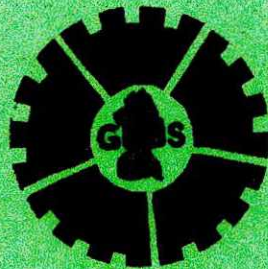


**GUYANA NATIONAL BUREAU OF STANDARDS  
(GNBS)**



**ANNUAL REPORT 2002**

**Promoting Standards and Quality in Guyana**

**Guyana National Bureau of Standards  
National Exhibition Centre  
Sophia  
Greater Georgetown  
Guyana**

**January 2003**

**GUYANA NATIONAL BUREAU OF STANDARDS  
(GNBS)**

**ANNUAL REPORT**

**2002**

**Guyana National Bureau of Standards  
National Exhibition Centre  
Sophia  
Greater Georgetown  
Guyana**

# CONTENTS

|  | <b>Page</b> |
|--|-------------|
| (i) Vision and Mission of GNBS   | i           |
| (ii) Members of National Standards Council                             | ii          |
| (iii) Executive Officers   | iii         |
| (iv) Departments/Work Programmes                                       | iii         |
| (v) Executive Summary  | iv          |
| <b>0.0 INTRODUCTION</b>  | <b>vi</b>   |
| <b>1.0 STANDARDISATION DEPARTMENT</b>                                  | <b>1</b>    |
| 1.1 Standards development  | 2           |
| 1.2 Standards promotion  | 2           |
| 1.3 Standards implementation   | 3           |
| 1.4 Regional and International standards                               | 4           |
| 1.5 Codex activities   | 4           |
| <b>2.0 MANAGEMENT SYSTEMS DEPARTMENT</b>                               | <b>6</b>    |
| 2.1 Laboratory Certification   | 7           |
| 2.2 Product Certification (Standards Mark)                             | 14          |
| 2.3 Quality Management System (QMS)                                    | 19          |
| 2.4 Environmental Management Systems (EMS)                             | 23          |
| 2.5 Conformity Assessment  | 26          |
| <b>3.0 ENGINEERING/METROLOGY &amp; STANDARDS COMPLIANCE DEPARTMENT</b> | <b>30</b>   |
| 3.1 Weights and Measures   | 30          |
| 3.2 Standards Compliance   | 36          |
| <b>4.0 INFORMATION SERVICES DEPARTMENT</b>                             | <b>40</b>   |
| 4.1 Public Awareness   | 40          |
| 4.2 Metrication  | 46          |
| 4.3 Technical Standards Information Unit                               | 51          |

|            |  |  |
|------------|--|--|
| <b>5.0</b> | <b>ADMINISTRATION AND FINANCE DEPARTMENT</b> | <b>53</b>  |
| 5.1        | Administration                               | 53   |
| 5.2        | Finance                                      | 57   |
| 5.3        | Challenges                                   |  |
| <b>6.0</b> | <b>OBSERVATIONS AND COMMENTS</b>             | <b>58</b>  |
| <b>7.0</b> | <b>PROJECTIONS FOR 2003</b>                  | <b>60</b>  |
| <b>8.0</b> | <b>APPENDIX I</b>                            | <b>- List of Standards approved by National Standards Council.</b> |
|            | II   | - GNBS in-house training programme schedule.                       |
|            | III  | - Income and Expenditure statement - Subvention.                   |
|            | IV   | - Income and Expenditure statement -Other Income.                  |

**(i) VISION OF GNBS**

*To improve the quality of life of the people of Guyana through the process of standardization.*

**MISSION STATEMENT**

*To promote standardization and quality systems in the production and importation of goods and services for the protection of the consumer and the advancement of local and foreign trade thereby improving the quality of life of the people of Guyana.*

**(ii) MEMBERS OF NATIONAL STANDARDS COUNCIL, 2002**

|     |                            |          |  |
|-----|----------------------------|----------|--|
| 1.  | Dr. David Singh            | Chairman | Environmental Protection Agency.                         |
| 2.  | Dr. Chatterpaul Ramcharran | Member   | Guyana National Bureau of Standards.                     |
| 3.  | Ms. Sonya Roopnauth        | Member   | Ministry of Tourism, Industry & Commerce.                |
| 4.  | Mr. Valmikki Singh         | Member   | National Frequency Management Unit.                      |
| 5.  | Mr. Dhanpaul Dhanraj       | Member   | Guyana Rice Millers & Exporters Development Association. |
| 6.  | Mr. Melvyn Sankies         | Member   | Guyana Association of Professional Engineers.            |
| 7.  | Dr. Gocool Persaud         | Member   | Guyana Manufacturers Association.                        |
| 8.  | Mr. Patrick Dyal           | Member   | Guyana Consumers Association.                            |
| 9.  | Ms. Eliza Florendo         | Member   | Environmental Protection Agency.                         |
| 10. | Mr. Leevan DeSantos        | Member   | Food and Drugs Department.                               |
| 11. | Mr. Brian Greenidge        | Member   | Guyana Rice Development Board.                           |
| 12. | Mr. William Benjamin       | Member   | Benjamin Business Machine.                               |
| 13. | Mr. Lance Hinds            | Member   | Information Technology Association of Guyana.            |
| 14. | Ms. Anna Lisa-Fraser       | Member   | Georgetown Chamber of Commerce and Industry.             |

### **(iii) EXECUTIVE OFFICERS**

(Management Team)

|                            |   |                                       |
|----------------------------|---|---------------------------------------|
| Dr. Chatterpaul Ramcharran | - | Director                              |
| Mr. Jowala Somai           | - | Head, Management Systems Department   |
| Mr. Balwant Algu           | - | Head, Standardisation Department.     |
| Ms. Evadnie Enniss-Fields  | - | Head, Information Services Department |
| Ms. Charmaine Niles        | - | Head, Administration and Finance.     |

### **(iv) DEPARTMENTS/WORK PROGRAMMES**

|  |   |                                      |
|--|---|--------------------------------------|
| ● Management Systems Department                          | - | Laboratory Certification             |
|  | - | Product Certification                |
|  | - | Quality & Environmental Management   |
|  | - | Conformity Assessment                |
| ● Sandardisation Department                              | - | Standards Development                |
|  | - | Standards Promotion                  |
|  | - | Standards Implementation             |
|  | - | Codex Activities.                    |
| ● Engineering/Metrology & Standard Compliance Department | - | Weights & Measures (Legal Metrology) |
| ● Information Services Department                        | - | Public Awareness                     |
|  | - | Metrication                          |
|  | - | Standards Information                |
| ● Administration and Finance                             | - | Administration                       |
|  | - | Finance                              |

(v) **EXECUTIVE SUMMARY**

The Guyana National Bureau of Standards (GNBS) continued to pursue its vision in endeavouring to improve the quality of life of the people of Guyana through the process of Standardisation. The Bureau therefore promoted Standardisation and Quality Systems through its various work programmes to enhance trade and protect the consumer. Despite no increase in the budgetary allocation for the year 2002, a decrease in the revenue generated due to the modification of the Standards Compliance Programme, no increase in requested staff complement, and a difficult environment caused by a huge, unprecedented crime wave throughout the year, the Bureau tried relentlessly to carry out its various activities satisfactorily in accordance with the work plan.

Under the Standards Department, the year witnessed 32 national standards being formulated and approved by National Standards Council, with an additional 14 draft standards at the Public Comments stage and 54 at the Technical Committee level. One hundred and eighty-seven (187) published standards are available for sale, while 67 are passing through the editorial stage, prior to publication. Standards were promoted through many public consultation sessions, besides the use of the media. Also, seven (7) CARICOM draft regional standards were reviewed by stakeholders in consultation sessions and meetings, and the comments dispatched to the Secretariat.

**The Management Systems Department** provided technical assistance to 19 laboratories to develop and implement their quality and procedure manuals. Eighteen (18) surveillance visits and six (6) annual, renewal audits were conducted at the six (6) already certified laboratories to ensure their quality systems were maintained, and their certificates could be renewed. Supporting training materials, factsheets and guides were developed, and training conducted in pre-audit and post-test counselling for HIV testing for laboratory personnel. In addition, reference methods for clinical testing laboratories, and a comprehensive procedure for a Proficiency Testing Scheme were developed. Also, a Laboratory Certification Manual was developed, reviewed and approved by National Standards Council.

The Department also conducted seven (7) surveillance audits and five (5) renewal audits on the seven (7) clients of the Product Certification Programme. Assistance was also provided to the clients in documenting and implementing a basic quality control system in their operations. A permit to use the National Standards Mark on PVC pipes was awarded to Plastic Products Ltd. Also, the Department developed and reviewed a Product Certification Manual which was approved by National Standards Council. The purpose of the Manual is to standardise the procedures employed in certifying a product. Moreover, a gold-testing laboratory was established, and actual testing of gold jewellery is scheduled to commence early in 2003.



The Department further provided technical assistance to four (4) companies in developing and implementing their Quality Systems according to the ISO 9000 standard. Packages containing information on Quality Management Systems were prepared and distributed to 50 companies, which was followed by the hosting of a symposium on standards and market competitiveness. A draft "hybrid" standard was developed for small and micro-enterprises which would go through four (4) public consultation sessions early in the new year. The Bureau of Standards is moving to have its operations certified to the international standard and a draft quality manual was prepared accordingly to be reviewed early in the new year. Added to this, the Department, in trying to move the Conformity Assessment Programme forward, prepared a Cabinet Memorandum and an introductory paper which were submitted to the Ministry of Tourism, Industry and Commerce to seek Cabinet's approval.

**The Engineering/Metrology and Standards Compliance Department**, under its Weights and Measures Programme, licensed eight (8) manufacturers to produce scales and weights, and one (1) for measures. A quantity of new devices (1029 scales, 2094 weights and 512 measures) was tested and verified. A total of 3,360 scales, 7,151 weights and 515 measures already in commerce were tested and verified. A quantity of 42 scales and 14 weights was converted from imperial to metric units by licensed manufacturers and verified by the Bureau. Surveillance activities were conducted at 3,484 stalls/premises and 27 markets during the year, where 219 scales, 1,016 weights and 176 measures were seized and removed since they were defective. The Department established Weights and Measures Offices in Regions 1,8 & 9 for the first time. Under the Standards Compliance Programme, 94 importers and 50 used tyre dealers were registered. Surveillance inspections were conducted at 1,037 sales outlets. Also, 449 defective used tyres were destroyed. Fertiliser was included in the list of commodities monitored by the Bureau. For the first time, eight (8) local manufacturers were registered, and 34 inspections were conducted at bonds and warehouses. Finally, 25 consumers' complaints were investigated.

**The Information Services Department** provided communication support in various forms to all the work programmes of the Bureau. In addition, 4 press conferences, 11 live call-in TV programmes, 52 weekly radio programmes, 22 notices/advertisements, 26 editions of Standards Corner in the Chronicle newspaper, 22 press releases and 12 editions of Standards Bureau in the Chronicle were featured. National Quality Week/World Standards Day was celebrated (October 13-19) with a hive of activities under the theme "One Standard, One test, accepted everywhere". The Department spearheaded the participation in the UG Career Fair (February 15) and Guyexpo (September 26-30), and also conducted seven (7) lectures to Secondary School students. The Department further spearheaded the National Metrication Programme and managed the Technical Standards Information Unit.

**The Administration and Finance Department** provided support to all the other Departments and Programmes so that their objectives could be achieved in the most cost-effective and timely manner. The Department implemented the staff training matrix, maintained the building, equipment and vehicles, and attended to Personnel and Procurement matters.

## INTRODUCTION

This report highlights the activities , achievements and the challenges of the various work programmes of the Guyana National Bureau of Standards (GNBS) for the year 2002, including its Branch Office in Region 2 (Anna Regina), Region 6 (New Amsterdam), and the Weights and Measures Offices in the other Regions of the country.

The report is conveniently structured and comprehensively presented under the five (5) Departments of the Bureau, viz., Standardisation, Management Systems, Engineering/Metrology and Standards Compliance, Information Services and Administration & Finance Departments. Under each Department, the report is preceded with an 'overview' which pinpoints the objective of the Department, and outlines the various work programmes or lead activities falling under the said Department. Section (iv) of the Report displays information on the work programmes which fall under each Department of the Bureau of Standards.

In discussing the achievements of each work programme, an attempt is made to evaluate the results in the context of the trying challenges rudely imposed by the operating environment. Noteworthy, at the break of the year 2002, and in particular with effect from the end of February, the huge crime wave in the country adversely affected the various programme activities of each Department, particularly the Standards Compliance, Weights and Measures, Laboratory Certification, Product Certification, Quality Management System and Metrication activities, which involved a massive amount of field work in dealing with the respective stakeholders. For example, Inspectors were continuously greeted with live threats in the market places, shops and other retail outlets in the conscientious discharge of their duties, resulting in withdrawal from the scene.

In addition, the Standardisation Programme involving the preparation, promotion and implementation of standards was severely hit as the attendance of members of Technical Committees to meetings at Sophia was sparse and a quorum in each case could not be achieved to run the meetings in order to produce the standards. Despite the many challenges which influenced the output, the Bureau tried relentlessly to work around such challenges in order to maintain a satisfactory balance.

The report also lists under each Department, the unscheduled or unplanned activities carried out by staff members throughout the year. The Bureau was represented by Technical and other Officers at a wide range of meetings of other Institutions or Agencies. The Officers also made numerous presentations, in-house and external, and were involved in various training programmes in the effort to acquire requisite skills and build capacity.

It is hoped that the report would make interesting reading while it attempts to address the objectives of the work programmes.

## 1.0 STANDARDISATION DEPARTMENT

### OVERVIEW

The goal of the Standardisation Department is to promote standardisation in the production of goods and services for the advancement of local and foreign trade, and consumer protection. The Department performs the core function of the Bureau in producing, promoting and also implementing national standards.

The Department comprises of five (5) permanent Standards Officers and assisted by five (5) other Technical Officers, drawn from the other technical departments of the Bureau, who function as the Technical Secretaries of fifteen (15) Technical Committees established by the Bureau, along with their associated Sub-Committees and Working Groups to produce the standards.

Each committee consists of representatives from relevant stakeholder organisations or interest groups who meet to consider, by consensual approach, drafts of standards and technical documents in detail. The stakeholder organisations include Guyana Manufacturers Association, Guyana Consumers Association, Chamber of Commerce, the Regulatory Body and the Association relating to the Sector, particular companies producing the products for which the standard is developed and the Technical Secretary from the Bureau.

The fifteen (15) Technical Committees of the Bureau are as follows:-

- |                                   |                                 |
|-----------------------------------|---------------------------------|
| (15) Agriculture                  | (9) Cosmetics & Medical Devices |
| (16) Foods                        | (10) Laboratory Management      |
| (17) Chemical                     | (11) Safety                     |
| (18) Electrotechnical Engineering | (12) Tourism                    |
| (19) Legal Metrology              | (13) Wood Products              |
| (6) Mechanical Engineering        | (14) Environment                |
| (7) Civil Engineering             | (15) Management Systems         |
| (8) Consumer Products             |                                 |

The development of a standard involves several stages. A proposal received by the Bureau is submitted to National Standards Council for approval, after which it is assigned to a Technical Committee for the development of a draft working document by the Technical Secretary. After deliberating on the draft standard, it is exposed for public comments which are considered by the Technical Committee and the final draft is submitted to Council for approval as a voluntary standard. To make the standard mandatory, the subject Minister has to seek Cabinet's approval prior to the preparation and gazetting of an Order signed by the said Minister.

## 1.1 STANDARDS DEVELOPMENT

During 2002, thirty-two (32) national standards were formulated and approved by the National Standards Council as listed in Appendix 1. Fourteen (14) draft standards are at the public comments stage, while fifty four (54) standards are at the Technical Committee and proposal stages. Of the one hundred standards targeted for 2002, many still remained at the Technical Committee stage due to various reasons discussed below.

One hundred and eighty seven (187) published standards are available for sale, while sixty seven (67) are still at the editorial/typing and publication stages to be completed. National Standards Council approved thirteen (13) new work items (or standard proposals), which would be executed by the various Technical Committees.

The Development of standards faced many challenges during 2002. These include:

- Some members of Technical Committees and other stakeholders were not reviewing standards and forwarding comments or attending meetings at the Bureau. Hence, this contributed to a lack of quorum to hold meetings on many occasions, thus delaying the standards development process, and hence, the number of standards produced.
- In many instances, members did not thoroughly review standards, although the draft documents were forwarded to them adequately in advance. This caused delays in achieving consensus decisions.
- Working Draft (or Base Documents) were not available or procured on a timely basis. Responses from overseas suppliers were slow and sometimes not forthcoming.
- Unavailability of relevant standards or documents which are referenced in the work programme standards. In some standards, many reference documents are needed, which are very costly.

Nevertheless, despite the many associated difficulties of the standards development programme, Technical Secretaries made some progress in the production of standards.

