



சர்க்கரை ஆய்விதழ்
கரும்பு ஆராய்ச்சி நிலையம்
Sugarcane Research Institute

2011

வார्षிக வரலாறு
ஆண்டறிக்கை
Annual Report



SUGARCANE RESEARCH INSTITUTE



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Hon. Minister of Minor Export Crop Promotion
Ministry of Minor Export Crop Promotion
Govijana Mandiraya
80/5, Rajamalwatta Avenue
Battaramulla.

Hon. Minister,

Report of the Sugarcane Research Institute for the Period from 01.01.2011 to 31.12.2011

On behalf of the Board of Governors of the Sugarcane Research Institute, I am submitting herewith the Annual Report 2011 of the Institute.

Yours faithfully,
Sugarcane Research Institute



S.K.Cyril
Chairman
Board of Governors

30 October 2012

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The background of the page features a large, light gray watermark of the Sugarcane Research Institute logo. The logo is circular, with the text 'SUGARCANE RESEARCH INSTITUTE' around the top half and 'சர்க்கரை ஆராய்ச்சி நிறுவனம்' around the bottom half. In the center of the logo is a stylized illustration of a sugarcane field with a large industrial mill or roller in the foreground.

Vision

**To be the centre of excellence in
sugarcane technologies and the leader in
sugarcane industry development
in Sri Lanka**

Mission

**Development and transfer of appropriate
sugarcane technologies to enhance competitiveness of,
and to contribute to expand and develop the
local sugarcane industry in a
sustainable manner**

Board of Governors

Mr S K Cyril	Chairman	Appointed member
Mr T L T A Sunil De Silva	Member	Appointed member (from 14 June 2011)
Mr P R G L C Wijewarnasuriya	Member	Appointed member (from 4 June 2011)
Mr Hasitha Gunawardane	Member	Appointed member (from 6 May 2011)
Ms P Chamika Maduwanthi	Member	Nominated member of the Ministry of Finance (from 31 January 2011)
Ms R M C M Herath	Member	Nominated member of the Ministry of Minor Export Crop Promotion (from 25 January 2011)
Dr N C Kumarasinghe	Member	Director (<i>Ex-Officio</i> -member)

Chairman's Review

Research and development and man power and infrastructure development activities of the institute were carried out according to the new Corporate Plan 2011-2015.

Necessary steps were taken to widen the mandate of the institute beyond research by amending the Sugarcane Research Institute Act. It was proposed to add development and regulatory functions to provide a better contribution to the development of the sugar industry of Sri Lanka.

Furthermore, to implement the research and development programme according to the needs of the sugar industry more effectively, the technical divisions of the institute were restructured as Crop Improvement, Crop and Resource Management, Crop Nutrition, Crop Protection, Mechanisation Technology, Processing Technology, Economics, Biometry and Information Technology and Technology Transfer and Development

The research farm was brought under the Division of Crop and Resource Management to provide a better service for the other research divisions.

To make the research and development program more effective, it was organised based on the needs of the sugar industry to fulfil the mandate of the institute. Accordingly, the following seven main programmes were implemented:

- i. Crop improvement
- ii. Crop and resource management
- iii. Crop nutrition
- iv. Crop protection
- v. Mechanisation
- vi. Processing and product development
- vii. Technology transfer and development

Man power training requirements were identified, but it was not possible to find placements for long-term training of the scientists. Many short training opportunities were provided locally to both scientific and other staff.

The infrastructure development program was lagged behind due to the failure of the granting approval for the main development activities, but the development activities of the sugarcane breeding sub-station in Enselwatte were continued and the development of a foundation seedcane farm at Uda Walawe to produce seedcane of the recommended varieties to promote them among farmers/sugar industries was started.

In addition, to support the sugar sector development, two programmes, one in Badulla district and the other in Kilinochchi district were continued. Both programmes targeted at the sugarcane cultivation and development of cottage-level processing industries, mainly syrup and jaggery.



S.K.Cyril

Chairman

Sugarcane Research Institute.

Director's Review

The Sugarcane Research Institute (SRI) which was established in 1984 by the Act No.75 of 1981 of the Parliament of the Democratic Socialist Republic of Sri Lanka continued its services towards the development of the local sugar industry through research and extension for the 27 years since its establishment. At the beginning of this year, the technical divisions were restructured and renamed based on the research thematic programmes, in order to provide better output to the industry.

A remarkable achievement of this year was the release of three superior new sugarcane varieties; SL 95 4033, SL 95 4430 and SL 96 328 for the commercial cultivation. The SRI promoted new sugarcane varieties SL 83 06, SLI 121, SL 92 4918, SL 92 4997 and SL 92 5588 among cane growers through establishment of multiplication/demonstration plots in cultivation areas of Sevanagala and Damana (Ampara) while seed cane of SL 88 116 and SL 96 328 were supplied to Sevanagala Sugar Industry to establish primary nurseries. Concurrently, information on new sugarcane varieties, SL 89 1673, SL 92 4918, SL 92 4997, SL 92 5588, SL 95 4033, SL 95 4430 and SL 96 328 were provided to the growers. Three varieties produced by the Sugarcane Research Institute; SL 83 06, SL 89 1673 and SL 92 5588 were exchanged with three varieties; ROC 23, VN 84 4137 and QD 93 159 of Vietnam.

The information on identification of better-ratooning varieties; SL 90 6237 and SL 93 945 (for rain-fed and supplementary irrigated conditions) and SL 92 4918 (for supplementary irrigated conditions) were immediately conveyed to the industry. The costs and returns of sugarcane cultivation in both irrigated and rain-fed sectors of Sevanagala from year 2000 to 2010 were evaluated, using the data of the previous ten years. Similarly, the cost and benefit of sugarcane jaggery production at Moneragala and Buttala districts were also evaluated. The fertiliser recommendation for Hingurana sugarcane-growing lands was revised and new recommendations were disseminated.

The mechanisation technology division manufactured twenty tyne cultivators and five furrow openers. Of them, four tyne cultivators were distributed among Pelwatte farmer organisations at a concessionary price. The SRI-manufactured farm implements; tyne cultivator and furrow opener, were successfully promoted through demonstrations and training sessions for farmers in cultivation areas of Buttala, Siyambalanduwa and Hingurana. Design and construction of prototypes of the two-wheel tractor-mounted stainless steel fertiliser applicator and construction of the Indian model of bud chipper were among the innovative achievements of the institute during the course of the year. In addition to the above programmes, promotion of intercropping cucumber, ground nut, cowpea, water melon and chillies with sugarcane, awareness on soil fertility management and promotion of spaced planting technique were among the extension activities provided to the growers. The populations of the notable pest Sugarcane Woolly Aphid was maintained under control during this year too due to release of laboratory-cultured natural predators *Dipha aphidivora* (8,138 pupae) and *Micromus* sp. (11,390 larvae) into the SWA-infested plantations in Sevanagala and Pelwatte.

In addition to the research and extension programmes, the SRI involved in number of development activities during the course of the year. Necessary instructions and information were provided to the government and the foreign investors for commencing of new sugar projects within the country as well as commencement of operations in closed down factory at Kantale. In order to identify the suitable varieties for Kantale, 24 commercial and near-commercial varieties were planted at a variety identification trial at Kantale. Necessary assistance and instructions were provided to Gal Oya Plantations Limited and opinion on the feasibility of a sugar project in Bibile area was provided to the Cabinet of Ministers through the Ministry of Agriculture.

The initial multiplication farm plots were established at the Regional Agricultural Research Centre, Kilinochchi, as the initial step of establishment of village-level jaggery and treacle industry in Kilinochchi district, targeting the involvement of 50 farmer families and cultivation area of hundred acres by the year 2013. Training sessions on sugarcane cultivation and jaggery production were conducted for selected farmers and officers of Kilinochchi District.

Improvement of jaggery production was another prioritised area during the year 2011. Conducting training sessions on profitable sugarcane cultivation and jaggery production, jaggery mill improvement measures in collaboration with the Industrial Development Board (IDB) and arranging necessary financial facilities through regional banks for rehabilitation of jaggery mills at Siyambalanduwa were among the major activities conducted for improvement of jaggery production. As a contribution to the development, the SRI assisted the Civil Defense Force at Siyambalanduwa to establish sugarcane fields in Siyambalanduwa and the Kandakadu Rehabilitation Camp, Welikanda.

The Sugarcane Research Institute initiated and maintained several links with foreign countries during the course of the year. The Director / CEO visited Vietnam on an invitation by the Plant Protection Research Institute (PPRI) of Vietnam to advice on management of Grassy Shoot Disease recently appeared on sugarcane in Vietnam. True seeds generated from 100 commercial crosses were dispatched to the Sugarcane Breeding Institute, Pakistan. The International Sugar Conference was held in New Delhi India in November 2011 for the fourth time and Mr S K Cyril (Chairman), Dr N C Kumarasinghe (Director) and Dr W R G Witharama (Principal Research Officer/ Head-Crop and Resource Management Division) attended the event and shared the experience with the counterparts in other countries.

The import cess which is the main revenue of the Institute was recorded as Rs. 144 million for the year 2011, which was a 0.8% increase compared to the previous year. However, the institute had to transfer Rs. 68 million to the General Treasury which has been recognised as surplus funds by the treasury. No new infra-structure was added to the institute during the course of the year.



