
41.	Seebode Rampersaud	Brighton Village
42.	Eileen Alexander	Dingwall, Corentyne
43.	Garfield Captain	Eversham Village

**TRAINING SEMINAR AT SKELDON IN COLLABORATION WITH GUYSUCO**  
**TARGET GROUP: CANE FARMERS**  
**HELD ON 13<sup>TH</sup> MAY, 2008**

<b><u>NAMES</u></b>		<b><u>ADDRESS</u></b>
1.	Chandradat Mattai (Secretary)	Landless Cooperative
2.	Boodhoonarayan Bhoge	Agri Land Coop Society
3.	Shazam Bacchus	FS Cane Farming
4.	Veneta Heralal (MOcane Inc)	CWC Grant
5.	Sukhu	No. 59 Village, Corentyne
6.	R. Juman	No. 79 Village
7.	C. Mohabeer	Crabwood Creek
8.	H. Rampartab	Grant, 1802, CWC
9.	Mohammed Ally	Jonnesburg Canefarmers Inc.
10.	Thakoornarine Persaud	Land Pioneer Coop Land Society
11.	K. Bacchus	CWC Cane Farmers

**Pesticides Training Conducted at Customs House – Main Street**  
**22<sup>nd</sup> May, 2008**

	<b><u>NAMES</u></b>	<b><u>DESIGNATION</u></b>	<b><u>STATION</u></b>
1	M.K. Khalil	Supervisor (ag}	JFC Back Road
2.	Tellesford	Director	Director, Training
3.	Bodhnauth Basdeo	Director	Director, Wharves

4.	Ramond Young	Customs Officer	JFL (W)
5.	Dawn Pickett	Customs Officer	DSCL
6.	Donna Parris	Customs Officer	JFL T/SHED
7.	Donna Giles	Customs Officer	Corriverton
8.	Lavern Stanford-Davidson	Customs Officer	Corriverton
9.	Wayne Dawson	Customs Officer	Customs Boat House
10.	Pheona Sarjoo	Customs Officer	GNIC T/Shed
11.	Anita Baldeo	Customs Officer	GNIC T/Shed
12.	Nauthily Girard	Customs Officer	GNIC T/Shed
13.	Jasoda Mohamed	Customs Officer	JFL T/Shed
14.	Ramraj Balram	Customs Officer	DSCL T/Shed
15.	Latoya Roberts	Customs Officer	DSCL T/Shed
16.	Rhonda Collins Huntley	Customs Officer	DSCL T/Shed
17.	Nigel Moseley	Officer I	Muneshwar Wharf
18.	Laurence Tayne	Officer I	Muneshwar Wharf
19.	Anthony Beaton	Officer I	JFL Back Road
20.	Robin Bostwick	Officer I	JFL Back Road
21.	Sharon Gibson	Customs Officer I	GNSC T/Shed
22.	Rodlyn Mae	Customs Officer	Entry Processing Unit
24.	Dwayne Benn	Director (ag.)	Quality Review

**Training Seminar at Albion Estate, Berbice in Collaboration with Guysuco  
Cane Farming Committee**

**Target Group: Cane Farmers**

**15 th May 2008**

	<b>NAME</b>	<b>ADDRESS</b>
1.	K. Chitrekha	Letter Kenny
2.	H. Ranca	Letter Kenny
3.	B.Ragubir	Port Mourant
4.	C. Redey	Port Mourant
5.	N. Budhram	Roy Hanoman Farm
6.	M.Allam	BloomfieldFarm
7.	N.Basdeo	Good Samaritan
8.	M.Seanbalak	Collins

**TRAINING OF CANE FARMERS IN COLLABORATION WITH GUYSUCO AT  
WALES LOCATION  
9<sup>th</sup> June, 2008**

	<b><u>NAMES</u></b>	<b><u>ADDRESS</u></b>
1.	A. Rajkumar	19 Peters Hall EBD
2.	N.K.Singh	1 Sisters Village, WBD
3.	Jalib Khan	La Grange
4.	M.Carryl	3 La Retrait
5.	Albert Day	Maria's Lodge
6.	Demick Venture	61 La Retraie, WBD
7.	Clayton Hodge	41 Site Village, WBD
8.	Anitta Welcome	72 La Retrait, WBD
9.	Hubert Mohammed	91, Sisters Village, WBD
10.	Richard Toney	Sisters Village, WBD
11.	Dexter DeSantos	Good Intent, WBD
12.	D. Persaud	Good Intent, WBD
13.	N. Lillian	Good Intent, WBD
14.	D. Roopnarine	BV Farmer
15.	Indrawattie Flax	Canal #2
16.	A. Persaud	No. 2 Canal
17.	Umesh Ketwaru	No 2
18.	Y. Somnauth	No. 1 Canal
19.	S.P. Mohabir	No. 1 Front
20.	Wayne Robert	Far and Easy
21.	Claudine Charles	Far and Easy
22.	Premraj Ramraj	Canal #1 Polder
23.	Clinton Dey	Maria's Lodge
24.	Rashhed Hakim	La Grange
25.	Samuel Cummings	Wales Estate

**TRAINING OF FARMERS AT SUPERNAAM, ESSEQUIBO COAST  
23<sup>rd</sup> JUNE 2008.**

	<b><u>NAMES</u></b>	<b><u>ADDRESS</u></b>
1.	Tamesh Ramnauth	Guyana Rice Development Board
2.	Michael Ragobar	Supenaam
3.	Marlon Bishop	Supenaam
4.	Basil	Supenaam
5.	Feroze	Supenaam Creek

6.	Dilip	Supenaam
7.	Yadunath Niranjan	Supenaam
8.	Kaleshwar	Supenaam
9.	Gurpersaud	Supenaam
10.	Mohandas	Supenaam
11.	Taran Lall	Supenaam
12.	Bisnauth	Supenaam
13.	Leewattie	Supenaam
14.	Hemant Chuli	Supenaam
15.	Yigul K. Sookdeo	Supenaam
16.	Sharon John	Good Hope
17.	Seon Jhannu	Supenaam
18.	Bissoondai	Supenaam
19.	Persaud Bhola	Supenaam
20.	Subodh Kishore	Guyana Rice Development Board
21.	Nesta Urvan	Supenaam
22.	Dennis Danar Singh	Supenaam
23.	George Henry	Supenaam
24.	Sattie Singh	Supenaam
25.	Phillip Richards	Supenaam
26.	Wini Freds Richards	Supenaam Creek
27.	Seemangal	Supenaam
28.	Ganpat Ramroop	Supenaam

**Training Of Farmers at Fairfield, Mahaicony, East Coast Demerara  
14<sup>th</sup> July, 2008.**

	<b>Name</b>	<b>Address</b>
1	Naimeraj Khedoo	Quaker's Hall
2	Nandlall Seeteram	Broom Hall
3	Kaimraj Lalbochan	Quaker's Hall
4	Harrichan	Quaker's Hall
5	Cleaveland Ramsammy	Fairfield
6	Jagdeo Mathura	Fairfield
7	Rampertab Ramsook	Broom Hall
8	Rajendra Herallall	Broom Hall
9	Lalchand Jorree	De Hoop
10	Lakeram Deonarine	Broom Hall
11	Mohamed Amjad	Wash Clothes
12	Leonard VeeraSammy	Fairfield
13	Latchman	Fairfield
14	S. Singh	Good Hope

15	Samuel	Fairfield
16	G. Etwaru	Fairfield
17	Bissoon Budhu	De Kendren
18	Derick Coopsammy	Fairfield
19	S. Ramcharan	Pln. Content
20	Charles	Fairfield
21	Joshua Ramsammy	Fairfield
22	Martin M. SAwh	Fairfield
23	Deonarine	Fairfield
24	Bulram Sukhdeo	Quaker's Hall
25	G. Bhaclur	Fairfield
26	Sewdeyal Naidu	Fairfield
27	M. Boodhoo	Quaker's Hall
28	Shaun Wilson	Fairfield
29	B. Taylor	De Kendren
30	D. Maraj	Chairman NDC DeHoop/ Fairfield
31	Michael Bhishalm	Fairfield
32	Balbadar	Fairfield
33	Deonarine Beepat	Broom Hall
34	Moonsammy Nagopar	Quaker's Hall
35	A. Ramsundar	Bath
36	N. Haridat	A.O. MoA
37	E. Lewis	AFA MoA
38	O. Percival	LA MoA
39	D. Harthly	V.O. MoA

**Training Of Farmers at Anna Regina, Essequibo Coast  
24<sup>th</sup> July, 2008.**

	<b>Name</b>	<b>Address</b>
1	Tamesh Ramnauth	GRDB
2	I. Bacchus	A. Hall
3	N. Khan	Riverstown
4	N. Persaud	A. Hall
5	B. Das	GRDB
6	Udeshwar Singh	W. Castle
7	Rameshwar Singh	W. Castle
8	Ann Allen	Anna Regina
9	Davendra Singh*	GRDB
10	C. Lochan	GRDB
11	D. Das	GRDB
12	G Narine	Anna Regina

13	K. Joseph	GRDB
14	Doniella D'Oliveira	GRDB
15	M. Indrawattie	GRDB
16	S. Kishore	GRDB
17	Dyal	Golden Fleece
18	Lalman Persaud	Sparta
19	Lall Dwarka	Golden Fleece
20	B. Lall	Johanna Cecilia
21	Kedarnauth Jhandu	Golden Fleece
22	Harry Akeram	Johanna Cecilia
23	Chate Narine	Paradise
24	T. N. Blaroop	Walton Hall
25	Lackhan Lall Boodhoo	Sparta
26	Ronsard Boodhram	Better Success
27	Jewan Narine	Zorg-Dam
28	Chabie Nauth	Sparta
29	Shoukat Ali	RPA
30	S. Persaud	Taymouth Manor

**Training Of Farmers at Parika Backdam, East Bank Essequibo  
29<sup>th</sup> July, 2008.**

	<b>Name</b>	<b>Address</b>
1	Anil Gundat	Parika Back
2	Somdat Ramgobin	Parika Back
3	Deodat Seodat	Parika Back
4	Ivan Forde	MOA
5	Ruth Dover	MOA
6	Kalash Persaud	MOA
7	Rupesh Samaru	Ruby Back
8	Jagmohan Singh	Ruby Back
9	Ramnaresh	Parika Back
10	Baldeo	Parika Back
11	Andrew Sooklall	Parika Back
12	Majeed	Parika Back
13	Nandall Sukraj	Parika Back
14	Parasram Persaud	WUA
15	Abdool Rasheed	Parika Back
16	Faizul Ally	Parika Back
17	Lalman Persaud	Parika Back
18	M. Amin	WUA
19	Kudlip Ragnauth	GRDB