## 1.2 STANDARDS PROMOTION

The Guyana National Bureau of Standards (GNBS) held training sessions for the staff of Guyana Thermoplastics Limited and Plastic Products Limited on the requirements of the PVC pipe standards. This exercise was part of the GNBS Product Certification Scheme, to ensure that a quality management System is maintained in the operation of the companies.

The Product Certification Programme facilitated other training sessions in the jewellery industry and ensured that the jewellery standard is increasingly utilized by jewellers.

Industries were provided with relevant packages of standards information that could assist consistency in and cost effectiveness of operations.

GNBS utilized the National Standard on the operation of a laboratory to certify clinical laboratories in Guyana against its requirements.

During Quality Week/World Standards Day in October, 2002, GNBS technical staff lectured at various secondary schools on the importance of Standardisation and Quality Systems in all spheres of life. Teachers and students drawn from schools in the Regions were the beneficiaries of the knowledge imparted.

GNBS has been formulating a hybrid standard for good management practices, in order to guide small and micro enterprises on the necessary requirements to be followed in their operations. Stakeholder agencies were consulted on the stipulated requirements of this standard, which would enhance consistency in the quality of goods and services provided by their operations.

The promotion of standards was constrained due to limited financial and human resources to conduct adequate training and consultations on standards countrywide.

### 1.3 STANDARDS IMPLEMENTATION

Separate meetings were held with key stakeholders and regulatory agencies on the implementation of relevant standards in their operations. These organisations included the Environmental Protection Agency, Guyana Rice Development Board, Ministry of Fisheries, Crops and Livestock, Guyana Geology and Mines Commission, Guyana Forestry Commission, Veterinary Public Health Unit, Food and Drugs Department, Guyana Association of Professional Engineers and New Guyana Marketing Corporation. Collaborative efforts between GNBS and these organisations were made in order to optimise the use of standards. Based on a needs assessment, copies of useful national standards were identified and issued accordingly to the organisations.

It was observed for example, that the Food and Drug Department had implemented the standard GYS 12:1998 - "Specification for bottled water (mineral water, spring water and purified water)". Also, the Veterinary Public Health Unit, in respect to GYS 210:2002 - "Specification for Poultry Meat" and GYS 13:2002 "Code of Practice for Poultry Processing". The Environmental Protection Agency (EPA), in relation to GYS 207:2002- "Interim Guidelines for industrial effluent discharge into the Environment" and GYS 208:2002 - "Guidelines for the design, construction, modification and maintenance of petrol filling stations". The New GMC in addition, has been implementing fifteen (15) standards for grades of lime, pineapple, pumpkin, watermelon, cucumber, ginger, hot pepper, cabbage, green plantain, sweet orange, mangoes, grapefruit, carambola, sweet potatoes and boulangier (egg plant). It should be noted that most of these standards used by New GMC are also being implemented by the Ministry of Fisheries, Crops and Livestock.

While some organisations ensured the use of standards, others have not been effective in doing same. The Bureau had achieved some level of collaboration and cooperation with industries and organisations such as Associations and Regulatory Bodies on the use of standards in their operations. This effort would continue so that more entities could be encouraged accordingly.

#### 1.4 REGIONAL AND INTERNATIONAL STANDARDS

The following draft Caricom Standards were reviewed by key stakeholders in Guyana:

- (1) Specification for Rum.
- (2) Specification for Brewery Products.
- (3) Specification for packaged water.
- (4) Specification for carbonated beverages.
- (5) Poultry meat and poultry products

These draft standards were forwarded to the GNBS by the CARICOM Secretariat for comments prior to the granting of approval by CROSQ Council and thus, presentation to COTED for approval.

The major challenge facing this activity was that stakeholders were not responding with their comments on the standards in a timely manner.

The WTO status report on Standards Development in Guyana for 2002 was prepared and submitted to WTO. The report was also circulated to Member Bureaus of CARICOM.

#### 1.5 CODEX ACTIVITIES

The Codex Alimentarius Commission (Codex), was established by the World Health Organisation and the Food and Agriculture Organisation of the United Nations to implement the joint FAO/WHO Food Standards programme. This programme is based at FAO Headquarters in Rome, Italy, and is implemented through the member countries Codex Contact Point.

In Guyana, the Codex Contact Point Secretariat is at the GNBS, the main objectives of which are as follows:

- Act as the coordinator of codex activities within Guyana and for the Commission.
- Receive and distribute codex documents to stakeholders for their comments or general information.
- Respond to codex questionnaires and comments on codex documents.
- Maintain a library of codex documents and publications.

- Update various organisations of decisions adopted by the Commission.
- Coordinate the activities of the National Codex Committee. (These activities mainly involve adopting codex standards, guides and codes).

In order to achieve these objectives, the Secretariat of the Bureau needs to be strengthened to pursue the Codex Work Programme. During 2002, an FAO funded project to promote and implement codex activities in Guyana was approved in principle. This project is expected to be executed in 2003, from which the Bureau should be a major beneficiary.

With the technical assistance to be derived from the project, the Bureau would be able to perform efficiently and effectively to realise the objectives of the National Codex Secretariat. This will certainly enhance safer food products on the local market and increased exports to international markets.

Two hundred and fifteen (215) Codex documents received were disseminated to the Ministry of Agriculture and the Food and Drug Department, for informational purposes.

Delay in the receipt of Codex documents by the Bureau from the Codex Alimentarius Commission (CAC) caused late notification and distribution of the documents to stakeholders in Guyana. Also, comments required by some documents to be submitted to the CAC within specified time frames could not be achieved.

Also, the sixth and seventh issue of the Codex newsletter prepared by the Bureau were distributed to key stakeholders.

## 2.0 MANAGEMENT SYSTEMS DEPARTMENT

### OVERVIEW

The Management Systems Department of GNBS spearheads five (5) programmes which deal with the implementation of standards through the provision of training, technical assistance, inspection, auditing and certification. Both international standards e.g ISO 9001 and 14001, and Guyana Standards such as GYS 170, 50, 107 were promoted.

During the year, the department was staffed with five (5) Technical Officers, each being responsible for one (1) programme. One Senior Technical Officer acted as Head of the Department. The programmes of the Management Systems Department are listed below:

- (i) **Laboratory Certification:** The goal of this programme is to promote the implementation and maintenance of a quality assurance system in testing laboratories that provide a service to the public and industries in order to ensure accurate, reliable and consistent test results to all users.
- (ii) **Product Certification:** Certifies the quality of locally-manufactured products to relevant Guyana Standards with the objective of providing assurance to consumers or buyers.
- (iii) **Quality Management:** Promotes and provides assistance to local companies wishing to establish quality management systems and working with companies to improve the quality of their products, hence increasing competitiveness.
- (iv) **Environmental Management:** Promotes and provides assistance to local companies wishing to establish environmental management systems and working with companies to address identified environmental impacts.
- (v) **Conformity Assessment:** Facilitating the process of establishing an internationally-recognised national system for conformity assessment, meeting the requirements of relevant ISO standards and guidelines.

The activities and achievements of these programmes are discussed below.



## 2.1 LABORATORY CERTIFICATION

Laboratories registered to the Laboratory Certification Programme are involved in developing their laboratory systems, i.e., a quality manual in compliance with the national laboratory standard, and also, technical procedural manuals for tests conducted at the laboratories. Attaining the requirements of the standard, laboratories are certified by the GNBS, and are renewed annually. During the certification period, surveillance visits are periodically conducted to ensure maintenance of the system. The activities of the programme are geared to improve the quality of laboratory operations in Guyana, and in effect, to protect consumers.

To date, six (6) clinical laboratories have been certified, namely - *Guyana Medical Laboratories, Sigma Laboratory, Eureka Medical Laboratory, St. Joseph Mercy Hospital and Bio Med Laboratory of Guyana and Guyana Responsible Parenthood Association.*

A further fourteen (14) clinical laboratories were correcting their quality and technical manuals for resubmission to the Bureau. These laboratories were also developing their quality systems in the process.

Ten (10) chemical, microbiological, food and/or industrial testing laboratories were developing their systems. However, only three laboratories have submitted quality and/or technical manuals to the Bureau which were returned for corrections.

At present, twenty four (24) laboratories have been making the extra effort to have their systems developed.

The Laboratory Certification Programme is unique in Guyana and it is gaining support mainly from the clinical laboratories.

### 2.1.1 Technical Assistance to Laboratories

In the implementation of the national standard GYS 170:1998 on "General requirements for the operation of a laboratory", technical assistance was provided to nineteen (19) laboratories, fifteen (15) of which were clinical and four (4) chemical, during the year 2002. The Technical Officer worked with laboratory personnel, on an individual basis at the bench level to facilitate the development of their quality and procedure manuals, and also the implementation of the said manuals in their operations.

Sixteen (16) laboratories submitted manuals to the Bureau for review. Twelve (12) quality manuals and thirty five (35) technical manuals were reviewed by the technical consultant and returned for corrections to be made. In addition, seven (7) application forms were submitted to the Bureau for participation in the laboratory certification programme. The forms were reviewed and four (4) were returned for completion. One initial audit was conducted at the Central Medical Laboratory of the Public Hospital Corporation which passed the audit and therefore complied with the national standard. The arrangements for the certification ceremony of this laboratory were set in motion.

Laboratories have been consistently using the knowledge gained through technical assistance provided to develop their manuals. However, due to the lack of training in the actual documentation and development of manuals, there was evidence of poor expression in the language used. Quality and technical manuals often had typographical and grammatical mistakes to be corrected. Use of professional language in the manual was also, lacking. In the second review, it was evident in some cases that recommendations were not addressed. Manuals were generally reviewed three times before final acceptance.

In actual fact, no laboratory was certified during 2002 as compared with three (3) in 2001. It is worthwhile to mention that the Technical Officer managing the laboratory programme was not trained in laboratory management, but coped marvelously well. Training should be effected in the new year.

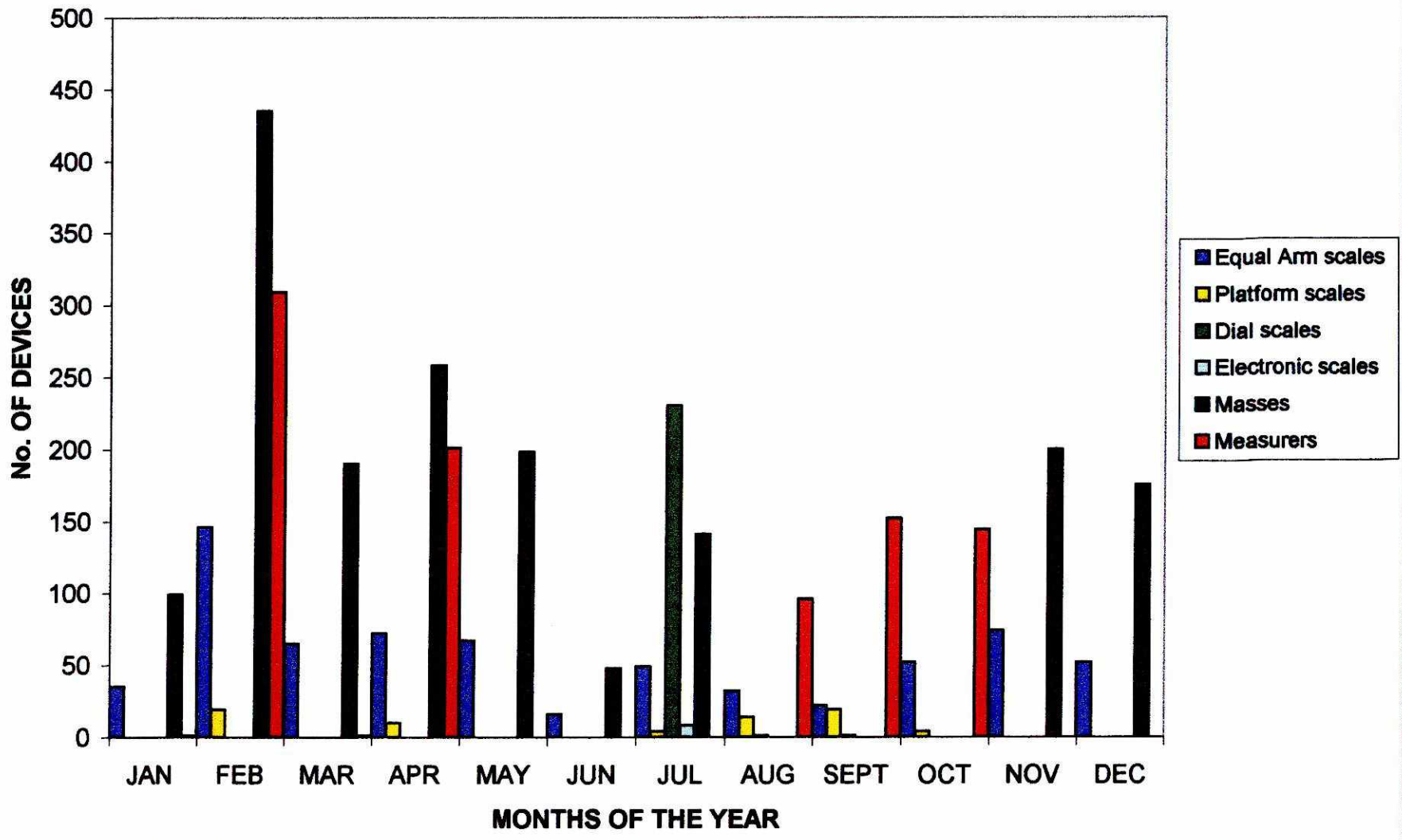
Generally, the laboratories were very slow to respond in the development of their manuals and submission of same to the Bureau, as also, the implementation of the said manuals. This could be attributed to laboratory personnel not being trained in Laboratory Quality System, the high attrition of staff working at the laboratories, and the Quality Management representative being expected to carry the same work load while trying to institute the Quality Management System in their laboratories. Added to this, the Laboratory Certification Programme is voluntary, and the need to expedite the development of the Quality System was not demonstrated.

### **2.1.2 Maintenance of Quality Systems**

During the year, eighteen (18) surveillance visits were conducted at six certified laboratories to ascertain whether the laboratories were maintaining their quality systems in their operations. Also six (6) annual renewal audits were carried out at the certified laboratories to ensure that their quality systems were in tact and their certificates could be renewed.

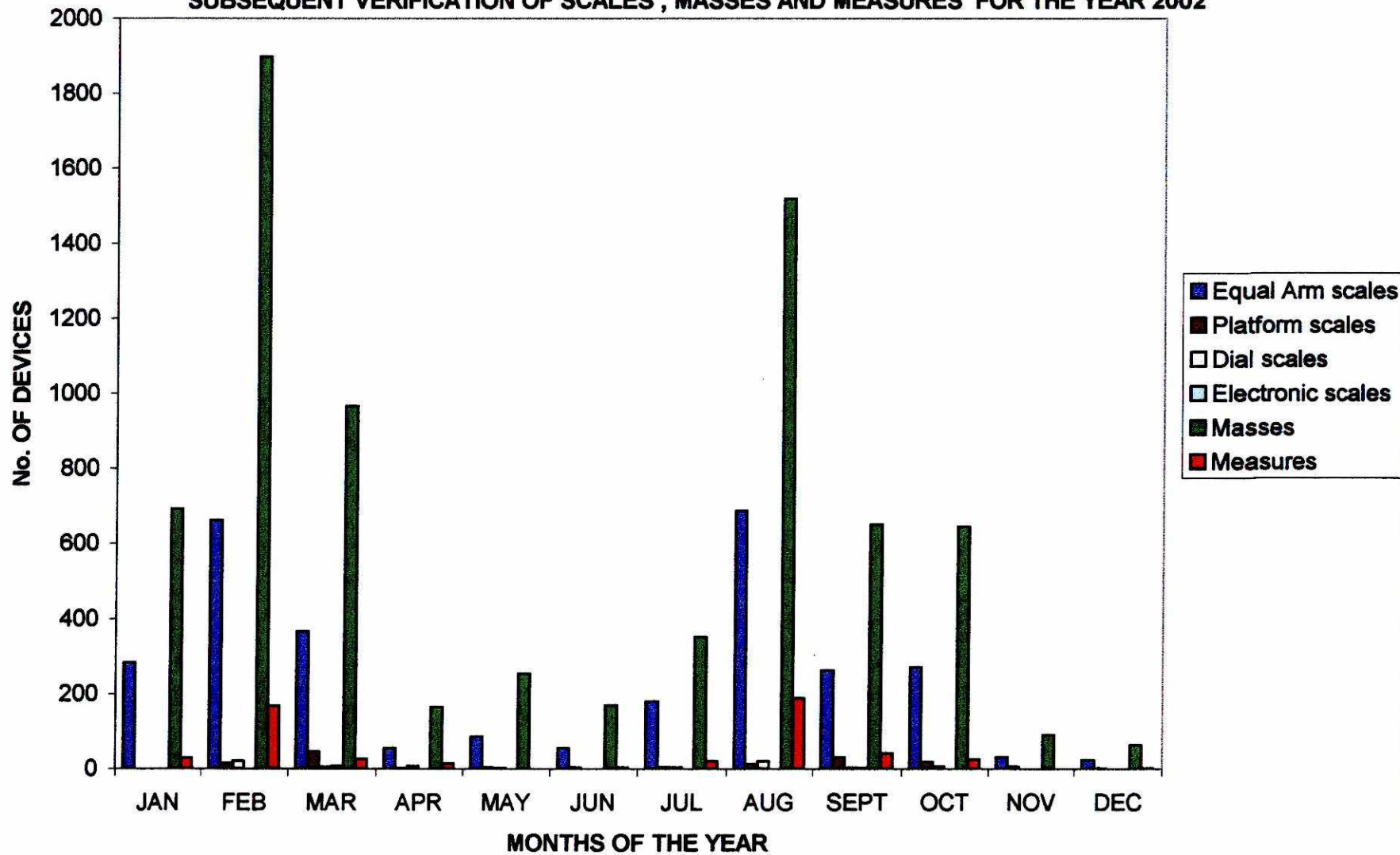
It was found that all six (6) certified laboratories consistently maintained the requirements for certification. There were no major non-conformances to affect the quality of results produced. Laboratories demonstrated commitment to the Certification Scheme.