Dr. N.C. Kumarasinghe
Director / CEO
Sugarcane Research Institute

Divisional Reports

Crop Improvement Division

Staff

Mr A Wijesuriya B.Sc. (Agric.), M.Phil.	Principal Research Officer and Head
Ms A M M S Perera B.Sc.	Research Officer
Ms D Manel B.Sc. (Agric.), M.Sc.	Research Officer
Ms A L C Kumari	Technical Officer
Mr D Weerasinghe	Technical Officer
Ms L D D P Gunaratne Dip.(Agric.)	Technical Officer
Mr W G M J Perera	Lab/Field Attendant
Mr S H Karunaratne	Lab/Field Attendant

Achievements

- Providing true seeds generated from 100 commercial crosses to Pakistan.
- Providing three varieties, namely, SL 83 06, SL 89 1673 and SL 92 5588 to Vietnam.
- Obtaining three varieties, namely, ROC 23, VN 84 4137, QD 93 159 from Vietnam.
- Incorporation of 05 varieties from SL 1999 series and 24 varieties from SL 1998 series into local sugarcane germplasm.
- *Ex-situ* conservation of *Saccharum* germplasm consisting of 1,243 accessions at the Sugarcane Hybridisation Substation at Enselwatte.
- Evaluation of 44 out of 217 locally-collected accessions for their breeding values.
- Making 1,301 crosses at the Sugarcane Breeding Sub-Station, Enselwatte, using field lantern and solution crossing techniques.
- Performing 38 inter-specific crosses involving *S. spontaneum* as male parent and commercial hybrids or *S. officinarum* as female parent and 21 inter-generic crosses involving *Erianthus arundinaceus* as male parent.
- Release of three sugarcane varieties, namely, SL 95 4033, SL 95 4430 and SL 96 328 for commercial cultivation.
- Evaluation of 24 promising varieties of SL 2000 series at Uda Walawe, Pelwatte and Hingurana.



SL 96 328, a high sugar and cane-yielding new variety

- Evaluation of varietal adaptability at Hingurana and Madulla.
- Successful implementation of multi-staged clonal selection programme.
- Development of 3,158 sub clones through sugarcane callus culture technique.
- Provision of 950 disease-free plants of four varieties, namely, SL 71 30, SL 83 06, SL 88 116 and M 438/59 developed through meristem culture technique to Crop Resource Management Division for sugarcane revitalisation programme at Kilinochchi.
- Provision of 4,000 mericloned plantlets of commercial and near-commercial varieties to the Gal Oya Plantations Ltd. for the establishment of disease-free seed cane nurseries.
- Production of disease-free planting materials of newly-released sugarcane varieties in 2011 for variety promotion program by mericlone.
- Determination of the optimum phyto-hormone levels for meristem germination of three varieties, namely, SL 83 06, SL 88 116 and Co 775.
- Molecular biological characterisation of 44 accessions using enzymes ME, GDH, MDH and peroxidase.
- Multiplication of 24 commercial and near-commercial varieties for the establishment of variety verification trials at Kantale.

Foundation seedcane production

Establishment of a 02-hectare seedcane nursery of 06 commercial varieties, namely, SL 83 06, SLI 121, SL 95 4033, SL 95 4430, SL 96 328 and Co 775 and one near- commercial variety, SL 96 128 at Uda Walawe.



Newly established foundation seedcane nursery, at Uda Walawe

Crop and Resource Management Division

Staff

Dr W R G Witharama B.Sc. (Agric.),
M.Phil., Ph.D.

Principal Research Officer and Head

Mr A L C De Silva B.Sc. (Agric.), M.Phil.

Senior Research Officer

Mr L M J R Wijewardene B.Sc. (Agric.)

Research Officer

Mr K A Ariyaratne

Farm Superintendent

Mr W G Nimal

Technical Officer

Mr P B G S Sandanayake Dip.(Agric.)

Technical Officer

Mr W A U Priyantha

Technical Officer

Mr M S N Wijesiri

Lab/Field Attendant

Achievements

- Identification of better-ratooning varieties, SL 90 6237 and SL 93 945 for both rain-fed and supplementary irrigated conditions and SL 92 4918 for supplementary irrigated conditions.
- Confirmation that depth of ploughing has no significant effect on the number of millable stalks and cane yield in sugarcane plant crop and ratoon crops. Medium and deep tillage ameliorates drought stress and helps better initial crop growth than minimum or no tillage.
- Confirmation that fertiliser application has a significant effect on increasing cane yield in ratoon crops. Gap filling increases cane yield from the second ratoon crop while stubble shaving increases cane yield in late ratoon crops.
- Confirmation that spaced transplanting (STP) is an economical propagation method. Sugarcane tops left behind after harvesting are preferred to mature stalks for establishing nurseries for STP. Seedcane cost could be eliminated by using cane tops for producing settlings.
- Establishment of 07 multiplication plots of about 0.4 ha each using the seedcane obtained from the 0.4-ha nursery established with SL



SL 90 6237, a better ratooning variety



Nursery for obtaining settlings for spaced transplanting technique

83 06 at the Regional Agricultural Research Centre, Kilinochchi in the latter part of 2010.

Services

For research

- Preparation of 32 ha for field trials.
- Establishment of 2-ha hot water treated nurseries of the varieties SL 83 06 and SL 92 5588.
- Establishment of multiplication plots to get planting material for the foundation seedcane nursery.
- Supply of 80 tonnes of hot water-treated seedcane to Technology Transfer and Development Division.
- Harvesting and sending 120 tonnes of cane from completed trial plots to Sevanagala factory.
- Supply of 14 tonnes of cane for jaggery production.
- Supply of 04 tonnes of cane for fresh cane juice.
- Construction of electric fence with the help of Mechanisation Technology Division.
- Maintenance of electric fence and supply of labour and other services for research.



The farmers who are developing their sugarcane fields at Kilinochchi

For foundation seedcane production

- Preparation of 03 ha of new land.
- Establishment of 1.5-ha primary nursery.
- Renovation of the irrigation canal and construction of electric fence with the help of Mechanisation Technology Division
- Clearing about 2-ha area.

Crop Nutrition Division

Staff

Mr H A S Weerasinghe B.Sc.

Research Officer-In-Charge

Mr A P J Mohotti

Technical Officer

Mr G S Udawatte

Technical Officer

Mr J Gunasiri

Lab/Field Attendant

Mr P W D Kulatunga

Lab/Field Attendant

Achievements

- Revision of the fertiliser recommendation for Hingurana sugarcane-growing lands for a 3-year period.
- Identification of Nitrogen, Phosphorous and Potassium response of the plant crop for two new sugarcane varieties, SL 96 128 and SL 96 328.
- Investigation of response of the variety Co 775 for Eppawala High Grade Rock Phosphate in its 3rd ratoon crop.

Analytical Services

Analysis of 2,437 cane samples for brix, pol and fibre contents for the divisional and other programs of the institute.



Fertilizer response trial of SL 96 328 and SL 96 128 at Udawalawe

Crop Protection Division

Staff

Ms V K A S M Wanasinghe B.Sc.	Research Officer-In-Charge (from 01.09.2011)
Ms M K R Silva B.Sc. (Agric.), M.Sc.	Research Officer-In-Charge (up to 31.08.2011)
Ms A N W S Thushari B.Sc.	Research Officer
Mr M K D Ubesena	Technical Officer
Mr R A Premachandera	Technical Officer (up to 18.05.2011)
Ms W M N S Kumari	Technical Officer (up to 11.04.2011)
Mr M R Premalal	Lab/Field Attendant
Mr D M T Piyaratne	Lab/Field Attendant

Achievements

- Inspection of the 59 varieties received from Pakistan and 03 varieties received from Vietnam for the incidence of quarantine pests and diseases.
- Release of laboratory-cultured natural predators of sugarcane woolly aphid (SWA); 8,138 pupae of *Dipha aphidivora* and 11,390 larvae of *Micromus* sp. for the SWA-infested plantations.
- Identification of a borer larva other than *Sesamia inferans* which is responsible for the dead heart symptom of sugarcane.
- Making recommendations to manage the shoot borer attack in newly-planted sugarcane plantations at Hingurana.

Services

- Carrying out regular inspections on pest and disease incidences at all sugarcane growing areas to minimise the crop losses due to pest and diseases.
- Participating as resource persons for conducting 07 farmer training programmes on integrated pest management of sugarcane and 01 programme on disease management of sugarcane at Hingurana and Buttala.



Using "*Dipha aphidivora*", a natural enemy to control sugarcane woolly aphid

Mechanisation Technology Division

Staff

Mr K H D Abeyratne B.Sc. (Agric.)	Research Officer-In-Charge
Mr A S M A Fernando (NDT)	Technical Officer
Mr W M Anurapala	Technical Officer
Mr V Abeygunawardane	Welder
Mr G Ariyaratne	Fitter
Mr W A Premachandra	Blacksmith
Mr M B Rohan	Lab/Field Attendant
Mr D M Weerasiri	Lab/Field Attendant

Achievements

- Design and construction of prototypes of the two-wheel tractor-mounted stainless steel fertiliser applicator successfully.
- Design and construction of the Indian model of bud chipper successfully.