20	J.Persaud	GRDB
21	R.Singh	RPA
22	R.Jadoo	GRDB

**Training Of Farmers at Christiansburg, Wismar- Linden  
5<sup>th</sup> August, 2008.**

	<b>Name</b>	<b>Address</b>
1	Leon Allicock	Lower Kara Kara
2	Karen Wallace	West Watooka
3	Elton Pierre	West Watooka
4	Ingrid Branford	West Watooka
5	D. Hartman	West Watooka
6	Leon Cummings	West Watooka
7	Lorraine Tyson	West Watooka
8	Paulette Sampson	West Watooka
9	Trevor George	West Watooka
10	Joseph James	Dalawala
11	Clair Bairo	Dalawala
12	Denise Clarke	Lower Watooka
13	G. Gittens	Dalawala
14	U. Francis	Lower Kara Kara
15	Ernestine Land	Upper West Watooka
16	Ashanti Defreitas	Upper West Watooka
17	Hugh Morris	Upper West Watooka
18	Abiola Morris	Upper West Watooka
19	Ismay Spencer	Upper West Watooka
20	Sewnarain Rambharat	Gold Hill
21	Oswald Johnson	Dalawala
22	Wilfred Nurse	West Watooka
23	Roxanne Edwards	Carrot City
24	Cort Garraway	West Watooka
25	B. Collins	West Watooka
26	Yolanda Forrester	West Watooka
27	Omadera Nurse	West Watooka
28	A. Adams	West Watooka
29	Jasdie Singh	West Watooka
30	Bertram Khabba	Dalawala
31	Lilawattie Brigelall	Lower Kara Kara
32	Sharon Mcpher	West Watooka



**Training of Farmers at Little Biaboo, Mahaica River ECD  
8<sup>th</sup> August, 2008.**

	<b>Name</b>	<b>Address</b>
1	Kamalodeen Hussain	Little Biaboo
2	Azuldeen Hussain	Little Biaboo
3	G. Persaud	Big Biaboo
4	Chulraj Ramdeen	Grass Hook
5	Lalchan Sukha	Little Biaboo
6	Harrypaul Persaud	Little Biaboo
7	Mohanlall Sukhram	Little Biaboo
8	Deodhary Shivbchan	Little Biaboo
9	Bhagwan Persaud	Little Biaboo
10	Rosan Alli Khan	Little Biaboo
11	Jaugale Singh	Handsome Tree
12	Dhanpaul Persaud	Little Biaboo
13	Roopnarine Maniram	Little Biaboo
14	Alladeen Hoosain	Little Biaboo
15	Twaheer Hussain	Little Biaboo
16	Munaad Persaud	Little Biaboo
17	L. Singh	Little Biaboo
18	Rampersaud Ramankre	Grass Hook
19	Diaram	Grass Hook
20	Bhowal Antaram	Little Biaboo
21	B. Nandnarine	Little Biaboo
22	Baldeo Indar	Little Biaboo
23	Dennis Barry	Little Biaboo
24	Hanceraj Maniram	Little Biaboo
25	Kawall John	Little Biaboo
26	Tachur Barry	Little Biaboo
27	Haripaul Bhagwandass	Little Biaboo
28	Deodat Persaud	Little Biaboo
29	Khemraj Ganchand	Little Biaboo
30	Fizal Kassim	Little Biaboo
31	Naeem Hussain	Little Biaboo
32	Salima Dharry	Little Biaboo
33	Diawanttie Persaud	Little Biaboo
34	Rohanie Sam	Little Biaboo
35	Sarwan	Little Biaboo
36	Jeetlall Parsooram	Little Biaboo
37	Shafiq Hussain	Little Biaboo
38	Omawattie Nagasar	Big Biaboo
39	Fayuse Hussain	Little Biaboo
40	Parmanand Parsooram	Little Biaboo

41	V. Seebaran	# 10
42	S. Ramphal	# 10
43	P. Seebaran	# 10
44	M. Mahabir	# 10
45	N. Samlall	# 10
46	R. Singh	Flora Garden
47	G. Ghansham	Handsome Tree

**Training of Farmers at Leguan Island  
28<sup>th</sup> August, 2008.**

	<b>Name</b>	<b>Address</b>
1	Jairam	La Bagatelle
2	Jadesh Singh	La Bagatelle
3	Sasanarine	La Bagatelle
4	Navin	La Bagatelle
5	Imzam	La Bagatelle
6	Anand	La Bagatelle
7	Benjamin	La Bagatelle
8	L. Dowarka	Success
9	Sheik Fazal	Endeavour
10	Jumana Persaud	La Bagatelle
11	A.Cottam	La Bagatelle
12	D.Jairam	La Bagatelle
13	K.Persaud	La Bagatelle
14	K.Maraj	Success
15	Safraj	La Bagatelle

**Training of Farmers at Dhanan's Residence - Cotton Tree, West Coast Berbice  
29<sup>th</sup> October, 2008.**

**NAMES**

**HOME ADDRESS**

1	Steve Alli	23 Cotton Tree Village, WCB
2	Md Idrich Ali	47/48 Cotton Tree Village, WCB
3	Nazim Gafoor	21 Old Road Cotton Tree Village, ECB
4	Mohamed N. Hoosain a/k Saro	3 B Cotton Tree Village, WCB
5	Mahadeo Sukhcharan	23 Cotton Tree Village, WCB
6	Sunhanlall Ragbeer	3 B Cotton Tree Village, WCB
7	Abdul H Razack	7 B Cotton Tree Village, WCB
8	Chandroutie Ramchandar a/k Seeta	1 Section 'C' De Edward Village, WCB
9	Mookesh Singh a/k Kerho	20 Cotton Tree Village, WCB

10	Goorprasaud Budhu	25 Cotton Tree Village, WCB
11	Sheik M. Haniff Gaffeur	21 Cotton Tree Village, WCB
12	Dharamdeo Seenarine	20 Cotton Tree Village, WCB
13	Tulsi Ramjewan a/k Anil	30 Cotton Tree Village, WCB
14	Ramchand Boodhu	5 # 2 Village, WCB
15	Deonarine Bhagwandin a/k Rakesh	15 'C' # 2 Village, WCB
16	Sasenarine Harrynarine a/k Batil	27 'C' # 2 Village, ECB
17	Narad Ramcharran Ramrattan a/k Mohan	16 # 2 Village, WCB
18	Iashmael salam	14 # 2 Village, WCB
19	Faneeza Kahdeer a/k Resso	3 'C' # 2 Village, ECB
20	Nazir Ali a/k Watermelon Man	17 # 2 Village, WCB
21	Asif Kahdeer	3 'C' # 2 Village, ECB
22	Ravendra Eshwardeen	5 # 2 Village, WCB
23	Deodat Sewcharran	25 # 2 Village, ECB
24	Arjune	6 # 2 Village, WCB
25	Boodram V. Bhagwandin	2 # 2 Village, WCB
26	Amad Bacchus	# 2 Village, WCB
27	Teelokie Deolall a/k Omesh	9 # 3 Village, WCB
28	Gangaram Deodat	10 # 3 Village, WCB
29	Deolall Ram a/k Dado	9 # 3 Village, WCB
30	Rohan Bridgelall a/k Rohan	2 # 3 Village, WCB
31	Davindra Reeknauth a/k Quarter Buck	10 # 3 Village, WCB
32	Ramzan Yassin a/k Willie	45 # 3 Village, WCB
33	Gobin Ram Sookdeo a/k Lil	38 # 3 Village, WCB
34	Shafeek Asgar a/k Rasheed	45 # 3 Village, WCB
35	Akant Persaud Sookdeo a/k Paper Tiger	23 # 3 Village, WCB
36	Gladston Henrya/k Ghera	26 # 3 Village, WCB
37	Nohar Persaud a/k Sanjay	2 # 3 Village, WCB
38	Sahad Lokenauth a/k Farouk	16 # 3 Village, WCB
39	Pooran a/k Vishnu	12 # 3 Village, ECB
40	Anityanand Natharam	21 # 3 Village, WCB
41	Gopaul Persaud	Murphey Dam Rosignol Village, WCB
42	Deonarine Narine	170 Sheildtown Settlement, WCB
43	Samad Razack	184 Shieldtown, WCB
44	Surujpaul Chatterpaul	1 Zorg-En-Hope Blairmont, WBB
45	Balkissoon Algu	Zorg-En-Hope Blairmont, WBB

46	Ramdat Singh	16 Zorg-En-Hope Blairmont, WBB
47	Subramanie Gabriel	18 Zorg-En-Hope Blairmont, WBB
48	Hamanlall Manohar	Zorg-En-Hope Blairmont, WBB
49	Mohandat Sukra	30 Zorg-En-Hope Blairmont, WBB
50	Hamichand Bissoon	78 # 1 Blairmont, WBB
51	Chandra Budhu	11 # 1 Blairmont, WBB
52	Bisram Ramchand	97 # 2 Blairmont, WBB
53	Premanand Mohindra	95 # 3 Blairmont, WBB
54	Waffayzeen Karim	71 # 3 Blairmont, WBB
55	Chetram Madan Mohan	# 3 Blairmont, WBB
56	Satrohan Sirikisson	# 3 Squatting Area Blairmont, WBB
57	Mohamed Hussain	68 # 4 Blairmont, WBB
58	Mohamed Safraz Hussain	68 # 4 Blairmont, WBB
59	Roopram	41 # 4 Blairmont, WBB
60	Navin Mohan	# 4 Squatting Area Blairmont, WBB

**Training of Farmers at Bath Community Centre Ground, West Coast Berbice  
29<sup>th</sup> October, 2008.**

<u>NAMES</u>	<u>HOME ADDRESS</u>
1 Abdul Kadim Rahim	30 Waterloo Bath Settlement
2 Seenauth Beekram	80 Woody Park, Bath Settlement
3 Satrohan Persaud	107 Woody Park, No. 11 Village
4 Mulchand Ramdeo	115 Bath Settlement
5 Sribajailall Mukhlall	121 No. 12 Village
6 Koarlall Brijwala	Lot 5 Woody Park, No. 11 Village
7 Khemraj Molaha	93 B No. 11 Village
8 Sookdeo Harriram	Lot 12 Woody Park, No. 11 Village
9 Totaram Seenarine	Lot 36-41 No. 10 Village
10 Heeralall Randeem	92 B Woody Park, No. 11 Village
11 Duraj Matadin	Woody Park, No. 11 Village
12 Balwant Gangaram	56 Woody Park, No. 11 Village
13 Enauth Shamlal	Lot 83, No. 11 Village
14 Pooranlall Bridgelall	114 Bath Settlement
15 Deolall Bridgelall	Woody Park, No. 11 Village
16 Parmanadand Bharrat	Lot 63 Section B, No. 11 Village