(Figure 1)  
**INITIAL VERIFICATION OF DEVICES FOR THE YEAR 2002**

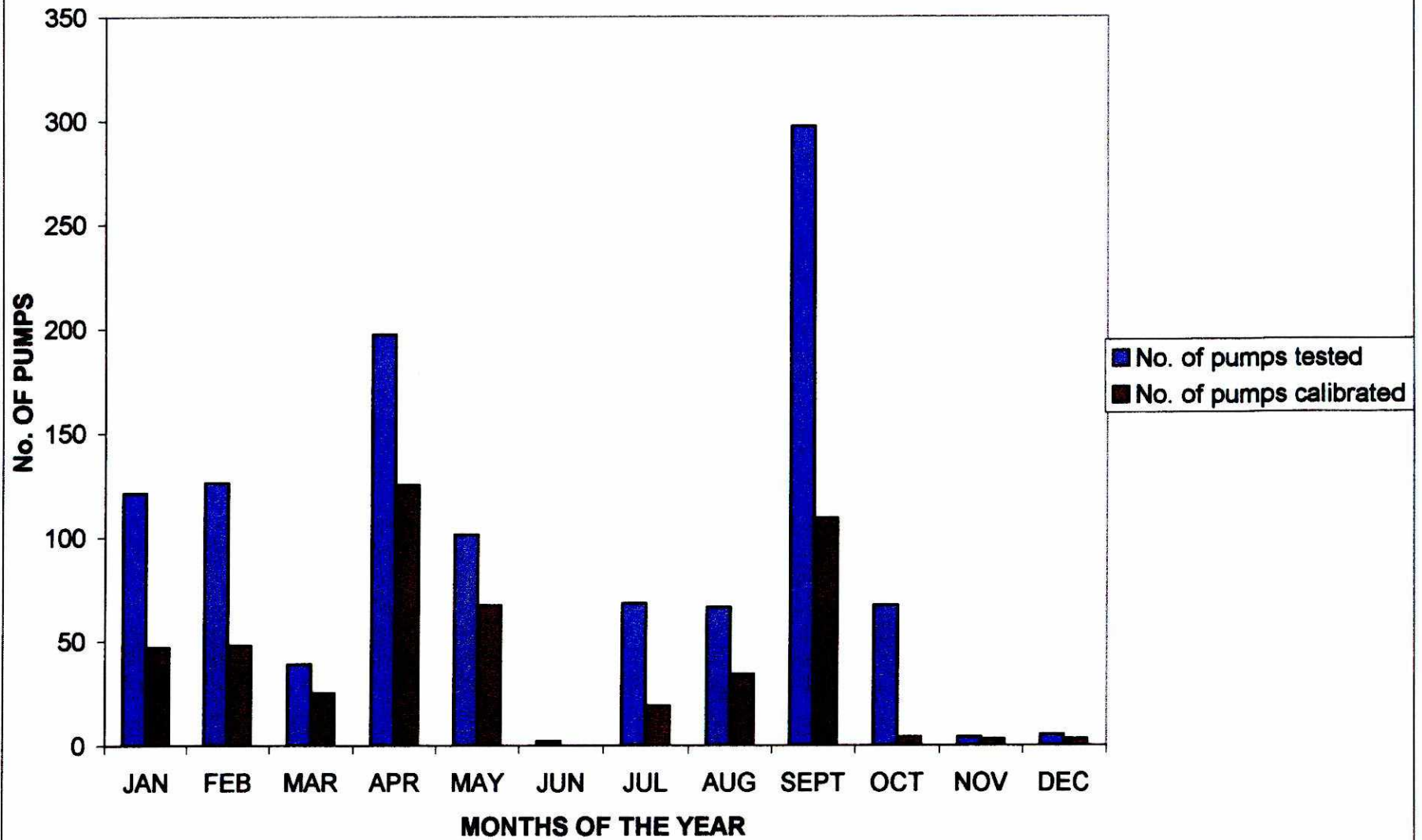


(Figure 2)

SUBSEQUENT VERIFICATION OF SCALES , MASSES AND MEASURES FOR THE YEAR 2002



(Figure 3)  
PETROL PUMPS VERIFICATION FOR THE YEAR 2002



Since the laboratory programme is voluntary, there were minor non-conformances that may be considered negligible. High staff attrition also influenced the maintenance of the quality system. It was evident that the laboratory personnel were the ones driving the implementation, and not necessarily the Head of the organisation.

Lack of necessary reviews that objectively monitored the quality system was evident in most laboratories. Laboratory personnel were not trained to do auditing and thus lacked the ability to effectively audit/review their laboratory systems.

Continuous training was not available for laboratory personnel after they left the University. Continuous training is required in laboratory management, quality control and technical operations. Training in some technical areas at the University of Guyana lacked practicals, therefore, students were deficient in practical aspects which affected laboratory quality. Training offered by CAREC was most times not offered to the private laboratories.

### **2.1.3 Improving the capability of Laboratory Personnel**

The Management Systems Department developed fact sheets for laboratory management and proficiency testing. Also developed were training materials for laboratory personnel which included guidelines for developing quality and technical manuals, and quality assurance evaluation sheets.

Collaborative training was conducted in pre-audit and post-test counselling for HIV testing for laboratory personnel to improve the quality of services provided at laboratories involved in HIV testing. Handouts were distributed to give guidelines on selecting HIV kits. Important supporting materials were provided to improve laboratory management, including information on the new ISO standard to detect salmonella, proficiency testing, and laboratory management.

The training materials and supporting documents were well received by members who utilised/implemented the knowledge gained. The counselling training provided was not monitored. However, systems were being developed to monitor this by the Ministry of Health.

Proposals for training in ISO 17025 were developed and will be funded under a GEO project in the year 2003.

The Ministry of Health does not have a mechanism in place to monitor the counselling done at laboratories conducting HIV testing. However, this is currently being addressed. The Bureau does not have the authority to prevent laboratories from using unrecommended kits to conduct testing.

#### **2.1.4 Reviewing the National Standard**

The draft standard was reviewed at six Technical Committee Laboratory Management meetings. The status of this draft standard is at public comments stage being coordinated by the Standardisation Department.

ISO 17025 standard was also approved by the Technical Committee - Laboratory Management for issue to the Standardisation Department for public comments.

The draft standard - 'General requirements for the operation of a laboratory' is a more comprehensive standard that will facilitate the improvement of a laboratory quality in Guyana. Most of the members who were nominated by their institutions did not actively participate in developing the standard.

The Technical Committee commenced working on this draft standard in April 2002, a delay from January 2002 due to the late approval of the proposal by the National Standards Council.

Members were not attending meetings as anticipated. This indicated lack of interest in the Standardisation process even though they were appointed to represent their respective institutions. This was evident in approximately 30% of members.

Members were also not punctual at meetings which lead to late starting times and limited times spent to review the standard.

Members did not read the standard before attending meetings which delayed the progress at meetings.

#### **2.1.5 Establishment of Reference Test Methods**

Reference methods for clinical testing laboratories were developed by the Management Systems Department for Microbiology, Haematology, Chemistry, Serology, and Sample Collection. The respective, final manuals have to be prepared for presentation to Management of the Bureau. The development of these manuals would allow the Bureau to have reference methods for testing done at certified laboratories. These manuals would be used by the Bureau to guide uncertified and other new laboratories vying for certification. Regarding the chemical, microbiological, food and industrial testing laboratories, to date, reference test methods, have not yet been established. This activity was very time consuming as the tests method documents had to be presented in the recommended format.

### **2.1.6 Proficiency Testing Scheme**

A comprehensive procedure for a National External Quality Assessment Scheme (Proficiency Testing) for Clinical Laboratories was developed by the Management Systems Department and submitted to the Director. This document was sent to the Minister of Health to facilitate a collaborative effort between the GNBS and the Ministry of Health to spearhead a national Proficiency Testing Scheme to monitor quality assurance in the clinical laboratories. The Minister of Health had promised to support this project in 2003. Once approved, proficiency testing will tremendously benefit the Laboratory Certification Programme as it would facilitate monitoring of the technical competence and accuracy of results produced by laboratories.

A trial run for Proficiency Testing was previously conducted for some clinical laboratories in October, 2001.

### **2.1.7 Establishment of Laboratory Certification Manual**

A Laboratory Certification manual was developed by the Management Systems Department and reviewed and approved by the National Standards Council. This manual is currently being implemented and reviewed for changes. The purpose of the manual is to establish and standardise the procedures employed in certifying a laboratory to the national standard, thus building transparency in the entire process. In addition, the Bureau would move in the new year to have the Laboratory Certification Scheme accredited by a recognised, external Registrar. In the circumstances, the manual would be a pre-requisite for the accreditation programme. Moreover, the manual would provide excellent training materials for new members of staff working in the Certification Scheme, as also, existing and potential clients competing for certification.

### **2.1.8 Accreditation of Laboratories**

There was no development in co-ordinating activities leading to accreditation of laboratories. The clinical laboratories that have been certified to the National Standard are still maintaining and improving their quality systems to the requirements of the National Standard and have not decided to move the next step forward because it did not seem to be a desperate requirement for their operations.

The Bureau of Standards encouraged the laboratories, particularly, the Chemical, Microbiological and Industrial Laboratories to work towards achieving accreditation to the international standard, ISO 17025. In the new year, the Bureau would provide the requisite training of laboratory personnel on the said standard through a USAID/GEO Project, as also, the development and implementation of the necessary manuals, and auditing of the quality systems.



### **2.1.9 Collaboration with Ministry of Health**

The Bureau met with the Ministry of Health to discuss problems experienced by Public Sector Clinical Laboratories, and the Laboratory Certification Programme. Although certification of clinical laboratories, is not a mainstream activity falling under the purview of the Bureau, the Minister stressed the importance and need for the Bureau to continue with the certification process.

Discussed also is the establishment and management of a National Proficiency Testing Scheme in Guyana in 2003 by the Bureau, in collaboration with the Ministry of Health, and a European Union Project geared to strengthen clinical laboratories.

### **2.1.10 National Laboratory Quality Committee**

National Laboratory Quality Committee meetings were held monthly at the Bureau of Standards. The clinical laboratory Sub-Committee members were very committed and attended the meetings consistently as compared with members from chemical, food, microbiological and industrial testing laboratories, who attended seldomly.

Eleven (11) clinical sub-committee meetings were held with attendance greater than 70%. Five (5) chemical, microbiological and industrial sub-committee meetings were held with attendance less than 50%.

Members used these meetings to highlight problems affecting their laboratories and also to seek mechanisms for addressing the problems. The Bureau intervened when necessary and received positive results. The meetings are also used to progress check members on the status of the development of their quality manuals and technical procedural manuals.

Meetings attendance was affected during the period of instability in the country, since some members travelled out from Georgetown.

### **2.1.11 Unscheduled Activities**

- A meeting was held between the Ministry of Health and CAREC where the Bureau was invited. The objective of this meeting was to disseminate information on the EU project for strengthening medical laboratories. This is a four-year project that will be coordinated by CAREC. It is the intention of this project to accredit clinical laboratories to Regional Standards that will be developed by CAREC and CROSQ.

- The Technical Officer, Ms. Candelle Walcott, attended the Global Odyssey 2002 Conference - International Conference for Proficiency Testing for Medical Laboratories and a workshop in Atlanta, Georgia, USA. This conference and workshop focussed on the benefits of proficiency testing in laboratories and its role in quality assurance. Attendants were exposed to the procedures, criteria and resources needed to establish a proficiency testing scheme. A report on the conference and a procedure for establishing a proficiency testing scheme in Guyana was carried out by the Officer.
- National Consultation on HIV/AIDS Strategic Plan 2002-2006  
The Technical Officer, Ms. Candelle Walcott, attended a National Consultation on HIV/AIDS Strategic Plan 2002-2006 which focussed on developing strategies to address HIV/AIDS in Guyana through a multi sectoral approach. These issues were focussed on in addressing HIV/AIDS in the workplace.
- Pre and Post-Test Counselling for HIV Tests

The Bureau, in collaboration with the Life Line Counselling Services, provided training in pre-and post-test counselling for laboratories involved in HIV testing. Training was held at the Bureau during the period February 09-10 and 16-17, 2002, and it was facilitated by Mr. Dereck Springer from Lifeline Counselling Services. This was used to fulfill a request made by laboratory personnel. Counselling is also a requirement in the HIV/AIDS policy document. This counselling service is to be monitored by the Ministry of Health. Procedures to effect this are in progress.

There was evidence of commitment to this collaborative effort between the Bureau and the Ministry of Health. The Minister of Health acknowledged the issues raised and also gave the commitment of his Ministry to work closely with the Bureau.

## 2.2 PRODUCT CERTIFICATION (STANDARDS MARK)

Product Certification is defined as a procedure by which a third party gives written assurance that a product conforms to specified requirements or standards. It is used to instill confidence in those who may have an interest with compliance to requirements.

The goal of the scheme is to promote, implement and monitor product certification systems in industries in order to provide consumers with the assurance that locally manufactured products conform to the requirements specified in Guyana Standards. Before certification can take its course, the following must be in place:

- Relevant Guyana Standards
- Available testing facilities
- Adequate quality control systems in manufacturing processes.

The major activities of this programme are:

- (1) Granting permission through the issue of a certificate to manufacturers, to mark their products with the Standards Mark, once having satisfied the requirements of the relevant national Standard and the certification scheme.
- (2) Conducting regular surveillance to ensure that certified manufacturers continue to conform to the relevant national standard and the certification scheme.

### 2.2.1 Maintenance of Standards Mark Permits

There are seven clients on the GNBS Product Certification Scheme. During the year, seven surveillance audits and five renewal audits were conducted. Assistance was also provided to most of the clients in documenting and implementing a basic quality control system in their operations. On an average, three visits per client were made. To date, draft quality control manuals were submitted by two clients. Two in-house training sessions were held to brief clients on the requirements of the Product Certification Scheme, particularly the basic quality control system.

In evaluation, Surveillance audits to the level of 30%, and renewal audits to 70% were conducted for the year for these clients when compared to that as scheduled. All renewal audits were not completed because clients requested a defer of this activity until early 2003 due to the Christmas season. Similarly, the majority of surveillance audits could not have been conducted because the same deficiency was highlighted for every audit per client. Instead, visits were made to each client to assist and educate them about documenting and implementing a quality system in their operations. However, some clients were reluctant and thus, very slow in altering their operations to suit the Product Certification Scheme.

## **2.2.2 Granting Permits to New Products**

A permit to use the National Standards Mark on its PVC pipes was awarded to Plastic Products Limited in conformity to the Guyana Standards. The company spent about two years to institute a quality system into its operations, thus, developing its manuals, carrying out testing on its products, and complying with the requirements of the Scheme. A grant-of-permit ceremony was held at the Company's Head Office at Houston on 2002-11-25.

Mr. Sattaur Gafoor, Chairman of the Company received the permit from the Director of the Bureau to use the Mark.

Added to this, initial discussions with the proprietor of Correia's Jewellery were made pertaining to the requirements of the Product Certification Scheme, particularly on the basic quality control system to be implemented before granting certification for the jewellery manufactured.