Services

- Construction of all spare parts for 20 nos. of tyne cultivator for its promotion program.
- Collection of agro-meteorological data for the year 2011.
- Installation of electric fence surrounding the research farm and seedcane farms.
- Renovation of D4-channel for the foundation seedcane farm.
- Provision of machinery services required for research.



Bud chipper, designed and constructed at SRI

Processing Technology Division

Staff

Ms W M P Weerakkody B.Sc.

Research Officer

Achievements

- Isolation and culture of 09 yeast strains to produce an improved yeast strain.
- Isolation and culture of six phosphate-solubilising bacteria species for bio-fertiliser production.
- Determination of five favourable combinations of sugarcane juice, water, lime juice and ginger juice for producing a fruit-flavoured sugarcane-based drink.

Economics, Biometry and Information Technology Division

Staff

Mr K A D Kodituwakku B.Sc. (Agric.)

Research Officer-In-Charge

Dr A P Keerthipala B.Sc. (Agric.), M.Phil., Ph.D.

Principal Research Officer

Ms B D S K Ariyawansa B.Sc. (Agric.)

Research Officer

Ms M G Y Madavi B.Sc.

Technical Officer

Achievements

- Evaluation of costs and returns of sugarcane cultivation in both irrigated and rain-fed sectors of Sevanagala from year 2000 to 2010.
- Evaluation of costs and returns data of sugarcane jaggery production at Moneragala and Buttala districts.
- Analysis of the characteristics of rainfall regime of Pelwatte.

Services

Maintenance and updating of SRI web site

The web site of SRI hosted under URL of www.sugarres.lk/ was restructured by modifying its homepage and appearance of the web pages. Updating of the web pages was done as and when required.

Services to other divisions of SRI

- The following services were provided:
 - Designing experimental layouts for the varietal selection program of the Division of Crop Improvement and research trials of the Crop Protection, Crop Resource Management, and Crop Nutrition Divisions.
 - Analysis of the data of the agronomic and yield data of the preliminary and replicated yield trials (PYTs and RYT) harvested during the year 2011

and the data received from Crop Protection, Crop Resource Management, Crop Nutrition, Mechanisation Technology, and Technology Transfer Divisions.

- Implementation of e-government-related IT activities within the institute

- **Services to other organisations**

Collection of the information required for the preparation of INFORM database of SRI for the year 2011 and submitting the database and the INFORM budget for the year 2011 to the Council for Agricultural Research Policy (CARP) to be included in the national database.

- **Providing IT information to ICTA**

The information required for the implementation of e-government policy within the institute, as per the request by the Information and Communication Technology Agency (ICTA) was provided.

Technology Transfer and Development Division

Staff

Mr M S Perera B.Sc. (Agric.), M.Phil.	Principal Research Officer and Head
Mr D P W Pottewela B.Sc. (Agric.)	Technology Transfer Officer
Mr R A P A Ranatunga Dip.(Agric.)	Development Officer
Mr K P Wickremasinghe B.Sc. (Agric.)	Development Officer
Mr S N Wickremasinghe B.Sc. (Agric.), MSc	Development Officer
Mr W G M S Weragoda B.Sc. (Agric.)	Development Officer
Mr R A Premachandera	Technical Officer (from 18.05.2011)

Achievements

- **Promotion of new sugarcane varieties, SL 83 06, SLI 121, SL 92 4918 and SL 92 4997, and SL 92 5588 among cane growers**
 - Establishment of 16 multiplication/demonstration plots of new sugarcane varieties in sugar industry areas.
 - Supply of seedcanes of SL 96 328 (07 t), SL 88 116 (02 t) and SL 96 128 (01t) to Sevanagala sugar company to establish primary nurseries.
 - Maintenance of the demonstration and multiplication fields of SL 96 328 in the farmer field in the C 7 at Sevanagala and of SL 88 116 in a farmer field at Damana.
 - Conducting 12 demonstrations in sugar industry areas.
 - Preparation of seven draft Information Sheets on new sugarcane varieties, SL 89 1673, SL 92 4918, SL 92 4997, SL 92 5588, SL 95 4033, SL 95 4430 and SL 96 328.
- **Promotion of the use of farm implements developed at SRI, tyne cultivator and furrow opener for sugarcane cultivation**
 - Conducting 10 demonstration/training sessions on tyne cultivator and/or furrow opener.
 - Keeping a tyne cultivator in each DO office at Buttala, Siyambalanduwa and Hingurana for those farmers who are willing to use tyne cultivator in their fields to see its suitability and get them familiarised.
 - Production of parts for 20 no of tyne cultivators and 05 no of furrow openers by mechanisation technology division.
 - Distribution of 04 no. of tyne cultivators among farmer organisations at Pelwatte at a concessionary price.

- **Promotion of intercropping cucumber, ground nut, cowpea, water melon and chillies with sugarcane**

- Establishment of 24 demonstration plots of intercropping with sugarcane.
- Coordination with the Sevanagala Sugar Industries to establish 0.5-ha demonstration field of sugarcane intercropped with cucumber, ground nut and water melon in C7 area by providing seed material, fertiliser and weedicide.



A field, sugarcane inter-cropped with cucumber by a farmer

- Conducting 10 demonstrations / training sessions on intercropping.

- **Improvement of knowledge of soil fertility management**

- Conducting a farmer survey and discussions on soil fertility management in Buttala, Siyambalanduwa and Hingurana.
- Conducting awareness programs on the new fertiliser recommendations for Field Officers and farmers in Hingurana.
- Conducting an awareness program on the new fertiliser recommendation Hingurana area for the farmers of Gal Oya Plantations Ltd.
- Conducting a method demonstration on fertiliser application at Hingurana.

- **Promotion of spaced planting technique**

- Establishment of three demonstration plots at Hingurana.
- Coordination with the Sevanagala sugar company and Civil Defence Force at Siyambalanduwa to establish demonstration fields.
- Conducting seven demonstrations/training sessions on spaced planting technique.
- Drafting an advisory pamphlet on spaced planting technique.

- **Improvement of adoption of agronomic practices of sugarcane**

- Conducting 17 training sessions for farmers/officers.
- Conducting a field visit to better-performing farmers in Buttala area.

- **Improvement of knowledge of pest and disease management**

- Maintenance of five demonstration fields for biological control of sugarcane woolly aphid.
- Conducting 12 demonstrations/training sessions on pest/disease management
- Preparation of two bulletins on pest and disease control.



Sugarcane farmers, participating in an educational field tour

- **Improvement of jaggery production**

- Conducting three training sessions on sugarcane cultivation and/or jaggery production.
- Coordination with regional banks to get loan scheme arranged for rehabilitation of jaggery mills at Siyambalanduwa.
- Inspecting farmer fields at Passara area under the loan scheme with regional banks.
- Conducting four meetings for selecting farmers for the sugarcane expansion programme/progress monitoring.

- **Training/services provided at requests**

- Running exhibition stalls of SRI at *Deyata Kirula* Exhibition (2011) at Buttala, 5-day exhibition at Embilipitiya Maha Vidyalaya and the National Agriculture exhibition at Vavunia.
- Conducting three training sessions on sugarcane cultivation and jaggery production for farmers/officers in Kilinochchi, Wellawaya army camp and Civil defence force at Siyambalanduwa.
- Coordinating sugarcane module of NIPM diploma for 08 students.

- **Services for SRI**

- Publishing *Puwath Hasuna* (SRI News Letter) August 2011
- Printing Annual Report 2009
- Printing Revised SRI brochure 2011

Administration and Finance Division

Staff

Dr. N.C.Kumarasinghe B.Sc, M.Sc, Ph.D	Director/Chief Executive
FRES (UK), FIBiol, FAASN, Chartered Biologist	
Mr. D.G. Manamudali BA (Econ.), LICA	Deputy Director (Administration and Finance)
Dr.A.P.Keerthipala B.Sc. (Agriculture), M.Phil., Ph.D.	Actg. Deputy Director (Research and Technology Transfer)

Administrative staff

Dr. C. Eritawala MA, Ph.D.	Administrative Officer
Mr. N.G.A.L.P. Nanayakkara	
B.Sc Mgt.(Pub)	Administrative Officer
Ms. T.A.D.M.G. Jayathilaka	Management Assistant (Clerical and Typing)
Ms. J.K. Chandralatha	Management Assistant (Clerical and Typing)
Ms. T.M.K. Senadeera	Management Assistant (Clerical and Typing)
Ms. M.M.I.M.K Manikkadawara	Management Assistant (Clerical and Typing)
Mr. G. Somaweera	Management Assistant (Clerical and Typing)
Ms M.A.R. Samarasekara	Management Assistant (Clerical and Typing)
Ms. O.U. Subasinghe	Management Assistant (Clerical and Typing)
Mr. S.B.N.U.S. Wimalasooriya	Driver
Mr. Austin Perera.	Driver
Mr. A.W.K. Hettiarachchi	Driver
Mr. S.L. Peris	Driver
Mr. H.A.U.S. Pamarathna	Driver
Mr. J.P.S.P. Karunathilaka	Driver
Mr. T.P.K. Jayarathna	Driver
Mr. R.G.D. Ekanayaka	Driver
Mr. S. Ekanayake	Driver