17	Chaitram Bridgelall	Lot 59 Section B, No. 11 Village
18	James David	Lot 223 No. 10 Village
19	Brook Benton Pluck	No. 8 Railway
20	Deochand Chanan	Lot 11 Section A, No. 11 Village
21	Ramdeo Sukra	E33 Bath Settlement
22	Siriramanlal Mukhlall	Lots 31E & E12 Section E, Bath Settlement
23	Chittradaï Manick	B 14 Bath Settlement
24	Ganesh Persaud	524 Squatting Area, Bath Settlement
25	Sukhdeo	D 13 Waterloo, Bath Settlement
26	Deokarran Sukhdeo	Lot D 13 Waterloo, Bath Settlement
27	Balraj Sukhdeo	Lot D 18 Waterloo, Bath Settlement
28	Darsan Rai Dhanraj	D21 / B 18 Waterloo, Bath Settlement
29	Kamal Lalchand	Lot D 11 Waterloo, Bath Settlement
30	Jainauth	E 34 Bath Settlement
31	Brijlall Deolall	Lot D1 Bath Settlement
32	Khemraj Ramnauth	E 32 Bath Settlement
33	Jagdeo Rajroop	Lot C6 Waterloo & B34 Wellington, Bath Settlement
34	Bhoolu Salik	Lot 145 # 12 Village
35	Mukesh Sewlall	76 B2 Bath Settlement
36	Tara Singh	249 Plantation Hope
37	Burnell Rajcoomar	14 Watrloo, Bath Settlement
38	Neezam Bhikram	94 Waterloo & G17, Bath Settlement
39	Manser Alikan	B 6 & Rot Borrow
40	Farouk Hassain	619 Bath Sq Area & Hope West
41	Krishna Seelall	76 Bath Settlement
42	Deonarine Ramkaran	544 Bath & Bath Reserve
43	Khemraj Abraham	54 Bath, Block D 145, 136 Reserve
44	Ahamad Shazad Khan	G12 & G9 Bath Settlement
45	Seeram Raghubir	F28 Bath & 624 Regent Scheme
46	Boodram Teekhram	567 Regent Scheme
47	Ramdeo Basdeo	Regent Scheme
48	Sookdeo Mohan	559 Bath Settlement
49	Jankie P. Surujballie	592 Bath Settlement
50	Sewlall	593 Bath Settlement
51	Chetram Singh	595 Bath Settlement
52	Nandeo Persaud	636 B Bath Settlement

53	Hanoman Lakeram	609 Bath Settlement
54	Amar Neezam	Bath Settlement
55	Cheandranauth Petam	35 B Bath Settlement
56	Teekram	E 32 Bath Settlement
57	Seeram Patiram	Lot 15 Waterloo, Bath Settlement
58	Floris Ramjattan	Lot k 13 Bath Settlement
59	Karamchandra Basdeo	Lot 1 Plantation Bath Settlement
60	Ramzan Bassalat	Lot 18 Waterloo, Bath Settlement
61	Bhardwat Vishman	Lot 194B Woody Park, Bath Settlement
62	Vishman	Lot 194B Woody Park, Bath Settlement
63	Khelwan Doodnath	Lot 180 Woody Park, Bath Settlement
64	Anil Balkaran	12 Bath Settlement
65	Sewnarine Sewlochan	72 Waterloo Bath Settlement
66	Sarwan Dasrat	B 32 Bath Settlement
67	Narine Persaud	663 Bath Settlement
68	Prahalad Chattergoon	547 Squatting Area, Bath Settlement
69	Khemraj Bisnauth	D 22 Waterloo, Bath Settlement
70	Mahamed Wasir Oozeer	140 B 2 Waterloo, Bath Settlement
71	Davindra Persaud	69 B 2 Waterloo, Bath Settlement
72	Kishan Manichand	610 squatting Area, Bath Settlement
73	Vishan Patiram	H 38 Bath Settlement
74	Roy Ramjattan	H 578 Squatting Area, Bath Settlement
75	Gopaul Shivchand	568 Squatting Area, Bath Settlement
76	Ramnarine Khemraj	557 Squatting Area, Bath Settlement
77	Deodat Persaud	H 16 School Street, Bath Settlement
78	Balram Sukhram	142 B Bath Settlement
79	Badiram Ramrattie	A 27 Bath Settlement
80	Natram Singh	G 35 Bath Settlement
81	Deodat	H 35 Bath Settlement
82	Lekhram	124 Plantation Hope
83	Sookram Surujballi	32 C Waterloo, Bath Settlement
84	Deochand Shivnauth	51 Waterloo, Bath Settlement
85	Sahadeo Latchman Nemdhori	A 13 Bath Settlement
86	Nailchand Ramnarine	A 13 Bath Settlement
87	Moniram	D 12 Waterloo, Bath Settlement

## **Appendix IV**

### **Investigations**

#### **Investigation into alleged spray drifts onto farmers' rice at Cotton Tree village**

On Monday 4 August 2008, the Pesticides and Toxic Chemicals Control Board (PTCCB) informed GuySuCo that there was an alleged chemical drift onto farmers' rice aback of Cotton Tree village, West Coast Berbice during aerial application at Blairmont estate. Arrangements were made for the investigation to be conducted on Wednesday 6 August 2008.

The PTCCB was informed that all arrangements were in place including boat and other means of transportation to reach the site by Mr. L. Small, Research Scientist of the Guyana Rice Development Board (GRDB).

On Wednesday 6 August 2008, the Registrar and Inspector PTCCB was joined by the weeds Agronomist, GuySuCo and travelled to Bushlot village, West Coast Berbice to be joined with the area representative of both the GRDB and the Rice Producers Association (RPA).

The arrangement put in place by Mr. Small was for Mr. Bissoon, extension officer for the Cotton Tree area to join the team. Mr. Bissoon re-designated Mr Basoodeo who was not at home and unavailable (as reported by RPA representative).

The PRA representative for the Cotton Tree area Mr. Rampersaud re-designated Mr Khaderu, the PRA representative for another district to be part of the investigation team. Mr. Khaderu had no prior knowledge of the incident, the exact location nor did he know of the transportation arrangements.

At Cotton Tree village we were joined by Mr. Wazir Khan, one of the two rice farmers who reported the alleged damage to their rice crop. Mr. Khan was asked about access and informed that the only way to reach was through Cotton Tree backdam since there was no other access to his rice fields. Mr Khan provided transportation using his tractor. The team requested him to hitch on his trailer which he did. He informed that he saw the damage on his crop at age 10 to 12 days old, he applied monocrotophus at age 14 days, and evergreen and fertilizers namely urea and TSP at age 21 days.

At the entrance to the backdam the team was joined with members from Blairmont estate.

The investigation team was:

Mr B. Dwarka	Registrar, PTCCB
Mr. S. Amichand	Inspector, PTCCB
Ms. L. Yaedram	General Manager (ag) BCF
Mr. Y. Mana	Agriculture Manager BCF
Mr. C. Hardeo	Agronomist BCF
Mr. A. Rajkumar	Weeds Agronomist GuySuCo

Mr. G. Khaderu                      PRA representative  
Mr. W. Khan                         Rice farmer

The investigation team then proceeded through the Cotton Tree backdam for what was supposed to be a 3 miles journey. The terrain was very rough and after travelling for over 3 miles, the tractor eventually stuck at approximately 11:30 Am. The team then began to walk to the area for what was supposed to be a 1.5 miles journey according to the rice farmer and RPA representative. After walking for approximately 7 miles the team eventually reached the main water supply high level canal. The area was opposite the Versailles section in the vicinity of field 6 with cane field being visibly near.

Mr Khan after walking to an area near to his rice fields then left one of his farm hands to show us the damage and returned to pull out his tractor. He did not return. The farm hand said that damage was present and that some of the rice plants had recovered and was green while a patch remained affected.

An inconclusive discussion took place at the high level canal by placing the Satlock flight path of the aircraft supplied by Guysuco for each area sprayed on the estate since the 11 June 2008. The printout was superimposed over transparent acetate showing individual fields of Blairmont estate.

Two blocks in Flanders and one in Versailles section were treated in July 2008 with roundup ultra that was in the closest proximity to the alleged affected rice plot.

The Agriculture Manager then asked for boat transportation from Blairmont estate which was arranged and the team was transported out of the location at about 3:30 PM

In retrospect, had proper planning and professional decorum been in place by the GRDB and RPA, the access could have been through the high level canal via boat and a thorough investigation done rather than the scant respect shown.

It is inconclusive if the damage caused to Mr. Khan's rice was by aerial application of ripeners by GuySuCo's aircraft.



**APPENDIX V**  
**Pesticide Importers 2008**

**List of Pesticide Importers**

1. Agri Quality Inc.
2. Associated Industries Limited
3. Ansa McAl Ltd.
4. Caribbean Chemicals Guyana Limited
5. Deonarine Ramgobin
6. FCT Technologies
7. Guyana Sugar Co-operation
8. Nand Persaud & Co. Ltd
9. Pharmagen Enterprise
10. Rentokil Initial Guyana Ltd
11. Rice Producers Association
12. Roma Manufacturing Co. Ltd.
13. Trading & Distribution Inc.

## APPENDIX VI

### Trade Name of Products Imported in 2008

1. 2,4 D Amine
2. Abamectin
3. Acetamiprid
4. Acrobat
5. Actellic 50
6. Agil 100EC
7. Alpha Cypermethrin
8. Aluminium Phosphide
9. Ametryn/Atrazine 500
10. Amidor
11. Amistar
12. Assex
13. Asulam 40%
14. Asulam 80%
15. Banrot
16. Baygon Mosquito Coil
17. Baygon Spray
18. Bellis
19. Bispyribac Sodium
20. Blitz 500gr
21. BOP Citronella
22. BOP Evergreen
23. BOP Insecticide
24. Brodifacoum 0.005%
25. Bromard
26. Bromatrol Concentrate
27. Bromatrol Rat Blocks
28. Captan
29. Carbaryl
30. Carbendazim
31. Carzone
32. Cascade
33. Chlorpyrifos
34. Control Flowable
35. Cypro
36. Cyromazine
37. Demon Max
38. Det Aerosol
39. Difenard
40. Dipel
41. Diuron 80% DF
42. Diuron 80% WDG
43. Ethephon
44. Farmizone
45. Fendona
46. Fendona