The amount of certificates to be issued to clients to use the standards mark proposed for the year was five. Unfortunately, only one could have been issued. This is because testing facilities were not available as outlined in the respective product standards. Efforts were made to explore the availability of test methods and facilities locally as per standard but proved to be futile. Also, clients did not have the necessary documentation required by the GNBS Product Certification Scheme. Thus, there is a dire need for an accredited testing facility in Guyana that can test at least all locally-manufactured products in accordance with the relevant Guyana Standards. The Certification process for Plastic Products Limited took a very long time since samples had to be sent to the Jamaica Bureau of Standards for independent testing as local facilities were not available. Queens jewellery originally requested certification of their gold articles but showed little interest subsequently. Several meetings were planned with Queens to explain the requirements of the scheme but were cancelled.

Some thirteen product standards were reviewed in accordance with ISO/IEC guide 7 for use on the PC Scheme. Findings were then discussed with the Director and the Standards were forwarded to the Standardisation Department for corrections.

## **2.2.3 Promotion of the Product Certification (Standards Mark) Scheme**

Working in collaboration with the Public Relations Department of the Bureau, steps were taken to promote the Product Certification Scheme to attract more clients and more products to the Scheme.

A fact sheet was prepared on product certification and distributed to passersby during GUYEXPO and UG Career Day. The sheet contains information such as, what is Product Certification, Benefits of the GNBS Product Certification Scheme and the infrastructure required.

Small businesses such as Jets Noni, Adventure Manufacturing, Globe Manufacturing, Tandy's, Anisa and Melsha's Furniture were visited to explore the possibility of certifying their products in accordance with the relevant Guyana Standards and the PC Scheme.

Fact sheets were completed and very informative. Of the small businesses visited only a few had the potential to join the PC Scheme. Others require further infrastructural development before they could do so, especially regarding occupational safety and health concerns. Some product standards were not available for the companies visited e.g. noodles, pastas, jet noni and fruit juices. In this case, the manufacturers were using company standards which were not documented.

Two radio programmes were held to sensitise the public on the GNBS Product Certification Scheme. An article was also prepared on the topic "The role of standards in the Jewellery Industry."

Proposed workshops could not be held at the different counties to sensitise jewellers on the GNBS Product Certification Scheme and the requirements of the gold standards because these standards were being reviewed by the jewellery sub-committee. The standards have to be finalised before workshops could be conducted.

#### **2.2.4 Establishment of a Product Certification Manual**

A Product Certification Manual was developed and reviewed by the Management Systems Department and approved by the National Standards Council. The purpose of the manual is to establish and standardise the procedures employed in certifying a product to use the Standards Mark, thus, building transparency in the process.

These procedures were fully documented with adequate flow charts, which would be implemented early in the new year. The Bureau would also move to have the Product Certification Scheme accredited by a recognised, external Registrar.

During the implementation of these procedures, existing clients would have to undergo training on the GNBS's new code of conduct as a certifying body. This may be relatively new to the clients and would eventually take some time to phase into their operations.

#### **2.2.5 Gold Testing Laboratory**

The necessary equipment, including a melting torch, extractor fan, safety equipment, reagents, were purchased to set up the gold-testing laboratory of the Bureau to conduct the testing of items of jewellery. An extractor fan mechanism was also designed, implemented and tested. The melting torch was test-run and a sample validation procedure was developed, discussed and approved by the Head of Department.

However, the validation of the test method was not carried out. Initially, the plan was to conduct the cupellation method of testing. Unfortunately, the furnace did not achieve the input conditions and failed accordingly. The initiative had to be taken to conduct the short-cut fire assay method of testing instead, when additional equipment were purchased. The validation of the method would be carried out early in the New Year, and the testing of jewellery items would commence. The Bureau would provide this testing service to the jewellery industry (large, medium and small jewellers), to the complainants of jewellery products, and to the Product Certification Scheme itself. The Bureau would generate additional funds from this testing service.

#### **2.2.6 Linking the Jewellery Sector with Tourism**

During this year, under a USAID/GEO Project, the Bureau reviewed its Communication Programme with the aim to make it more effective. Once strategy recommended by the Consultant to promote the National Standards Mark was to link the jewellery industry with the Tourism Sector. Seven (7) jewellers were awarded the permit to use the Mark on their items of jewellery, and the Standards Mark Scheme would expand in the said industry.

A report prepared by the Communication Consultant which summarised the means of linking the Jewellery sector with Tourism was reviewed. Possible suggestions highlighted were noticed. As such, a special meeting with the stakeholders from the jewellery and tourism sectors was held to discuss the way forward. Follow-up meetings via an internal committee of the Bureau were also held to resolve issues that emerged from the initial meeting with the stakeholders.

Several issues such as the review of the gold standards and accreditation of the Product Certification Scheme were highlighted to members. Accordingly, the internal committee had decided to defer this activity until the issues are resolved. The GNBS is currently working on the said issues.

#### **2.2.7 Unscheduled Activities**

The Product Certification Division was involved in the following activities:

- (i) Two presentations were made to the GNBS staff on the Product Certification Procedures and the Standards Mark.
- (ii) The Department was represented at a session at UNDP on the status of e-commerce in the Caribbean, especially Guyana. Guyana was rated as one of the weakest link in relation to this subject. Standards have to be developed to engulf this new idea as well as some infrastructural development.

- (iii) The Department was represented at a session at Pegasus Hotel on the problems Guyana's products are experiencing in the UK, US and Canadian markets. As such, one of the recommendations that evolved was the need for Guyana to develop standards for fresh and processed products.

## 2.3 QUALITY MANAGEMENT SYSTEM

The goal of the QMS programme is to encourage and facilitate the industrial sector in Guyana to apply the principles of Quality Management to their operations and improve their competitiveness and marketability of their products in an open market system.

Global trade is rapidly increasing and the influx of foreign commodities seems to be dominating the local market. It is therefore imperative that the local industrial sector prepares itself for global competition. The Guyana National Bureau of Standards Quality Management Systems programme in 2002 sought to initiate two projects to assist the local industry to become competitive in the global market.

The development of the "Hybrid Standard" (Guidelines for good management practices for MSE's), would provide a tool to assist the Micro and Small Enterprises in improving their efficiency and marketability, and hopefully the CPEC project would assist eight larger pilot companies to conform to the new ISO 9001:2000 standard.

Hence 2003 looks prosperous for the Quality Management programme provided that resources are provided for the various action plans to be implemented.

### 2.3.1 Technical Assistance to Companies

During 2002, the Quality Management Systems programme provided technical assistance to a number of companies in implementing Quality Systems in their operations. This assistance involved fortnightly visits to review the documentation and implementation of their Quality manuals and meeting with their established Quality team. Each company had established an action plan. The Quality Management programme during the year worked with the following companies.

- \* Guyana Stockfeeds Limited
- \* Guyana National Shipping Cooperation
- \* Guyana Sugar Corporation
- \* Art Williams Aeronautical Engineering School

In the case of the latter two companies, the programme was initiated at the latter half of the year. The programme also began a process of assisting in the establishment of basic Quality Manuals for seven jewellers which included.

- \* Kings Jewellery World
- \* Correia's Jewellery
- \* Topaz's Jewellery
- \* Diyaljee's Jewellery
- \* Niko's Jewellery
- \* Steve's Jewellery
- \* Seeram's Jewellery



GNSC and Guyana Stockfeeds have completed working documents for their Quality Manuals which are under review for improvements. In the case of GNSC, the operations procedures for the various departments were audited to assess the implementability of the procedures.

The work with the Jewellery Sector led to the completion of two draft manuals, which were reviewed by the Bureau. These manuals are intended to be used by jewellers as reference to their operations and provide the Bureau with reference materials for auditing the operation for certification. The programme faced some serious challenges during the year such as lack of skilled personnel in the area of Quality Management and unavailability of company's representatives because of other job responsibilities.

### **2.3.2 Awareness of Quality Management Principles**

Packages containing information on Quality Management Systems were prepared and distributed to fifty companies. This was followed by the hosting of a symposium entitled "Conformance to standards improves competitiveness and marketability in trade" CEO's from 20 small and large companies attended. Two major initiatives of this symposium were the need for the Bureau to establish a programme to assist small and micro enterprises and develop a funded project to assist larger companies. Hence, a project sponsored by CESO was executed during November to assess the implementability of the draft Guyana Standard guidelines for good management practice for MSE's. Mr. Albert Heckel was the consultant who assisted the Bureau from October 28 to November 16, 2002. The Bureau hoped to certify the Management Systems of small and micro enterprises leading to an improvement in the efficiency and competitiveness of their operations.

A project concept paper was also prepared and submitted to CPEC to assist eight pilot companies to implement a Quality Management Systems in their operations. The project concept paper has been approved. Mr. Thomas Edmonds of St. Lucia was selected to prepare the project proposal which is awaiting approval. This proposal is expected to be approved in January of 2003.

The CPEC project will assist in offsetting the consultancy cost for implementing a Quality Management System and also build the capacity of Quality Management experts in Guyana. Some companies were slow to respond to the initiative taken by the Bureau.

### **2.3.3 Adoption of ISO 9000 series of Standards**

A proposal for the establishment of a Technical Committee - Management System was submitted to the National Standards Council and was approved. The focus of the technical Committee was on the development of guidelines for good management practices for small and micro enterprises. The Technical Committee will also adopt standards from the ISO 14000 series of standards on Environmental Management Systems. The Committee initially reviewed standards from both the ISO 9000 and ISO 14000 series of standards, but did not adopt them because priority was placed on the good management practices for MSE's.

#### 2.3.4 Development of a "Hybrid Standard" for SME's

A working draft of the hybrid standard (Guidelines for Good Management Practices for small and micro enterprises) was prepared from the ISO 9001, ISO 14001 and ISO 15001 standards. This standard was reviewed by the Technical Committee - Management System and by the CESO consultant. This standard would go through Public Consultation sessions in four Regions, viz., 2,4,6 and 10 for a period of six weeks early in the new year.

#### 2.3.5 GNBS Quality Management System

- A draft quality manual has been prepared. One section on Quality System requirements was reviewed with staff.
- Procedures for all processes of the Management System Department has been prepared. Two (2) procedures for the Product Certification and Laboratory Certification programmes have been approved by NSC. The other two (2) for technical assistance and external training are presently being reviewed by the department.
- Draft procedures from compliance department were reviewed and returned for correction.
- A CESO consultant attached to GNBS reviewed the documentation, and met with individual department to review this project. A report highlighting recommendations for the way forward was prepared and submitted to management. Much more was achieved during this year with regards to this project which was initiated since the year 2000. However, more could have been achieved if the deadlines outlined in the plan of action was met.
- With regards to implementation of the Bureau's Quality Management System, training began on the reasons for implementing the Quality Systems, benefits and auditing of Quality Systems. Some procedures have been under a period of trial run with the intention of improving them. More could have been achieved if the documentation was available from various departments.

#### 2.3.6 Unscheduled Activities

- The Department participated in a training session for Dried Shrimp processors from the West Coast Demerara. The focus of the presentation was on the benefits that would be gained from implementing good manufacturing practices for processing of dried shrimps. This programme was conducted in conjunction with the Veterinary Public Health Department of the Ministry of Health.

- The Department participated in a discussion session on the status of e-Commerce in the Caribbean. The focus of the discussion was on how businesses of the Caribbean can maximise the use of e-commerce. Some issues discussed were:
  - How will e-commerce affect the WTO agreements and is it on the list of negotiable issues.
  - Issues on how to set up trade cells.
  - Statistical data on e-commerce from various Caribbean countries.
  
- The Department attended the launching of MACC (Mainstreaming Adaption for Climate Change) which was focussed on implementing measures identified from the CPACC (Caribbean Programme for Adaption to Climate Change). It is recommended that Government agencies review activities with the aim and consideration of implementing Climate Change measures.

## **2.4 ENVIRONMENTAL MANAGEMENT SYSTEMS (EMS)**

Environmental Management Systems (EMS) is an activity that manages the impacts on the environment thus complying with applicable laws and regulations. It is a voluntary initiative that can facilitate market access, effective production, delivery of service and customer satisfaction through conformance to the requirements of the standard.

The goal of the programme is to encourage companies/organisations to apply the principles of environmental management in their operations, according to the ISO 14000 set of standards. The Guyana National Bureau of Standards provides assistance to organisations in developing and implementing the ISO 14001 standard.

### **2.4.1 Technical Assistance to Companies**

Information packages were prepared and distributed to forty organisations. One organisation indicated interest i.e., the West Demerara Hospital. Training on environmental management systems was completed and the process of documentation had commenced. The EMS team at the hospital completed all procedures within one department and the draft policy manual.

West Demerara Regional Hospital continued the documentation process using the template provided by the Bureau as guidance. The procedures and policy manual completed were evaluated.

Other organisations are reluctant to participate because EMS is seen as an additional cost. Many organisations do not have the human and financial resources to spearhead such a programme.

### **2.4.2 EMS Training Activity**

During the year 2002, no activity was undertaken to upgrade the knowledge of personnel in ISO 14000 standards. There was a change in focus, hence all training and skills upgrading will be addressed under the conformity assessment project proposal. This activity can only be addressed through international funding agencies.

### **2.4.3 Adoption of ISO 14000 Standards**

Seven standards were available, and proposals were completed and submitted to the Department of Standardisation.

Seven proposals were approved by the National Standards Council. These standards are for adoption/adaption under the Technical Committee - Management Systems.

#### 2.4.4 EMS Activities with Pilot Companies

All organisations under the UNDP project were contacted. The responses were that organisations changed their focus, high staff turnover or they had gone ahead on their own.

#### 2.4.5 Unscheduled Activities

##### \* *Training*

The Officer, Miss Ramrattie Karan, completed a certificate course in Occupational Safety and Health during the period February-May, 2002. This course was conducted by the University of Guyana, Institute of Adult and Continuing Education. A report was prepared and submitted. Since then, an Occupational Safety and Health Committee was established at the Bureau tasked with the responsibility for employees and workplace safety and health.

Miss Karan also participated in a supervisory skills training course which was conducted by the Media for Education, Training, Human and Organisational Development on

##### \* *Attended workshops/consultations*

The Officer attended a one day workshop on the Regional Transformation Programme for Agriculture (RTP). This workshop was held at the National Agricultural Research Institute (NARI), guest house on August 08, 2002. The main focus of the workshop was the need for standards that addressed the six commodities, viz. Coconut, papaya, small ruminant, hot pepper and sweet potato. The findings and recommendations were reported.

A one day workshop on the Code of Practice for timber harvesting was attended by the Officer. This workshop was held at Cara Inn on August 22, 2002. It was reported and recommended that there is the need for the adoption/adaption of three (3) standards mentioned in the Code of Practice, viz., ISO 3471:1994, ISO 8082:1994 and ISO 8083:1989.

A one day workshop on Mainstreaming Adaption to Climate Change (MACC) was attended by the Officer. This workshop was held at the National Agricultural Research Institute (NARI) guest house on July 08, 2002. The focus of the workshop was to build on the strengths of the Caribbean Planning for Adaption to Climate Change (CPACC) project, hence the new project MACC. At this workshop, the need to incorporate preventive measures of climate change in building code standards was highlighted. The findings and recommendations were reported.

The Officer attended and reported on the discussion held on capacity development for environmental management in the sustainable utilisation of national resources. The discussion was held at Cheddi Jagan Research Centre - "Red House" for half day on December 17, 2002.

A consultation on the development of regulations for Chemical Safety in Guyana was attended by the Officer. This consultation was held at Main Street Plaza Hotel on November 14, 2002 for half day. It was reported on the measures taken to develop the regulation. The main focus of the workshop was the need for the regulation to support the Occupational Safety and Health Act. It was suggested by the Consultant that the Regulation should incorporate safety standards.

## **2.5 CONFORMITY ASSESSMENT PROGRAMME**

Conformity Assessment can verify whether a particular product/process meets a given level of quality or safety, and provides users with explicit or implicit information about its characteristics, the consistency of the characteristics or performance. Conformity assessment can also increase a buyer's confidence in a product, furnish useful information to a buyer and substantiate a company's advertising and labelling claims.

The impact of conformity assessment on both domestic and international trade is prominently noted in the 1994 Agreement of Technical Barriers to Trade (TBT agreements) of the World Trade Organisation (WTO). The TBT agreements recognise that conformity assessment activities can expedite or seriously hinder the free flow of goods in international commerce, and establish procedural requirements for conformity assessment schemes to avoid the development of unnecessary obstacles to trade. Recently, products produced in Guyana are being restricted from export markets because of our inability to provide assurance that they conform to requirements for quality and safety.

The GNBS has recognised this situation, and being the foremost organisation in Guyana with responsibility for conformity assessment activities, has tasked itself to correct this problem. It has through its conformity assessment programme, embarked on a collaborative process with all other institutions involved in conformity assessment activities in Guyana to establish an internationally- recognised national conformity assessment system, meeting the requirements of negotiated trade agreements and ISO standards and guidelines. This would ensure easier access for Guyanese products to export markets and contribute to the economic development of Guyana.