Accounts staff

Mr. D.M. Siripala B.Com.	Accountant
Mr. P.H.U. Nissanka	
HNDA, ICA (Intermediate)	Assistant Accountant
Ms. P.M. Amarasinghe	Book keeper
Mr. L.P. Wirthamulla	Management Assistant (Accounts)

Mr. G.M.S. Nandadeva	Management Assistant (Accounts)
Mrs. A.K. Amarakoon	Management Assistant (Accounts)
Mr. L.K.S. Dayananda	Management Assistant (Accounts)
Mr.D.M.P. Nickson	Management Assistant (Accounts)
Mr.T. Ranjith Peiris	Management Assistant(Clerical and Typing)

Stores

Mr. R.G. Niroshana	Storekeeper
Mr. S.A. Senarathna	Stores Labourer

Internal Audit Unit

Mr. S.P.Y. Muneendra ICA (intermediate) MAAT	Internal Auditor
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Procurement Unit

Mr. H.P.R.Kumara B.B.Mgt.	Procurement Officer
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Maintenance Unit

Ms.D.H.S.Wijesinghe	Inspector of Works
Mr.B.Witharana	Works Supervisor
Mr.G.Gamage	Electrician
Mr.R.Palamure	Electrician
Mr.J.Wickramarachchi	Mason/Plumber
Mr.D.W.S.Chinthana	Carpenter
Mr.R.P.Kulathunga	Carpenter
Mr.D.H.Dharmadasa	Water Pump Operator
Mr.H.P.Chandrawansha	Water Pump Operator
Mr.K.H.Weeraratne	Water Pump Operator
Mr.R.M.Priyantha	General Worker
Mr.M.A.G.Ranasinghe	General Worker

Activities Carried out During the Year

- Carrying out routine administrative, personnel management and maintenance activities of the Institute.
- As welfare measures, reimbursement of medical expenses up to the approved limit and granting of loans to the employees.
- Preparing budgets, financial statements, carrying out annual verification and providing management information.

Review of Financial Activities

- The main revenue of the Institute, cess income, for the year was Rs. 144 million. When compared this income with the previous year it was 0.8% increase.
- The excess over expenditure for the year was Rs. 19.4 million.
- The total capital expenditure for the year was Rs. 4.491 million.

Staff Strengthening and Motivation

Staff turnover during the year 2011

Retirements

Mr.B.Karunadasa	General Worker	06.01.2011
Mr.A.Vithana	Driver	01.02.2011
Mr.W.P.L.Chandrasiri	Driver	31.05.2011

Resignations

Mrs.M.K.R.Silva	Research Officer	31.08.2011
Ms W M P Weerakkody	Research Officer	01.11.2011
Ms W M N S Kumari	Technical Officer	11.04.2011

Staff training and seminars/conferences attended

Ms B D S K Ariyawansa, Research Officer (Biometry and IT), participated in a seminar on “e-government Policy” on 03rd March 2011 in Battaramulla.

Mr H A S Weerasinghe, Research Officer (Crop Nutrition) and Ms W M P Weerakkody, Research Officer (Processing Technology) attended the seminar on supporting the work of regulators through accreditation on 09 June 2011 in Colombo.

Ms W M P Weerakkody, Research Officer (Processing Technology) attended the workshop on ISO 22000:2005 Food Safety Management Systems (HACCP System) from 21st to 22nd July 2011 in Colombo.

Mr H A S Weerasinghe, Research Officer-In-Charge (Crop Nutrition Division) attended the training seminar on Nanotechnology and its Applications on 30th September 2011 in the Institute of Chemistry, Colombo.

Mr A L C De Silva, Senior Research Officer (Physiology) attended the training workshop on Foresight Analysis from 27th to 29th October 2011, in Colombo.

Dr N C Kumarasinghe (Director), Dr W R G Witharama (Principal Research Officer and Head-Crop and Resource Management Division), Mr K A D Kodituwakku (Research Officer-In-Charge (Economics, Biometry and IT Division), Mr K H D Abeyratne (Research Officer-In-Charge (Mechanisation Technology Division), Mr D P W Pottewela (Technology Transfer Officer) Ms A M M S Perera (Research Officer-Biotechnology), Mr H A S Weerasinghe (Research Officer-In-Charge- Crop Nutrition Division) and Development Officers, Mr R A P A Ranatunga, Mr W G M S Weragoda, Mr S N Wickremasinghe and Mr K P Wickremasinghe attended the training on entrepreneurship development on 02nd November 2011 in Colombo.

Mr K A D Kodituwakku, Research Officer-In-Charge (Economics, Biometry and IT Division) participated in a capacity building workshop on Agricultural policy research: “Sustainable Agriculture for Food security and poverty reduction” from 14th -18th November 2011 in the Department of Agriculture, Peradeniya.

Mr S K Cyril (Chairman), Dr N C Kumarasinghe (Director) and Dr W R G Witharama (Principal Research Officer and Head-Crop and Resource Management Division) attended the 4th International Sugar Conference from 21st to 25th November 2011 in New Delhi, India.

Mr L M J R Wijewardane, Research Officer (Water Management) followed the short course on GIS from 21st to 26th November 2011 in the University of Peradeniya.

Dr N C Kumarasinghe (Director), Dr W R G Witharama (Principal Research Officer and Head-Crop and Resource Management Division) and Mr L M J R Wijewardane (Research Officer-Water Management) participated in the Global Form of Sri Lankan Scientists: Empowering Sri Lanka through Knowledge Sharing, from 13th to 15th December 2011, in Colombo.

Mr H A S Weerasinghe (Research Officer-In-Charge- Crop Nutrition Division) attended the seminar on Effective Use of Microbial Biofertilisers for an Improved Economy and Environment in Sri Lanka on 19th December 2011 in Kandy.

Mr S P Y Muneendra (Internal Auditor) and Mr R G S Niroshan (Store Keeper) attended the training on fixed asset management from 23rd to 25th December 2011 at the Academy of Financial Studies, Colombo.

Ms B D S K Ariyawansa, Research (Officer Biometry and IT) participated in the Workshops on “Sequential Methodologies with Applications” and “R Commander and R for Statistical Research” from 26th -27th December 2011 in Colombo.

Ms B D S K Ariyawansa, Research Officer (Biometry and IT) attended the International Sri Lankan Statistical Conference 2011: Statistical Concepts and Methods for the Modern World from 28th -30th December 2011 in Colombo.

Publications

- i. De Silva, A.L.C., De Costa, W.A.J.M and Bandara, D.M.U.S. (2011). Growth of root system and the patterns of soil moisture utilization in sugarcane under rain-fed and irrigated conditions in Sri Lanka. *Sugar Tech* Vol. 13(3), 198-205.
- ii. De Silva, A.L.C. (2011). Physiological behaviour of sugarcane in sub-humid climatic conditions. LAP LAMBERT Academic publishing GmbH & Co. KG, Germany. p142.
- iii. De Silva, A.L.C. and Witharama, W.R.G. (2011). Advantages of cane tops as a planting material in spaced transplanting technique of sugarcane, In: *Proceedings of the International Symposium on Agriculture and Environment 2011*. Faculty of Agriculture, University of Ruhuna, Mapalana, Kamburupitiya, Sri Lanka. p 20.
- iv. Kumarasinghe, N.C. and Wijayawardhana, L.M.J.R. (2011). Effect on climatic condition on sugarcane cultivation in Sri Lanka. *Proceedings of the International Conference on the Impact of Climate Change on Agriculture*, Faculty of Agriculture, University of Ruhuna, Sri Lanka.
- v. Kumarasinghe, N.C. (2011). The history, present situation and future outlook of sugarcane industry of Sri Lanka. Seventy Fifth Anniversary publication of the Ceylon Planters Society. 70-75.
- vi. Weerasinghe, H.A.S. (2011). Potassium status in sugarcane soils in Sri Lanka, *Proceedings of the International Symposium on the Role of Potassium in Sustaining the Yield and its Quality: Jointly organized by the International Potash Institute (Switzerland), University of Sri Jayawardenepura and Department of Agriculture, Kandy, Sri Lanka*.
- vii. Weerasinghe, H.A.S., Keerthipala, A.P. and Sivananthawerl, T. (2011). Status of important chemical properties of sugarcane-growing soils after changing cropping system in Hingurana, Sri Lanka”, *Proceeding of the 10th International Conference of the East and Southeast Asia Federation of Soil Science Societies*, Cololmbo, Sri Lanka.
- viii. Wijayawardhana, L.M.J.R., Abeyrathna, K.H.D., Witharama, W.R.G., and Keerthipala, A.P. (2011). Run-off harvesters and agro-wells for supplementary irrigation of rain-fed sugarcane at Sevanagala in Sri Lanka: A preliminary investigation. *16th International Forestry and Environmental Symposium*, University of Sri Jayawardhanapura, Sri Lanka.

Report of the Audit and Management Committee

Chairman,
Sugarcane Research Institute
Uda Walawe.

Audit and Management Committee Report-2011

Five audit and management committee meetings were held during the year 2011 as compared to three in the previous year.