47. Fentrol Concentrate
48. Fentrol Mouse Blocks
49. Fish Aerosol Spray
50. Flip 800DF
51. Flocoumafen 0.005%
52. Fuji-one 40EC
53. Fumitoxin Tablets
54. Fusilade 2000
55. Glyphosan 48SL
56. Glyphosate
57. Gramocil
58. Gramoxone
59. Herbadox
60. Hyperkill 25EC
61. Igran 500 SC
62. Imazapyr
63. Imidacloprid
64. Inisan 60
65. Karmex
66. Klerat 2000 x 5gr
67. Klerat Blocks
68. Klerat Pellets
69. Knock Dem Down 5%EC
70. Kocide
71. Lambda Cyhalotrin
72. Lannate
73. Malathion
74. Malathion
75. Malathion 96%
76. Mankocide
77. Manzate
78. Match 50EC
79. Max Force Gel
80. Maximo 50
81. Merlin 75WDG
82. Metsulfuron Methyl 60% DF
83. Max Force Ant Bait
84. Ninja
85. Padan
86. Paraquat
87. Permethrin
88. Phostoxin Tablets
89. Pirate
90. Prelude
91. Protox Aerosol
92. Protox Mosquito Coils
93. RiceWeed Killer 400SC
94. Ridomil Gold 68WP
95. Rizolex
96. Rogor

97. Round Up Ultra
98. Ruse Plate Packs
99. S-Metalochlor
- 100.Storm 0.005BB
- 101.Supona
- 102.Surfactron 35SI
- 103.Suspend SC
- 104.Tempo Sc Ultra
- 105.Termidor
- 106.Terror Ant Killer
- 107.Torpedo 35Ec
- 108.Triazophos
- 109.Velpar
- 110.Vertimec 18Ec
- 111.Vydate
- 112.Xentari

## APPENDIX VII

### Imports of Pesticides by Common Names and Value 2008

Insecticides	Value ('000)
Abamectin	\$6,243,071.50
Acephate	\$9,727,903.75
Acetamiprid	\$1,037,330.00
Alletrin	\$68,241,190.13
Alpha Cypermethrin	\$4,853,397.50
B.Thuringiensis	\$1,432,437.26
Carbaryl	\$2,994,365.88
Chlorfenapyr	\$1,397,433.66
Chlorfenvinphos	\$98,972.02
Chlorpyrifos	\$4,705,928.25
Cyflutrin	\$28,427,224.76
Cypermethrin	\$33,680,055.59
Cyromazine	\$543,815.63
Dimethoate	\$37,824.88
Fipronil	\$1,196,425.00
Imidacloprid	\$9,561,300.00
Lambda Cyhalothrin	\$5,810,946.67
Malathion	\$1,259,458.92
Methamidophos	\$2,742,320.00
Methomyl	\$897,657.02
Monocrotophos	\$6,286,767.38
Oxamyl	\$1,145,365.50
Permethrin	\$2,245,694.87
Pirimiphos methyl	\$624,368.63
Propoxur	\$65,548,294.12
Triazophos	\$2,639,931.25
Cartap	\$57,312.55
Flufenoxuron	\$413,614.08
Aluminium Phosphide	\$7,582,270.63
Herbicides	Value ('000)
2,4 D	\$90,950,475.24
Ametryn	\$684,600.00
Asulam	\$37,708,157.50
Bispyribac Sodium	\$2,257,050.00
Cyanazine	\$783,882.00

Fluazifop-p-butyl	\$5,882,052.00
Glyphosate	\$125,806,768.01
Hexazinone	\$756,159.99
Imazapyr	\$7,762,043.52
Metribuzin	\$327,680.63
Metsulfuron Methyl	\$2,253,886.00
Paraquat	\$120,870,493.71
Pendimethalin	\$7,761.27
S-Metalochlor	\$9,549,120.00
Terbutyrn	\$20,618,017.50
Propaquizafop	\$1,172,803.50
Diuron	\$43,137,487.80
<b>Fungicides</b>	<b>Value ('000)</b>
Azoxystrobin	\$2,002,440.00
Captan	\$146,528.50
Carbendazim	\$1,744,541.40
Chlorothalonil	\$71,137,127.94
Copper Hydroxide	\$2,471,937.48
Dimethomorph	\$495,462.85
Isoprothiolane	\$4,147,260.00
Mancozeb	\$2,448,424.00
Metalaxyl-M	\$98,536.50
Pyraclostrobin	\$358,082.94
Thiophanate Metyl	\$714,376.68
Tolclofos-Methyl	\$1,187,026.59
<b>Rodenticide</b>	<b>Value ('000)</b>
Brodifacoum	\$56,970,307.25
Bromadiolone	\$2,050,157.12
Difenacoum	\$246,613.35
Flocoumafen	\$5,372,400.00
<b>Others</b>	<b>\$109,323,618.97</b>
<b>Total Cost of Import</b>	<b>\$1,002,875,957.67</b>

**APPENDIX VIII**  
**Specification of Equipment for Laboratory – Phase II**

**(i) Supply of one (1) Prime Rated 200 kVA Diesel Generator**

**TECHNICAL SPECIFICATIONS - PRIME RATED DIESEL GENERATOR**  
**200 kVA**

**GENERAL AND SCOPE OF SUPPLY**

This section specifies the design, manufacture, supply to the site, install, testing and commissioning of one three phase, low voltage silenced type Prime rated diesel generator with auto start feature and enclosed in a factory fitted canopy at the generator manufactures work. The generator set should be provided with main failure automatic starter, automatic change over switch which will start on failure of supply and provide regular maintenance services free of charge during twelve (12) months warranty period.

The diesel generator set shall be supplied complete with all ancillary equipment necessary for starting and running of the set, including cooling systems, fuel storage and supply system, instrumentation, control and protection arrangements, spares and special tools. The generator set and the ancillary equipment shall be installed in the generator room that must be built as indicated in the drawings. Generator body and Generator neutral shall be solidly earthed.

The set is to be reasonably self-contained to minimize the work of installation at site. The engine, alternator and cooling radiator shall be mounted on a combined underbase of stress relieved fabricated steel and engine accessories shall also be mounted on the under base where appropriate, provided that this does not result in difficulty of access for maintenance.

The set is to be mounted on suitable arrangement of antivibration mounting designed to minimize the transmission of vibration but without resulting in excessive amplitudes of movement of any parts of the set. If rubber is employed in the mounts, their design should incorporate means of preventing deterioration due oil leakages.

The generator set shall be provided with sound attenuated canopy fitted at the generators manufactures work, so that the noise level shall not exceed 80 dBA at 1m distance and 60 dBA at 10m distance from the machine at full load operating condition at any direction. Flexible connection shall be provided to all exhaust, water, air, fuel and oil piping that leaves the engine to prevent the transmission of vibration and the fracture of the piping due to movement of the set. The choice of connections and their installation is to be such as to give long life under normal operating condition of the set.

**STANDARDS**

The following Standards apply:  
BS 5000 Part 3 - Generators to be driven by Reciprocating Internal Combustion Engines

## **DETAIL REQUIREMENTS OF THE GENERATOR SET**

### **ENGINE**

Diesel engine shall be of a well-proven make, complying with the requirements of ISO 3046. The engine shall meet all the performance requirements of the set under the specified operating conditions and shall be suitable for operation on light distillate fuel oil

A sturdy elastic coupling shall connect the engine and the generator, and both shall be mounted on a common base plate forming part of the supply, Proven and highly effective antivibrating mountings shall be provided between base plate and concrete foundation.

The engine shall be started by 24 V starter motor engaging with the fly wheel ring gear and disengaging automatically when the engine starts. The equipment shall include an adequately rated lead/acid battery together with an automatic mains energized battery charger. The charger shall have a continuous output rating sufficient to recharge the battery from 1.8 V/cell to a fully charged condition in a period of 8 hours. The battery shall be capable of providing at least six starting cycles within a period of 5 minutes.

The engine shall be water cooled. A sectional radiator shall be provided and mounted on the combined underbase and arranged to cool the engine jacket water, lubricating oil and charge air as appropriate. Circulation of cooling water through the engine and radiator shall be by means of engine driven pump. The water circuits shall be fitted with an easily accessible drain point. The cooling fan shall be arranged to drive directly by the engine and the hot air shall ducted to suitable openings in the generator room wall. The duct shall be incorporated with a suitable flexible section to prevent the transmission of vibration from the engine and the discharge end shall be provided with louvers and an insect screen.

Lubrication of the engine shall be by means of an engine driven integral pump. The pump shall have on the suction side a coarse strainer and on the delivery side a duplex 'full flow' fine filter complete with changeover cock incorporating pressure by-passes to facilitate oil flow to the engine should the filter become blocked. The lubricating oil system capacity shall be sufficient to enable the engine to run continuously for 12 hours at any load without replenishment.

The governor of the engine shall be mechanical/electronic type and be capable of fine governing of speed to ISO 3046/IV.

The engine shall be efficiently silenced with suitable noise attenuators provided at cooling/combustion air inlets and outlets and exhaust silencers complete with interconnecting pipe and fittings. Supports for each complete system shall be of the anti-vibration type and due



allowance for expansion of the exhaust system shall be made by the inclusion of expansion bellows.

Exhaust pipe shall be lagged with a removable Aluminium cladding. Exhaust pipe outlet point shall be 4m above ground level.

The engine shall be provided with following protection devices for alarm and shutting down the engine automatically:

- Low lubricating oil pressure - two stage;
- Engine overspeed;
- High cooling water temperature - two stage; and
- Over crank.

## **GENERATOR**

Generator shall be brushless, self-exciting and self-regulating type. The exciter shall be with rotating silicon rectifiers, auxiliary exciter of permanent magnet type, damper cage, static voltage regulator and compounding equipment.

The voltage regulator shall maintain its setting for long periods without adjustment. Means shall be provided for a limited degree of manual adjustment of the output voltage setting.

Generator shall be directly coupled to and share a common high bedplate with the prime mover. Cooling of the generator shall be by a radial-flow fan. Generator bearings shall be of the ball or roller type, rated for long life and prepacked with sufficient grease for operating over long periods without replenishment.

The stator and field windings shall consist of electrolytic copper conductors insulated. A generator winding temperature detector (thermistor) installed at the hottest spot and wired to give alarm and shutdown. Thermostatically controlled tubular low-temperature heaters of sufficient rating to maintain the windings in dry condition during long periods of standstill shall be fitted in the stator casing and wired out to a terminal box on the bed plate, which in-turn shall be connected to the 230- volt single-phase supply.

Voltage regulation should be maintained within  $\pm 2\frac{1}{2}\%$  from no load to full load including cold to hot variation at any power factor from 0.8 to unity. Neutral shall be solidly earthed.

## **FUEL STORAGE AND TRANSFER**

The following shall be supplied with the unit.

### **4.3.1 Base Tank**

The machine shall have one integral metal fuel tank (capacity sufficient for 12 hours operation at full load but not less than 2000 litres) and shall be installed in a position where any fuel leakage cannot impinge on exhaust pipe or other hot engine surfaces.

The tank shall be provided with all necessary fittings including fill, vent, drain and overflow line, level indication and access for inspection and maintenance. Level switches shall be provided for the following services.

- (a) Low level alarm
- (b) High level alarm
- (c) Low level start of transfer pump
- (d) High level stop of transfer pump

## **TESTS**

The required tests shall be carried out to show that the generator set meet the duty requirements specified.