The goal of this programme is to establish an internationally recognised national conformity assessment system in Guyana in order to improve trade.

### **2.5.1 National Conformity Assessment Committee**

Since the establishment of the National Committee for Conformity Assessment in 1999, six (6) meetings were held, and members have agreed that these activities need to be improved to international standards as early as possible to foster economic development, and government needs to share some commitment to these activities by assigning high priority for allocation of resources.

Two (2) Cabinet Memo's and an introduction paper on Conformity Assessment were submitted to the Ministry of Tourism, Industry and Commerce to seek Cabinet's approval for the new trade initiative, i.e., establishment of an internationally-recognised national Conformity Assessment system in Guyana. Discussions were also held with some funding agencies on a project proposal.

It should be recognised that the foundation for the launch of a national conformity assessment system has been established. However, this process cannot move forward without a commitment from the Government.

#### **2.5.2 Training on Conformity Assessment**

No training on conformity assessment activities could have been accomplished because of the unavailability of required resources.

#### **2.5.3 Awareness on Conformity Assessment**

Efforts were made to increase awareness on conformity assessment activities through, preparation and distribution of a fact sheet on this topic, articles in the newsletter which was distributed by GNBS on a quarterly basis, discussions on topics "One standard, one test, accepted everywhere", and a seminar on "Conformance to standards improved marketability and competitiveness in trade." Discussions were also held with the National Trade Negotiation Group (NTNG).

However, more can be done through increased allocation of resources to focus on target groups, as well as consumer/advocates playing a more proactive role.

#### **2.5.4 Standards on Conformity Assessment**

Standards and guides related to conformity assessment were made available at the GNBS and presently being used by relevant programmes. However, there is a need for skills development to facilitate more effective implementation. Some of these standards and guides are being tabled for adoption by existing Technical Committees.

#### **2.5.5 Comments/Recommendations**

- This programme cannot be effective without the commitment from Government. There is need for allocation of more resources to respective agencies and ensuring that these agencies work assiduously to accredit themselves.
- The management of these agencies also needs to be committed to accrediting their institution to relevant standards or guidelines to be able to give assurance of its activities.
- An educated consumer population can facilitate this programme, on conformity activities by demanding these activities, or by rejecting products/ services that cannot give assurance of conformity.
- There is also an urgent need to develop the skills and expertise of personnel involved in conformity assessment activities.



- Because of the importance that is attached to conformity assessment activities in trade, Guyana needs to upgrade or improve these activities to be able to export its products. These activities offer the potential for Government Agencies to generate revenue for its own sustainability/self financing.

#### 2.5.6 **Unscheduled activities**

- An officer from GNBS attended a seminar on Life Cycle Assessment (LCA) from 16-18 of January 2002 in Port of Spain, Trinidad. A report highlighting the principles of LCA, the benefits of LCA and recommendations on the application of LCA to Guyana's industry was prepared and submitted to the Director - GNBS.
- An officer of GNBS participated on the Working Group for Forest Certification, which is in the process of developing a standard for Sustainable Forest Management (SFM) according to the Forest Stewardship Council (FSC) guidelines. This committee completed the preparation of a first draft of the standard.
- The GNBS was represented on the Steering Committee for the CPEC project for the jewellery sector. The GNBS has primary responsibility for the development of standards for the gold jewellery sector under this project.
- The GNBS participated in discussions on the WTO, FTAA, ACP-EU and other trade negotiations, as part of a National-Trade Negotiation Committee (N-TNC), which was hosted by the Ministry of Foreign Trade. The GNBS also represented and participated in discussions in the Working Groups for Market Access and Government Procurement which feed information into the N-TNC.
- A meeting was held on April 29, 2002 with Mr. Grisley, Project Officer from the IDB local office on possible assistance to the GNBS. A copy of the conformity assessment proposal was left with him.
- The GNBS was represented on the Steering Committee for the FAO project on "strengthening the food inspection process in Guyana". A plan for project activities is being put in place, of which the GNBS is expected to benefit through assistance to improve the codex contact point.
- Discussions were held with a consultant under the Caricom/IDB project on "Implementation of WTO commitment in the Caribbean Community". Discussions were centered on meeting the commitments for standardization and conformity assessment. Areas for assistance were highlighted and documented in a report by the consultant.

- The GNBS attended a seminar on the ACP-EU trade agreements, where the areas of collaboration, potential for market access and opportunities for assistance were highlighted.
- The Officers of Management Systems Department prepared a three (3) year strategic plan for the Conformity assessment programme of GNBS (2003-2005).

### **3.0 ENGINEERING/METROLOGY AND STANDARDS COMPLIANCE DEPARTMENT**

#### **OVERVIEW**

The Engineering/Metrology and Standards Compliance Department manages two Programmes, viz., Weights and Measures and the Standards Compliance Programmes. The Department has an Inspectorate of 14 Inspectors operating under the Chief Inspector and servicing both work programmes. The Chief Inspector reports to the Head of the Department.

The Bureau of Standards is responsible for coordinating the Weights and Measures Programme countrywide and the enforcement of the Weights and Measures Act of 1981. The activities of the Programme include the initial and subsequent verification of devices manufactured locally and imported, devices used for commercial trade, calibration of storage tanks, verification of Regional and GNBS working physical standards, surveillance of devices at sale outlets and facilitation of the conversion of imperial devices to metric. Scales and measures manufacturers are also being licensed annually.

The Standards Compliance Programme is geared to ensure protection of consumers by the monitoring of some 16 categories of commodities imported or manufactured locally to ensure compliance with their respective national standards. It involves the inspection of commodities at ports-of-entry and sales outlets based on information received from shipping manifests at Customs House, request from Importers, and also, scheduled inspections. In addition, the investigation of consumers' complaints are carried out based on request received from the Consumer Affairs Division of the Ministry of Tourism, Industry and Commerce on technical matters relating to the Bureau.

#### **3.1 WEIGHTS AND MEASURES**

##### **3.1.1 Manufacturing of Weighing and Measuring Devices**

During the year 2002, a total of eight manufacturers registered with the Bureau to manufacture and convert scales and masses and one manufacturer registered to manufacture measures. The examination of manufacturers' registered premises were conducted to determine compliance with the manufacturing requirements i.e. the facilities and tools used in their operations, quality control techniques, manufacturing standards, test masses and calibration scale, prior to the issuing of the manufacturing licences.

A quantity of 1029 scales, 2094 masses and 512 measures locally manufactured was initially verified by the Bureau. As a result, a quantity of 14 scales and 3 masses was rejected, since they did not pass the tests conducted and met the manufacturing requirements. Devices rejected were returned to the manufacturers for rectification or further adjustments and subsequently were verified. Non-conformities observed were highlighted to manufacturers at the time of submission of devices for verification to prevent a reoccurrence of similar problems in the future.

The Bar Graph of Figure 1 shows the initial verification of devices for the year in respect of equal arm scales, platform scales, dial scales, electronic scales, masses and measures.

There had been a decrease in the number of devices manufactured, since the demand for devices on the market were not great. Most vendors were moving to convert their existing scale instead of buying new metric devices. Manufacturers were complaining that it is not economical for them to operate their businesses due to a decrease in the demand for metric devices.

### **3.1.2 Subsequent Verification of Devices**

Verification of devices activities were conducted at the Bureau's Legal Metrology Laboratory and mobile stamping conducted at markets and various areas along the East Coast and East Bank of Demerara for the period January to March and July to September for the first and second half of the year, respectively. A total of 3166 scales, 7033 masses and 515 measures were subsequently verified and 2 masses and 3 measures were rejected. Further, a total of 194 scales, and 118 masses were verified externally for the Airlines, Seafoods, Sugar and other industries countrywide. Figure 2 shows a Bar Graph for subsequent verification of scales, masses and measures for the year.

In addition, a total of 1093 petrol pumps and 5 bulk meters were tested and 484 petrol pumps and 1 bulk meter were calibrated for the various petrol companies and other private stations countrywide. Non-conformities observed during these exercises were highlighted in correspondences to the various companies and the fire and licence departments. Figure 3 shows a Bar Graph for petrol pumps verified for the year.

A significant amount of work was conducted by the Bureau in collaboration with the Regional Weights and Measures Officers in Regions 2,3,4 and 6. However, Regions 1,5,7,8,9 and 10 need to intensify this activity. Despite the amount of work covered during the year, more could have been achieved if full cooperation was received from stakeholders involved, including the various Regional Democratic Councils, and their Weights and Measures Officers, and if adequate transportation and personnel were available.

### **3.1.3 Sensitisation Activities**

The training of vendors, shopkeepers and other retailers were conducted continuously throughout the year during sensitisation exercises carried out by Inspectors and Metrication Officers, at shops, markets and other retail outlets countrywide to educate them on the care and use of their devices and the use of the metric system. Resulting from these exercises, a quantity of 42 scales and 14 masses were converted by licensed manufacturers and verified by the Bureau, as compared with 69 scales and 33 masses for 2000 and 69 scales and 49 masses for 2001.

### **3.1.4 Surveillance Inspection of Devices**

Inspection activities to ensure devices used for trade were stamped, and therefore in good condition, were conducted during the months of April, May and June for the first half of the year, and October, November and December for the second half of the year. During the exercises carried out, a total of 3484 stalls/premises and 27 markets were visited for the year.

Resulting from surveillance exercises conducted at markets and shops, a quantity of 219 scales, 1016 masses and 176 measures were seized and removed, since they were found to be unjust and defective. This activity was intensified during the year since the order was passed making the metric system the only legal measurement system in Guyana with effect from 2002-01-01.

No prosecution was done for the year, since the time specified in the 1981 Weights and Measures Act to effect prosecution is not adequate and priority was given only to offences of serious nature by the judicial system. However, this is expected to commence in the new year, since the training of Inspectors in prosecution had been completed and the 1981 Weights and Measures Act is currently being reviewed.

Based on intensified surveillance and mobile stamping exercises conducted by the department, there was a decrease in the number of devices seized during the year, as compared with last year.

Despite efforts made by the Bureau during the mobile stamping exercises to reach out to vendors and shopkeepers in the various villages and markets, some vendors and shopkeepers did not turn up to have their devices stamped, which accounted for the devices seized during the year.

### 3.1.5 Expansion of Weights and Measures Programme

The Guyana National Bureau of Standards, in collaboration with the Regional Democratic Council of Regions 1,8 and 9, had established Weights and Measures Offices in these Regions. The Offices were established to make the Weights and Measures services more accessible to the hinterland communities and to maintain an efficient and effective Weights and Measures and Metrication programmes in the said Regions. Approval was granted by the PSM to appoint a new Weights and Measures Officer for Regions #5. This is expected to be effected early in the new year 2003.

In addition, a new Weights and Measures Officer was appointed in Bartica, Region #7, to replace the previous Officer who had been dismissed. An Office had been identified within the Administration building to conduct the verification of devices. Further, the Region #4 Administration had taken the initiative to appoint an Officer to replace the previous Weights and Measures Officer who had since passed away. The newly appointed Weights and Measures Officer of Regions 1,4,7,8 and 9 were trained by the Bureau to effectively execute the Weights and Measures duties as required by the 1981 Weights and Measures Act.

Despite the difficulties faced by the Bureau, the establishment of Weights and Measures Offices in Regions 1,8 and 9 were effected and conditions in Region 4,5,7 and 10 were improved when compared with the previous year. The Bureau would be depending heavily on the Regional Weights and Measures Officers and the Administration for their continued support and assistance for the programmes.

Meetings of the National Weights and Measures Monitoring Committee were held throughout the year at the GNBS where activities regarding Weights and Measures were discussed and feedbacks concerning the progress of activities and problems encountered during the execution of duties were obtained from officers of the various Regions. These meetings also facilitated the coordination of activities countrywide in a timely and organised manner. The Bureau as the coordinating body for this programme had worked throughout the year with the various Regions in terms of providing technical assistance to facilitate the timely execution of activities in the Regions.

### **3.1.6 Monitoring Imported Weighing and Measuring Devices**

Imported weighing and measuring devices are required to be tested and stamped by the Bureau before they are released for sale and commercial use. For the year, 234 imported scales and 29 masses were tested and stamped. The monitoring of imported devices was also routinely carried out by Inspectors during surveillance exercises in the various Regions. Devices which were sold without verification were seized and removed from the place of sale and the necessary corrective actions were taken to rectify same. In addition, the dealers found selling these devices were advised on the requirements governing the importation and sale of such devices. They had been a reduction in the quantity of devices imported and sold, as compared to previous years. Some importers are importing dual system devices, creating an unfair competition for the local manufacturers and unnecessary work to convert same to metric only.

### **3.1.7 Review of Weights and Measures Act**

The 1981 Weights and Measures Act currently used by the Bureau was being reviewed by the Legal Metrology Technical Committee and it is expected to be completed early in 2003. The completion of this activity is critical since most of the Weights and Measures activities conducted by the Bureau currently are hinged on the said Act. The work of the Legal Metrology Committee was seriously affected by the lack of participation from members of the Committee.

### **3.1.8 Establishment of a Traceability System**

Cabinet has approved the sum of G\$20M to purchase reference physical standards and equipment for Legal Metrology, in order to upgrade the traceability system in Guyana. To date, bids (tenders) were received from four (4) suppliers and an evaluation of the bids supplied was conducted by a Committee set up by the Central Tender Board. The standards and equipment would be purchased early in the new year, 2003. Existing working standards used by the Bureau and the Regions were calibrated as required for the year, to maintain accuracy and traceability to International Standards.

The acquisition of the reference standards would strengthen the traceability system for measurements in Guyana and facilitate greater accuracy and traceability to International Standards. There is urgent need for laboratory facilities to accommodate the equipment and standards to be acquired.

### **3.1.9 Petrol Operations**

The Code of Practice for service stations and bulk terminals was handed over to the various regulatory agencies responsible for this sector to provide guidance in monitoring the operations of such facilities.

In addition, the Bureau's Inspectors are also involved in the monitoring of some aspects of these facilities during their verification exercises conducted twice yearly. Non-conformities observed are highlighted to the respective regulatory agency responsible to take the necessary follow-up actions.

The implementation of this standard would heavily depend on the other regulatory agencies responsible for the petrol industries. However, the Bureau would continue to play a supporting role in effecting this Act. Because of the regulatory control by the various agencies, it would be difficult for the Bureau to play a direct role in the implementation of this standard apart from providing the agencies with the deficiencies observed during the verification exercise.

### **3.1.10 Public Awareness**

Information gathered from field inspections and verification exercises which are useful for the protection and guidance of consumers were analysed and prepared routinely throughout the year for publication in the form of releases, notices, newsletter etc., by the public Relations Department.

Despite the efforts made by the Bureau to guide consumers, they need to be more vigilant when making purchases to avoid being cheated by unscrupulous vendors. Information relating to the various activities conducted under this programme were periodically forwarded to the Public Relations Department for publication.



## **3.2 STANDARDS COMPLIANCE PROGRAMME**

### **3.2.1 Monitoring Imported and Local Commodities**

#### **3.2.1.1 Imported Commodities**

A total of 94 importers of commodities monitored by the Bureau under the Standards Compliance Programme registered with the Bureau for the year as compared with 282 for 2000, and 213 for 2001. Regarding used tyre dealers, 50 registered with the Bureau for 2002, as compared with 59 for 2000 and 45 for 2001. The decrease in the number of importers registered is attributed to the phasing out and discontinuation of the ports-of-entry inspection, signalling to importers the unnecessary to register with the Bureau. Guidelines on the importation and sale requirements of commodities monitored by the Bureau were issued to importers and dealers at the time of registration. In addition, notices were published in the newspapers and on television, educating importers and dealers on the requirements for the various commodities.

A total of 1037 Inspections of various commodities monitored were conducted at sales outlets based on information obtained from shipping manifest and scheduled surveillance. Most commodities examined met the requirements of their respective national labelling standard.

For commodities which were not in compliance, the importers were advised to take corrective actions to avoid a reoccurrence for future shipments. However, for used tyres a quantity of 449 defective tyres were destroyed as a result of examination conducted at sale outlets. In previous years, defective tyres were destroyed at the ports-of-entry to the extent of 3,376 in 2000 and 741 in 2001 as the quality improved as a result of stringent monitoring.

Fertilizer was included in the list of commodities monitored by the Bureau based on numerous complaints received from farmers and other related agencies, regarding the quality and mass of the said product. As a result, fertilizers were examined at the ports-of-entry to ensure compliance with the national labelling standards and the net mass of the bags were also checked to ascertain the stipulated quantity. In addition, samples were also taken and tested to ensure compliance. To date a total of 27 inspections were conducted at the various ports-of-entry and tests conducted revealed that the product was within acceptable tolerance limits.