During this year, the audit and management committee was able to find solutions to the problems of the institute by paying attention to the government acts and circulars and to provide assistance to the institute in solving the administrative problems in dealing with outside organisations by the intervention of the members of the committee.

The audit and management committee also made necessary recommendations and facilitated decision making on the matters that are to be presented to the Board of Governors for its decision, by discussing the relevant issues at the committee level.

The activities of the audit and management committee also helped the institute to minimise the audit inquiries from the external audit and thereby to minimise the effects on the institute by avoiding the weaknesses and mistakes in the systems of controls of the institute.

Thus, the audit and management committee has done its responsibilities to assist the institute to carry out its functions successfully during the year 2011.

Internal Auditor
16 October 2012.

AUDITED FINANCIAL STATEMENTS
SUGARCANE RESEARCH INSTITUTE
STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER – 2011

ASSETS	NOTES	2011 Rs.	2011 Rs.	2010 Rs.	2010 Rs.
Non-current assets					
Property, Plant and Equipment	1	71,690,896.00		88,755,317.00	
Investment (L/T)	2	30,020,313.00	101,711,209.00	29,500,113.00	118,255,430.00
Current assets					
Consumables stock	3	4,510,833.00		5,352,815.00	
Work in progress		100,000.00		717,521.00	
Trade and other receivables	4	38,844,369.00		46,915,647.00	
Investment (S/T)	5	114,418,248.00		197,434,957.00	
Prepayments and other deposits	6	655,514.00		842,381.00	
Cash and cash equivalents	7	68,749,990.00	227,278,954.00	16,901,137.00	268,164,458.00
Total assets			328,990,163.00		386,419,888.00
LIABILITIES					
Current liabilities					
Payable	8	4,017,803.00		5,212,598.00	
Accrued expenses	9	6,712,852.00	10,730,655.00	6,017,526.00	11,230,124.00
Non-current liabilities					
Differed income				7,853,601.00	
Provision for gratuity	10	33,789,530.00	33,789,530.00	30,020,313.00	37,873,914.00
Total liabilities			44,520,185.00		49,104,038.00
Total Net Assets			284,469,978.00		337,315,850.00
Net Assets / Equity					
Accumulated fund	11	145,285,139.00		145,285,139.00	
Reserves	12	118,244,839.00	263,529,978.00	164,110,711.00	309,395,850.00
Revaluation reserves		20,940,000.00	20,940,000.00		27,920,000.00
Total Net Assets/Equity			284,469,978.00		337,315,850.00


S.K.Cyril
Chairman


N.C.Kumarasinghe
Director-Chief Executive


D.M.Siripala
Accountant

SUGARCANE RESEARCH INSTITUTE
STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR
ENDED 31ST DECEMBER -2011

	Notes	Year 2011 Rs.	Year 2010 Rs.
Operating Revenue			
Cess on sugar imports		144,124,003.00	142,875,726.00
Other income	13	24,880,473.00	20,485,602.00
		169,004,476.00	163,361,328.00
Operating Expenses			
Personal emoluments	14	81,672,798.00	78,776,912.00
Travelling and subsistence		1,754,534.00	1,703,617.00
Foreign visits		936,462.00	1,731,477.00
Supplies and consumables used	15	1,170,706.00	1,827,313.00
Maintenance	16	13,223,655.00	12,143,898.00
Contractual services	17	21,567,637.00	17,804,714.00
Research and development	18	5,910,754.00	5,623,630.00
Depreciation and amortisation expenses		21,105,253.00	12,480,254.00
Other operating expenses	19	2,032,630.00	1,193,627.00
Total operating expenses		149,374,429.00	133,285,442.00
Surplus / (Deficit) from operating activities		19,630,047.00	30,075,886.00
Finance cost		135,012.00	146,607.00
Gain on sales of property plant and equipment			
Total non-operating revenue (expenses)		135,012.00	146,607.00
Net surplus / (Deficit)before extra-ordinary items		19,495,035.00	29,929,279.00
Net surplus / (Deficit) for the period		19,495,035.00	29,929,279.00


S.K.Cyril
Chairman


Dr.N.C. Kumarasinghe
Director/Chief Executive


D.M. Siripala
Accountant

**SUGARCANE RESEARCH INSTITUTE
CASH FLOW STATEMENT
FOR THE YEAR ENDED 31ST DECEMBER 2011**

2011

Cash flows from operating activities

Surplus / (deficit) from ordinary activities	19,495,035.00
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Non-cash movements

Depreciation	21,105,253.00
Provision for gratuity	4,946,913.00
Prior year adjustment	2,639,093.00
Write off revaluation reserve	(6,980,000.00)
Differed income	(7,853,601.00)

Operating profit / (Loss) before working capital changes	33,352,693.00
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Increase / Decrease in sundry debtors	9,565,446.00
Increase / Decrease in sundry stock	841,982.00
Increase / Decrease in working progress	617,521.00
Increase / Decrease in advance & prepayments	186,867.00
Increase / Decrease in staff loan	(1,494,168.00)
Increase / Decrease in creditors & other payables	(499,469.00)

Cash generated from operating activities before income tax	42,570,872.00
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Cash flows from / (used) in investing activities

Purchase of property, plant & equipment	(4,040,832.00)
Net cash flow from / (used) in investing activities	(4,040,832.00)

Cash flows used in financing activities

Payment of gratuity	(1,177,696.00)
Surplus fund transfer to Treasury	(68,000,000)
Net cash flows used in financing activities	(69,177,696.00)
Net increase / Decrease in cash and cash equivalents	(30,647,656.00)
Cash and cash equivalents at the beginning of the year	243,836,207.00
Cash and cash equivalents at the end of the year	213,188,551.00

Analysis of the balance cash and cash equivalents shown in the balance sheet

Bank balance	68,749,990.00
Treasury bill deposit	113,918,248.00
Fixed deposits	30,520,313.00

213,188,551.00

SUGARCANE RESEARCH INSTITUTE
NOTES TO THE STATEMENT OF FINANCIAL POSITION AS AT 31ST
DECEMBER 2011

Property, Plant and Equipment

Please see schedule 01

Investment (L/T)

Fixed deposit (Gratuity Fund) - N.S.B.	30,020,313.00
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Gratuity Fund

Gratuity fund investment in the National Savings Bank as at 31.12.2011 amounts to Rs. 30,020,312.55/- while the gratuity provision for the year as at 31.12.2011 amounts to Rs. 33,789,530.26/-. Balance amount of Rs. 3,769,217.71/- in gratuity fund will be deposited as fixed deposits in the same bank on 28.02.2012

Consumable stock

Stationery	358,546.00
Repairs and maintenance of vehicle	1,237,343.00
Repairs and maintenance of buildings	1,861,048.00
Repairs & maintenance of office equipment	17,888.00
Repairs & maintenance of machinery	17,963.00
Research	111,913.00
Fuel	35,195.00
Chemicals	453,010.00
Staff welfare	39,707.00
Fertilizer	288,000.00
Fencing	88,000.00
Miscellaneous	2,220.00

Total consumables stock	4,510,833.00
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Trade and other receivables

Advance :	Local purchase	13,001.00	
	Sundry	96,700.00	
	Traveling	34,000.00	
	Fuel	27,984.00	
Interest receivable :	F.D. – N.S.B.	1,139,190.00	
	Bank savings P.B.	207,884.00	
	Treasury bill - P.B.	2,591,036.00	4,109,795.00
Staff loans :	Housing loan (Schedule 02)	6,530,683.00	
	Distress loan (Schedule 3)	22,183,599.00	
	Festival advance (Schedule 4)	159,800.00	
	Push cycle loan (Schedule 5)	62,800.00	
	Motor cycle loan (Schedule 6)	2,338,208.00	

	Book loan (Schedule 7)	113,500.00	
	Computer loan (Schedule 8)	198,528.00	31,587,118.00
Special loan :	Kantale Sugar Ind. Ltd.	1,000,000.00	
Sundry debtors :	Janatha Fertiliser	250.00	
	Kantale Sugar Ind. Ltd.	387,833.00	
	Ministry of Supplementary crop plant	1,745,300.00	
	T.K. Tenison	4,850.00	
	Inland Revenue Department	9,223.00	38,844,369.00
Total Trade & other receivable		38,844,369.00	38,844,369.00
Investment (S/T) :			
	Treasury bill - P.B	113,918,248.00	
	Fixed deposit (Scholarship)- N.S.B.	500,000.00	
Total Investment (S/T)		114,418,248.00	
			9
Prepayment & other deposits			
Prepayments -	License & insurance	15,200.00	
	Repair & maintenance of office equipment	41,939.00	
Other deposits	C.B. Ellepola	2,500.00	
	Electricity Board	150,100.00	
	Embilipitiya M.P.C.S. Ltd.	155,000.00	
	Gas cylinder	118,375.00	
	M.N.W. & R.L. Fernando	70,000.00	
	M.T.N Net Work	2,500.00	
	Rubber Research Institute	86,400.00	
	Softlogic Information	1,500.00	
	Sri Lanka customs	10,000.00	
	Thusitha news papers	2,000.00	
Total Prepayment & Other deposits		655,514.00	
Cash and cash equivalents			
People's Bank - Udawalawe A/C No. 295 1001 - 0000000 – 5		1,410,273.00	
People's Bank - Ratmalana A/C No. 080 - 1 -001-5-1334359		4,037,843.00	
Bank of Ceylon - Ratmalana A/C No. 272977 – 5		181,685.00	
Peoples Bank - Udawalawe A/C No. 1550021284		565,803.00	
Bank Savings - People's Bank - Ratmalana-A/C No. 080-2-001-3-1334359		42,095,580.00	
- People's Bank - Udawalawe - A/C No. 295-2-001-7-0020749		20,458,806.00	
Total Cash and cash equivalents		68,749,990.00	