## **OPERATION & MAINTENANCE MANUALS**

The Operation & Maintenance manuals of equipment supplied shall be furnished with the generator set with detail diagram of wiring of equipment, frequency of lubrication, operating instructions, etc.

## **FREE MAINTENANCE AND DEFECTS LIABILITY PERIOD**

The contractor shall provide regular maintenance services as per the manufacturer's instructions, which shall include but not limited to the following work, during the twelve (12) months warranty period.

- Inspect, clean, oil and grease where necessary;
- Adjustment of machinery; and
- Replacement of any defective parts.

Further, the contractor shall provide Emergency call back service free of charge during the warranty period.

### **(ii) Supply of One(1) High Performance Liquid Chromatography (HPLC) System (inclusive of installation, training and familiarization)**

The following are the instrument system composition and specifications:

### **(iii)Supply of One (1) 7.5 kVA UPS**

<b>Product Name:</b>	<b>UPS 7.5KVA</b>
<b>Load Capacity:</b>	<b>6000 watts / 7500 VA</b>
<b>Efficiency at Full Load</b>	<b>92.0 %</b>
<b>Input Voltage:</b>	<b>220 – 230 V AC</b>
<b>Output Voltage:</b>	<b>Configurable for 220: 230 or 240 Nominal</b>
<b>Output Voltage Distortion</b>	<b>Less than 3.0 %</b>
<b>Frequency:</b>	<b>50/60Hz + / - 5 Hz</b>
<b>Waveform Type:</b>	<b>Sine Wave</b>
<b>Output Connections</b>	<b>(1) Hard Wire 3-wire (H N + G)</b> <b>(4) IEC 320 C13</b> <b>(4) IEC 320 C19</b> <b>(4) IEC Jumpers</b>
<b>Filtering:</b>	<b>Full time multi-pole noise filtering, 0.3% IEEE surge let-through,</b>
	<b>zero clamping response time</b>
<b>Power Range:</b>	<b>7.5kVA</b>
<b>Overload Protection:</b>	<b>Resettable circuit breakers</b>
<b>Alarm:</b>	<b>On Battery</b>
<b>Alarm:</b>	<b>Low Battery</b>
<b>Alarm:</b>	<b>Overload</b>
<b>Bypass Switch:</b>	<b>Automatic &amp; Manual</b>
<b>Emergency Power OFF:</b>	<b>Yes</b>
<b>Battery Management:</b>	<b>Intelligent battery management</b>
<b>Controls/Indicators</b>	
<b>Status Indicators:</b>	<b>Load bar-graphs</b> <b>Battery bar-graphs</b> <b>On Line</b> <b>On Battery</b> <b>Overload</b> <b>Bypass</b>
<b>Battery Type:</b>	<b>Spill Proof, Maintenance Free, Sealed Lead-acid User-replaceable</b>
	<b>Hot-swappable</b>

<b>Backup/Run Time:</b>	<b>7.1 Minute 6kW Full-load</b>
<b>Backup/Run Time:</b>	<b>19.4 Minute 3kW Half-load</b>
<b>Temperature:</b>	<b>0 °C (32 °F) to 40 °C (104 °F) Operating</b>
<b>Temperature:</b>	<b>-15 °C (5 °F) to 45 °C (113 °F) Storage</b>
<b>Humidity:</b>	<b>0 to 95% Relative Humidity Operating</b>
<b>Humidity:</b>	<b>0 to 95% Relative Humidity Storage</b>
<b>Thermal Dissipation:</b>	<b>1535 BTU/h</b>
<b>Standard Warranty:</b>	<b>2 Year</b>
<b>Parts Warranty/Labor:</b>	<b>2 Year</b>

**(iv) Supply of One (1) Explosion Proof Refrigerator**

<b>Capacity</b>	<b>20.7 cubic feet</b>
<b>Operating Temperature</b>	<b>+2 C to +10 C</b>
<b>Cabinet</b>	<b>Interior Shelving with door storage shelves with interior spark proof</b>
<b>Electrical</b>	<b>220 - 230 V with electrical components steel encased</b>
<b>Frequency</b>	<b>50 / 60 Hz</b>
<b>Insulation</b>	<b>CFC Free Urethane</b>
<b>Refrigeration System</b>	<b>Quiet, Hermitically sealed Compressor</b>
<b>Defrost</b>	<b>Manual with built-in defrost drain</b>
<b>Doors</b>	<b>Non Sparking with magnetic gasket</b>

**(v) Supply of Two (2) Analytical Balances**

<b>Type</b>	<b>Analytical, fully automatic adjustment with internal weight</b>
<b>Housing</b>	<b>Die-cast aluminium</b>
<b>Capacity</b>	<b>61 – 320 g</b>
<b>Readability</b>	<b>0.01 mg – 0.1 mg</b>

<b>Repeatability</b>	<b>0.05 – 0.1 mg</b>
<b>Linearity</b>	<b>0.2 mg</b>
<b>Settling time</b>	<b>5 seconds (maximum)</b>
<b>Calibration</b>	<b>Internal</b>
<b>Stability</b>	<b>Vibrations, drafts</b>
<b>Power</b>	<b>110 – 120 V</b>
<b>Frequency</b>	<b>50 – 60 Hz</b>
<b>Pan Size (diameter)</b>	<b>3 inches (min), chromium-nickel steel</b>
<b>Protective Cover</b>	<b>Transparent made from Borex</b>
<b>Operability</b>	<b>5 – 40 C</b>
<b>Calibration weight certificate of</b>	<b>100g-Class 1 &amp; 300g-Class 1 Calibration masses with calibration</b>

**(vi) Supply and Installation of One (1) six inch Canopy Hood to vent heat steam and of odour from Gas Chromatograph Oven**

<b>Style</b>	<b>Canopy</b>
<b>Location</b>	<b>Suspended from ceiling</b>
<b>Nominal Width</b>	<b>72 inches</b>
<b>Blower size</b>	<b>12 inches</b>
<b>Blower Capacity</b>	<b>1/3 hp, 110 – 240 volt, 50/60 Hz</b>
<b>Blower type</b>	<b>Steel</b>
<b>Duct Connection</b>	<b>Flexible with 12 inch diameter</b>
<b>Duct Damper</b>	<b>12 inch diameter</b>
<b>Elbow coupling</b>	<b>Two (2) 12 inch 90 degree</b>
<b>Duct</b>	<b>Two (2) Thermoplastic 12 inch diameter, 10 feet length</b>
<b>Weather Protection</b>	<b>Helmet type Cap 12 inch diameter</b>

**(vii) Supply of two (2) Laboratory Sinks**

<b>Type</b>	<b>Drop In Lip type</b>
<b>Protection</b>	<b>Epoxy Resin</b>
<b>Bore</b>	<b>Central 2 inch diameter</b>

**Dimension**

**16 X 12 X 8 (Internal)**

**Fitting**

**Compatible Chemical resistant Drain Outlet Fitting**

**Accessories**

**Compatible Chemical Resistant Base Cabinet**

**(viii) Supply of One (1) pH/Conductivity/TDS meter with probes**

<b>Range</b>	pH	-2.00 - 16.00
	Conductivity	0.0 to 19.99, 0 to 199.9, 0 to 1999 $\mu$ S; 0 to 19.99, 0 to 199.9 mS
	TDS	0.00 to 9.99, 10.0 to 99.9, 100 to 999 ppm; 1.00 to 9.99, 10.0 to 99.9, 100 to 200 ppt
	Temperature	32 to 212°F (0 to 100°C)
<b>Resolution</b>	pH	0.01 pH
	Conductivity	0.01, 0.1, 1 $\mu$ S; 0.01, 0.1 mS
	TDS	0.01, 0.1, 1 ppm; 0.01, 0.1, 1 ppt
	Temperature	0.1°F or °C
<b>Accuracy</b>	pH	$\pm$ 0.01 pH
	Conductivity	$\pm$ 1% full scale
	TDS	$\pm$ 1% full scale
	Temperature	$\pm$ 0.5°F or °C
<b>Calibration</b>	pH	up to 5 points (pH 1.68, 4.01, 7.00, 10.01 and 12.45)
	Conductivity	up to 5 points (one point per range)
	TDS	up to 5 points (one point per range)
	Temperature	offset in 0.1° increments
<b>Temp compensation</b>		Automatic or manual
<b>Conductivity temp coefficient</b>		Adjustable from 0.0 to 10% per °C
<b>Conductivity cell constant</b>		Fixed at k = 1.0 cm <sup>-1</sup>
<b>Conductivity-to-TDS calibration values</b>		Adjustable from 0.4 to 1.0

<b>Display</b>	Dual LCD shows measurement plus temperature
<b>Power</b>	110 VAC
<b>Frequency</b>	50/60 Hz
<b>Operating temperature</b>	32 to 122°F (0 to 50°C)

**(ix) Supply of One (1) Electronic Dessicator with Built-In Hygrometer**

<b>Type</b>	<b>Electronic with Built In Hygrometer</b>
<b>Power</b>	<b>110 V 5 0/60 Hz</b>
<b>Pressure Relief Valve</b>	<b>Yes</b>
<b>Shelves</b>	<b>Two Adjustable in ½ inch increments</b>
<b>Humidity level</b>	<b>35% (Maximum)</b>
<b>Regeneration Time</b>	<b>30 Minutes (Maximum)</b>
<b>Structure</b>	<b>Stainless Steel &amp; Glass</b>
<b>Orientation</b>	<b>Vertical</b>
<b>Size (Internal)</b>	<b>11inches x 12 inches x 10 inches</b>

**(x) Supply of One (1) Deioniser**

<b>Description</b>	<b>Specification</b>
<b>Inlet Temperature</b>	40-120 <sup>0</sup> C
<b>Maximum flow rate</b>	1.5 litre per minutes
<b>Pressure feed</b>	1.6 litre per minutes
<b>Maximum inlet pressure</b>	100 psi
<b>Power</b>	90- 240 V, 50/60Hz
<b>Filter Cleaning</b>	Automatic Flush
<b>Water exiting the system</b>	≤ 1CFU/ml bacteria level
<b>Delivery</b>	8 feet (minimum)
<b>Dispenser</b>	Yes
<b>Mounting</b>	wall mounted
<b>Cartridges Packs</b>	Ultra Low Organic cartridges that produce

	water with a conductivity of $\leq 1.5\mu\text{S/cm}$
<b>Filter Final</b>	0.2 Hallow FB

**(xi) Supply of One (1) Density Determination Kit for Analytical Balances**

**Kit must include beakers, bar frame, thermometer with retainer clip, glass plummet, sieve for immersing samples, sample holder, metal platform, gasket and adapters.**

**(xii) Supply of the Pesticide Analytes (standards) for Chromatographic Evaluations**

**The following standards are required in compatible combination in the minimum quantity determined by the supplying laboratory with certificate of authenticity with a minimum shelf life of six or more months.**