Meetings were held with importers and dealers of used tyres and fertilizers to discuss the requirements for importation and sale of the said commodities and problems encountered in the enforcement and inspection exercises conducted by the Bureau.

The discontinuation of ports-of-entry inspections by the Bureau had severely affected this activity, since there was a vast decrease in the number of importers registered with the Bureau as compared with the previous year. In addition, it is much more difficult to address products which are not in compliance, since these would already have been distributed to dealers countrywide. There is no mechanism in place to prevent the importation of substandard products since inspections are conducted at sale outlets when the products are already cleared and distributed. Inspectors are also experiencing difficulties in the execution of their duties since importers are reluctant to cooperate with Inspectors in facilitating inspections.

#### **3.2.1.2 Local commodities**

The monitoring of locally-manufactured commodities commenced in June of the year, being a requirement of the TBT Agreement of W TO to monitor both imported and locally-manufactured commodities. An initial meeting was held with local manufacturers to discuss the manufacturing requirements, registration and the labelling of their products manufactured against established national standards. Eight (8) manufacturers registered with the Bureau under this programme and a total of 34 inspections were conducted at bonds and warehouses. The examination of commodities manufactured revealed that most of the commodities were not in compliance with their respective national standards. As a result, the manufacturers were advised to take corrective actions to ensure compliance.

There is need for better cooperation from manufacturers regarding the registration of their businesses with the Bureau and the addressing of non-conformities in a timely manner.

#### **3.3.1.3 Consumers' complaints**

During the year, a total of 35 complaints relating to the quality of products purchased were received by the Bureau. Some of the complaints were referred from the Ministry of Tourism, Industry and Commerce for technical assistance and further investigation. Twenty three (23) of the complaints received were resolved, one unresolved and one pending further investigation.

Consumers' complaints were received mainly on items such as electrical appliances, jewellery, building materials, batteries, garments, tyres, used vehicles and carpentry tools. The nature of the complaints received included defective products, sizing of garments, too frequent repairs during warranty period, and undercarating of jewellery.

### **3.2.2 Promotion of Standards Compliance Activities**

During the year 2002, information relating to the various activities conducted under the Standards Compliance programme were disseminated to the public via the various media houses. Numerous advisories relating to defective products discovered during surveillance inspections, such as razor blades, batteries, safety matches were published to guide consumers. Further, requirements relating to various commodities monitored by the Bureau were also disseminated to various stakeholders during surveillance in the form of factsheets and flyers. This activity is routinely carried out by the public relations department based on information submitted and serves to keep the public informed on the various activities carried out by the Department.

### **3.2.3 Strengthening the Compliance Programme**

Inspectors within the Inspectorate Department were issued with appointment cards signed by the Chairman of National Standards Council, as specified in Section 27 of the Standards Act. In addition, Inspectors were trained on the various standards for commodities currently monitored by the Bureau throughout the year. The training sessions were conducted by various Technical Secretaries with the Standards Writing Department.

The Inspectorate Department also has a full time member on the Consumer Products Technical Committee in order to provide adequate inputs in the development of standard that would be implemented by the Department.

In addition, the Department had recommended the review of several standards which include the Guyana Standard Specification for the labelling of household electrical appliances, safety matches, animal feeds, footwear and the development of standards for commercial highway tyres, mosquito coils, textiles, garments, fertilizers and safety helmets.

The training of Inspectors needs to be conducted by qualified technical personnel so as to provide proper guidance for Inspectors in the execution of their duties. Training should be properly planned and executed throughout the year so as to provide Inspectors with the necessary knowledge required to function effectively.

### **3.2.4 Collaboration with other Agencies**

Several meetings were held with the Customs and Trade Administration and the Consumer Affairs Division of the Ministry of Tourism, Industry and Commerce in an effort to enhance collaboration between GNBS and these agencies. Materials and information relating to activities conducted by the Bureau under the Standards Compliance Programme were submitted to the Customs and Trade Administration in preparation for the training of Customs Officers to perform an agency function for the Bureau. However, the Customs and Trade Administration is yet to schedule a date to effect the training of its Officers.

As a result of the meeting held with the Consumer Affairs Division of the Ministry of Tourism, Industry and Commerce, it was decided that all complaints would be received by the said Division and whenever technical assistance is required for commodities monitored by the Bureau, such complaints would be referred to the Bureau for action.

The Bureau made significant strides in terms of strengthening its relationship with the Customs and Trade Administration and the Consumer Affairs Division. However, this could be further enhanced in the new year.

Procedures relating to the various activities conducted under the Standards Compliance programme were documented and submitted to the Quality Systems Department for review. The procedures were returned and work had commenced on addressing the recommendations made by the Quality Systems Department on the documented procedures.

### 3.2.5 Comments

The discontinuation of the port-of-entry inspections had reduced the effectiveness of the Standards Compliance Programme since importers/dealers are reluctant to cooperate with Inspectors to facilitate the inspection of their products at sale outlets. There is no regulatory mechanism in place at the port-of-entry to prevent the importation of substandard products.

There is urgent need to review the Standards Compliance Programme in an effort to make it more effective. Emphasis should be placed on the quality of products monitored by the Bureau, since most complaints received are quality related. There is need for specialized training of Inspectors in the area of inspection, testing and sampling and attachments to other developed Bureaus.

## **4.0 INFORMATION SERVICES DEPARTMENT**

### **OVERVIEW**

The Information Services Department spearheads three programmes, namely, Public Awareness, Metrication and Technical Standards Information.

The Public Awareness Programme's goal is to establish the Bureau as the recognised and leading agency responsible for promoting standardisation, management systems, metrology and standards compliance using a variety of communication approaches and strategies.

The Metrication Programme sets out to educate, sensitise the public in the use of the four commonly used units of the metric system and eventually help Guyanese to switch fully to the metric system.

The Technical Standards Information Unit sets out to provide and secure information for the support services of the technical staff and assist in the promotion of standards.

For the year under review, the department was able to meet and support its many challenges with innovation and determination.

### **4.1 PUBLIC AWARENESS PROGRAMME**

#### **4.1.1 Programme Support Communication**

The Public Awareness Division provided vital communication support to the Technical Departments of the Bureau, viz., Standardisation, Management Systems and Engineering/Metrology & Standards Compliance. The year 2002 witnessed a closer working relationship and greater collaboration between departments. This ensured more effectiveness in the execution of activities because communication inputs were made into activities at the very beginning.

Some of the tasks accomplished were the development of fact sheets for work programmes and for completed standards, preparation of brochures and programmes for special events such as symposia, certification ceremonies, preparation of notices for advertisements for print, radio and television, arranging news interviews with staff, and organising press briefings. Other projects that were done in a similar way were the planning and execution of exhibitions and special meetings. Also, joint surveillance exercises were carried out in the market places, shops, and other retail outlets.

One such joint activity was a special meeting which took place with the staff of Standards Compliance and the Information Services Department with GAWU at the Union Hall of GAWU, to discuss the effect of the passing of the metric law effective on January 01, 2002 on the calculations of workers payment for cane production in metric tons. The meeting was successful as, the workers' representatives and Union Officials pledged their support for the metric system and felt that the use of the metric system will in no way hamper the amount of wages paid to workers when cane is reaped in metric tonnes.

#### 4.1.2 Information Dissemination

The Public Awareness Division was very active during the year in information dissemination in order to enhance the promotion of standardisation. A total of fifty two (52) weekly radio programmes which covered activities under the various work programmes were prepared and aired on GBC radio. Twenty two (22) notices and advertisements were prepared and sent to the newspapers and television media for publishing. For the first time, also, spots were taken during international cricket matches and advertisements, highlighting the metric system were aired during the segments.

Twenty-six (26) editions of Standards Corner were prepared and published in the Chronicle newspaper. This feature highlighted consumer information extracted from National Standards, for example, the National labelling standards.

Four (4) editions of viewpoint aired on the radio by the Director of the Bureau were republished in the Chronicle. The topics addressed areas of standardisation and quality. A total of twenty two (22) press releases highlighting various aspects of the activities of the GNBS work programmes were prepared and sent to media houses throughout the country. The information published in the media served as a means of educating and sensitising stakeholders. A new feature in the preparation of press releases was the use of information extracted from national standards. This served to help in the promotion of these standards.

During the year, the services of Tagman Inc, an advertising agency were used to execute certain printing jobs and campaign plans. Thousands of factsheets, flyers and brochures were prepared by this agency to be used at exhibitions and for distribution to the public. A number of metric conversion charts were also distributed freely and some were sold.

Twelve (12) editions of Standards Bureau which targetted consumers were published over a three month period in the Monday Chronicle. The columns published contained essential information which edified readers about certification, implementation of quality systems and environmental management.

### 4.1.3 Promotional Activities

#### 4.1.3.1 Standards Mark

The first major promotional activity undertaken was the re-launching of GNBS National Standards Mark. It was recommended by the Communication Consultant in the GEO Project that a single standards mark should be promoted, in preference to different marks being used for different purposes for the marking of certified goods and verified devices. As a result, the Advertising Agency and the staff of the Information Services Department designed a mark containing a stylised cacique crown and submitting same to National Standards Council for approval. The design and proposal which included a public launching and unveiling of the mark by His Excellency the President, was given approval by H.P.S., Dr. Roger Luncheon. However, permission was subsequently withdrawn on the basis that the cacique symbol should be removed from the mark. The launching ceremony was cancelled. An improved version of the existing mark was submitted to Council for approval. It is anticipated that Council will approve the new mark early in the new year and the promotion of same will be effected accordingly.

#### 4.1.3.2 Jewellery Certification linked to Tourism

Another major promotional activity was the linkage of the Jewellery Certification Scheme with the Tourism Sector. A special meeting was convened at the Bureau with the Management Systems and Information Services Department of the Bureau and the Goldsmiths and Jewellery Association, the Regulatory Body, Guyana Geology and Mines Commission (GGMC), along with officials from the Tourism Sector.

Generally members felt that the initiative was a workable one. However, there were certain concerns which needed to be addressed. The major concerns were the failure of GNBS to attract other jewellers to join the scheme, the inability of smaller jewellery establishments to acquire equipment and other facilities required under the scheme, and the need for the GNBS to work towards accreditation. These concerns were highlighted in a report to the GNBS and steps were taken to address them so that the campaign could be finalised in the new work programme.

#### 4.1.3.3 National Quality Week/World Standards Day 2002

The Information Services Department was responsible for conducting the activities for National Quality Week/World Standards Day celebrated during the period October 13 to 19 under the theme **“One Standard, One Test, Accepted Everywhere”**. Some of the significant achievements during this week were:

The preparation and publishing of a full page supplement in daily newspapers with messages by the subject Minister, Chairman of the National Standards Council and the Director of GNBS.

Successful lectures were conducted by senior staff of the GNBS to senior students of Secondary Schools in Regions 2,3,4,5,6 and 10. The lectures introduced students to the role of standards and quality in trade and consumer protection and, to the four commonly used units in the metric system. The responses from students in all the Regions were heartening.

There was a special open day at the Bureau where staff set up displays in keeping with their various disciplines and live coverage was provided by 98.1FM radio. School children and a few members of the public visited and sought to find out more about the Bureau. The public response could have been better. Literature with information based on the various work programme activities was given out.

On the evening of Thursday, October 17, a live panel discussion took place on GTV 11 where views on the topic "One Standard, One Test, Accepted Everywhere: Implications for Guyana" were ventilated fully by panellists, which included the Permanent Secretary of the Ministry of Tourism, Industry and Commerce, Dr. Gocool Persaud of the Guyana Manufacturers Association, Mr. Jowala Somai of the GNBS and a representative from the Ministry of Foreign Trade.

On Friday, staff who served the Bureau with distinction over the years were honoured at a special long service and appreciation ceremony.

#### **4.1.3.4 Press Briefings/Conferences**

During the year, four press briefings were held to sensitise the public on significant achievements of the Bureau. Among these was the passing of legislation to make Guyana metric only, which took effect on January 01, 2002. Also, visits to Regions 9 and 1, were highlighted where Weights and Measures Offices and Metrication were introduced. The GNBS now offers these facilities in all the Regions of Guyana.

#### **4.1.3.5 Exhibitions**

The University of Guyana Career Fair and GUYEXPO provided the Bureau with further opportunities to promote standardisation and hence edify the public about its specific activities.

##### ***University of Guyana Career Fair***

The University of Guyana held its Career Fair on Friday February 15, 2002. The Public Awareness Department spearheaded the Bureau's participation in this activity. The effort was a collaborative one with staff from the technical departments. Scores of visitors, including mainly University and Secondary school students visited the GNBS Booth and received information pertaining to the programmes of the Bureau and opportunities for careers in standardisation.



## ***GUYEXPO 2002***

The GNBS participated in Guyexpo 2002 from September 26 to 30, 2002 under the theme "Standards: The Road to Eldorado". Again, the Bureau sought to promote standardisation and certification at this exhibition. The areas chosen were standards in the manufacturing sector, standards in the Tourism Sector, Certification of Gold jewellery and Metrication.

Suitable exhibits were displayed to depict concepts chosen. The booth itself made an impact on visitors as questions were asked and explanations sought. Literature, charts etc were distributed to hundreds and for the first time questionnaires were issued to consumers and manufacturers to obtain feedbacks about services offered. A total of sixty consumer questionnaires were completed. Information from the questionnaires will be used to enhance the Bureau's programmes.

### **4.1.3.6 *The GNBS Newsletter***

Three editions of the GNBS newsletter were completed and circulated to stakeholders. The quality of the newsletter in terms of the design and layout improved significantly in the past year. However, delays in receiving articles from staff and also printing caused lateness in the circulation of this document.

### **4.1.3.7 *Lectures to School Children***

A series of seven (7) lectures were conducted at the Georgetown YMCA for Secondary School students in upper forms, mainly on the subject of Metrication. Schools which participated in these especially arranged metrication workshops included Kingston High, Guyana Industrial Training Centre, Tutorial High School, Guyana Education Trust College and David Rose Secondary. An overview of the other programmes conducted by the Bureau was also given to the students. These lectures were made possible through a joint effort by the GNBS and the Georgetown YMCA.

Lectures were also conducted at three secondary schools in Region 3 on the West Bank and West Coast of Demerara, namely, Lavenature Secondary, West Demerara Secondary and Vreed-en-Hoop Community High School.. The subject dealt with was the relevance and importance of standards and quality in daily life. The target group was students of the third to fifth forms. The reception on the part of students was satisfactory. However, in some instances, little interest was shown.

#### 4.1.3.8 *Live Call-In programmes*

A total of eleven (11) live call-in programmes was held throughout the year on metrication. Programmes were conducted in Regions 2,4,6,7 and 10. Live demonstrations and quizzes were part of the programmes in the various studios. Audience response on every occasion was overwhelming. On the average, about 10 to 15 calls were received in one hour. In the demonstration, viewers were shown, using sugar and flour, how to think and deal with the metric units, and dispense with the imperial units.

#### 4.1.4 **Unscheduled Activities**

In the month of March, the Public Awareness Department participated in the National Consumer Week celebration at the Ocean View Convention Centre. It was sponsored by the Consumer Affairs Department of the Ministry of Tourism, industry and Commerce. A lecture was delivered to Mini Bus Drivers/Conductors by Mrs. E. Fields who represented the GNBS. The lecture focussed on Customer Service relationship between Mini-bus drivers and consumers. It was well received by participants.

Ms. R. Bourne and E. Fields attended an Information Technology session by a Trinidadian consultant who demonstrated how various software can be used to make work lighter at the Office. The session was held at the Office of GO-INVEST on February 07, 2002.

In the month of April, Mr. K. Bhoowan attended a special one day seminar at the Pegasus where microsoft technicians showcased the latest microsoft software that was released.

All staff attended weekly staff development and other training sessions as arranged by GNBS Administration and Finance Department.

Staff members participated in the GNBS Retreat held at Shanklands Resort on March 25 and 26 where GEO consultant addressed topics such as team building, conflict resolution and confidentiality. Sessions were very beneficial and were positively received by the staff.

Staff of the Technical Information Unit had undertaken a general restructuring of the Unit. This included reshelving, relabelling and reorganising of the layout.

## 4.2 METRICATION PROGRAMME

### 4.2.1 Government Support

A meeting was held with the subject Minister of Tourism, Industry and Commerce, seeking support from Government for the Metrication Programme, and the passing of the Omnibus Act. The Minister advised that the said Act be delayed while the sensitisation and education activities be intensified.

### 4.2.2 National Metrication Committee

The National Metrication Committee convened eleven (11) statutory meetings, in collaboration with the Bureau, to spearhead the Metrication Programme. Significant achievements include the following :

- Guysuco switched from the use of imperial to metric units. Sugar Cane harvested is now paid based on outputs measured in metric units. The Demerara Sugar Terminal scales are now metric. Internationally certified weights have been imported. Products are produced, packaged and labelled in metric quantities.
- The Guyana Forestry Commission launched a National Sensitisation campaign for loggers, millers and lumber dealers in Regions 2,3,4,5,6 and 7. They are now able to calculate wood measurement in metric.