Payable

A.S.Jayalath	600.00
Analytical Instrument Pvt.Ltd.	442,792.00
Auditor General's Department	620,000.00
Auto Miraj	15,505.00
Bimro Tiles	143,205.00
D.M.N.Weerasinghe	250.00
Funds from Pakistan	651,629.00
K.K.I.S.Sarathchandra	20,905.00
K.Mahindapala	1,188.00
Kandy Security Service	668,248.00
Nanda Tractor Motors (PVT) Ltd.	288,750.00
Prasad	892.00
Refundable tender deposit (Schedule 09)	196,750.00
Retention - (Schedule 10)	143,170.00
Sarath Motor Engineering	23,650.00
Sarathchandra Home Centre	58,500.00
Singer company	197,950.00
Sun Flower System Pvt.Ltd,	279,496.00
U.G. Stores	144,948.00
United Motors Lanka	13,782.00
Venura Auto Electricals	3,500.00
W.G. Nimal	833.00
Wasantha Auto Electrician	5,500.00
Wijaya News Papers	95,760.00

Total payables

4,017,803.00

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Accrued expenses

Board expenses	1,280.00	
Electricity	341,292.00	
Fuel	368,587.00	
Over time	386,327.00	
Postage	14,255.00	
Repairs & maintenance of vehicle	31,825.00	
Repairs & maintenance of office equipment	4,750.00	
Repairs & maintenance of building	34,671.00	
Rent	140,328.00	
Research	1,917.00	
Security	737,469.00	
Stationery	26,521.00	
Telephone	37,499.00	
Traveling & subsistence	13,423.00	
Water	5,937.00	
Wages	947,403.00	
Welfare	17,476.00	3,110,960.00

Employees provident fund	1,172,513.00
Employees trust fund	140,702.00
Provision for staff medical (Schedule 11)	2,266,133.00
Salaries & wages deductions	2,295.00
Withholding tax	20,249.00
Total Accrued Expenses	6,712,852.00

Provision for Gratuity

Please see schedule 12

Accumulated Fund

Government grant for capital	44,360,000.00
UNDP/FAD aid	474,116.00
World Bank aid	16,598,429.00
Japanese aid	82,064,952.00
Australian aid	1,287,642.00
Grant for Sugar Importers Association	500,000.00
Total accumulated fund	145,285,139.00

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SUGARCANE RESEARCH INSTITUTE NOTE TO THE STATEMENT OF FINANCIAL PERFORMANCE FOR THE YEAR ENDED 31ST DECEMBER, 2011

Other Income	Rs.
Interest Income on staff loans & other sundry income	3,786,158.00
Interest Income on treasury bills	10,364,907.00
Interest Income on fixed deposits	2,565,640.00
Interest on savings A/C's	897,389.00
	17,614,094.00
Sale of seed cane	286,379.00
Write off revaluation reserve	6,980,000.00
Total other Income	24,880,473.00
Personnel Emoluments	
Salaries and allowances	48,110,020.00
Employees provident fund contribution	8,497,075.00
Employees trust fund contribution	1,699,415.00
Overtime	4,211,534.00
Wages	10,409,724.00
Staff medical	8,745,030.00
Total personnel emoluments	81,672,798.00

Supplies and consumable used

Printing & stationery	1,021,979.00
News papers & periodicals	148,727.00
Total Supplies and consumable used	1,170,706.00

Maintenance

License Insurance & fitness certificate	1,192,875.00
Repairs and maintenance of vehicle	3,786,125.00
Repairs and maintenance of Buildings	2,208,199.00
Repairs and maintenance of office equipment	1,327,322.00
Repairs and maintenance of machinery & lab equipment	457,469.00
Fuel and lubricant	4,251,665.00
Total maintenance	13,223,655.00

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Contractual services

News papers notification	565,638.00
Postage	125,686.00
Rent rates and taxes	1,692,986.00
Telephone, cables, faxes and Internet	1,062,013.00
Legal charges	22,525.00
Audit fees	522,818.00
Electricity	4,209,043.00
Water	44,307.00
Security charges	8,367,491.00
Gratuity	4,946,913.00
Transport	3,217.00
Workmen's compensation	5,000.00
Total contractual services	21,567,637.00

Research & Development

Research materials	1,817,741.00
Media publicity and journals	428,155.00
Staff training	294,160.00
Consultancy fees	520,493.00
Adoptive research	359,666.00
Chemicals	1,005,020.00
Fertiliser	1,017,660.00
Fencing materials	6,300.00
Harvesting land preparations	461,559.00
Total research and development	5,910,754.00

Other operating expenses

Miscellaneous		54,602.00	
Entertainment		7,501.00	
Staff welfare		889,266.00	
Membership fee		9,498.00	
Scholarship		89,000.00	
Money in transits		33,983.00	
Clearing charges		1,056.00	
Board of Director's fees: Chairman's remuneration	585,000.00		
Director's fees and others	290,514.00		
Audit and management expenses	72,210.00	947,724.00	
		<u>2,032,630.00</u>	
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The current value of the live stock has been estimated as Rs. 200,000/= (No. of cattle 07)

Ms. M.E.J. Fernando who left the Institute, has to pay Rs. 2,974,960/= to the Institute as per the agreement signed by her. Legal action to be taken.

Schedule : 01

Note : A Property, Plant and Equipment

Description	Dep. Rate	Cost as at 01.01.2011	Addition	Refund	Cost as at 31.12.2011	Pro. For Dep. as at 01.01.11	Depreciation for 2011	Pro.For Dep. as at 31.12.11	Net Value 31.12.2011
1 Agriculture equipment	15%	14,507,844.00	297,750.00	-	14,805,594.00	5,568,902.00	1,408,810.00	6,977,712.00	7,827,882.00
2 Bicycles	15%	134,190.00	-	-	134,190.00	133,200.00	990.00	134,190.00	-
3 Buildings	5%	62,113,821.00	364,814.00	450,710.00	62,027,924.00	37,367,131.00	2,699,098.00	40,066,229.00	21,961,695.00
4 Crockery and cutleries	50%	770,429.00	23,747.00	-	794,176.00	746,945.00	20,488.00	767,433.00	26,743.00
5 Extension and training equipment	15%	4,382,300.00	110,880.00	-	4,493,180.00	4,337,185.00	30,411.00	4,367,596.00	125,584.00
6 Field equipments	15%	3,975,096.00	3,080.00	-	3,978,176.00	3,157,687.00	207,045.00	3,364,732.00	613,444.00
7 Furniture and fittings	15%	5,901,979.00	484,886.00	-	6,386,865.00	4,584,764.00	305,300.00	4,890,064.00	1,496,801.00
8 Laboratory equipment	15%	67,630,073.00	442,792.00	-	68,072,865.00	59,241,806.00	2,120,661.00	61,362,467.00	6,710,398.00
9 Land development	15%	9,293,881.00	1,203,338.00	-	10,497,220.00	8,445,937.00	198,673.00	8,644,610.00	1,852,610.00
10 Library books	15%	2,800,705.00	51,559.00	-	2,852,264.00	2,493,114.00	114,543.00	2,607,657.00	244,607.00
11 Motor vehicles	25%	49,955,375.00	-	-	49,955,375.00	13,063,476.00	12,488,844.00	25,552,320.00	24,403,055.00
12 Office equipment	15%	19,898,599.00	1,282,705.00	-	21,181,304.00	14,853,715.00	1,186,228.00	16,039,943.00	5,141,361.00
13 Telecommunication facilities	25%	1,611,011.00	46,156.00	-	1,657,167.00	1,535,444.00	24,263.00	1,559,707.00	97,460.00
14 Workshop equipment	15%	18,054,955.00	179,835.00	-	18,234,790.00	16,745,635.00	299,899.00	17,045,534.00	1,189,256.00
Total		261,030,258.00	4,491,542.00	450,710.00	265,071,090.00	172,274,941.00	21,105,253.00	193,380,194.00	71,690,896.00



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கணக்காய்வாளர் தலைமை அறிப்பித் திணைக்களம்
AUDITOR GENERAL'S DEPARTMENT



මගේ අංකය }
எனது இல. } PY/G/SRI/FA/2011
My No }

ඔබේ අංකය }
உமது இல. }
Your No. }

දිනය }
திகதி } 14 June 2012
Date }

The Chairman,
Sugar Cane Research Institute

Report of the Auditor General on the Financial Statements of the Sugar Cane Research Institute for the year ended 31 December 2011 in terms of Section 14(2)(c) of the Finance Act, No. 38 of 1971

The audit of financial statements of the Sugar Cane Research Institute for the year ended 31 December 2011 comprising the statement of financial position as at 31 December 2011 and the statement of financial performance for the year ended 31 December 2011, statement of changes in equity and cash flow statement for the year ended and a summary of significant accounting policies and other explanatory notes, was carried out under my direction in pursuance of provisions in Article 154 (1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13(1) of the Finance Act, No. 38 of 1971 and Section 19(3) of the Sugar Cane Research Institute Act, No.75 of 1981. My comments and observations which I consider should be published with the Annual Report of the Institute in terms of Section 14(2)(c) of the Finance Act appear in this report. Detailed report in terms of Section 13(7)(a) of the Finance Act was issued to the Chairman of the Institute on 26 March 2012.