1. Abamectin
2. Acetamiprid
3. Alpha Cypermethrin
4. Azoxystrobin
5. Benomyl
6. Captan
7. Carbaryl
8. Carbendazim
9. Chlorfenapyr
10. Chlorfenvinphos
11. Chlorothalonil
12. Chlorpyrifos
13. Cypermethrin
14. Cyromazine
15. Diafenthiuron
16. Diazinon



17. Dimethoate
18. Dimethomorph
19. Fentin Acetate
20. Fenvalerate
21. Fipronil
22. Imidacloprid
23. Lamda Cyhalothrin
24. Malathion
25. Mancozeb
26. Methamidophos
27. Methomyl
28. Metribuzin
29. Monocrotophos
30. Oxamyl
31. Padan
32. Paraquat Dichloride
33. Permethrin
34. S-Metholachlor
35. Thiophanate - methyl
36. Tolclofos-methyl

**(xiii) Supply of Reagents**

**The following is the name of the required reagents and the quantity. All reagents supplied must be of analytical standard for Chromatography.**

<b>Ammonia</b>	4 l
<b>Ammonium iron (III) sulphate</b>	500g
<b>Ammonium thiocyanate</b>	500g
<b>Arsenic (III) oxide,</b>	100g
<b>Barium hydroxide,</b>	500g
<b>Bromothymol blue,</b>	200g
<b>Bromophenol blue,</b>	100g

Liquid paraffin	2 l
Florisil Absorbent (50-200)	12 kg
Docone	200g
Hydrolysis Reagent C47, CB130 chromatographic grade	9500 mls
Xylene	2 l
Congo red,	100g
Acetonitrile HPLC grade	40 l
Cetylpyridinium bromide,	100g
Dimethyl sulphate	200g
Hydrochloric acid,	8 l
Potassium iodate/iodide,	200g
Iodine,	200g
Methyl orange	100g
Potassium dichromate,	500g
Potassium hydroxide,	500g
Potassium permanganate,	1kg
Potassium thiocyanate	500g
Silver nitrate	500g
Sodium hydroxide	500g
Starch Granules	1kg
Fehling's solution	1 kg
Sulphuric acid	12 l
Thymol blue	100g
Ammonium trioxovanadate (V)	300g
Zinc amalgam	300g
Acetone HPLC grade	12 l
Diazomethane	2 l
Mineral oil	1 l
disodium dihydrogen ethylenediaminetetra-acetate	200g
EDTA sodium salt	500g
Ethylenediamine tetraacetic acid,	200g
diAmmonium iron (II) sulphate	200g
Sodium nitrite,	200g
Propan-2-ol	12 l

Potassium bromate,	500g
Perchloric acid,	4 l
Silver diethyldithiocarbamate	200g
Orthophosphoric Acid	300g
Sodium biphenyl	100g
Pyridine	500g
Dioxane	1 kg
Methanol	16 l
n-Heptane	12 l
Nitric acid,	12 l
Sodium carbonate	500g
Erichrome Black T	200g
Mordant black,	100g
Naphtholbenzein,	200g
Bromocresol green,	100g
Hydrogen peroxide	500ml
Mercury(II)sulphate,	500g
Deniges reagent	500g
Iodine,	200g
4,4'-Bipyridyl	200g
2,2'-Bipyridyl	200g
o-Phthaladehyde Diluents , CB910 chromatographic grade	9500 mls
Aromatic solvent naphtha )	4 l
Diisopropyl ether	4 l
Chloroform	16 l
Acetic Acid Glacial , ACS	24 l
Orthophosphoric Acid	200g
6-Chloro-2-methylphenoxyacetic acid	2 l
6-Chloro-o-tolyloxyacetic acid	2 l
4,6-Dichloro-o-tolyloxyacetic acid	2 l
4,6-Dichloro-2-methylphenoxyacetic acid	2 l
2-Methylphenoxyacetic acid	2 l
o-Tolyloxyacetic acid	2 l

<b>6-Chloro-p-cresol</b>	1 l
<b>4,6-Dichloro-o-cresol</b>	100g
<b>Sodium bis(2-ethylhexylcarbonyl) ethane sulphonate</b>	500g
<b>Sodium bis(2-ethylhexyl) sulphosuccinate</b>	500g
<b>o-Cresol</b>	100g
<b>2,6-Dichlorophenol</b>	2 l
<b>Kerosene</b>	2 l
<b>Potassium plumbite</b>	100g
<b>Thymolphthalein,</b>	100g
<b>n-Hexane</b>	4 l
<b>Nitron</b>	2 l
<b>2,4-Dichlorobenzoic acid</b>	2 l
<b>Hexadecanoic acid</b>	2 l
<b>Palmitic acid</b>	2 l
<b>Copper ethylenediamine sulphate</b>	500g
<b>Hydroxylammonium chloride</b>	500g
<b>Potassium bromate/bromide,</b>	500g
<b>Titanium(III)chloride</b>	200g
<b>Iron (III) chloride</b>	500g
<b>Titanium(III)sulphate</b>	200g
<b>Bis (ethylenediamine) copper (II) sulphate</b>	200g
<b>O,O-Dimethyl S-</b> <b>methylcarbamoylmethylphosphorodithioate</b>	200g
<b>Methyl (dimethoxyphosphinothioylthio) acetate</b>	200g
<b>O,O,S-Trimethylphosphorodithioate</b>	200g
<b>Undec-10-enoic acid</b>	200g
<b>Lead,</b>	100g
<b>Methyl undec-10-enoate</b>	100g
<b>diAmmonium hydrogen citrate</b>	200g
<b>Isobutyl benzoate</b>	200g
<b>Xylenol Orange</b>	200 g
<b>Zinc chloride,</b>	500g
<b>Sodium diethyldithiocarbamate trihydrate</b>	2 kg
<b>1,1,1-Trichloroethane</b>	2 l
<b>Potassium iodate</b>	500g

<b>Cerium (IV) sulphate,</b>	500 g
<b>m-Cresol</b>	100g
<b>p-Cresol</b>	100 g
<b>4-Chloro-m-cresol</b>	100g
<b>Dithizone</b>	200g
<b>4-Chloro-o-cresol</b>	200g
<b>Crystal violet,</b>	200g
<b>Cadmium,</b>	100g
<b>diAmmonium peroxosulphate</b>	200g
<b>Potassium dihydrogen orthophosphate</b>	500g
<b>diSodium tetraborate</b>	500g
<b>Tannic acid</b>	200g
<b>Borax</b>	500g
<b>Mercury(II)chloride</b>	1 kg
<b>Butylmagnesium chloride</b>	1 kg
<b>Magnesium sulphate,</b>	500g
<b>n-Octacosane</b>	200g
<b>PCAF Reagent</b>	200g
<b>Pentacyanoaminoferroate</b>	200g
<b>Sodium pentacyanonitrosylferrate(III)</b>	500g
<b>Ammonium cerium (IV) nitrate</b>	200g
<b>Ammonium hexanitratocerate (IV)</b>	200g
<b>Sodium anilinobenzene sulphonate</b>	200g
<b>Sodium diphenylaminesulphonate</b>	200g
<b>(Tris(1,10-phenanthroline)-N,N')iron(II) sulphate</b>	200g
<b>Ferroun sulphate,</b>	500g
<b>Dimercury dicyanide oxide</b>	200g
<b>Toluene</b>	4 l
<b>Carbon disulphide</b>	200g
<b>Mercuric oxycyanide</b>	200g
<b>Cyclohexane</b>	24 l
<b>Hexane (Analytical grade)</b>	24 l
<b>Anhydrous granular sodium sulphate</b>	3 kg
<b>Sodium thiosulphate</b>	3 kg



<b>Wash Bottles 500ml</b>	6
<b>Thermometers -5 to 200</b>	3
<b>Coarse fritted disc 400 mm x 19 mm</b>	4
<b>Ceramic Buchner Funnel, 550ml, 110 mm diameter</b>	4
<b>Buchner Funnel, 12mm diameter</b>	6
<b>Vacuum pump, Power 90-240V , 50/60Hz with minimum flow rate of 20 lpm and vacuum of 200 mm Hg.</b>	1

## APPENDIX IX

### Licensed Vending Premises

<b>East Coast Demerara and WCB</b>		
<b>No.</b>	<b>Name</b>	<b>Address</b>
1	Abdool Zaleem Gaffar	9 Cotton Tree WCB
2	Deoanand Dass	Mahaica Market Stalls 26-27 ECD
3	Jailall Persaud	Lot 6 Beehive, ECD
4	James Ally	38 Logwood Enmore ECD
5	Madray Rathanam	Lot 8 Quaker's Hall West Mahaicony, ECD
6	Nalini Devi Prettipaul	Lot D9 Wellington Bath Settlement, WCB
7	Narine's Pharmacy	29 Logwood Enmore ECD
8	Ramdehol Bissoondat	Lot B1 Bath Settlement, WCB
9	Y.K. Sahib and Sons	Lot 1 Section A Clonbrook ECD
10	Yodhan Raghunandan	Lot 8 Riverview Lancaster Unity, ECD
11	Agri Quality	Lot 19 Section B Bush Lot, WCB

12	Ramdial Ramotar	Lot 3 Waterloo Bath Settlement,WCB
13	Arjune Budhu	532 Simon Sue ST,Enterprise,ECD
14	Neimeraj Khilawan	Lot 1 Public Road, Belmonte,Mahaica ECD
15	Kamrool Bacchus	17 Strath Campbell, Mahaicony Branch Road
16	RajendraPersaud	Lot 17 Good Faith Mahaicony ECD
17	Bibi Nadira Persaud	Lot 17 Novar Mahaicony ECD
18	Nareshwar Ragonandan	57 Section C Access Road Cloonbrook ECD
19	Khamraj Bholanath	Mahaica Market Stalls 28-29 ECD
20	Rohan Persaud	Wash Clothes Mahaicony ECD
21	Bisram Basantram	22 'A' Cotton Tree WCB
22	Junior Hope	12 Public Road Golden Grove ECD
23	Nandraine Meusa	Mon Repos Market Stall # 185 ECD

### Georgetown

No.	Name	Address
1	AINLIM	R6 Ruimveldt Georgetown
2	FCT Americas (Amazon chemicals)	213 Barr Street Kitty, G/Town
3	Deonarine Ramgobin	44 Robb Street, Georgetown
4	Geddes Grant	R6 Ruimveldt Georgetown
5	Sanjay Kumar	9 America and Longden Street Georgetown
6	Caribbean Chemicals	45 Croal Street Georgetown
7	FCT Americas (Amazon chemicals)	13 Ruimveldt Industrial Estate, Georgetown
8	Royston Beepat (Giftland Officemax)	13 'A' Water & Holmes Street Georgetown