Development of a sub-committee with the purpose of reviewing and amending the Motor Vehicle and Road Traffic Act, converting all imperial measurements to metric. Sections of the Motor Vehicle and Road Traffic Act where imperial units were used previously, were identified and highlighted for revision by the above Sub-Committee.

- Development of a sub-committee within the Ministry of Agriculture which conducted four training sessions within the Ministry on the subject of metrication.
- Implementation of the price chart system. Due to price differences and fluctuation, only 5% of vendors adopted this method.
- Corporate support by large business establishments, eg., Laparkan Group of Companies.
- Six companies were approached but only one responded positively due to low profits for the year 2002 and could ill-afford to support extra or external programmes of the organisation.

### 4.2.3 Sector Activities

Forty two (42) meetings were conducted with management representatives from the respective sector organisations, including, the various Government Ministries, State Agencies, media houses, and private companies. Sector visits were conducted to provide technical support to the various sector organisations to switch over to the metric system. Assistance was provided in the following areas.

- (1) Providing training for technical and non technical staff.
- (2) Reviewing legislation to identify what activities need to be metricated
- (3) Development of action plan for implementation by the entity.

Fifty one (51) practical training sessions were conducted. About 50% of the organisations were fully metric, 36% were operating in the dual mode, and 14% were still using the imperial system.

Lack of adequate transportation and resource personnel limited the number of visits to organisations.

### 4.2.4 Metrication Action Committees

*Action committees were set up in the following Regions.*

|            |   |                          |
|------------|---|--------------------------|
| Region # 9 | - | Lethem/Rupununi          |
| Region #1  | - | Mabaruma/Matarkai        |
| Region #2  | - | Anna Regina/Charity      |
| Region #6  | - | New Amsterdam/Rose Hall. |

The Action Committees visited the outlying villages and districts of their respective Regions, conducting training sessions and distributing conversion charts, fact sheets and posters.

#### 4.2.5 Metrication Training in Schools

The Training of teachers and students continued to be a premier activity of the Metrication programme. The following table shows the number of schools that were trained in the various Regions.

| REGION       | NO. OF SCHOOLS | NO. OF STUDENTS & TEACHERS |
|--------------|----------------|----------------------------|
| 1            | 6              | 420                        |
| 2            | 4              | 280                        |
| 3            | 4              | 290                        |
| 4            | 8              | 560                        |
| 5            | 1              | 70                         |
| 6            | 4              | 290                        |
| 7            | 2              | 140                        |
| 8            | 1              | 70                         |
| 9            | 2              | 210                        |
| 10           | 2              | 145                        |
| <b>TOTAL</b> | <b>34</b>      | <b>2,475</b>               |

The teachers who were trained are more aware of their roles in bridging the gap between theoretical and practical application of the metric system. Students realised their roles as pioneers in the metrication process. Some school heads are still reluctant to arrange seminars on their own. They felt that the GNBS must work through the Ministry of Education instead of directly through the schools.

Two visits were made to the Permanent Secretary, Ministry of Education, seeking to have revised, the content of information on the covers of exercise books. The Permanent Secretary promised to have them revised featuring only the metric system as soon as the current stock is finished. Information materials were sent to the Permanent Secretary, as was requested for which relevant information will be extracted for the book covers.

#### 4.2.6 Metrication in Commerce

Ninety six (96) surveillance visits were conducted for retailers (vendors, shopkeepers and huskers) in the following Regions:

| REGION | PUBLIC MARKETS  | PRIVATE SHOPS   |
|--------|---|---|
| 1      | Kumaka, Port Kaituma Moruca (Santa Rosa Mission)                      | Kumaka, Mabaruma, Matthews Ridge, Arakaka, Port Kaituma.                  |
| 2      | Anna Regina, Charity, Supernaam, Suddie                               | Anna Regina, Adventure, Charity, Land of Plenty, Middle Sex.              |
| 3      | Parika, Wales.  | Wakenaam, Leguan, Hubu.   |
| 4      | Stabroek, Bourda, La Penitence, Kitty, Plaisance, Mahaica, Mon Repos. | Water Street, Georgetown, East Coast Villages, East Bank Demerara.        |
| 5      | Rosignol  | Chester, No. 28 Village, Litchfield.                                      |
| 6      | New Amsterdam, Port Mourant, Skeldon, Canje, Albion.                  | New Amsterdam, Stanleytown, Canje, Springlands, Black Bush Polder Centre. |
| 7      | Bartica   | Central Bartica.  |
| 8      | -   | Madhia  |
| 9      | Lethem  | Central Rupununi.   |
| 10     | Linden  | Wismar, Central Linden.   |

#### Distribution of Information Materials

|   |       |  |
|---|-------|--|
| Posters, Conversion Charts, Fact sheets | 2,894 |  |
|---|-------|--|

#### 4.2.7 Metrication and Consumers

The Metrication Programme targeted consumers in which twelve (12) live television workshops and call-in programmes were conducted in the following Regions:

| REGIONS | TV STATIONS                      | TARGET AREA   |
|---------|----------------------------------|---|
| 2       | RCA Channel 8                    | Essequibo Coast, Pomeroon.  |
| 4       | GTV Channel 11<br>CNS Channel 06 | Georgetown, East Coast, East Bank, Mahaica, Mahaicony, Abary and Timehri. |
| 6       | Little Rock, Channel 10          | New Amsterdam, Albion, Canjie, Springlands.                               |
| 10      | LTV, Channel 10                  | Linden, Mabura Area.  |

Consumers benefitted from these programmes where the measurement of mass, volume, linear distances and temperature were meticulously explained. Calculations of prices based on conversion proportions were highlighted on each presentation.

Limited allocation of funds restricted the number of TV programmes, use of the print media, and maintenance of radio, television and newspapers advertisements. Public education programmes need to be sustained especially radio, television and newspapers advertisements.

### **4.3 TECHNICAL STANDARDS INFORMATION UNIT (TSIU)**

#### **4.3.1 Automation of TSIU**

During this period some three hundred and seventy five (375) documents were inputted into the previous networking system. This is an ongoing activity. With the implementation of a automated system, information will be more accessible to officers/patrons. Once this objective is fully achieved, it will make the services more user-friendly, and enhanced the Department.

#### **4.3.2 National Standards Database**

All National Standards reproduced by TSIU were recorded in a ledger on a temporary basis, while a few were kept on a diskette which is a substitute for a database. Thus retrieval of information is some what simple. Retrieval of all the National Standards inputted into the computer network will be easy to obtain for clients/users. Presently this information is stored on a diskette until a software application is designed to suit this purpose.

#### **4.3.3 Database on Acquisition**

Documents are all recorded in a ledger. This activity is outstanding in terms of database formation.

Documents received by Technical Standards Information Unit are not yet placed into a database format but all materials that come into this section are recorded in a ledger. This is a substitute activity for the time being until a format is created. This system used by TSIU staff and visitors are deriving benefits.

At the end of each month a list of addition is usually typed by TSIU and a copy is given to every department. This establishes what documents TSIU receive during this month.

#### **4.3.4 Database on Sale of Standards**

Standards sold by TSIU are normally recorded on an Invoice format that is in the computer. This allows information to flow to the relevant departments since it is done in duplication. Technical Standards Information Unit keeps one form, and the other is filed in the Accounts Department.

There is a perfect record keeping system for all standards sold by Technical Standards Information Unit. Any information required for this task is easily obtainable.



#### **4.3.5 Collection of Documents**

During the year, Technical Standards Information Unit received several documents and materials. The total amount of documents/materials were one thousand and ninety two (1092). Approximately 95% of the books purchased for this department were catalogued and shelved based on their subject. All of these books have a author and subject card inter-filed into a mini-catalogue located in TSIU. Each book also has a spine label on it which makes retrieval easier for the purpose of dissemination.

These documents are placed into cabinets and shelves where access is simple. New documents at the end of each month is placed on display racks for easy access.

#### **4.3.6 Standards Printed and Sold**

TSIU printed 417 copies of standards. Standards covers printed amounted to 915, while 658 standards were bound. A total of 54 standards was sold amounting to \$192,600.00

#### **4.3.7 Newspaper Clippings**

The number of newspaper clippings prepared amounted to 613, which resulted in the opening of 17 files based on specific subjects.

#### **4.3.8 Other**

For the year 2002, there were 208 queries (requests for information), 596 loans, 48 books catalogued and 50 books lettered.

#### **4.3.9 Challenges**

TSIU was not adequately staffed (need for one more staff), thus, resulting in increased workload on the two members present, particularly while one was on vacation leave. In addition, it was difficult to obtain prompt responses on new documents from the other Standards Bureau from Member States. Moreover, the use of bank drafts to purchase documents was very slow, which delayed TSIU to get in new documents on time. A wire transfer system for funds would be preferable.

## 5.0 ADMINISTRATION AND FINANCE DEPARTMENT

The objective of this department is to render effectively and efficiently, administrative as well as financial support to all other departments and programmes of the Bureau so that they could achieve their objectives in the most cost-effective and timely manner.

### 5.1 Staff Training

- 5.1.1 Training staff and conducting training sessions for external beneficiaries are of utmost importance and is usually considered a prioritized activity for the Bureau. For the year, a number of in-house sessions were conducted by Department Heads and staff members as shown in Appendix 2. In addition, staff members benefitted from the undermentioned training courses, seminars, symposium and conferences, which resulted in significant capacity building to better achieve the objectives of the Bureau.
- 5.1.2 Mr. Albert Heckle, CESO consultant to the Bureau, assisted in streamlining the development of a Code of Practice for Good Manufacturing Practices for Small and Micro-enterprises. In addition, he willingly conducted a one-day training on Adult Education and Quality Systems Auditing.
- 5.1.3 Mr. Carlton James, Consultant from Media for Education, Training, Human and Organisational Development conducted a very intense training course in Supervisory Skills for Department Heads and Senior Staff. The overall objective of that course was to enhance the working environment, and maximise teamwork for the effective functioning of the Bureau. The duration of the course was for four days and at its conclusion, staff were equipped with the skills to create and manage teams, communicate effectively, analyse and maximise team dynamics, and to reward and measure performance. A similar training course was held with the junior staff on the "Role of staff in management".
- 5.1.4 Ms. Barlow a knowledgeable public prosecutor from the Office of the Director of Public Prosecution, conducted a five day training course on "Prosecution". The objective of the course was to equip the Inspectors with the knowledge and skills necessary to deal with the modus operandi in conducting prosecution in a court of law. The emphasis was placed on the various offences outlined in the 1991 Weights and Measures Act.

5.1.5 There were two external training courses attended by the undermentioned officers:

- Ms. Sharon Daniels, Junior Secretary is presently attending a two year diploma programme in Administrative Professional Secretaries at the Institute of Distance and Continuing Education. The objective of that programme is to promote professional development and continuing education among administrative professionals;
- Ms. Debra Gill, Information Officer (Ag.) has completed a three months training course on the Fundamental of Information and Library Studies. The objectives of that training course were to enable the awareness for the value of information, the role and functions of Libraries, understand the principles and practices of the acquisition of organisation of materials, opening the awareness of current trends in the application of information technology in Libraries and Information Services.
- Ms. Ramrattie Karan and Ms. Shune Vickerie participated in a twelve weeks training course on Occupational Health and Safety, facilitated by the University of Guyana, Institute of Adult and Continuing Education. The objectives of the course were to sensitize and emphasise the importance of health and safety in the working environment.

5.1.6 Staff members of the Bureau participated in three overseas conferences; viz., (1) **Ms. Candelle Walcott, Technical Officer I**, attended the Global Odyssey 2002 conference and workshop on Proficiency Testing for Medical Laboratories held in Atlanta, Georgia, USA. The objective of that conference/workshop was to highlight the benefits of proficiency testing in laboratories and its quality assurance role. Ms. Walcott acquired knowledge on the procedures, criteria and resources need to establish a proficiency testing scheme, (2) **Mr. Jowala Somai, Head Management Systems** attended a seminar in Trinidad on Life Cycle Assessment from January 16-18, 2002. He was able to benefit from understanding the principles, benefits and application of Life Cycle Assessment, (3) **Mr. Balwant Algu, then Head, Engineering/Metrology & Standards Compliance Department** attended a seminar on Inter-American Metrology System - 2002. The seminar was held in Santiago, Chile from October 27 to November 01, 2002. Mr. Algu was able to benefit from understanding the implications for Metrology in Guyana. The knowledge attained will be used to assist in streamlining and ensuring consumer protection that will enable harmonisation of measurement standards.

## 5.2 Maintenance of Building, Equipment and Vehicles

The western wall of the Information Unit was extended to provide more storage space and easy accessibility to records. However, regardless of the frequent treatment for rodents and termites, the building is still infested with wood ants, which is a result of the soggy foundation of the building of the Bureau.

There was a high increase in the frequency of repairs rendered to electrical office equipment as a result of the high-voltage fluctuation, poor air conditioning, and unstable flooring. However the ability to carefully monitor equipment usage and care has been beneficial in reducing even higher maintenance cost.

With the acquisition of a reconditioned twin cab pick up, wear and tear reduced on all the vehicles due to the process of equally distributing activities. This resulted in achieving a free flow of transportation and transportation availability. As a consequence, a reduction in approximately 60% in the cost and use of taxi services was achieved. Never the less, maintenance and fuel cost of the vehicles increased dramatically as against last year due to the age of the vehicles, carburetor problems and their inability in some cases to withstand pressure.

## 5.3 Personnel Matters

For the year 2002, there were two new recruits, three resignations and the prospect of five new inspectors for the New Year 2003.

5.3.1 **Ms. June Prince and Mr. Hubert Braithwaite** accepted employment at the Bureau as **Technical Officer I** and **Office Assistant** on October 1, and September 4, 2002, respectively. **Ms. Prince** replaced **Mr. Ronald Shepherd** who resigned on June 14, 2002, while **Mr. Braithwaite** replaced **Mr. Sultan Khan** who resigned on August 31, 2002.

5.3.2 Employment was also offered to five (5) new Inspectors within the Standards Compliance Department at the Bureau, effective January 2003. Two of the new recruits will be stationed at the Bureau's sub-office at Region 6 and Region 2 while the other three will be stationed at Head Office in replacement of Mr. Patrick Abrams and Mr. Baskaran Basdeo, whose resignations took effect September 31 and December 16, 2002, respectively. The other recruit was employed to offset the expanding workload of the Standards Compliance Department.

5.3.3 In an effort to strengthen the efficient functioning of the Administration and Finance Department, **Ms. Charmaine Niles, Accountant**, who has recently graduated from the University of Guyana with a Bachelor's degree in social sciences, has been designated to act in the capacity of **Head, General Administration and Finance**. **Ms. Austin, Assistant Accountant** at the Bureau has been designated to act as **Accountant**, while **Ms. Marieta DaSilva** was appointed as **Accounts Clerk**, both within the **Accounts Division**.

#### 5.4 Procurement

There was an improvement in transportation DUE to the purchase of a twin cab pick up in February 2002. The vehicle was assigned to the Inspectorate Department to assist in their field activities.

Procured also were four new computers, four workstations, four cabinets, laboratory equipment, one refrigerator, four typist cubicles, two printers, eight fans, one television, one video tape recorder, metrology equipment, one hundred plastic chairs, three executive chairs, one desk, white board and the rental of one photocopy machine all of which made the work of the Bureau more efficient and effective.

The sum of \$1,200,000 was expended on office materials and supplies as compared to the figure of \$1,630,000 for 2001.

#### 5.5 Staff Awards

During the annual quality week celebration, October 14 to October 18, 2002, six staff members of the Bureau were presented with the newly introduced "Director's Appreciation Award". This award was granted to the undermentioned officers:

Mr. Jowala Somai, Head, Management Systems Department.  
Mr. Shailendra Rai, Chief Inspector, Inspectorate Department.  
Ms. Candelle Walcott, Technical Officer 1, Management Systems Department.  
Ms. Melissa Theobald, Typist, Administration Department.  
Ms. Allison Nelson, Maid/Cleaner, Administration Department.  
Mr. Patrick Abrams, Driver, Administration Department.

Those awards were presented in recognition of their outstanding contribution to the Bureau in relation to planning and organizing, information sharing, dedication and the use of information technology, all in an effort to achieve the objectives of the Bureau.

Five employees were honoured for long service at the Bureau. They were:

|                       |   |        |
|-----------------------|---|--------|
| Ms. Allison Nelson    | - | 15 yrs |
| Ms. Marcellene Browne | - | 15 yrs |
| Ms. Melissa Theobald  | - | 5 yrs  |
| Ms. Evadnie Fields    | - | 5 yrs  |
| Mr. Patrick Abrams    | - | 5 yrs  |

They were also presented with gifts for their outstanding contribution to the Bureau.