1:2 Management's Responsibility for Financial Statements

The Management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Accounting Standards and for such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatements whether due to fraud or error.

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1:3 Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards. Those Standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgments, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Institute's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing in opinion on the effectiveness of the Institute's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating their overall presentation of financial statements. Sub-sections (3) and (4) of Section 13 of the Finance Act, No. 38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the audit.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my qualified audit opinion.

1:4 Basis for Qualified Opinion

My opinion is qualified based on the matters described in paragraph 2:2 of this report.

2. Financial Statements

2:1 Qualified Opinion

In my opinion, except for the effects of the matters described in paragraph 2.2 of this report, the financial statements give a true and fair view of the financial position of the Sugar Cane Research Institute as at 31 December 2011 and its financial performance and cash flows for the year then ended in accordance with Sri Lanka Accounting Standards.

performance and cash flows for the year then ended in accordance with Sri Lanka Accounting Standards.

2:2 Comments on Financial Statements

2.2.1 Sri Lanka Accounting Standards

The following observations are made.

- (a) Contrary to Sri Lanka Accounting Standard 3, a sum of Rs.2,700,020 payable to a company not existing physically had been credited to the Translation Reserve Account as prior year adjustments instead of being credited to the Statement of Financial Activity of the year under review.
- (b) The fixed deposits amounting to Rs.30,520,313 and the Treasury Bills amounting to Rs.113,918,248 with a maturity period of one year, belonging to the Institute had been shown as cash and cash equivalents in the cash flow statement contrary to Sri Lanka Accounting Standard 9. Even though the decrease in the deferred interest income for the year 2011 identified in the year 2010, should have been identified as a part of the movement of working capital, that deferred interest income of Rs.7,853,601 had been adjusted to the profit as a non-financial item.
- (c) Out of the Reserve of Rs.27,920,000 created in the preceding year from the revaluation of property, plant and equipment, a sum of Rs.6,980,000 had been credited to the income in the year under review contrary to Sri Lanka Accounting Standard No.18.
- (d) Even though the sum of Rs.145,285,139 shown in the accounts as the Accumulated Fund included grants amounting to Rs.100,925,139 received from foreign institutions, those had not been brought to account in terms of Sri Lanka Accounting Standard No.24.

2:2:2 Accounts Receivable and Payable

The balances receivable amounting to Rs.1,759,644 and Rs.5,100, old between 2-3 years and over 5 years respectively had not been recovered by the Institute.

2:2:3 Lack of evidence for Audit

The accuracy of debtors and creditors balances amounting to Rs.3,133,133 and Rs.2,402,491 respectively could not be established due to the unavailability of confirmations.

2:2:4 Non-compliance with Laws, Rules and Regulations

Non-compliance with laws, rules, regulations, etc. observed during the course of audit are given below.

Reference to Laws, Rules, Regulations, etc.	Non-compliance
(a) Financial Regulation 103(1)	Action in terms of this regulation had not been taken on the losses amounting to Rs.19,436 caused by accidents to 02 motor vehicles in the year 2011.
(b) Financial Regulations 104(3) and (4)	The Preliminary reports and full reports on the above accidents had not been presented.
(c) Financial Regulations 1645 and 1646	The Daily Running Charts and Monthly Performance Summaries relating to 50 motor vehicles had not been presented to the Auditor General.

3. Financial Review

3:1 Financial Results

According to the financial statements presented, the operations of the Institute during the year under review had resulted in a surplus of Rs. 19,495,035 as compared with the corresponding surplus of Rs.29,929,279 for the preceding year, thus indicating a deterioration of Rs.10,434,244 in the financial results. The increase in the depreciation in the year 2011 by a sum of Rs.8,624,999 as compared with the

year 2010 had been the main reason for the deterioration of the financial results for the year under review.

Analytical Financial Review

The following observations are made.

- (a) According to the financial statements the following data point out the variances in the financial results for the year under review and the preceding year.

Item	Year Under Review	Preceding Year	Percentage of Increase/ (Decrease) over Preceding Year
-----	-----	-----	-----
	Rs.	Rs.	%
Operating Income	169,004,476	163,361,328	3
<u>Less</u>			
Operating and Financial Expenses	(149,509,441)	(133,432,049)	12
Surplus/(Deficit)	19,495,035	29,929,279	(35)

- (b) According to the financial statements, the variances of the items in the statements of financial position of the preceding year and the year under review are given below.

Item	Year Under Review	Preceding Year	Percentage of Increase/ (Decrease) over Preceding Year
-----	-----	-----	-----
	Rs.	Rs.	%
Reserves	118,244,839	164,110,711	(28)
Revaluation Reserve	20,940,000	27,920,000	(25)
Non-current Liabilities	33,789,530	37,873,914	(11)
<u>Utilization</u>			
Property, Plant and Equipment	71,690,896	88,755,317	(19)
Investments	30,020,313	29,500,113	2
Net Current Assets	216,548,299	256,934,334	(16)

4. Operating Review

4:1 Performance

Introduction and Expansion of New Varieties of Sugar Cane

One of the objectives of the establishment of the Sugar Cane Research Institute is the introduction of new varieties of sugar cane and extension of such new findings to the local sugar cane industry. Whether the Institute is taking action to achieve the objective had become a questionable issue. The data on introduction of varieties of Sugar Cane and the extension are analyzed below.

Variety	Year of Introduction	Area Cultivated (Acres)	Percentage of Extension
SL-8306	1994	6133.00	48.4
SL-88116	2001	26.00	0.20
SL-88238	2002	64.42	0.50
SL-8613	2002	-	-
SL-891673	2009	2.00	0.01
SL-924918	2009	11.00	0.08
SL-924997	2009	10.00	0.08
SL-925588	2009	3.52	0.03
SL-954033	2011	-	-
SL-954030	2011	-	-
SL-96328	2011	-	-
Co-775		2792.00	22.00
M-43859		2589.00	20.41
SL-7130		90.00	0.70
SLI-121		19.00	0.15
Others		939.19	7.27
Total		12679.13	

The following observations are made.

- (a) The new sugar cane varieties found through the researches in the year under review had not been adequately extended to the industry as in the preceding years. Even though a sum of Rs.5,623,630 had been spent in the year 2010 on research activities a new variety of sugar cane had not been introduced.
- (b) The variety SL8306 introduced in the year 1994 only had been acquired by about 50 per cent of area cultivated with sugar cane at present. Even though the Institute had spent a long period and considerable resources on the recently introduced new varieties of sugar cane the percentage of extension of those to the industry had not been at a substantial level.

4.2 Management Inefficiencies

The following observations are made.

- (a) The Institute continues to carry out research work on a land 05 acres in extent at Siyambalanduwa and on Land 5.5 hectares in the Enselwatta, Deniyaya without securing the legal ownership of those lands.
- (b) The following weaknesses in the process of levying a Cess on the imported sugar were observed.
 - (i) The process of collection of Cess on imported sugar up to the process of accounting which is the source of income of the Institute (about Rs.10 to 14 million monthly) is being handled by two officers. As such a proper internal control, distribution of work and supervision had not been exercised.
 - (ii) A photocopy of the Customs Entry had not been kept in the files of the Institute and as such the accuracy of the letters of information on each imported stock prepared by indicating the Customs Entry number could not be examined in audit.
 - (iii) A limited number of businessmen import sugar in large scale subject to a bond with Sri Lanka Customs and stored in the bonded warehouses. Nevertheless, the Institute does not obtain the data on such large scale

imports of sugar from the Customs and carried out a reconciliation with the Ex-bond sales of such sugar.

4.3 Underutilization of Funds

Even though provision amounting to Rs.5,704,500 had been made in the year under review for the implementation of the Enselwatta Project as a development project, the project had been totally abandoned.

4.4 Idle and Underutilized Assets

The following observations are made.

- (a) A motor vehicle garaged in an external garage for repairs had been idling for a period of 09 months from 07 December 2010.
- (b) Even though the Institute had purchased 02 tractor tyres for Rs.108,600 (Rs.54,300 x 2) in the year 2008, those tyres could not be used for the tractors of the Institute up to date. In addition a stock of chemicals and other items of stock had been purchased for research purposes without any planning and as such those had been idling over a long period. The value of those amounted to Rs.55,330.

4.5 Identified Losses

The following observations are made.