### EBD, WCD, EBE and Linden

No.	Name	Address
1	Boodhoo's General Store	299 N1/2 parika Highway EBE
2	Faizul Ally	Plot #7 Parika Backdam EBE
3	Ieon Herewood	32 Crescenr Plaza Coop Crescent Linden
4	Laldeo Bukhan	118 Tuschen New Scheme EBE
5	Laldeo Bukhan	252-254 Parika Highway EBE
6	Laldeo Bukhan	Parika Old Road EBE
7	Lalta Digamber	39 New Road WCD
8	Lalta Digamber	40 N-Sec Canal #2 WBD
9	Rajesh Ganesh	Lot 32 Parika Backdam EBE
10	Debi Bajan Rambhajan	Present Hope EBE
11	Khemraj Ramlochan	Lot L Post Street Windsor Forest WCD
12	Deonarine Ramgobin	8 Station Street,Leonora , WCD
13	Ramesh Sugrim	Lot 8 La Union WCD
14	Krishan Katwaru	90-91 Canal #2 WBD



15	Dinesh Kumar	Lot 4 New Angle Canal #2 WBD
16	Fazal Ali	Lot 35 La Jalousie WCD
17	Mohamed Sadik	1130 Parika EBE
18	Rawachand	374 Craig Public Road EBD

### East Berbice

No.	Name	Address
1	Abdool Jameel Uddin	#57 Village Corentyne Berbice
2	Abdool Jameel Uddin	#71 Village Corentyne Berbice
3	AINLIM	Lot 3 Strand New Amsterdam Berbice
4	Chand Kumar Hardyal (Vishnu Super Store)	90 Springlands Corriverton Berbice
5	Deomattie Sukhram	Bengal Farm Corentyne Berbice
6	Geddes Grant Guyana LTD	Lot 16 Strand New Amsterdam Berbice
7	Dudnath's Hardware & Agri Centre	Lot 1 Sec.A #79 Corriverton Berbice
8	Gubas Ramrup	Lot 5 Third Street Seawall Village Berbice
9	Haresh Rama	24 Grant 1651 Crabwood Creek Berbice
10	Jason Beram Singh (Numark Chemicals)	19 Main and Pope Streets New Amsterdam
11	Khalil Nizamudeen	41 Rampoor Scheme Corriverton Berbice
12	Leekha Rambrich	Bengal Farm, Corentyne Berbice
13	Hanif Mohammed Kamalodeen	Lot 5 Number 46 Village Corentyne Berbice
14	Nanlall Hardwar	Lesbeholden BBP Berbice
15	Outram Ramprashad	49 Mibikuri BBP Berbice
16	Poonai Bhigroog (Poonai's Pharmacy)	Lot 72A Rosehall Town Berbice
17	Seunarine Hardeen	325 # 55 Village Corentyne Berbice
18	Sheik Sattaur	#71 Village Corentyne Berbice
19	Sorojodin Jewdhan	91 Yakusari South BBP Berbice
20	Sukhram's Filling Station V. (Sukhram)	Hogsty Berbice
21	Vimal Ganesh	7&8 Bush Lot Corentyne Berbice
22	Vishnu Sukhram	Rosehall Town Berbice
23	Sunil Adhar	12 Section B # 58 Village Berbice
24	FCT Americas (Amazon chemicals)	Rosehall Town Berbice
25	Mohamed Baksh	23 Zone Yakusari South BBP Berbice
26	Agri Quality (R. Nizamudin)	54 Public Road # 47 Village, Corentyne Berbice
27	Bhavna Khemraj	8 Grant 1651 Crabwood Creek Berbice
28	Rajendra Thakur	23 Grant 1803 Crabwood Creek Berbice
29	Caribbean Chemicals	Lot 23 Miss Phoebe, Port Mourant, Corentyne

### Region II Essequibo Coast

No.	Name	Address
1	Abdool Ansar Azam	Lima New Housing Scheme Essequibo
2	Imam Bacchus & Sons Ltd.	Affaiance Essequibo Coast

3	AINLIM	Land of Plenty,Essequibo Coast
4	Alfro Alphonso (A&S General Store)	Stall 13 Charity Market Essequibo Coast
5	Anand Singh	New Road Essequibo Coast
6	Ariff Mohammed Khan (Riff's Lima Fish Complex)	Lima Essequibo Coast
7	Ariff Mohammed Khan	Anna Regina Essequibo Coast
8	Ariff Mohammed Khan	Good Hope Essequibo Coast
9	Azad Bacchus	47 Cottonfield Essequibo Coast
10	Balram Kawal	11 Land of Plenty Essequibo Coast
11	Basdeo Manman	40 Bush Lot Essequibo Coast
12	Boodhoo's General Store	Anna Regina Essequibo
13	Caribbean Chemicals	Lot C Anna Regina Essequibo Coast
14	Chate Narine	6 Paradise Essequibo Coast
15	Ravin Dalchand	Suddie Market Essequibo
16	Ravin Dalchand	Anna Regina Market Essequibo
17	Ravin Dalchand	26 Adventure Essequibo
18	Ravin Dalchand	Charity Market Essequibo
19	GM&R Trading	Lot 100 Charity Essequibo Coast
20	GM&R Trading	Lot 1 Danielstown Essequibo Coast
21	Indar Singh	22 Airy Hall Essequibo
22	Parmanan Persaud	78 Huist Dierrien Essequibo
23	T and R Bisnauth	Lot A6 Spring Garden Essequibo Coast
24	Roopnarine Bisnauth	Stall #5 Supenaam Market Essequibo Coast
25	Samaroo's Investment	201 Hampton Court Essequibo
26	Sohanlall Baboolall	47 Public Road Queenstown Essequibo Coast
27	Sundar Persaud	6 Tayamouth Manor Essequibo
28	Tekram Sankar	28 Dennis Street Anna Regina
29	Thelma Matorah	50 Aurora Essequibo Coast
30	Vincent Persaud	West Bury Essequibo Coast
31	Yoolaim Bacchus	92b Makeshift Aurora Essequibo Coast
32	S & Z Mohamed	49 Aurora Essequibo Coast
33	Ravin Dalchand	181 Pamona Housing Scheme,Essequibo Coast
34	Paras Ramdial	Supenaam Market
35	Ram Bisnauth	Stall #3 Supenaam Market Essequibo Coast
36	Sukhdeo Trading Enterprise	Bounty Hall Essequibo Coast
37	Ramnarine Talgit	Stall # 27 Charity Market Essequibo
38	A & M.Z Yassim	Lot 11 Middlesex, Essequibo Coast

**APPENDIX X**

**PESTICIDES AND TOXIC CHEMICALS CONTROL BOARD**

**BALANCE SHEET**

**AS AT DECEMBER 31<sup>ST</sup> 2007**

		<b>NOTES</b>	<b>\$</b>	<b>\$</b>
<b>2006</b>				<b>2007</b>
<b>6,660,482</b>	<b>FIXED ASSETS</b>	<b>4</b>		<b>6,672,361</b>

**CURRENT ASSETS**

8,462,369	Cash at Bank and on Hand	10,854,327	
<b><u>8,462,369</u></b>	<b>NET CURRENT ASSETS</b>	<b>10,854,327</b>	
<b><u>15,122,851</u></b>	<b>NET TOTAL ASSETS</b>		<b><u>17,526,688</u></b>

**FINANCED BY:**

<b>9,117,654</b>	Capital Contribution		<b>9,117,654</b>
<b><u>6,005,197</u></b>	Surplus		<b><u>8,409,034</u></b>
<b><u>15,122,851</u></b>			<b><u>17,526,688</u></b>

<b>Leslie Munroe</b>	<b>Date</b>	<b>Basudeo Dwarka</b>	<b>Date</b>
<b>Chairman</b>		<b>Registrar</b>	

**PESTICIDES AND TOXIC CHEMICALS CONTROL BOARD**

**STATEMENT OF INCOME AND EXPENDITURE**

**FOR THE YEAR ENDED DECEMBER 31<sup>ST</sup> 2007**

2006	OPERATING INCOME	NOTE	2007
		S	
\$			\$
17,658,254	Subvention		17,658,254
1,847,054	Miscellaneous Income	2	<u>1,847,054</u>
<b>19,505,308</b>			<b><u>19,505,308</u></b>
	<b>OPERATING EXPENDITURE</b>		
10,814,544	Employment Costs	3	15,133,129
0	Local Travel & Subsistence		0
468,000	Fees (Board Members)		476,000

1,285,184	Office Materials & Supplies		616,267	
293,341	Building Maintenance		3,451,030	
2,639,559	Print & Non-Print Materials		1,791,145	
573,130	Fuel and Lubricants		505,378	
926,510	Office Equipment Maintenance		536,030	
626,982	Spares and Service		458,501	
197,800	Telephone Charges		363,244	
210,645	Refreshments		341,330	
12,775.00	Bank Charges		15,400	
4,305,500	Meetings & Other Events		3,193,484	
0	Electricity Charges		823,339	
0	Inspection		806,674	
1,281,592	Depreciation	1	1,326,996	
<b><u>23,635,562</u></b>				<b><u>29,837,946</u></b>
<b><u>(4,130,254)</u></b>	<b>Net Surplus/(Deficit)</b>			<b><u>2,403,837</u></b>

## PESTICIDES AND TOXIC CHEMICALS CONTROL BOARD

### CASH FLOW STATEMENT

AS AT DECEMBER 31<sup>ST</sup> 2007

NET INFLOW (OUTFLOW) FROM OPERATING ACTIVITIES 2,403,837

Depreciation 1,326,996

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**3,730,833**

<b>Cash Flow From Purchasing Capital Items</b>	1,338,875
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Cash Inflow (Outflow) before Financing	2,391,958
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**Financed By**

Government Contributions	0
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Net Increase / Decrease in Cash	<u>2,391,958</u>
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**PESTICIDES AND TOXIC CHEMICALS CONTROL BOARD**

**FIXED ASSET SCHEDULE AS AT DECEMBER 31<sup>ST</sup> 2007 (Note 4)**

	Motor Vehicle	Equipment	Furniture	Books & Accessories	Total
			\$		
<b>Opening Balance</b>	7,943,000	3,661,933	174,000	223,441	12,002,374
<b>Additions</b>	174,000	992,991	171,884	0	1,338,875
<b>Disposal</b>	0	-	0	0	0
<b>Balance as at 31/12/2006</b>	<b>8,117,000</b>	<b>4,654,924</b>	<b>345,884</b>	<b>223,441</b>	<b>13,341,249</b>
<b><u>DEPRECIATION</u></b>					
<b>Opening Balance</b>	4,042,236	1,158,418	19,800	121,438	5,341,892
<b>Disposal</b>	0	0	0	0	0
<b>Charges for the year</b>	780,152	500,703	30,840	15,301	1,326,996
<b>Balance as at 31/12/2006</b>	<b>4,822,388</b>	<b>1,659,121</b>	<b>295,244</b>	<b>86,702</b>	<b>6,668,888</b>
<b>NET BOOK VALUE</b>	<b>3,294,612</b>	<b>2,995,803</b>	<b>295,244</b>	<b>86,702</b>	<b>6,672,361</b>