## 5.6 Finances

The Bureau had received 59.1M as subvention from the Ministry of Finance, which was expended as total employment cost 73.8% and other charges 26.2%. In addition, the Bureau also received a total of 7.5M as revenue generated for the sale of standards, charges for fees and fines, calibration of petrol pumps, sale of metrication charts, verification of scales and masses, registration of fees, permits etc. A computation of an income and expenditure statements for both subvention and "other income: accounts are shown on appendix 3.

Despite the financial constraints, the Bureau was able to achieve its objectives.

## 6.0 OBSERVATIONS AND COMMENTS

### 6.1 Budgetary Allocation

The Bureau received no increase in its budgetary allocation for the year 2002. The current estimate of \$59119,000 and income of \$7,913,797 generated was expended to carry out the routine activities of the work plan. Efforts were made to adjust spending to match the financial resources available, thus, influencing the extent to which the work programme activities were carried out.

### 6.2 Human Resource

Considering the heavy mandate of the Bureau in relation to societal needs, and thus, the resulting increased specimen of new activities, there is great need for more staff of even higher calibre, in each Department of the Bureau. The request made for more staff to the Ministry of Finance, through the Ministry of Tourism, Industry and Commerce was not greeted with success. With operational stress and strain, the current complement tried to cope with the activities.

### 6.3 Transportation

Adequate transportation posed a big challenge to Technical Officers implementing their field activities. Officers from the four (4) Technical Departments particularly the Inspectorate are required to carry out a massive amount of field work. The three (3) vehicles of the Bureau cannot cope with the expressed need of the said Department. Acquirement of another vehicle would be a good asset to the programmes of the Bureau, as also, the provision of duty-free concessions to the Heads of the four (4) Technical Departments in order to obtain vehicles to carry out their official work.

### 6.4 Income Generation

In the past, the Bureau did not operate with an income-generation motive, although minimal fees were charged for certain services such as testing and stamping scales, weights and measures, verification of fuel pumps, laboratory and product certification (standards mark). The reason for this was to render the services of the Bureau very economical, if not free, in the drive to promote standardisation in all the sectors of the economy so as to win over the various stakeholders to the side of the Bureau and to bring them on board. However, it is felt at this juncture, that the policy of the Bureau should be changed in order to optimise income generation and thus, charge fees for all its services offered to the public. The Bureau should gear itself for self-sufficiency as a decrease in Government subvention is phased in on an annual basis.

## **6.5 Improved Legislation**

In pursuing its mandate, the Bureau administers and enforces the Standards Act of 1984 (with Amendments of 1997), and the Weights and Measures Act of 1981, which are both outdated. There is great need to overhaul and thus modernise both legislation to give greater strength to the programmes being implemented, and also, to legally support income generation. It is also necessary to develop regulations under Act, which would provide vital guidelines for implementation and enforcement.

## **6.6 Testing and Calibration Laboratories**

The Bureau is incapacitated without its testing and calibration laboratories. The implementation of the Product Certification Scheme and the enforcement of the Standards Compliance Programme are ineffective since samples of products cannot be tested and the quality ascertained. In addition, the investigation of consumers' complaints cannot be effectively pursued. In many instances, samples have to be sent overseas by the Bureau or the Companies to be tested, which is an expensive exercise. Also, a proper calibration service is not available nationally, as the Bureau is not able to provide measurement traceability to the industries. Government should seek funding for the establishment of the testing and calibration laboratories.

## **6.7 Mobile Scale-Testing Equipment**

It is difficult for the Bureau to carry out the verification of bulk scales used in the various industries without the necessary equipment and large capacity test weights. There is great need for the Bureau to acquire a mobile scale-testing equipment with a few test weights and primary standards, while the working standards can be fabricated locally.

## **6.8 IT System Upgrade**

The IT System of the Bureau needs to be upgraded or improved in order to strongly support the efforts of the Officers in their daily activities. More computers need to be purchased, a networking system to be established and greater accessibility of Officers to the internet facility. The construction of a proper website should be effected.

## **6.9 Representation of Bureau at Overseas Meetings**

The Bureau maintains membership in a number of Standards Organisations such as ISO, IEC, COPANT, SIM, CARIMET and CODEX. It would be a great asset to the Bureau for staff members to be able to participate in the annual meetings of these bodies, attend the associated workshops or seminars conducted, and have access to the manuals or materials disseminated. The attendance of staff at various training programmes in the field of standardisation, quality assurance and metrology run in the CARICOM Region and beyond is significant. There is also need for staff to receive specialist training in these areas, particularly in the area of Metrology.



## 7.0 PROJECTIONS FOR 2003

While the Bureau persistently maintains its routine programme activities in providing a consistent service to the different stakeholders of the Nation, it is of supreme importance to address the following needs in the new year 2003:

### 7.1 Conformity Assessment

Associated with the dynamic and radical changes taking place in globalisation and trade liberalisation, there is a desperate need to establish a conformity assessment system in Guyana to intimately support trading of Guyanese exports. The inspection, testing, and certification systems carried out by the different Agencies in the country need to be reviewed, rationalised, upgraded, instituted where absent, and accredited to the respective international standards. Certificates issued by testing laboratories for export must be accepted anywhere. With an established, internationally-recognised conformity assessment infra-structure in place, Guyana would be able to sign Mutual Recognition Agreements easily and readily to facilitate its exports, and maintain a greater share in the international market. A project proposal will be presented to Government to seek the support of international funding.

### 7.2 'Hybrid' Standard

The Bureau would finalise the development of the new 'Hybrid' standard for Micro and Small Enterprises (MSE) after countrywide consultations. The standard is an integral component of aspects of ISO 9000, ISO 14000 and the OSH standard. Training of MSE's would be carried out on the standard, and technical assistance would be provided for the implementation of the standard in the operations of MSE's. A certification process of MSE's to the standard would also be introduced. The IDB-MIF would be approached for possible funding to facilitate this project.

### 7.3 Jewellery Industry and Gold Testing

The two draft standards for the jewellery industry would be finalised after countrywide consultations. Working in collaboration with the GGMC, the standards would be used to assist jewellers and goldsmiths to improve their operations, and thus, streamline the industry. The Bureau would also operate its gold-testing laboratory to provide a testing service to the jewellers and goldsmiths, which would enhance the continuous improvement of their operations.

#### **7.4 Laboratory Certification**

Work will be intensified to ensure that the Chemical, Microbiological, Physical and Industrial Laboratories are certified to the national laboratory standard. The Bureau will also facilitate the accreditation of these laboratories to the international standard. This is important so that test results/certificates for exports will be readily accepted in the international market.

#### **7.5 Metrology Traceability System**

The Bureau will extend its Metrology Laboratory ("small mass" and "large mass") to accommodate the new metrology equipment, including the primary, physical standards, which will be purchased from the \$20M Capital Programme approved for the Bureau. A measurement traceability system will thus, be established nationally, and a testing of calibration service provided to the various industries in the country, as also, all the public and private sector laboratories.

#### **7.6 Projects**

Several projects, supported by funding agencies, will be implemented in 2003 to build capacity and enhance the operations of the Bureau, as listed below.

- 7.6.1 FAO Project in which a Consultant would be provided to work with the Bureau to strengthen the Codex Secretariat. The Bureau is the Codex Contact Point for Guyana.
- 7.6.2 CDB Project in which the Jamaican Consultant will complete Module 3 of the Advanced Legal Metrology Course. Modules 1 & 2 were conducted in 2001. Inspectors will be able to build on their skills and increase their capacities in the field of Metrology.
- 7.6.3 USAID/GEO Project to assist the Bureau and industry to implement the new ISO 9000:2000 International Quality Management System Standard, and to have companies registered to the standard.
- 7.6.4 USAID/GEO Project to assist the Bureau and industrial laboratories including Public Sector Regulatory Laboratories, to implement the new ISO 17025 Laboratory standard, and to have laboratories registered to the standard.
- 7.6.5 USAID/GEO Project to assist the Bureau and the other Agencies to establish a National Conformity Assessment System in Guyana to strongly support the export trade.

- 7.6.6 USAID/GEO Project to overhaul and modernise the Bureau's legislation, namely, the Standards Act of 1984 and the Weights and Measures Act of 1981. Regulations will also be established under each Act.
- 7.6.7 CPEC Project to assist some companies to institute the Quality Management System in their operations in compliance with the International Standard ISO 9000:2000.
- 7.6.8 CESO Project to have the return of the consultant to progress-check, and to assist the Bureau with the implementation of the "Hybrid Standard" in the Micro and Small Enterprises.

#### 7.7 **Symposium**

The Bureau hopes to hold some ten (10) Symposia on the role of standards in the development of particular industries, e.g., jewellery, furniture, foods, seafoods, poultry, rice, fruits and vegetables, tourism, forestry and construction. The Bureau will coordinate the symposia in collaboration with the Sector Regulatory Body and the Association of the particular Sector.

#### 7.8 **Training**

The Bureau has established a Training Matrix for its staff of 2003, which will include in-house training, external/local training and overseas training subjected to the approval of Government. Staff training is important for the development of the Bureau, and enhancement of its operations.

#### 7.9 **Mobile Scale-Testing Equipment**

The Bureau will purchase a test truck with the appropriate high capacity weights to carry out the calibration of bulk scales used in the various industries in Guyana. The accurate measurement of Guyana's export is significant to support trade.

#### 7.10 **IT system Upgrade**

The IT system of the Bureau will be upgraded with the assistance of the GEO Project. More computers will be provided, a networking system established, and greater accessibility of Officers to the internet facility.

## APPENDIX I

### STANDARDS APPROVED BY NATIONAL STANDARDS COUNCIL FOR 2002

1. Interim Guidelines for industrial effluent discharge into the environment.
2. Specification for labelling of commodities - Part 10: Labelling of equipment, items and parts containing ozone depleting substances.
3. Specification for labelling of brewery products (beer, stout, shandy, malta).
4. Specification for accident prevention tags.
5. Specification for cosmetics - Part 7: Method of Test for the efficacy of anti-microbial preservatives in water based cosmetics.
6. Guidance for the design, construction, modification and maintenance of petrol filling stations.
7. Building Code - High Rise Buildings.
8. Building Code - Medium Rise Buildings.
9. Specification for labelling of toys and playthings.
10. Specification for poultry meat.
11. Code of Practice for the seasoning of hardwood lumber.
12. Code of Practice for the manufacture of furniture.
13. Code of Practice for poultry processing.
14. Rice - Specification, Sampling, Tests and Analysis.
15. Specification for liquid household chlorine bleaches.
16. Specification for net content in packages.
17. Uninterruptable power supply equipment.
18. Specification for load bearing masonry concrete units.
19. Specification for steel nails.

20. Code of Practice for assessment, licensing, registration, classification and grading of the accommodation sector.
21. Specification for ice cream and related products.
22. Specification for non load bearing masonry concrete units.
23. Specification for the labelling of textiles.
24. Specification for the labelling of garments.
25. Specification for the labelling of household chemicals.
26. Specification for the precautionary labelling of hazardous industrial chemicals.
27. Specification for safety matches.
28. Specification for glossary of terms relating to chemical radiation hazards and hazardous chemicals.
29. Specification for the labelling of furniture.
30. Specification for the labelling of animal feeds.
31. Specification for ergonomic principles in the design of work systems.
32. Safety conditions in industry.

## APPENDIX II

### G.N.B.S IN-HOUSE TRAINING PROGRAMME SCHEDULE

| Topics/Departments  | Presenters                                   | Dates      |
|---|--|------------|
| Life Cycle Assessment   | Mr. Jowala Somai                             | 2002-02-01 |
| The Role of a Technical Secretary   | Mr. Anthony Ross                             | 2002-02-08 |
| Procedure for Laboratory Licencing  | Ms. Candelle Walcott                         | 2002-02-15 |
| Procedure for Product Certification   | Mr. R. Bridgemongal                          | 2002-02-22 |
| Procedure for Quality Management Systems and Environmental Management Systems | Ms. Ramrattie Karan                          | 2002-03-01 |
| Metrication   | Mr. Forbes Mitchell                          | 2002-03-08 |
| Standardisation - Principles and Benefits                                     | Ms. Shune/ Vickerie                          | 2002-03-15 |
| What is Codex all about?  | Ms. Candaicy David                           | 2002-03-22 |
| Communication (Publication)   | Ms. Evadnie Fields<br>Ms. Tracy Ann Seaforth | 2002-03-28 |
| Standards Information   | Ms. Roxan Bourne                             | 2002-04-05 |
| Building Codes and Standards  | Mr. Balwant Algu                             | 2002-04-05 |
| Legal Metrology   | Mr. Balwant Algu                             | 2002-04-12 |
| Testing   | Ms. Candelle Walcott                         | 2002-04-12 |
| Laboratory Accreditation and Management                                       | Ms. Candelle Walcott                         | 2002-04-19 |
| Standards Compliance  | Mr. S. Rai<br>Mr. J. Softley                 | 2002-04-19 |
| National Standards Mark   | Mr. R. Bridgemongal                          | 2002-04-26 |
| Principles of Management  | Ms. Donna Sealey-James                       | 2002-04-26 |
| Taxation  | Ms. Charmain Niles                           | 2002-05-03 |
| Filing System and Records   | Ms. Margaret Frank<br>Ms. Marieta Da Silva   | 2002-05-10 |

**Appendix 111**  
**Income & Expenditure Statement - Subvention**  
**December, 2002**

**Income:**

**Total Income:**

**Government Subvention**

**\$59,119,000**

**Line Item**

**Expenses**


|   |                   |
|---|-------------------|
| 101 - Administration                      | 3,369,018         |
| 102 - Senior Technical                    | 4,010,942         |
| 103 - Other Technical                     | 14,086,811        |
| 104 - Clerical & O/ Support               | 6,359,142         |
| 105 - S/Skilled & U/Skilled               | 2,179,418         |
| 106 - Contracted Employee                 | 3,412,964         |
| 107 - Temporary Employee                  | 30,718            |
| 201 - Other Direct L/Cost                 | 166,037           |
| 203 - Benefits & Allowances               | 7,080,644         |
| 204 - National Insurance                  | 1,848,635         |
| 205 - Pensions                            | 1,086,857         |
| 121 - Drugs & M/Supplies                  | 20,000            |
| 122 - Field Materials & Supplies          | 39,235            |
| 123 - Office Material & Supplies          | 998,003           |
| 124 - Print & Non - Print Material        | 1,024,906         |
| 131 - Fuel & Lubricants                   | 1,226,704         |
| 141 - Rental Of Buildings                 | 492,770           |
| 142 - Maintenance Of Buildings            | 790,594           |
| 143 - Janitorial & Cleaning Supplies      | 80,000            |
| 161 - Local Travel & Subsistence          | 1,142,757         |
| 162 - Overseas Travel & Conf.             | 0                 |
| 163 - Postage & Telex                     | 39,040            |
| 164 - Vehicle Spares & Services           | 784,465           |
| 171 - Telephone Charges                   | 669,796           |
| 172 - Electricity Charges                 | 1,169,915         |
| 173 - Water Charges                       | 100,000           |
| 182 - Equipment Maintenance               | 454,972           |
| 183 - Cleaning & Extermination            | 108,300           |
| 184 - Others                              | 4,370,374         |
| 191 - National & Other Event              | 589,580           |
| 193 - Refreshments                        | 241,338           |
| 194 - Others                              | 542,237           |
| 212 - Training                            | 602,520           |
| 231 - Contri. Local Organisations         |                   |
| 231 - Contri. International Organisations |                   |
| <b>Total Expenses:</b>                    | <b>59,118,692</b> |

**-59,118,692**

**\$308**

**Surplus/(Deficit):**

Prepared by: 


Date: 2002.12.31 


APPENDIX IV

INCOME AND EXPENDITURE STATEMENT - OTHER INCOME

| YEAR         | INCOME           | EXPENDITURE       |
|--------------|------------------|-------------------|
| January      | 1,531,640        | 1,063,754         |
| February     | 1,314,900        | 730,510           |
| March        | 320,025          | 700,076           |
| April        | 520,180          | 747,291           |
| May          | 679,789          | 2,454,020         |
| June         | 784,005          | 550,257           |
| July         | 293,770          | 309,025           |
| August       | 460,583          | 1,2263,823        |
| September    | 416,280          | 647,254           |
| October      | 869,097          | 1,224,485         |
| November     | 117,170          | 450,127           |
| December     | 606,358          | 1,027,145         |
| <b>TOTAL</b> | <b>7,913,797</b> | <b>11,157,767</b> |

**Note: Please note that total expenses were higher than total revenue for the year. However, this amount was offset from funds available in account, brought forward from the year 2001.**

Prepared by:   
M. Austin  
Accountant (Ag.)

  
2001-12-21