- (a) The Director General of Public Enterprises had, by his letter No.PED/80/Gen dated 03 June 2011, approved that a cess of 10 cents per kilogramme of sugar produced by the local manufactures of sugar should be levied with effect from 23 September 2010. The cess income of Rs.699,700 due on 6,997 Metric Tons of sugar manufactured by one local manufacturer in the year 2010 had not been received by the Institute. The data relating to the other local manufacturer had not been made available to the Institute up to date. Nevertheless, the cess on the manufacture of sugar in the years 2010 and 2011 had not been computed and brought to account up to date.
- (b) A reconciliation of the records maintained by the Institute on the cess income collected on the import of sugar with the respective records obtained from the relevant Superintendent of Customs revealed that 1,277,900 kilogrammes of

sugar had been imported from January to June 2011 without issuing Cess certificates and the cess income deprived to the Institute from that amounted to Rs.319,475.

4.6 Delayed Projects

Three projects with provisions amounting to Rs.1.63 million scheduled for implementation according to the Action Plan for the year under review had not been implemented by the Engineering Division.

4.7 Resources of the Institute supplied to other Government Institutions

Contrary to the instructions in Section 8.3.9 of the Public Enterprises Circular No.PED/12 of 02 June 2003, two motor vehicles of the Ministry had been released to the line Ministry.

5. Systems and Controls

Deficiencies in systems and controls observed during the course of audit were brought to the notice of the Chairman of the Authority from time to time. Special attention is needed in respect of the following areas of control.

- (a) Accounting
- (b) Motor Vehicles Control.
- (c) Stores Management
- (d) Utilization of Assets
- (e) Debtors and Creditors
- (f) Levy of Cess
- (g) Maintenance and Constructions

H.A.S Samaraweera
Auditor General

**Replies to Auditor General's Report on the Financial Statements of the
Sugarcane Research Institute for the year ended 31st December 2011 in
terms of Section 14(2) (c) of the Finance Act No. 38 of 1971**

2.2 Comments on Financial Statements

2.2.1 Sri Lanka Accounting Standards

- (a) Accounting Standard No. 3
Instructions have been given to follow the Accounting Standard No.3.
- (b) Accounting Standard No. 18
Instructions have been given to follow the accounting standard No.18.
- (c) Accounting Standard No. 24
Necessary corrections will be made according to the Accounting Standard No.24.

2.2.2 Accounting Deficiencies

- (a) Not agreed.
Gratuity has been calculated correctly. The two drivers, Mr R G D Ekanayake and Mr T P K Jayaratne who were recruited on casual basis in 2006 were recruited to the permanent cadre in 2008. Gratuity should be calculated from the year 2006. The Audit Officers have calculated the gratuity from the year 2008. It is not correct.
- (b) Necessary correction will be made in 2012.

2.2.3 Accounts Receivable and Payable

- (a) Necessary corrections will be made.
- (b) Necessary corrections will be made.

2.2.4 Lack of Documentary Evidence for Audit

Letters have been sent confirming the outstanding, but, no response has been received.

2.2.5 Non-compliance with Laws, Rules, Regulations and Management Decisions

- (i) F R. 104 (2)
There were two motor accidents during the year 2011 and the compensation has been obtained from the insurance companies. This has not been reported to the Auditor General. Instructions have been given to follow the Financial regulation 104 (2).
- (ii) Advances have been settled by now. Instructions have been given to follow the Financial regulation 371 (2)
- (iii) Agreed.
Action will be taken to follow the Financial Regulations 1645 and 1646.

2.2.6 Transactions of Contentious Nature

- (a) The 5-ac land at Siyambalanduwa is a government property and action has been taken though the line ministry to obtain its ownership to the institute. This land is used for research purposes. Action has been taken by the Ministry of Plantation Industries to acquire the 5.5-ha land at Deniyaya. The land is used for research purposes.
- (b) The vehicle 60-4612 had been repaired in a private garage. A sum of Rs 385,950 had been paid to the garage to complete its job. The garage had not been made aware of the defects that were surfaced afterwards.

3.0 Financial Review

3.1 Financial Results

Agreed.

3.2 Analytical Financial Review

- (a) Agreed.
- (b) Agreed.

4.0 Operating Review

4.1 Performance

(a) Promotion of new sugarcane varieties

- (i) Establishment of 15 demonstration plots for promoting new sugarcane varieties

Incorrect

Of the 15 demonstrations planned for the year 2011, 12 have been established. Therefore, the performance is 80%, not 33%.

- (ii) Conducting 05 training programmes for officers for promoting new sugarcane varieties

Incorrect

A total of 12 demonstrations and training programmes have been conducted during the year 2011.

- (iii) Production and distribution of farm implements for sugarcane cultivation

Incorrect

Apart from the four tyne cultivators sold to farmers, necessary parts have been produced to construct 20 tyne cultivators and 05 furrow openers.

- (iv) Promotion of spaced planting technique

Incorrect

Five demonstrations have been established during the year 2011 and 12 demonstrations/training programmes have been conducted.

Note: Necessary clarifications on the above matters have been provided to the Auditor General's Department, it seems that those facts have not been taken into consideration.

(b) Introduction and expansion of new sugarcane varieties

- (i) It is true that not a single variety was recommended in the year 2010. Development and recommendation of new sugarcane varieties is not confined to one year; it is a continuous process. The general target is releasing at least two new varieties per year. This could depend on the prevailing physical and biological conditions. In the year 2009, four new sugarcane varieties were released.
- (ii) The new varieties are not spread in commercial plantations immediately after their introduction. It takes some time. For an example, the sugarcane variety SL 83 06 introduced in 1994 took nearly 15 years to spread it more than 50% of the area.
- (iii) All new sugarcane varieties are with high sugar content. These varieties are beneficial for the farmers only if the payment is based on sugar content. The sugar companies have been informed of this by the Sugarcane Research Institute. But non-implementation of quality-based cane payment system has been the reason for this situation.

4.2 Management Inefficiencies

- (a) Collection of cess on imported sugar
The replies to I, II, III and IV have been given in the clarification for the audit query no. 01 of 2011. Instructions have been given accordingly.
- (b) Activities of the maintenance unit
Estimates are prepared on the work carried out by maintenance unit. Instructions have been given to do it more systematically. Estimates will be prepared more systematically in 2012.

4.3 Underutilisation of Funds

Bad weather conditions prevailed at Enselwatte hindered the work. Instructions have been given to complete the work in 2012.

4.4 Idle and Underutilised Assets

- (a) The vehicle 40/3888 had been in a garage for a long time due to inability to find necessary spare parts for its repair. Action has been taken to dispose of this vehicle.
- (b) An inquiry has been conducted in this regard by the line ministry. The Board of Governors has decided to dispose of these tyres. Quotations were called, and since the first bidder has refused to purchase, action has been taken to sell the tyres to the second bidder.
- (c) Research activities have been hampered. After recruiting Research Officers to relevant divisions, instructions have been given to use the chemicals without delay.

4.5 Identified Losses

(a) Agreed.

Since the sugar industries have been acquired by the government, proper action would be able to be taken in future.

(b) This issue has been forwarded to the Attorney General's Department for necessary legal advice.

4.6 Delayed Projects

Three research projects planned to be undertaken by the Mechanisation Technology Division were not able to be started due to shortage of Research Officers. Instructions have been given to start these research projects when Research Officers are recruited in 2012.

4.7 Resources of the Institute supplied to other Government Institutions

The vehicles 32-3801 and 58-5980 were provided to the line ministry. Since the line ministry was established recently, these vehicles were released to the ministry on the approval of the Secretary.

5.0 Systems and Controls

(a) Accounting

(b) Motor Vehicle Control

(c) Stores Management

(d) Utilisation of Assets

(e) Debtors and Creditors

Necessary instructions have been given to relevant divisional heads to pay special attention on the above-mentioned matters.

Financial Highlights from 2006 to 2010

Income

Item	Rs Million				
	2006	2007	2008	2009	2010
Cess on sugar imports	135.23	138.03	134.80	129.85	142.88
Interest income and sundry income	13.44	13.28	35.52	28.14	20.48
Sale of sugarcane	0.32	0.42	2.01	0.78	-
Total	148.99	151.73	172.33	158.77	163.36

Expenditure

Item	Rs. Million				
	2006	2007	2008	2009	2010
Recurrent:					
Personnel emoluments	58.47	71.84	73.23	78.19	78.78
Travelling and subsistence	1.09	1.02	1.49	1.57	1.70
Research and development	9.29	3.67	4.37	7.81	5.62
Supplies and consumables	0.62	3.63	3.61	1.30	1.83
Contractual services	15.45	15.17	18.90	17.43	17.80
Maintenance	5.85	7.45	11.40	14.11	12.14
Other operating expenses	1.01	1.44	1.78	2.32	1.19
Finance cost	0.08	0.12	0.17	0.19	0.15
Total	91.95	104.35	114.95	122.93	119.22
Capital:					
Buildings	-	0.48	2.12	-	8.82
Office/Lab/Field equipment	3.06	3.46	10.38	2.68	3.78
Vehicles	-	15.28	-	1.09	13.22
Land development	-	0.15	0.03	0.13	0.68
Library books	-	0.38	-	-	-
Furniture	0.21	0.07	0.35	0.36	0.69
Other facilities	0.08	0.06	0.14	0.03	0.02
Total	3.36	19.90	13.03	4.28	27.20
Total	95.31	124.25	127.98	127.21	146.42