**APPENDIX XI**

**PESTICIDES AND TOXIC CHEMICALS CONTROL BOARD**

*ACCOUNTS FOR PERIOD ENDING DECEMBER 31 2008*

<b>Subvention</b>			
	Balance 2007		\$10,854,327.82
	Year To Date		\$17,901,000.00
	<b>Total</b>		<b>\$28,755,327.82</b>
<b>Expenditure</b>			<b>Year To Date</b>
	Laboratory Expenses	\$0.00	\$11,522,706.00
	Inspection	\$300,000.00	\$ 1,512,000.00
	Wages	\$1,962,764.00	\$20,727,884.00
	Fees	\$255,000.00	\$553,000.00
	Allowances	\$0.00	\$2,118,768.00
	NIS	\$59,644.00	\$766,639.00
	Fuel & Lubricants	\$96,200.00	\$1,751,698.00
	Spares & Servicing	\$293,336.00	\$1,101,254.00
	Office Material & Supplies	\$0.00	\$2,217,928.00
	Print Materials	\$103,802.00	\$4,022,575.00
	Meetings & Other Events	\$640,330.00	\$6,119,882.00
	Telephone Charges	\$103,990.00	\$878,333.00
	Refreshments	\$0.00	\$212,684.00
	Office Building Maintenance	\$45,000.00	\$512,165.00
	Office Equipment Maintenance	\$0.00	\$1,365,697.00
	Travelling Expenses	\$0.00	\$81,627.00
	Electricity Charges	\$224,174.00	\$2,463,174.00
	Bank Charges	\$0.00	\$13,100.00
	<b>Total</b>	<b>\$4,084,240.00</b>	<b>\$57,941,114.00</b>
<b>Income</b>			
	Administrative Fees	\$1,090,872.00	\$ 30,547,260.00
	Interest	\$0.00	\$27,903.35
	Others	\$1,000.00	\$ 4,506,200.00
<b>Balance</b>			<b>\$5,895,577.17</b>
	NBIC (Management Account)		\$4,435,202.67
	NBIC (Current Account)		\$1,037,918.50
	Cash In Hand		\$422,456.00
	<b>Total</b>		<b>\$5,895,577.17</b>



## APPENDIX XII

### List of chemicals prohibited in Guyana

- (a) 2,4,5-T and its salt and esters;
- (b) Aldrin;
- (c) Captafol;
- (d) Chlordane;
- (e) Chlordimeform;
- (f) Chlorobenzilate;
- (g) Dieldrin;
- (h) Dinoseb;
- (i) 1-2-Dibromoethane;
- (j) Fluoroacetamide;
- (k) Heptachlor;
- (l) Hexachlorobenzene;
- (m) Lindane;
- (n) Mercuric chloride;
- (o) Methyl Parathion;
- (p) Mirex;
- (q) Parathion;
- (r) Pentachlorophenol;
- (s) Phosphamidon;
- (t) Toxaphene;
- (u) Mixed Isomers of Hexachlorocyclohexane; and
- (v) Endrin.

**Appendix XIII**  
**Pesticides Confiscated 2008**

Vending Premises	Address	Pesticides Name	Unit/Container	Amount of Containers	Class	Remarks
Medic Aid Pharmacy  17-03-2008	39 Logwood, Enmore, East Coast Demerara	Grassknife (Metsulfuron-methyl)	10 grams	169	H	Ally suspected pilfered from Guysuco and repackaged
		Round up	250 ml	4	H	Repackaged
		2,4-D Amine	500 ml	3	H	Repackaged
		Glyphosate	1 l	2	H	Damaged and Unsealed
		Round up Ultra	1 l	7	H	Repackaged
		2,4-D Amine	1 l	3	H	Repackaged
		Cutlish	250 ml	3	H	Repackaged
		Weedkiller	250 ml	1	H	Repackaged
		Unlabelled	2.5 gl	5	H	Pesticides found in containers specific to Guysuco ( Igran&Dual Gold)
		Unlabelled	1 gl	5	H	Pesticides found in containers specific to Guysuco ( Igran&Dual Gold)
		Farmixone	1 gl	1	H	Illegal - Suriname
		Karatine	250 ml	3	I	Brown bottle unsealed
		Dragnet	250 ml	9	I	Illegal - Suriname
		Cyanmid	250 ml	3	I	Illegal - Suriname
		Malathion	1 l	1	I	Illegal - Suriname
		Diazion	250 ml	17	I	Illegal - Suriname
		Monocrotophos	1 l	1	I	Illegal - Suriname
Dragnet	1 l	8	I	Illegal - Suriname		
Narine's Pharmacy  17-03-2008	29 Logwood, Enmore, East Coast Demerara	Monophos	250 Mls	1	I	Illegal - Suriname

Jailall Persaud  <b>18-03-2008</b>	6 Beehive East Coast Demerara	Fusirore	500 Mls	9	I	Illegal - Suriname
		Karteka	250 Mls	10	I	Illegal - Suriname
		Malathion	250 Mls	2	I	Illegal - Suriname
		Abamectin	250 Mls	3	I	Illegal - Suriname

Yodhan Raghunandan  <b>18-03-2008</b>	8 Riverview, Lancaster,East Coast Demerara	Glyphosate	1 L	5	H	Illegal - Suriname
		Fusirore	500 Mls	5	I	Illegal - Suriname
		Hostathion	250 Mls	9	I	Repackaged
		Regent	200 Mls	2	I	Repackaged
		Abamectin	200 Mls	2	I	Illegal - Suriname

D. Dass  <b>18-03-2008</b>	Stall # 25 Mahaica Market	Glyfokill	1 L	1	H	Illegal - Suriname
		Ronstar	500 Mls	1	H	Illegal - Suriname
		Farmizone	1 L	4	H	Illegal - Suriname
		Weedkiller	1 L	1	H	Illegal - Suriname
		Sandox Agri	1 L	1	I	Illegal - Suriname
		Fastax	1 L	1	I	Illegal - Suriname
		Aluminum Phosphate	500 Grams	1	I	Illegal - Suriname
		Fastac	250 Mls	1	I	Illegal - Suriname
		Rebevo	200 Mls	1	I	Illegal - Suriname
		Monodrin	1 L	2	I	Illegal - Suriname
		Karteka	250 Mls	8	I	Illegal - Suriname
		Malathion	1 L	1	I	Illegal - Suriname
		Superkill	1 L	1	I	Illegal - Suriname
		Admister	250 Mls	2	I	Illegal - Suriname
		Karatox	250 Mls	1	I	Illegal - Suriname
		Commando	250 Mls	1	I	Illegal - Suriname
		Candela	250 Mls	1	I	Illegal - Suriname
		Superkill	500 Mls	1	I	Illegal - Suriname
		Admajor	250 Mls	1	I	Illegal - Suriname
Malathion	250 Mls	1	I	Illegal - Suriname		

		Carbendazim	1 Kg	5	I	Illegal - Suriname
		Prontax	500 Grams	6	I	Illegal - Suriname
		Bellmark	250 Mls	1	I	Illegal - Suriname
		Unlabell	1 L	1	I	Unlabell
		Vydate-L	250 Mls	1	I	Broken Seal
		Fuzi One	500 Mls	1	F	Illegal - Suriname

Agri Quality  <b>31-03-2008</b>	19 Section "B", Bush Lot ,West Coast Berbice	Fusirore	500 Mls	34	I	Illegal - Suriname
		Prontax	500 Grams	12	I	Illegal - Suriname
		Best Act	1 L	4	I	Illegal - Suriname
		Admajor	500 Mls	15	I	Illegal - Suriname
		Karteka	1 L	20	I	Illegal - Suriname
		Karteka	250 Mls	4	I	Illegal - Suriname
		Abamectin	250 Mls	31	I	Illegal - Suriname
		Abalotin	500 Mls	17	I	Illegal - Suriname
		Fentin Acetate	1 Kg	2	I	Illegal - Suriname
		Admistar	250 Mls	33	I	Illegal - Suriname
		Turque	250 Mls	12	I	Illegal - Suriname
		Malathion	250 Mls	16	I	Illegal - Suriname
		Malathion	500 Mls	8	I	Illegal - Suriname
		Nomina	100 Grams	18	I	Illegal - Suriname
		Cure	30 Mls	7	I	Repackaged and Relabelled
Ronstar Flo	160 Mls	3	I	Repackaged and Relabelled		

Katcha General Store  <b>31-03-2008</b>	"B1" Bath Settlement, West Coast Berbice	Metsulfuron Methyl	100 Grams	22	H	Illegal - Suriname
		Herbizone	1 L	13	H	Illegal - Suriname
		Biopel 2X	500 Grams	22	I	Illegal - Suriname
		Malathion	1 L	5	I	Illegal - Suriname
		Armado	250 Mls	1	I	Illegal - Suriname
		Admister	250 Mls	9	I	Illegal - Suriname
		Turque	250 Mls	1	I	Illegal - Suriname

R.Parmanand 31-03-2008	27 Section 'C' Bath Settlement, West Coast Berbice	Admajor	500 Mls	4	I	Illegal - Suriname
		Turque	250 Mls	3	I	Illegal - Suriname
China Trading 03-07-2008	32 Robb Street Georgetown	Mosquito Coils	Packs	100	I	Illegal – Not Registered
		Fly Bait	Boxes	41	I	Illegal – Not Registered
		Ant Killing Bait	Cartons	12	I	Illegal – Not Registered
		Ant Killing Bait	Boxes	38	I	Illegal – Not Registered
Mohamed Hack 12-09-2008	3-4 La Jalousie West Coast Demerara	Lion Brand Spirales Mosquito Coils	Packs	228	I	Illegal – Not Registered
		Goldeer Aerosol Insecticides	Tins	123	I	Illegal – Not Registered
U. Chaitram 12-09-2008	84 Tuschen East Bank Essequibo	Lizi Pai Mosquito Coils	Packs	2580	I	Illegal – Not Registered
		Lion Brand Mosquito Coils	Packs	5040	I	Illegal – Not Registered
Sheik Sattaur 17-09-2008	71 Village Corentyne Berbice	Farmixone	1 L	79	H	Illegal - Suriname
		Karteka	1 L	2	I	Illegal - Suriname
		Admajor	1 L	9	I	Illegal - Suriname
		Manzeb	Kg	14	F	Illegal - Suriname

**APPENDIX XIV**

**Organisational & Personnel Chart for the Pesticides and Toxic Chemicals Control Board**

